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NATIONAL EDUCATIONAL ASSOCIATION

JOURNAL

OF

PROCEEDINGS AND ADDRESSES

SESSION OF THE YEAR 1895

HELD AT

DENVER, COLORADO

PUBLISHED BY THE ASSOCIATION

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CONSTITUTION

OF THE

NATIONAL EDUCATIONAL ASSOCIATION.

PREAMBLE.

To elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States, we whose names are subjoined, agree to adopt the following:

CONSTITUTION.

ARTICLE I.—NAME.

This association shall be styled the National Educational Association.

ARTICLE II.—DEPARTMENTS.

Section 1. It shall consist of fifteen departments: The first, of School Superintendence; the second, of Normal Schools; the third, of Elementary Schools; the fourth, of Higher Instruction; the fifth, of Industrial Education; the sixth, of Art Education; the seventh, of Kindergarten Instruction; the eighth, of Music Education; the ninth, of Secondary Education; the tenth, of Business Education; the eleventh, of Child Study; the twelfth, of Physical Education; the thirteenth, of Natural Science Instruction; the fourteenth, of School Administration; and a National Council of Education.

ARTICLE III.—MEMBERSHIP.

Section 1. There shall be three classes of members, namely, active, associate, and corresponding.

Sec. 2. Teachers and all who are actively associated with the management of educational institutions, including libraries and periodicals, may become active members. All others who pay an annual membership fee of two dollars may become

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associate members. Eminent educators not residing in America may be elected by the Directory to be corresponding members. The number of corresponding members shall at no time exceed fifty.

Sec. 3. All persons who have been members of the association for any two years previous to or including 1895 may be admitted to active membership without payment of the enrollment fee. Any person eligible may become an active member upon application indorsed by two active members, and the payment of an enrollment fee of two dollars and the annual dues for the current year.

All active members must pay annual dues of two dollars, and will be entitled to the volume of proceedings without "coupon" or other conditions. If the annual dues are not paid within the fiscal year, membership will lapse, and may be restored only on payment of the enrollment fee of two dollars and the annual dues for the current year.

Associate members may receive the volume of proceedings in accordance with the usual "coupon" conditions as printed on the membership certificate.

Corresponding members will be entitled to the volume of proceedings without the payment of fees or other conditions.

Sec. 4. The names of active and corresponding members only will be printed in the volume of proceedings, with their respective educational titles, offices, and addresses, to be revised annually by the Secretary of the association.

ARTICLE IV.—OFFICERS.

Section 1. The officers of this association shall consist of a President, twelve Vice Presidents, a Secretary, a Treasurer, a Board of Directors, a Board of Trustees, and an Executive Committee, as hereinafter provided.

Sec. 2. The Board of Directors shall consist of the President of the National Educational Association, First Vice President, Secretary, Treasurer, Chairman of the Board of Trustees, and one additional member from each state, territory, or district, to be elected by the association for a term of one year, or until their successors are chosen, and of such Life Directors as are now (July 10, 1895,) in office. The President of the National Educational Association, First Vice President, Secretary, Treasurer, and Chairman of the Board of Trustees shall constitute the Executive Committee.

Sec. 3. The elective officers of the association shall be chosen by ballot, unless otherwise ordered, on the third day of each annual session, a majority of the votes cast being necessary for a choice. They shall continue in office until the close of the annual session subsequent to their election, and until their successors are chosen, except as hereinafter provided.

Sec. 4. Each department shall be administered by a President, Vice President, Secretary, and such other officers as it shall deem necessary to conduct its affairs; but no person *shall be elected to any office of any department, or of the association, who is not, at the time of the election, a member of the association.*

Sec. 5. The President shall preside at all meetings of the association and of the Board of Directors, and shall perform the duties usually devolving upon a presiding officer. In his absence, the first Vice President in order who is present shall preside; and in the absence of all Vice Presidents a *pro tempore* Chairman shall be appointed on nomination, the Secretary putting the question.

Sec. 6. The Secretary shall keep a full and accurate report of the proceedings of the general meetings of the association and all meetings of the Board of Directors, and shall conduct such correspondence as the Directors may assign, and shall have his records present at all meetings of the association and of the Board of

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Directors. The Secretary of each department shall, in addition to performing the duties usually pertaining to his office, keep a list of the members of his department.

Sec. 7. The Treasurer shall receive and under the direction of the Board of Trustees hold in safe-keeping all moneys paid to the association; shall expend the same only upon the order of said board; shall keep an exact account of his receipts and expenditures, with vouchers for the latter, which accounts, ending the first day of July each year, he shall render to the Board of Trustees, and, when approved by said board, he shall report the same to the Board of Directors. The Treasurer shall give such bond for the faithful discharge of his duties as may be required by the Board of Trustees; and he shall continue in office until the first meeting of the Board of Directors held prior to the annual meeting of the association next succeeding that for which he is elected.

Sec. 8. The Board of Directors shall have power to fill all vacancies in their own body; shall have in charge the general interests of the association, excepting those herein intrusted to the Board of Trustees; shall make all necessary arrangements for its meetings, and shall do all in its power to make it a useful and honorable institution. Upon the written application of twenty members of the association for permission to establish a new department, they may grant such permission. Such new department shall in all respects be entitled to the same rights and privileges as the others. The formation of such department shall in effect be a sufficient amendment to this constitution for the insertion of its name in Article II., and the Secretary shall make the necessary alterations.

Sec. 9. The Board of Trustees shall consist of four members, elected by the Board of Directors for a term of four years, and the President of the association, who shall be a member *ex-officio* during his term of office. At the election of the Trustees in 1886, one Trustee shall be elected for one year, one for two years, one for three years, and one for four years; and annually thereafter at the first meeting of the Board of Directors held prior to the annual meeting of the association, one Trustee shall be elected for the term of four years. All vacancies occurring in said Board of Trustees, whether by resignation or otherwise, shall be filled by the Board of Directors for the unexpired term; and the absence of a Trustee from two consecutive annual meetings of the board shall forfeit his membership therein. The Board of Trustees thus elected and constituted shall be the executive financial officers of the association, as a body corporate, as conferred by the certificate of incorporation under the provisions of the Act of General Incorporation, Class Third, of the Revised Statutes of the District of Columbia, dated the 24th day of February, 1886, at Washington, D. C., and recorded in Liber No. 4, "Acts of Incorporation for the District of Columbia."

Sec. 10. It shall be the duty of the Board of Trustees to provide for safe-keeping and investment of all funds which the association may receive from donations; and the income of such invested funds shall be used exclusively in paying the cost of publishing the annual volume of proceedings of the association, excepting when donors shall specify otherwise. It shall also be the duty of the board to issue orders on the Treasurer for the payment of all bills approved by the Board of Directors, or by the President and Secretary of the association acting under the authority of the Board of Directors; and, when practicable, the Trustees shall invest all surplus funds exceeding one hundred dollars that may remain in the hands of the Treasurer after paying the expenses of the association for the previous year.

ARTICLE V.—MEETINGS.

Section 1. The annual meeting of the association shall be held at such time and place as shall be determined by the Board of Directors.

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Sec. 2. Special meetings may be called by the President at the request of five Directors.

Sec. 3. Any department of the association may hold a special meeting at such time and place as by its own regulations it shall appoint.

Sec. 4. The Board of Directors shall hold their regular meetings at the place of, and not less than two hours before, the assembling of the association.

Sec. 5. Special meetings may be held at such other times and places as the board or the President shall determine.

Sec. 6. Each new board shall organize at the session of its election. At its first meeting a Committee on Publication shall be appointed, which shall consist of the President and the Secretary of the association for the previous year and one member from each department.

ARTICLE VI.—BY-LAWS.

By-Laws not inconsistent with this constitution may be adopted by a two-thirds vote of the association.

ARTICLE VII.—AMENDMENTS.

This constitution may be altered or amended at a regular meeting by the unanimous vote of the members present; or by a two-thirds vote of the members present, provided that the alteration or amendment has been substantially proposed in writing at a previous meeting.

BY-LAWS.

1. At each regular meeting of the association there shall be appointed a Committee on Nominations, one on Honorary Members, and one on Resolutions.

2. The President and Secretary shall certify to the Board of Trustees all bills approved by the Board of Directors.

3. Each paying member of the association shall be entitled to a copy of its proceedings.

4. No paper, lecture, or address shall be read before the association or any of its departments in the absence of its author, nor shall any such paper, lecture, or address be published in the volume of proceedings without the consent of the association, upon approval of the Executive Committee.

5. It shall be the duty of the President, Secretary, and Treasurer of the association to appoint annually some competent person to examine the securities of the Permanent Fund held by the Board of Trustees, and his certificate, showing the condition of the said fund, shall be attached to the report of the Board of Trustees.

ADOPTED BY THE BOARD OF DIRECTORS.

The establishment of a special fund from surplus receipts, after the expenses of the association have been paid, to be known as the "Emergency Fund," was recommended by the Board of Trustees, submitted to the Board of Directors at Saratoga Springs, N. Y., July 12, 1892, and the following resolution was adopted:

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Resolved, That there be established, as soon as the current expenses of the association will warrant, an Emergency Fund not to exceed $4,000. Said fund shall be subject to expenditure by the Board of Trustees in accordance with votes of the Board of Directors at any regularly called meeting. The said fund may be used for the purpose of meeting deficiencies of income of the association, and for such additional investigations and publications as may be determined by said Board of Directors.

ACT OF INCORPORATION.

At a meeting of the Board of Directors of the National Educational Association, held at Saratoga Springs, N. Y., July 14, 1885, the following resolution was passed:

Resolved, That a committee of three be appointed to secure articles of incorporation for the National Educational Association, under United States or state laws, as speedily as may be.

N. A. Calkins of New York, Thomas W. Bicknell of Massachusetts, and Eli T. Tappan of Ohio were appointed such committee.

Under the authority of the resolution quoted above, and with the approval of the committee, and by competent legal advice, the Chairman obtained a

CERTIFICATE OF INCORPORATION.

We, the undersigned, Norman A. Calkins, John Eaton, and Zalmon Richards, citizens of the United States, and two of them citizens of the District of Columbia, do hereby associate ourselves together, pursuant to the provisions of the Act of General Incorporation, Class Third, of the Revised Statutes of the District of Columbia, under the name of the "National Educational Association," for the full period of twenty years, the purpose and objects of which are to elevate the character and advance the interests of the profession of teaching and to promote the cause of popular education in the United States. * * * To secure the full benefit of said act, we do here execute this our certificate of incorporation as said act provides.

In witness whereof, we severally set our hands and seals this 24th day of February, 1886, at Washington, D. C.

NORMAN A. CALKINS [L. S.]
JOHN EATON. [L. S.]
ZALMON RICHARDS. [L. S.]

Duly acknowledged before Michael P. Callan, notary public in and for the District of Columbia, and recorded in Liber No. 4, Acts of Incorporation for the District of Columbia.

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CALENDAR OF MEETINGS.

NATIONAL TEACHERS' ASSOCIATION.

1857.—PHILADELPHIA, PA. (Organized.)
JAMES L. ENOS, Chairman.
W. E. SHELDON, Secretary.

1858.—CINCINNATI, OHIO.
Z. RICHARDS, President.
J. W. BULKLEY, Secretary.
A. J. RICKOFF, Treasurer.

1859.—WASHINGTON, D. C.
A. J. RICKOFF, President.
J. W. BULKLEY, Secretary.
C. S. PENNELL, Treasurer.

1860.—BUFFALO, N. Y.
J. W. BULKLEY, President.
Z. RICHARDS, Secretary.
O. C. WIGHT, Treasurer.

1861, 1862.—No session.

1863.—CHICAGO, ILL.
JOHN D. PHILBRICK, President.
JAMES CRUIKSHANK, Secretary.
O. C. WIGHT, Treasurer.

1864.—OGDENSBURG, N. Y.
W. H. WELLS, President.
DAVID N. CAMP, Secretary.
Z. RICHARDS, Treasurer.

1865.—HARRISBURG, PA.
S. S. GREENE, President.
W. E. SHELDON, Secretary.
Z. RICHARDS, Treasurer.

1866.—INDIANAPOLIS, IND.
J. P. WICKERSHAM, President.
S. H. WHITE, Secretary.
S. P. BATES, Treasurer.

1867.—No session.

1868.—NASHVILLE, TENN.
J. M. GREGORY, President.
L. VAN BOKKELEN, Secretary.
JAMES CRUIKSHANK, Treasurer.

1869.—TRENTON, N. J.
L. VAN BOKKELEN, President
W. E. CROSBY, Secretary.
A. L. BARBER, Treasurer.

1870.—CLEVELAND, OHIO.
DANIEL B. HAGER, President.
A. P. MARBLE, Secretary.
W. E. CROSBY, Treasurer.

NAME CHANGED TO

NATIONAL EDUCATIONAL ASSOCIATION.

1871.—ST. LOUIS, MO.
J. L. PICKARD, President.
W. E. CROSBY, Secretary.
JOHN HANCOCK, Treasurer.

1872.—BOSTON, MASS.
E. E. WHITE, President.
S. H. WHITE, Secretary.
JOHN HANCOCK, Treasurer.

1873.—ELMIRA, N. Y.
B. G. NORTHROP, President.
S. H. WHITE, Secretary.
JOHN HANCOCK, Treasurer.

1874.—DETROIT, MICH.
S. H. WHITE, President.
A. P. MARBLE, Secretary.
JOHN HANCOCK, Treasurer.

1875.—MINNEAPOLIS, MINN.
W. T. HARRIS, President.
W. R. ABBOTT, Secretary.
A. P. MARBLE, Treasurer.

1876.—BALTIMORE, MD.
W. F. PHELPS, President.
W. D. HENKLE, Secretary.
A. P. MARBLE, Treasurer.

1877.—LOUISVILLE, KY.
M. A. NEWELL, President.
W. D. HENKLE, Secretary.
J. ORMOND WILSON, Treasurer.

1878.—No session.

1879.—PHILADELPHIA, PA.
JOHN HANCOCK, President.
W. D. HENKLE, Secretary.
J. ORMOND WILSON, Treasurer.

1880.—CHAUTAUQUA, N. Y.
J. ORMOND WILSON, President.
W. D. HENKLE, Secretary.
E. T. TAPPAN, Treasurer.

1881.—ATLANTA, GA.
JAMES H. SMART, President.
W. D. HENKLE, Secretary.
E. T. TAPPAN, Treasurer.

1882.—SARATOGA SPRINGS, N. Y.
G. J. ORR, President.
W. E. SHELDON, Secretary.
H. S. TARBELL, Treasurer.

1883.—SARATOGA SPRINGS, N. Y.
E. T. TAPPAN, President.
W. E. SHELDON, Secretary.
N. A. CALKINS, Treasurer.

1884.—MADISON, WIS.
THOMAS W. BICKNELL, President.
H. S. TARBELL, Secretary.
N. A. CALKINS, Treasurer.

1885.—SARATOGA SPRINGS, N. Y.
F. LOUIS SOLDAN, President.
W. E. SHELDON, Secretary.
N. A. CALKINS, Treasurer.

1886.—TOPEKA, KAN.
N. A. CALKINS, President.
W. E. SHELDON, Secretary.
E. C. HEWETT, Treasurer.

1887.—CHICAGO, ILL.
W. E. SHELDON, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1888.—SAN FRANCISCO, CAL.
AARON GOVE, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1889.—NASHVILLE, TENN.
ALBERT P. MARBLE, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1890.—ST. PAUL, MINN.
JAMES H. CANFIELD, President.
W. R. GARRETT, Secretary.
E. C. HEWETT, Treasurer.

1891.—TORONTO, ONTARIO.
W. R. GARRETT, President.
E. H. COOK, Secretary.
J. M. GREENWOOD, Treasurer.

1892.—SARATOGA SPRINGS, N. Y.
E. H. COOK, President.
R. W. STEVENSON, Secretary.
J. M. GREENWOOD, Treasurer.

1893.—CHICAGO, ILL.
(International Congress of Education.)
ALBERT G. LANE, President.
IRWIN SHEPARD, Secretary
J. M. GREENWOOD, Treasurer.

1894.—ASBURY PARK, N. J.
ALBERT G. LANE, President.
IRWIN SHEPARD, Secretary.
J. M. GREENWOOD, Treasurer.

1895.—DENVER, COLO.
NICHOLAS M. BUTLER, President.
IRWIN SHEPARD, Secretary.
J. M. GREENWOOD, Treasurer.

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NATIONAL EDUCATIONAL ASSOCIATION

OF THE UNITED STATES.

OFFICERS FOR 1894-95.

GENERAL ASSOCIATION.

NICHOLAS MURRAY BUTLER.. Paterson, N. J..... *President.*
(Address, Columbia College, New York City.)
IRWIN SHEPARD..... Winona, Minn..... *Secretary.*
J. M. GREENWOOD..... Kansas City, Mo..... *Treasurer.*

VICE PRESIDENTS.

A. G. LANE, Chicago, Ill.,
G. M. PHILIPS, West Chester, Pa.
L. E. WOLFE, Jefferson City, Mo.
W. H. BARTHOLOMEW, Louisville, Ky.
W. F. Slaton, Atlanta, Ga.
D. B. JOHNSON, Columbia, S. C.
H. A. WISE, Baltimore, Md.
W. E. SHELDON, Boston, Mass.
S. S. PACKARD, New York City.
W. R. MALONE, Salt Lake City, Utah.
D. L. KIEHLE, Minneapolis, Minn.
F. A. FITZPATRICK, Omaha, Neb.

BOARD OF TRUSTEES.

N. A. CALKINS..... *Chairman* .... 124 E. 80th St., New York City.
ZALMON RICHARDS..... *Secretary*..... 1301 Corcoran St., Washington, D. C.
N. A. CALKINS..... New York City..... Term expires July, 1898.
H. S. TARBELL..... Providence, R. I..... Term expires July, 1897.
ZALMON RICHARDS..... Washington, D. C..... Term expires July, 1896.
E. C. HEWETT..... Normal, Ill..... Term expires July, 1895.
NICHOLAS MURRAY BUTLER..... Paterson, N. J..... *Ex-Officio.*
(Address, Columbia College, New York City.)

"The Board of Trustees shall be the executive financial officers of this association as a body corporate."—*Art. IV., Secs. 9 and 10, of the Constitution.*

EXECUTIVE COMMITTEE.

NICHOLAS MURRAY BUTLER Columbia College, New York City *President.*
IRWIN SHEPARD..... Winona, Minn..... *Secretary.*
J. M. GREENWOOD..... Kansas City, Mo..... *Treasurer.*
A. G. LANE..... Chicago, Ill..... *First Vice President.*
N. A. CALKINS..... New York City..... *Chairman Board of Trustees.*

BOARD OF DIRECTORS.

Directors Ex-Officio.

See *Art. IV., Sec. 2, of the Constitution.*

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BARTHOLOMEW, WM. H., Louisville, Ky.
BOOTH, E. R., Cincinnati, Ohio.
BRYAN, WM. L., Bloomington, Ind.
BUTLER, NICHOLAS MURRAY, Paterson, N. J.
CALKINS, N. A., New York City.
CARTER, CHAS. M., Denver, Colo.
FITZPATRICK, FRANK A., Omaha, Neb.
GREEN, J. M., Trenton, N. J.
GREENWOOD, J. M., Kansas City, Mo.
HEWETT, E. C., Bloomington. Ill.
JOHNSON, D. B., Columbia, S. C.
KIEHLE, D. L., Minneapolis, Minn.
LANE, A. G., Chicago, Ill.
MALONE, W. R., Salt Lake City, Utah.
MAXWELL, W. H., Brooklyn, N. Y.
MEHAN, J. M., Des Moines, Iowa.
PACKARD, S. S., New York City.
PHILIPS, G. M., West Chester, Pa.
RICHARDS, ZALMON, Washington, D. C.
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SHEPARD, IRWIN, Winona, Minn.
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STEWART, N. C., Cleveland, Ohio.
TARBELL, H. S., Providence, R. I.
TREUDLEY, F., Youngstown, Ohio.
WHEELOCK, LUCY, Boston, Mass.
WISE, H. A., Baltimore, Md.
WOLFE, L. E., Jefferson City, Mo.

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Life Directors.

BROWN, LEROY D., Santa Monica, Cal.
DOUGHERTY, NEWTON C., Peoria, Ill.
DAY, L. W., Cleveland, Ohio.
FAIRCHILD, GEORGE T., Manhattan, Kan.
GREENWOOD, J. M., Kansas City, Mo.
GOVE, AARON, Denver, Colo.
HUNT, MARY H., Boston, Mass.
HALL, CALEB G., New Berlin, N. Y.
JEWETT, A. V., Abilene, Kan.
MARSHALL, T. MARCELLUS, White Cloud, Kan.
PARKER, CHARLES I., South Chicago, Ill.
PIKE, J., Jerseyville, Ill.
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TAYLOR, A. R., Emporia, Kan.

Directors by Election.

	North Atlantic Division.	
Maine	W. J. CORTHELL	Gorham.
New Hampshire	C. C. ROUNDS	Plymouth.
Vermont	G. P BEARD	St. Albans.
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Rhode Island	THOMAS B. STOCKWELL	Providence.
Connecticut	VIRGIL G. CURTIS	New Haven.
New York	C. W. BARDEEN	Syracuse.
New Jersey	A. B. POLAND	Trenton.
	South Atlantic Division.	
Pennsylvania	E. O. LYTE	Millersville.
Delaware	A. N. RAUB	Newark.
Maryland	JOHN E. MCCANN	Baltimore.
District of Columbia	WILLIAM T. HARRIS	Washington.
Virginia	JOHN E. MASSEY	Richmond.
West Virginia	W. H ANDERSON	Wheeling.
North Carolina	C. B. DENSON	Raleigh.
South Carolina	P. T. BRODIE	Spartanburg.
Florida	W. N. SHEATS	Tallahassee.
	South Central Division.	
Kentucky	C. H. DIETRICK	Hopkinsville.
Tennessee	FRANK GOODMAN	Nashville.
Georgia	OTIS ASHMORE	Savannah.
Alabama	J. H. PHILLIPS	Birmingham.
Mississippi	DABNEY LIPSCOMB	Agricult. Coll.
Louisiana	G. J. RAMSEY	Clinton.
Texas	H. C. PRITCHETT	Huntsville.
Oklahoma	D. R. BOYD	Norman.
Arkansas	JUNIUS JORDAN	Pine Bluff.
	North Central Division.	
Ohio	J. A. SHAWAN	Columbus.
Indiana	JESSE H. BROWN	Indianapolis.
Illinois	ORVILLE T. BRIGHT	Englewood.
Michigan	E. A. STRONG	Ypsilanti.
Wisconsin	S. A. HOOPER	Milwaukee.
Iowa	J. T. MERRILL	Cedar Rapids.
Minnesota	C. B. GILBERT	St. Paul.
Missouri	JOHN T. BUCHANAN	Kansas City.
North Dakota	LEWIS B. AVERY	Maysville.
South Dakota	MRS. EDWARD P. FARR	Pierre.
Nebraska	JAMES H. CANFIELD	Lincoln.
Kansas	JOHN MACDONALD	Topeka.
	Western Division.	
Montana	R. G. YOUNG	Helena.
Wyoming	WM. MARQUARDT	Laramie
Colorado	WARREN E. KNAPP	Denver.
New Mexico	HIRAM HADLEY	Albuquerque.
Arizona	F. J. NETHERTON	Mesa.
Utah	ELLA M. DUKES	Salt Lake City
Nevada	ORVIS RING	Carson City.
Idaho	F. B. GAULT	Moscow.
Washington	F. J. BARNARD	Seattle.
Oregon	E. B. MCELROY	Salem.
California	EARL BARNES	Stanford Univ.

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Elementary.

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Higher.

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HORACE GOODHUE	*Secretary*	Northfield, Minn.
JOHN F. BRADLEY	*Executive Committee*	Jacksonville, Ill.
WM. F. KING	*Executive Committee*	Mt. Vernon, Iowa.
JOHN B. KIEFFER	*Executive Committee*	Lancaster, Pa.

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C. C. VANLIEW	*Secretary*	Normal, Ill.

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O. T. CORSON	*First Vice President*	Columbus, Ohio.
WM. F. FOX	*Second Vice President*	Richmond, Va.
JAMES M. CARLISLE	*Secretary*	Austin, Tex.

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CHAS. D. LARKINS	*Secretary*	Brooklyn, N. Y.

Art.

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Miss WILHELMINA SEEGMILLER	*Secretary*	Allegheny City, Pa.

Music.

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J. E. KING	*Third Vice President*	Rochester, N. Y.
W. E. McCORD	*Secretary and Treasurer*	New York City.
FRANK GOODMAN	*Chairman Executive Com.*	Nashville, Tenn.

Child Study.

WM. L. BRYAN	*President*	Bloomington, Ind.
THOMAS P. BAILEY, JR	*Vice President*	Berkeley, Cal.
Miss SARA E. WILTSE	*Secretary*	Boston, Mass.

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NATIONAL EDUCATIONAL ASSOCIATION

OF THE UNITED STATES.

OFFICERS FOR 1895-96.

GENERAL ASSOCIATION.

NEWTON C. DOUGHERTY	Peoria, Ill	*President.*
IRWIN SHEPARD	Winona, Minn	*Secretary*
I. C. McNEILL	Kansas City, Mo	*Treasurer*

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N. C. SCHAEFFER, Harrisburg, Pa.	R. H. HALSEY, Oshkosh, Wis.
W. N. SHEATS, Tallahassee, Fla.	T. B. LEWIS, Ogden, Utah.
HENRY SABIN, Des Moines, Iowa.	MISS ESTELLE REEL, Cheyenne, Wyo.

BOARD OF TRUSTEES.

See *Art. IV., Secs. 9 and 10, of the Constitution.*

N. A. CALKINS	*Chairman*	124 E. 80th St., New York City.
ZALMON RICHARDS	*Secretary*	1301 Corcoran St., Washington, D. C.
A. G. LANE	Chicago, Ill	Term expires July, 1899.
N. A. CALKINS	New York City	Term expires July, 1898.
H. S. TARBELL	Providence, R. I	Term expires July, 1897.
ZALMON RICHARDS	Washington, D. C	Term expires July, 1896.
NEWTON C. DOUGHERTY	Peoria, Ill	*Ex-Officio.*

EXECUTIVE COMMITTEE.

See *Art. IV., Sec. 2, of the Constitution.*

NEWTON C. DOUGHERTY	Peoria, Ill	*President.*
NICHOLAS MURRAY BUTLER	Columbia College, New York City	*First Vice President.*
IRWIN SHEPARD	Winona, Minn	*Secretary.*
I. C. McNEILL	Kansas City, Mo	*Treasurer.*
N. A. CALKINS	New York City	*Chairman Board of Trustees.*

BOARD OF DIRECTORS.

Directors Ex-Officio.

See *Art. IV., Sec. 2, of the Constitution.*

DOUGHERTY, NEWTON C., Peoria, Ill.	SHEPARD, IRWIN, Winona, Minn.
BUTLER, NICHOLAS MURRAY, Columbia College, New York City.	McNEILL, I. C., Kansas City, Mo.
	CALKINS, N. A., New York City.

Life Directors.

BROWN, LEROY D., Santa Monica, Cal.	JEWETT, A. V., Abilene, Kan.
DAY, L. W., Cleveland, Ohio.	MARSHALL, T. MARCELLUS, West Charleston, W. Va.
DOUGHERTY, NEWTON C., Peoria, Ill.	PARKER, CHAS. I., South Chicago, Ill.
FAIRCHILD, GEORGE T., Manhattan, Kan.	PIKE, J., Jerseyville, Ill.
GRAHAM, R. A., Ontonagon, Mich.	RICKOFF, ANDREW J., Berkeley, Cal.
GREENWOOD, J. M., Kansas City, Mo.	STRATTON, C. C., University Park, Ore.
GOVE, AARON, Denver, Colo.	TAYLOR, A. R., Emporia, Kan.
HALL, CALEB G., New Berlin, N. Y.	WHITE, CHAS. G., Lake Linden, Mich.
HUNT, MARY H., Boston, Mass.	

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Directors by Election.

North Atlantic Division.

Maine	F. C. FERNALD	Dover.
New Hampshire	C. C. ROUNDS	Plymouth
Vermont	ALFRED TURNER	Rutland.
Massachusetts	RAY GREENE HULING	Cambridge
Rhode Island	HORACE S. TARBELL	Providence.
Connecticut	GEORGE B. HURD	New Haven.
New York	CHARLES R. SKINNER	Albany.
New Jersey	J. M. RALSTON	Asbury Park.

South Atlantic Division.

Pennsylvania	CHARLES DE GARMO	Swarthmore.
Delaware	A. N. RAUB	Newark.
Maryland	E. B. PRETTYMAN	Baltimore.
District of Columbia	Z. RICHARDS	Washington
Virginia	E. C. GLASS	Lynchburg.
West Virginia	ROBERT A. ARMSTRONG	Morgantown.
North Carolina	B. SMEDES	Raleigh.
South Carolina	D. B. JOHNSON	Columbia.
Florida	OSCAR CLUTE	Lake City.

South Central Division.

Kentucky	JAMES MCGINNISS	Owensboro.
Tennessee	FRANK GOODMAN	Nashville.
Georgia	OTIS ASHMORE	Savannah.
Alabama	F. M. ROOF	Birmingham.
Mississippi	R. B. FULTON	University.
Louisiana	WARREN EASTON	New Orleans.
Texas	H. C. PRITCHETT	Huntsville.
Oklahoma	D. R. BOYD	Norman.
Arkansas	JUNIUS JORDAN	Little Rock.

North Central Division.

Ohio	W. J. WHITE	Dayton.
Indiana	D. K. GOSS	Indianapolis.
Illinois	JOHN W. COOK	Normal.
Michigan	S. EMORY WHITNEY	Detroit.
Wisconsin	D. D. MAYNE	Janesville.
Iowa	F. B. COOPER	Des Moines.
Minnesota	C. B. GILBERT	St. Paul.
Missouri	JOHN R. KIRK	Jefferson City.
North Dakota	EMMA F. BATES	Bismarck.
South Dakota	GEORGE M. SMITH	Vermillion.
Nebraska	W. H. SKINNER	Nebraska City.
Kansas	JOHN MACDONALD	Topeka.

Western Division.

Montana	JAMES M. HAMILTON	Missoula.
Wyoming	A. L. PUTNAM	Newcastle.
Colorado	J. H. VAN SICKLE	Denver.
New Mexico	CHARLES E. HODGIN	Albuquerque.
Arizona	T. D. COMSTOCK	Tucson.
Utah	W. R. MALONE	Salt Lake City.
Nevada	J. E. STUBBS	Reno.
Idaho	F. B. GAULT	Moscow.
Washington	F. J. BARNARD	Seattle.
Oregon	J. H. ACKERMAN	Portland.
California	EARL BARNES	Stanford Univ.

DEPARTMENT OFFICERS.

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EARL BARNES	*Vice President*	Stanford Univ., Cal.
MISS BETTIE A. DUTTON	*Secretary*	Cleveland, Ohio.
CHARLES DE GARMO	*Executive Committee*	Swarthmore, Pa.
D. L. KIEHLE	*Executive Committee*	Minneapolis, Minn.
J. R PRESTON	*Executive Committee*	Jackson, Miss.
JAMES M. GREEN	*Executive Committee*	Trenton, N. J.

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Kindergarten.

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MRS. S. H. HARRIMAN	*Vice President*	Providence, R. I.
MISS WILHELMINA T. CALDWELL	*Secretary*	Denver, Colo.

Elementary.

S. T. DUTTON	*President*	Brookline, Mass.
J. K. STABLETON	*Vice President*	Lexington, Neb.
MISS HENRIETTA B. AYRES	*Secretary*	Denver, Colo.

Secondary.

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F. L. BLISS	*Vice President*	Detroit, Mich.
C. H. THURBER	*Secretary*	Morgan Park, Ill.

Higher.

JAMES H. BAKER	*President*	Boulder, Colo.
DABNEY LIPSCOMB	*Vice President*	Agricult. College, Miss.
JOSEPH SWAIN	*Secretary*	Bloomington, Ind.

Normal.

JOHN W. COOK	*President*	Normal, Ill.
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A. G. BOYDEN	*Secretary*	Bridgewater, Mass.

Superintendence.

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J. H. PHILLIPS	*First Vice President*	Birmingham, Ala.
CHAS. W. COLE	*Second Vice President*	Albany, N. Y.
R. E. DENFELD	*Secretary*	Duluth, Minn.

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CHAS. H. KEYES	*President*	Pasadena, Cal.
W. H. MAGRUDER	*Vice President*	Agricult. College, Miss
MISS ABBY L. MARLATT	*Secretary*	Providence, R. I.

Art.

WALTER S. GOODNOUGH	*President*	Brooklyn, N. Y.
MRS. M. E. RILEY	*Vice President*	St. Louis, Mo.
MISS MYRA JONES	*Secretary*	Detroit, Mich.

Music.

C. H CONGDON	*President*	St. Paul, Minn.
P. C. HAYDEN	*Vice President*	Quincy, Ill.
MISS LYNN M. HAWN	*Secretary*	East Saginaw, Mich.

Business.

FRANK GOODMAN	*President*	Nashville, Tenn.
D. W. SPRINGER	*First Vice President*	Ann Arbor, Mich.
W. A. WOODWORTH	*Second Vice President*	Denver, Colo.
C. H. PIERCE	*Third Vice President*	Evansville, Ind.
J. W. WARR	*Secretary and Treasurer*	Moline, Ill.
MRS. SARA A. SPENCER	*Chairman Executive Com*	Washington, D. C.

Child Study.

EARL BARNES	*President*	Stanford Univ., Cal.
O. T. BRIGHT	*Vice President*	Chicago, Ill.
E. R. SHAW	*Secretary*	New York City.

Physical Training.

MISS R. ANNA MORRIS	*President*	Cleveland, Ohio.
ED. F. HERMANNS	*Vice President*	Denver, Colo.
MISS N. D. KIMBERLIN	*Secretary*	Detroit, Mich.

Science.

CHAS. E. BESSEY	*President*	Lincoln, Neb.
WILBUR S. JACKMAN	*Vice President*	Englewood, Ill.
CHAS. S. PALMER	*Secretary*	Boulder, Colo.

School Administration.

GEORGE R. FOWLER	*President*	Boston, Mass.
D. R. CAMERON	*Vice President*	Chicago, Ill.
J. B. MORETON	*Secretary*	Salt Lake City, Utah.
WM. GEO. BRUCE	*Chairman Executive Com*	Milwaukee, Wis.

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SUMMARY OF TREASURER'S REPORT

TO THE

NATIONAL EDUCATIONAL ASSOCIATION,

JULY 1, 1894, TO JULY 1, 1895.

MEETING AT ASBURY PARK, N. J., 1894.

J. M. Greenwood,* Treasurer, in Account with the National Educational Association.

Dr.

To balance in treasury from 1893 as per Treasurer's report, July, 1894		$234.19
To membership fees, at meeting Department of Superintendence, Richmond, 1894		239.00
To membership fees, 1894, received per Acting Treasurer at Asbury Park	$2,356.90	
To membership fees per Buel T. Davis	36.00	
To membership fees per A. B. Poland	262.00	
		2,654.90
To membership fees per railroad officials		9,590.50
For volume 1893, J. M. G.	$7.50	
For volume 1893, I. S.	161.10	
For volume 1893, N. A. C.	283.86	
		452.46
For volume 1894	$18.00	
For volumes sold by Z. R.	74.59	
		92.59
To two life directorships, C. G. White, Lake Linden, Mich., H. A. Graham, Ontonagon, Mich.		200.00
To interest on Permanent Fund		2,058.96
To use of plates, report of Committee of Ten (Emergency Fund)	$106.25	
To net profits on reports of Sub-Committee of Fifteen (Emergency Fund)	137.02	
		243.27
Total		$15,765.87

Cr.

By preliminary expenses in connection with meeting at Asbury Park, N. J., 1894—		
President A. G. Lane	$295.15	
Special services of Irwin Shepard by instructions of President Lane	300.00	
Stenographer and typewriter	50.00	
Expenses of Secretary	310.96	
		$956.11
By expenses incurred during the meeting at Asbury Park—		
Stenographer for reporting the proceedings of the general meetings and meetings of the Board of Directors	$122.00	
Special typewriter during meetings	69.50	
Telegrams, Secretary and Treasurer	52.31	
Printing	6.25	
Messenger service	25.00	

*J. M. Greenwood resigned as Treasurer of the National Educational Association, March 1, 1895, and turned the accounts and funds over to Assistant Treasurer, I. C. McNeil, who acted as Treasurer during the remainder of the year.

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Special expense for Arion Quartette of Chicago	$75.25	
Secretary Shepard for traveling and other expenses	39.30	
Service and expenses of Acting Treasurer, I. C. McNeill	228.50	
Service of Chief Clerk of Treasurer	125.00	
Service of nine clerks of Treasurer	129.00	
		$872.11
By general expenses of the association during 1894—		
Printing membership certificates	$83.50	
Printing blank orders for Treasurer for railroad tickets, etc.	19.25	
Stationery, printing, postage, telegrams, and express	143.77	
		246.52
Refunded to life members, etc., for railroad coupons of membership		40.00
Expenses of Treasurer and clerk at Richmond meeting of Department of Superintendence		60.00
Editing and supervising the distribution of proceedings of 1894	$500.00	
Composition, paper, printing, and binding 3,000 copies, 1,072 pages	3,920.06	
Paid United States Express Company for delivering proceedings to members	652.23	
Printing 500 copies (special) proceedings meeting Department of Superintendence at Richmond	85.00	
		5,157.38
Reprinting 725 copies volume 1893, World's Congress		583.50
By expenses of State Managers—		
Alabama, $15; Arkansas, $10; Iowa, $20; Missouri, $20; Ohio, $17; Virginia, $6.25; West Virginia, $17.35		105.60
By expenses of the departments—		
Kindergarten, $14.87; Manual Training and Industrial Education, $5.50; Normal Instruction, $2.50; Music, $10; Secondary Education, $6.50; Business Education, $15; Art Education, $8.80; Superintendence, $61.65		124.82
By expenses of Secretary—		
Stationery, $24.10; printing, $33.25; telegrams, $6.19; express and freight, $7.87; postage, $34.61; traveling expenses to June 1, 1895, $11		117.02
Extra services of Secretary for National Educational Association during the past year		500.00
By expenses of Treasurer—		
Clerical assistance	$15.00	
Collecting membership coupons of 1894	95.50	
Rent of safe in vault	10.00	
		120.50
Rent and care of depository in Washington, D. C.	$150.00	
Expenses custodian of depository—postage, express, freight, etc.	49.75	
Rent of safe vault for Board of Trustees	25.00	
Expenses for stationery, postage, telegrams, messengers, etc., for Board of Trustees	57.20	
Express and postage on volume of proceedings sent to purchasers	19.28	
For typewriting for Board of Trustees	14.47	
Premium on bonds for the Permanent Fund	166.00	
Emergency Fund on account of plates (report of Sub-Committee of Fifteen)	95.64	
Royalty and net profit entered in Emergency Fund	243.27	
		820.61
Transfer to Emergency Fund as per vote of the Board of Directors, July 12, 1894, Committee of Fifteen	$1,000.00	
Transfer to Permanent Fund as per Article IV., section 10, fund of two life directorships (White and Graham)	200.00	
Transfer to Permanent Fund as per Article IV., section 10, from surplus funds of 1894	4,800.00	
		6,000.00
Total		$15,704.17
Balance in treasury for account of 1895		61.70

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SUMMARY OF FUNDS OF NATIONAL EDUCATIONAL ASSOCIATION, JULY 1, 1895.

Permanent Fund (interest only usable)	$45,000.00
Emergency Fund (subject to use in accordance with vote of Board of Directors)	615.39
Balance from account of 1894	61.70
Total amount of National Educational Association funds, July 1, 1895	$45,677.09

The Treasurer's report for the year ending July 1, 1895, has been examined and approved.

N. A. CALKINS,
H. S. TARBELL,
EDWIN C. HEWETT,
Z. RICHARDS,
ALBERT G. LANE,
Trustees of the National Educational Association.

SECOND ANNUAL REPORT OF THE EMERGENCY FUND.

Balance on hand June 30, 1894	$88.06
Additions made to fund during the year—	
Appropriated by the Board of Directors on account of the Committee of Fifteen	1,000.00
From royalty on report of Committee of Ten	106.25
Net profits of sale of reports of Sub-Committee of Fifteen	137.02
Total	$1,331.33
Disbursements on account of Committee of Fifteen and plates	715.94
Balance on hand June 30, 1895	$615.39

In behalf of the Board of Trustees,

Respectfully submitted,

N. A. CALKINS,
Chairman.

NEW YORK CITY, JULY 1, 1895.

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NINTH ANNUAL REPORT OF THE BOARD OF TRUSTEES.

To the Board of Directors of the National Educational Association:

At the close of the fiscal year ending June 30, 1894, the amount of the Permanent Fund was forty thousand dollars ($40,000), of which the sum of thirty-eight thousand seven hundred dollars ($38,700) was invested, leaving thirteen hundred dollars ($1,300) uninvested.

During the fiscal year ending June 30, 1895, securities to the amount of nine thousand two hundred and sixty-three dollars ($9,263) matured and were paid, making the total sum to be reinvested ten thousand five hundred and sixty-three dollars ($10,563). Of this amount, the sum of ten thousand five hundred dollars ($10,500) was invested between Oct. 1, 1894, and March, 1895, as good securities could be obtained on favorable terms. Of the above ten thousand five hundred and sixty-three dollars ($10,563), only sixty-three dollars ($63) still remain uninvested.

Since April 1, 1895, additions have been made to the Permanent Fund as follows: By two life directorships, two hundred dollars ($200); by transfer from surplus fund of the receipts on account of the meeting at Asbury Park, N. J., 1894, as per Article IV., section 10, of the constitution, the sum of four thousand eight hundred dollars ($4,800), making the amount of the Permanent Fund June 30, 1895, forty-five thousand dollars ($45,000).

The amount of interest received from the Permanent Fund during the year ending June 30, 1895, was two thousand and fifty-eight and 96-100 dollars ($2,058.96), which sum is included in the report of the Treasurer from July 1, 1894, to June 30, 1895, as a part of the receipts for that period.

Respectfully submitted,

N. A. CALKINS,
H. S. TARBELL,
EDWIN C. HEWETT,
Z. RICHARDS,
ALBERT G. LANE,
Trustees National Educational Association.

CERTIFICATE ATTACHED TO THE REPORT OF THE BOARD OF TRUSTEES.

This is to certify that I have examined the securities of the Permanent Fund belonging to the National Educational Association, now held by the Board of Trustees, and that I found the said securities to consist as follows: A first mortgage on real estate in the city of Providence, R. I., for three thousand dollars ($3,000), with a policy for fire insurance for the same amount; of school district bonds, to the amount of fourteen thousand seven hundred and thirty-seven dollars ($14,737), with proper coupons attached; of municipal bonds—county, township, and city—to the amount of twenty-two thousand two hundred dollars ($22,200), with coupons attached; making the total amount of said securities June 30, 1895, thirty-nine thousand nine hundred and thirty-seven dollars ($39,937). Since that date an investment of three thousand dollars ($3,000) has been made in city bonds of Concordia, Cloud county, Kansas, making the total sum now invested forty-two thousand nine hundred and thirty-seven dollars ($42,937). The balance of the fund now uninvested is two thousand and sixty-three dollars ($2,063). The securities are kept in the safe deposit vault of the Nassau Bank.

NEW YORK, Oct. 8, 1895. ROBERT H. TILESON.

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JOURNAL OF PROCEEDINGS

OF THE

THIRTY-FOURTH ANNUAL MEETING

OF THE

NATIONAL EDUCATIONAL ASSOCIATION.

DENVER, COLO., JULY 9-12, 1895.

FIRST DAY'S PROCEEDINGS.

FIRST SESSION.—TUESDAY AFTERNOON, JULY 9TH.

The association was called to order at 2:30 p. m., Tuesday, July 9, 1895, in the Central Presbyterian church, corner of Seventeenth and Sherman avenues, Denver, Colo., by Supt. Aaron Gove, Chairman of the local Executive Committee.

The Rev. John M. Freeman, pastor of the Central Presbyterian church, Denver, offered an invocation.

Mr. Gove opened the meeting by a short address of welcome, after which he introduced His Excellency, Lieut. Gov. Judson L. Brush of Colorado, Hon. Thomas S. McMurray, Mayor of Denver, and Mrs. A. J. Peavey, State Superintendent of Public Instruction, who welcomed the association to Colorado and Denver.

MR. GOVE: And now, Mr. President, we have given you the state; you have authoritatively received the keys to the city; you have heard something about the enterprises and improvements which we have adopted.

It now becomes my duty, in the name of the local Executive Committee, to present to you the gavel of authority, and assure you and the association that we are at your service so long as you choose to remain with us.

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President Butler responded to the addresses of welcome and declared the sessions of the association formally opened.

Secretary Shepard also responded to the addresses of welcome.

President Butler introduced Col. Francis W. Parker of the Cook County Normal, Englewood, Ill., who made a brief address.

PRESIDENT BUTLER: I now have the honor to present a gentleman who has worthily won and who worthily wears the proud title of the "Educational Governor of the South," ex-Governor Northen of the State of Georgia.

Governor Northen spoke briefly and eloquently in behalf of the teachers of the South.

Music by the Apollo Club of Denver.

Gen. John Eaton, ex-United States Commissioner of Education:

MR. PRESIDENT: In our time of congratulation there is absent one very dear to each of us, and we all recognize the fact that our friend is necessarily absent because he bears so many burdens for our cause. He has gone to regain strength for future service, and I know that each of us misses him. He will be in Edinburgh to-night and to-morrow morning.

I therefore move that the following cable message of congratulation be sent, signed by the President of this association in behalf of those who are present:

Commissioner Harris, Royal Hotel, Edinburgh:

The assembled representatives of 400,000 teachers greet you, our honored leader, asking for you health and a safe return.

MR. BUCHANAN (Missouri): I think we should include his traveling companion, the Treasurer of this association, J. M. Greenwood of Kansas City, Mo.

The amendment was cordially accepted by General Eaton, and the motion was unanimously adopted.

PRESIDENT BUTLER: State Superintendent Skinner of New York has courteously assented to my suggestion, that his address on "Education of Public Opinion" be delivered on Wednesday evening instead of at this time.

The chair regrets to announce, that, because of serious illness in his family, Dr. Edward M. Hartwell of Boston is unable to be present. We shall, however, have the pleasure of listening to a short address on "Physical Training," which will precede a practical demonstration of exercises suited to the schoolroom by Mr. Jacob Schmitt of Denver. This address will be delivered by Prof. Edward F. Hermanns, Principal of High School No. 2, Denver, Colo., who has kindly consented, on short notice, to take this place on the program.

Principal Hermanns addressed the association on the subject of "Physical Training."

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The platform was then cleared, and Prof. Jacob Schmitt, Director of Physical Training, Denver, Colo., gave an interesting exhibition of physical training, by classes from various grades of the city schools.

PRESIDENT BUTLER: Secretary Shepard has some important announcements.

SECRETARY SHEPARD: Notice is hereby given, in accordance with the provisions of the constitution, that to-morrow—Wednesday morning—amendments will be offered, dealing with the qualification of members and with regulations for voting and representation in the association. These amendments have been drawn by a committee appointed for the purpose by the Board of Directors at Saratoga, N. Y., July 14, 1892. The amendments have been submitted to the present Board of Directors, and will be reported to the association for action, with their approval.

PRESIDENT BUTLER: The substance of this announcement will also appear in the daily press, which should be consulted with reference to the various entertainments that are provided for our instruction.

I desire to announce, that, immediately upon the closing of this session, an adjourned meeting of the Board of Directors will be held upon this platform. A full attendance is requested.

An overflow meeting has been held this afternoon and addressed by Col. F. W. Parker, President John W. Cook, Supt. A. P. Marble, and Dr. Charles De Garmo, in the high school building. Further overflow meetings will be held from time to time during the session, as occasion may require.

Music by the Euterpe Quartette of Denver.

Adjourned to 8 p. m.

SECOND SESSION.—TUESDAY EVENING, JULY 9TH.

The session was called to order by Vice President A. G. Lane of Chicago.

Chorus by the choir of the Central Presbyterian church of Denver.

Vice President Lane, in opening the meeting, said:

The members of the National Educational Association appreciate the hearty and generous reception which has been given to them. During this week the schoolmaster is to rule Denver.

For some years past thousands of teachers have been taking annual pilgrimages to different sections of this country, stopping at the cities to which they have been invited, enjoying the hospitality of the people, reviewing the great educational work

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which has been carried on, discussing new movements and solving new problems which are from time to time presented. The common school, the secondary school, and the university have entered into a union to set up the highest possible standards for the education and training of the young.

The National Educational Association honored itself at its session at Asbury Park a year ago by electing as its President a man who chose this great educational work as a life-work, and it gives me great pleasure to introduce to you to-night one who has set aside some of the allurements to the other professions and has chosen to enter the educational field. In presenting to you Dr. Nicholas Murray Butler of Columbia College, New York, we have a representative of the very highest standard of education in this country.

It gives me great pleasure to introduce to you the President of this association, who will speak to you to-night on "What Knowledge Is of Most Worth?"

Dr. Nicholas Murray Butler of Columbia College, President of the National Educational Association, delivered the presidential address on the subject, "What Knowledge Is of Most Worth?"

VICE PRESIDENT LANE: Mrs. Jay Robinson of Denver will now speak to you in song.

Announcements by the Secretary.

Vice President Lane then intrduced Dr. W. N. Hailman, Superintendent of Indian Schools, Washington, D. C., who spoke on the subject, "The Next Step in the Education of the Indian."

Adjourned to 9:45 a. m., July 10th.

SECOND DAY'S PROCEEDINGS.

THIRD SESSION.—WEDNESDAY MORNING, JULY 10TH.

The morning session was opened with prayer by Chancellor Wm. T. McDowell of the University of Denver.

Music by the Principals' Male Quartette of Chicago.

Under instructions from President Butler, the Secretary announced the following committees:

COMMITTEE ON NECROLOGY.

C. W. Bardeen of New York.
J. L. Pickard of Iowa.
W. R. Garrett of Tennessee.
C. C. Rounds of New Hampshire.
J. R. Preston of Mississippi.

COMMITTEE ON RESOLUTIONS.

Orville T. Bright of Illinois.
D. L. Kiehle of Minnesota.
R. H. Halsey of Wisconsin.
Joseph Baldwin of Texas.
Horace S. Tarbell of Rhode Island.
Chas. R. Skinner of New York
W. N. Sheats of Florida.
Wm. F. Slocum of Colorado.
Elmer E. Brown of California.

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COMMITTEE ON NOMINATIONS.

E. W. COY of Ohio, *Chairman.*

Alabama.....J. H. Phillips, Birmingham.
Arizona.....J. H. McNaughton, Tucson.
Arkansas.....W. H. Rivers, Helena.
California.....Edward T. Pierce, Los Angeles.
Colorado.....Aaron Gove, Denver.
Connecticut.....Virgil G. Curtis, New Haven.
Delaware.....Isaac T. Johnson, Wilmington.
District of Columbia.....W. B. Powell, Washington.
Florida.....Arthur Williams, Lakeland.
Georgia.....R. J. Guinn, Atlanta.
Idaho.....F. B. Gault, Moscow.
Illinois.....Albert G. Lane, Chicago.
Indiana.....Joseph Swain, Bloomington.
Iowa.....William F. King, Mount Vernon.
Kansas.....A. S. Olin, Lawrence.
Kentucky.....McHenry Rhoads, Frankfort.
Louisiana.....George J. Ramsey, Clinton.
Maine.....John S. Locke, Saco.
Maryland.....Henry A. Wise, Baltimore.
Massachusetts.....Charles C. Ramsay, Fall River.
Michigan.....Miss N. D. Kimberlin, Detroit.
Minnesota.....C. B. Gilbert, St. Paul.
Mississippi.....J. R. Preston, Jackson.
Missouri.....J. T. Buchanan, Kansas City.
Montana.....R. G. Young, Helena.
Nebraska.....W. H. Skinner, Nebraska City.
New Hampshire.....John A. Russell, Plymouth.
New Mexico.....Hiram Hadley, Albuquerque.
New York.....A. S. Downing, Albany.
New Jersey.....James M. Green, Trenton.
North Carolina.....Charles D. McIver, Greensboro.
North Dakota.....Miss Emma F. Bates, Bismarck.
Ohio.....E. W. Coy, Cincinnati.
Oklahoma.....D. R. Boyd, Norman.
Oregon.....J. H. Ackerman, Portland.
Pennsylvania.....E. Oram Lyte, Millersville.
Rhode Island.....Walter B. Jacobs, Providence.
South Carolina.....D. B. Johnson, Columbia.
South Dakota.....Frank Crane, Yankton.
Tennessee.....W. H. Payne, Nashville.
Texas.....W. S. Sutton, Houston.
Utah.....J. F. Millspaugh, Salt Lake City.
Vermont.....Alfred Turner, Rutland.
Virginia.....E. C. Glass, Lynchburg.
Washington.....F. J. Barnard, Seattle.
West Virginia.....W. H. Anderson, Wheeling.
Wisconsin.....Leo A. Williams, Fond du Lac.
Wyoming.....Miss Estelle Reel, Cheyenne.

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Ex-Commissioner of Education General Eaton of Ohio:

I am compelled to leave town, and desire consent to offer a series of resolutions, to be referred to the Committee on Resolutions, touching matters of a national character. You are a national body, and we are here representing the whole country, and we want to touch the nerves that affect the whole country in return. For instance, the Bureau of Education is not decently housed at Washington. It has a museum which has been struggling since 1876 to maintain a national existence—a museum of education—but it is packed away in a loft. It has a library that excels all other libraries in the world, but has no place for it to be housed, and it has to be stowed away in different rooms. Your National Commissioner of Education, be it confessed with shame, has not a decent salary, and here I desire to offer some resolutions touching these points.

The resolutions of General Eaton were referred to the Committee on Resolutions without reading or debate.

President Butler then introduced President Charles De Garmo of Swarthmore College, Swarthmore, Pa., who addressed the association upon the "Principles upon which Co-ordination should Proceed."

Prof. Wilbur F. Jackman, Cook County Normal School, Englewood, Chicago, Ill., delivered an address on "What has been Accomplished in Co-ordination in the Field of Natural Science."

Prof. Charles A. McMurry of Normal University, Normal, Ill., addressed the association on "What has been Accomplished in Co-ordination in the Field of History and Literature."

The papers on co-ordination were discussed by Dr. B. A. Hinsdale of the University of Michigan; Edward D. Farrell, Assistant Superintendent of Schools, New York City; Levi Seeley of the State Normal School, Trenton, N. J.; Dr. F. Louis Soldan of St. Louis, Mo., and Col. Francis W. Parker of the Cook County Normal, Englewood, Ill.

Announcements by the Secretary.

PRESIDENT BUTLER: It is reported to this chair that some fifteen hundred of our members have found themselves unable to obtain admission to this hall this morning. The substance of this program will, therefore, be repeated to-night for their benefit in the assembly room of the high school.

The order of business upon the table of the Secretary consists of a series of three amendments to the constitution of this association. The primary order for the consideration of amendments is, that unanimous consent is required for their presentation without notice. These amendments having been presented on due notice, a vote of two-thirds of those present is requisite for their adoption. These amendments will be presented under that rule, as stated in the notice given yesterday. They come from the Board of Directors, and secured, at two meetings of that board held yesterday, unanimous approval. They were formulated by a committee apointed at Saratoga

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in 1892, consisting of Mr. Gove of Colorado, Mr. Calkins of New York, Mr. Shepard of Minnesota, Mr. Greenwood of Missouri, and Mr. Canfield of Nebraska. The report of the committee to the Directors covered more points than are now submitted. The action of the Directors upon the report of their committee having been of this character, four propositions were discussed, and with slight amendments, were unanimously adopted for recommendation to this body. They are important recommendations. Some of those not presented seemed to require more time for their formulation, and they were referred back to the committee, with certain suggestions, and that committee is continued, and will, at some future time, a year hence or thereafter, report again to the Board of Directors on those points.

The Secretary will read to the association the provisions contained in the report of the committee. The report has been printed, and will be circulated for your consideration.

The Secretary read the following recommendation of the committee:

To the Board of Directors of the National Educational Association,

GENTLEMEN: Your committee, appointed July 14, 1892, to report recommendations for reorganizing the administration of the National Educational Association, beg leave to submit the following report:

We recommend that the constitution of the association be amended as follows:

Article III.: Strike out sections 1, 2, and 3 and substitute as follows:

Section 1. There shall be three classes of members, namely, active, associate, and corresponding.

Sec. 2. Teachers and all who are actively associated with the management of educational institutions, including libraries and periodicals, may become active members. All others who pay an annual membership fee of two dollars may become associate members. Eminent educators not residing in America may be elected by the Directory to be corresponding members. The number of corresponding members shall at no time exceed fifty.

Sec. 3. All persons who have been members of the association for any two years previous to or including 1895 may be admitted to active membership without payment of the enrollment fee. Any person eligible may become an active member upon application indorsed by two active members and the payment of an enrollment fee of two dollars.

All active members must pay annual dues of two dollars, and will be entitled to the volume of proceedings without "coupon" or other conditions. If the annual dues are not paid within the fiscal year, membership will lapse, and may be restored only on payment of the enrollment fee of two dollars.

Associate members may receive the volume of proceedings in accordance with the usual "coupon" conditions, as printed on the membership ticket.

Corresponding members will be entitled to the volume of proceedings without the payment of fees, or other conditions.

Sec. 4. The names of active and corresponding members only will be printed in the volume of proceedings with their respective educational titles, offices, and addresses, to be revised annually by the Secretary of the association.

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President Butler explained the scope of the old constitution and the effect of the proposed amendment.

MR. SEELEY of New Jersey: I move the adoption of the amended Article III., as read by the Secretary.

Seconded by Mr. Cook of Illinois.

The amendment was discussed by Mr. McDonald of Kansas, Mr. Richards of Washington, and was thereafter unanimously adopted.

President Butler announced the vote as follows:

The chair hears no negative. The necessary two-thirds vote having been cast in the affirmative, the amendment is adopted.

Secretary Shepard read the proposed amendment to Article IV., as follows:

Amend Article IV. by striking out section 1 and inserting the following:

Section 1. The officers of this association shall consist of a President, twelve Vice Presidents, a Secretary, a Treasurer, a Board of Directors, a Board of Trustees, and an Executive Committee, as hereinafter provided.

President Butler explained the old constitution and the effect of the proposed amendment.

On motion of Mr. McDonald of Kansas, seconded by Mr. Buchanan of Missouri, the amendment was unanimously adopted.

President Butler announced the result of the vote as follows:

The chair hears no negative. The necessary two-thirds vote having been given in the affirmative, the amendment is adopted as read.

Secretary Shepard read the following proposed amendment:

Further amend Article IV. by striking out section 2 and inserting the following:

Sec. 2. The Board of Directors shall consist of the President of the National Educational Association, First Vice President, Secretary, Treasurer, Chairman of the Board of Trustees, and of one additional member from each state, territory, or district, to be elected by the association for a term of one year, or until their successors are chosen, and of such Life Directors as are now (July 12, 1895,) in office. The President of the National Educational Association, First Vice President, Secretary, Treasurer, and Chairman of the Board of Trustees shall constitute the Executive Committee.

President Butler explained the scope of the old constitution and the effect of the proposed amendment.

On motion of Mr. Baldwin of Texas, seconded by Mr. Phillips of Alabama, the proposed amendment was unanimously adopted.

President Butler announced the result of the vote as follows:

The chair hears no negative. The required two-thirds vote having been cast in the affirmative, the amendment is adopted.

Secretary Shepard then read the following proposed amendment:

Further amend Article IV., section 3, by striking out the word "second" in the second line of the section and inserting the word "third."

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President Butler explained the scope of the old constitution and the effect of the proposed amendment.

On motion of Mr. Bright of Illinois, seconded by several members, the proposed amendment was unanimously adopted.

President Butler announced the result of the vote as follows:

The chair hears no negative. The required two-thirds vote having been cast in the affirmative, the amendment is adopted.

On motion, the recommendations of the Board of Directors, as severally adopted, were unanimously approved.

Adjourned to 8 p. m.

FOURTH SESSION.—WEDNESDAY EVENING, JULY 10TH.

The association was called to order by President Butler.

Music by the Principals' Male Quartette of Chicago.

Announcements by the Secretary.

PRESIDENT BUTLER: His Excellency ex-Governor Northen of Georgia is present as the official representative of the board of management of the Cotton States and International Exposition, which is to open at Atlanta in the month of September. In connection with the exposition, it is proposed to hold a series of educational congresses and an educational exhibit. I take pleasure in introducing to you ex-Governor Northen, who will address us briefly on the features of the exposition.

Ex-Governor Northen spoke as follows:

Mr. President, Ladies and Gentlemen of the Convention:

Whilst I profoundly appreciate the courtesy shown me by the President, I am at this juncture just a little regretful that I am interrupting the most pleasant part of your exercises. I desire to say, however, that I will not trespass upon the courtesies shown me by using more than eight or ten minutes of your time.

I ask to call your attention briefly to the Cotton States and International Exposition to be held in Atlanta.

I happen to be one of the directors of the exposition. The management has done me the very great honor to make me chief of the Department of Education, and they have conferred upon me the distinguished honor to bear to this assemblage of educators an invitation, not only to be present and look upon the material development of the Southern States as it will be largely displayed on that occasion, but especially to invite this association to hold an adjourned session of your organization during the time that we shall devote to the congresses of educators at Atlanta. I desire to extend to you, under the direction of the management, a two-fold invitation. It has already been indicated to you by the President that we are to have an educational display at the exposition. The invitation I bear, therefore, is extended to you as the representatives of your individual institutions of learning, beginning with the common schools and extending to the high schools, the

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academies, the colleges, the universities, and, indeed, all institutions of learning that are engaged in the great cause you represent—teaching whatever makes for usefulness in citizenship and prepares students for the duties and obligations that devolve upon them as citizens of their respective commonwealths.

As a great aid to the work we have undertaken, you are invited, earnestly and cordially, to make displays of your school work, your systems and methods of teaching, and whatever else may occur to you as desirable to give out to the world, and especially to the people of the Southern States, a full, thorough, and complete understanding of your educational systems.

It may be proper for me to say, there will be no charge for space for any exhibit or display that is properly an exhibit of school work. Of course, parties who come for the purpose of advertisement and make display for the purpose of sale would be charged for the space they occupy.

It is hardly necessary, I am sure, for me to tell you of the comprehensiveness of this exposition. You can gather information as to this from the literature that I have left at the office of the association at the Brown Palace Hotel. It is sufficient to say, that there will be displays from many foreign countries, in addition to those made by the States, and the general interest manifested has far exceeded our most sanguine expectations.

Now, as to the other part of the invitation, I want to say to you that it is most cordial. I am urged to present it with all the earnestness I can express. We invite you to come to Atlanta in a body and take part in the Congress of Education to be held during the exposition. The general management of the congress will be under the direction of the Commissioner of Education of the United States, Dr. Harris. I have had frequent correspondence with Dr. Harris, and he is in hearty sympathy with the movement. I would like, therefore, that the Program Committee, or your President, or whatever authority or department of this convention has this matter in charge, would aid Dr. Harris in making a program for at least three days of the congress. The time of the congress will be extended over six days and I desire that this convention shall occupy three of these days, or two, at least, in the discussion of educational matters that pertain, mainly, to these interests at the South. I know it will not be in order that you should take action upon this matter this evening. I present the subject, however, for your consideration at the proper time, and I trust it will be your pleasure to give the invitation your favorable action. I present it at this time because my personal business compels me to return to my home at once.

I have had a most delightful experience since I have been here, and I have thoroughly enjoyed my visit to Denver. I shall carry from this place the most pleasant recollections of the people I have met and their kind and cordial words. I shall be more than glad to repeat them to my people when I return to Georgia.

I trust that your President will see fit to give such direction to this matter as will bring every one of you to Atlanta on the 25th of October, that you may enjoy a most cordial welcome from the people of my city and from the people of the South. I thank you.

PRESIDENT BUTLER: It gives me great pleasure to express to Governor Northen the high appreciation in which we hold his cordial invitation. In order that it may receive the recognition which is its due, it will be referred for appropriate action to the Committee on Resolutions, and further, to the Board of Directors at their next session. In that way the attitude of this association toward the

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proposed exposition will be declared and such administrative steps as are necessary to participate therein will be entered upon in an orderly manner. We are indebted to Governor Northen for his presence, and we wish him a pleasant and safe return to his home.

It gives me great pleasure to present to this association one of its most honored members, Chancellor Payne of the University of Nashville.

Chancellor Payne addressed the association on "Education According to Nature."

Violin solo by Miss Genevra D. Waters of Denver.

Announcement by Chairman of the Committee of Colorado State Teachers' Association concerning a reception.

PRESIDENT BUTLER: The concluding address of the evening will be delivered by State Supt. Charles R. Skinner, a gentleman who has come to his high position with the unanimous approval of the teachers of the great State of New York.

State Superintendent Skinner spoke on the "Education of Public Opinion."

Music by the Euterpe Quartette of Denver.

Adjourned to 9:45 a. m., July 11th.

THIRD DAY'S PROCEEDINGS.

FIFTH SESSION.—THURSDAY MORNING, JULY 11TH.

The fifth session was called to order at 9:45 a. m. by President Butler.

Organ recital by Mr. Henry Houseley.

Invocation by the Rev. Dr. Myron Reed of Denver.

PRESIDENT BUTLER: The constitutional order for consideration at this time is the report of the Committee on Nominations, which will be presented by the Chairman, Mr. E. W. Coy of Ohio.

Mr. Coy of Ohio presented the following report:

REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations unanimously recommend the following persons for officers of the association for the ensuing year:

President	Newton C. Dougherty, Peoria, Ill.
First Vice President	Nicholas Murray Butler, New York City.
Second Vice President	Mrs. A. J. Peavey, Denver, Colo.
Third Vice President	W. H. Bartholomew, Louisville, Ky.
Fourth Vice President	N. C. Schaeffer, Harrisburg, Pa.
Fifth Vice President	W. N. Sheats, Tallahassee, Fla.

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Sixth Vice President.....Henry Sabin, Des Moines, Iowa.
Seventh Vice President.....E. B. McElroy, Eugene, Ore.
Eighth Vice President.....C. G. Pearse, Omaha, Neb.
Ninth Vice President.....Henry R. Pattengill, Lansing, Mich.
Tenth Vice President.....R. H. Halsey, Oshkosh, Wis.
Eleventh Vice President.....T. B. Lewis, Ogden, Utah.
Twelfth Vice President.....Estelle Reel, Cheyenne, Wyo.
Secretary.....Irwin Shepard, Winona, Minn.
Treasurer.....I. C. McNeill, Kansas City, Mo.

DIRECTORS.

Alabama.....F. M. Roof, Birmingham.
Arizona.....T. D. Comstock, Tucson.
Arkansas.....Junius Jordan, Little Rock.
California.....Earl Barnes, Stanford University.
Colorado.....J. H. Van Sickle, Denver.
Connecticut.....George B. Hurd, New Haven.
Delaware.....A. N. Raub, Newark.
District of Columbia.....Z. Richards, Washington.
Florida.....Oscar Clute, Lake City.
Georgia.....Otis Ashmore, Savannah.
Idaho.....F. B. Gault, Moscow.
Illinois.....John W. Cook, Normal.
Indiana.....D. K. Goss, Indianapolis.
Iowa.....F. B. Cooper, Des Moines.
Kansas.....John Macdonald, Topeka.
Kentucky.....James McGinniss, Owensboro.
Louisiana.....Warren Easton, New Orleans.
Maine.....F. C. Fernald, Dover.
Maryland.....E. B. Prettyman, Baltimore.
Massachusetts.....Ray Greene Huling, Cambridge.
Michigan.....S. Emory Whitney, Detroit.
Minnesota.....C. B. Gilbert, St. Paul.
Mississippi.....R. B. Fulton, University.
Missouri.....John R. Kirk, Jefferson City.
Montana.....James M. Hamilton, Missoula.
Nebraska.....W. H. Skinner, Nebraska City.
Nevada.....J. E. Stubbs, Reno.
New Hampshire.....C. C. Rounds, Plymouth.
New Mexico.....Charles E. Hodgin, Albuquerque.
New York.....Charles R. Skinner, Albany.
New Jersey.....J. M. Ralston, Asbury Park.
North Carolina.....Bennett Smedes, Raleigh.
North Dakota.....L. B. Avery, Mayville.
Ohio.....W. J. White, Dayton.
Oklahoma.....D. R. Boyd, Norman.
Oregon.....J. H. Ackerman, Portland.
Pennsylvania.....Charles De Garmo, Swarthmore.
Rhode Island.....Horace S. Tarbell, Providence.
South Carolina.....D. B. Johnson, Columbia.
South Dakota.....George M. Smith, Vermillion.

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Tennessee ..... Frank Goodman, Nashville.
Texas ..... H. C. Pritchett, Huntsville.
Utah..... W. R. Malone, Salt Lake.
Vermont ..... Alfred Turner, Rutland.
Virginia..... E. C. Glass, Lynchburg.
Washington ..... F. J. Barnard, Seattle.
West Virginia..... Robert A. Armstrong, Morgantown.
Wisconsin..... D. D. Mayne, Janesville.
Wyoming ..... A. L. Putnam, Newcastle.

Respectfully submitted,

E. W. COY,
Chairman.

PRESIDENT BUTLER: The report of the Committee on Nominations is received, and it is before the association for action. Every active member is entitled to participate in that action. The chair recognizes Mr. Bartholomew of Kentucky.

MR. BARTHOLOMEW: I move, sir, that the Secretary be instructed to cast the ballot for the election of the officers named in the report just submitted by the Chairman of the Committee on Nominations.

MR. RAMSEY of Louisiana: Mr. President, believing, sir, that the association will be as unanimous as was the nominating committee in the selection of officers for this association for the following year, I heartily second the motion of Mr. Bartholomew.

PRESIDENT BUTLER: It is moved by Mr. Bartholomew of Kentucky, seconded by Mr. Ramsey of Louisiana, that the Secretary be instructed to cast the ballot of this association for the election of the nominees of the Committee on Nominations. That motion requires a unanimous vote.

On vote the same was unanimously adopted, and President Butler declared the vote as follows:

The chair hears no negative. The vote is unanimous. The Secretary is so instructed.

SECRETARY SHEPARD: The ballot has been cast, as directed, for the nominees of the Committee on Nominations.

PRESIDENT BUTLER: The Secretary reports that the ballot has been cast, and I declare that the persons named in the report of the Nominating Committee are duly chosen as the officers of this association for the ensuing year.

Announcements by the Secretary.

President Butler introduced Mr. George H. Martin, Supervisor of Schools, Boston, Mass., who addressed the association on the subject of "New Standards of Patriotic Citizenship."

PRESIDENT BUTLER: Another phase of this subject will be presented, and that is, "The Study of American History as a Training for Good Citizenship." The chair learned but forty-eight hours ago

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of the necessary absence of Mr. C. B. Denson, President of the North Carolina Teachers' Assembly, whose name appears on the program at this point. The address on this subject will be delivered in his stead by one of our most distinguished and eminent members, Dr. Joseph Baldwin, Professor of Pedagogy in the University of Texas.

Dr. Baldwin then spoke on "The Study of American History as a Training for Good Citizenship."

Supt. A. P. Marble of Omaha, Neb., was introduced, and read an address upon "The Ethical Element in Patriotism."

The subject of the "Duty and Opportunity of the Schools in Promoting Patriotism and Good Citizenship" was then discussed by W. H. Bartholomew, Principal of the Female High School, Louisville, Ky.; C. B. Gilbert, Superintendent of Schools, St. Paul, Minn.; State Supt. J. R. Preston of Jackson, Miss., and Dr. J. Baldwin of Texas.

The exercises were closed with the singing of "America" by the audience.

Adjourned.

SIXTH SESSION.—THURSDAY EVENING, JULY 11TH.

The meeting was called to order by Vice President Bartholomew of Kentucky at 8 p. m.

Chorus by the choir of the South Broadway church, Denver, led by Mr. W. J. Whiteman, Professor of Music, District No. 2, Denver.

Announcements by the Secretary.

C. W. Bardeen of New York, Chairman of the Committee on Necrology, submitted the report of that committee, which was ordered printed in the proceedings.

Prof. Joseph Le Conte, University of California, addressed the association on the "Effect of the Doctrine of Evolution upon Educational Theory and Practice."

Alto solo by Mrs. W. J. Whiteman of Denver.

Prof. W. L. Bryan of the University of Indiana, Bloomington, addressed the association on "Science and Education."

Meeting adjourned to 9:45 a. m., July 12th.

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FOURTH DAY'S PROCEEDINGS.

SEVENTH SESSION.—FRIDAY MORNING, JULY 12TH.

The meeting was called to order by President Butler.

Invocation by the Rev. Thomas Nelson Haskell of Denver.

Soprano solo by Miss Addie Beardsley of Denver.

Announcements by the Secretary.

President Butler introduced Prof. Arvin S. Olin of the chair of pedagogy in the State University, Lawrence, Kan., who addressed the association on "The Instruction and Improvement of Teachers now at Work in the Schools by Teachers' Institutes."

Prof. Earl Barnes of Stanford University, California, addressed the association on the "Improvement of Teachers by Teachers' Classes."

L. H. Jones, Superintendent of Public Schools, Cleveland, Ohio, spoke on the "Improvement of Teachers by Teachers' Reading Circles."

Mrs. A. J. Peavey, State Superintendent of Public Education, Denver, Colo., opened the discussion of the morning's subject.

The discussion was continued by Dr. James M. Green of the State Normal School, Trenton, N. J.; N. C. Schaeffer, State Superintendent of Public Instruction, Harrisburg, Pa.; John R. Kirk, State Superintendent of Public Instruction, Jefferson City, Mo., and Col. Francis W. Parker, Principal of the Cook County Normal School, Chicago, Ill.

Announcements by the Secretary.

Adjourned to 8 p. m.

EIGHTH SESSION.—FRIDAY EVENING, JULY 12TH.

The association was called to order at 8 p. m. by President Butler.

Music by the Apollo Club of Denver.

Orville T. Bright of Illinois, Chairman of the Committee on Resolutions, submitted the report of that committee:

Resolved, That we return our hearty thanks to the board of directors of the Cotton States Exposition for the cordial invitation extended by their representative, ex-Governor Northen of Georgia, to the members of the National Educational Association to attend the Congress of Education to be held in Atlanta in October; and we recommend,

First—That the members of the National Educational Association, so far as possible, attend the Congress of Education at Atlanta.

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Second—That the Board of Directors of the National Educational Association make suitable provision, so far as practicable, to secure a representative educational exhibit at the Cotton States Exposition.

Third—That to this end a committee be appointed at this meeting to co-operate with the United States Commissioner of Education.

Resolved, That, recognizing the growing greatness and grandeur of our country, conscious of a closer union among all our people, the National Educational Association heartily indorses the general movement throughout the country in the direction of education for American citizenship. In the firm belief that our schools must make our citizens, we commend the spirit which finds expression in placing the national flag upon our schoolhouses, in the increased attention to school exercises which tend to a greater love and veneration for the flag, and in the observance of national holidays in our schools. We regard this movement as not inculcating an education or preparation for war, but as inspiring a deeper love of country, a readier obedience to established law and order, a firmer respect for our institutions. As the interests of the whole nation are more carefully regarded, as sectional feeling dies away, we recognize the great opportunity afforded to and obligation resting upon our schools to place a higher value upon patriotic citizenship, and we recommend a systematic course of instruction which shall give a broader view to patriotism and morality, a higher regard for the rights of citizenship, of society, of property, of the security and sacredness of human life. In this connection we commend the great work which has been accomplished by the various organizations throughout our country, which, while having their foundations in patriotic purposes, exert their efforts for the maintenance of peace and for the settlement of international disputes through arbitration. We recommend to our historians the importance of placing before the people of our country fuller history of what has been accomplished by arbitration to secure peace throughout the world.

Resolved, That the National Bureau of Education, through the personal influence of its head and by the dissemination of most valuable information, has made itself indispensable to the general advancement of education.

That, with this assured permanence of this department, we hereby earnestly recommend to our representatives in Congress that more adequate provision be made for a much needed and increased efficiency in a reasonable provision of buildings for its offices, its library, and its museum, and for the liberal preparation and publication of educational information.

Resolved, First—That this association commends the fidelity of its officers under whose management so large a fund of money, safely invested, has been accumulated, amounting, with the proceeds of this meeting, to over $50,000.

Second—That we further recognize that this is an educational rather than a financial organization, and that the warrant of its existence must be found in its ability to discover great ends of usefulness and to expend its accumulations wisely rather than in hoarding them; and, therefore,

Third—That we heartily recognize the wisdom of the association in the appropriations already made to the two Committees of Ten and of Fifteen for the expenses incurred in the conduct of their inquiries and for the presentation of their reports, and we hereby bear witness to the widely extended influence which these reports have already exercised upon the educational part of the country.

Fourth—That we also recognize the opportunity of a more extended usefulness of the association in a more liberal publication and distribution of its reports and discussions and in prosecuting with thoroughness important lines of educational inquiry.

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Fifth—That we cordially approve the action of the National Council in the appointment of a special committee to investigate the condition of the rural schools of this country, regarding their organization, their conduct, and their support, and to report upon the most feasible plans for their improvement in these respects, whereby the youth of the country may enjoy, in reasonable measure, the advantages that are common in cities and villages; and in support of this action the request of the council for an appropriation to meet the necessary expenses of this committee is approved.

Resolved, First—That we heartily appreciate the efforts of our government to bring every Indian child under appropriate instruction in the elements of conduct, industry, and letters, and to free the Indian school service from the evils of partisan influence; that we emphatically approve its efforts to systematize Indian education under professional leadership; that we cordially sympathize with Superintendent Hailman's appeal to the teachers of the land for active interest on their part in the civilization of the Indians and for a concerted effort to bring the Indian under the same law with the white man in the several states of the Union.

Second—That we heartily approve the efforts to educate Alaskans, and especially in the care and use of reindeer as an industry and as a means of saving them from starvation, and affording them food, raiment, shelter, and transportation; and that we believe Congress should extend to Alaska aid in settling the questions of productive industry by experiment stations, as it now aids in the other territories and in the several states by its appropriations for agricultural stations.

Resolved, That all intelligent pedagogy demands that we should recognize as fully as possible the nature of the children for whom the school exists. Every method which can prove itself profitable to this end should be encouraged. All sciences touching the physical or mental development of children should be drawn upon for whatever help they can afford. Teachers everywhere should have wise direction in the common sense observation of the children under their charge. There should be throughout our public school system renewed and profound consideration of all things touching the physical and mental health of children, and training in school hygiene should constitute part of the professional education of teachers.

Resolved, That, while we recognize with unbounded satisfaction the splendid provision made by the different states of the Union, without exception, for the education of the children of this country, in primary, grammar, and high schools, and by many of them in state universities, we also recognize the fact that while we find the thousands in the first grade of the primary schools, we find the hundreds in the eighth grade of the grammar schools, the tens in the high schools and the ones in the state universities; hence, we urge the necessity of employing all means possible to increase the efficiency of the instruction of the thousands.

To this end we hail with joy the advent of the kindergarten, and we urge the legislatures of the several states to make such provision in their school laws as will render it possible to make the kindergarten an integral part of the public school systems of the United States.

Resolved, That since we believe that the intelligent teaching of children can be secured only by the intelligent training of teachers, we heartily commend the efforts made in all parts of the country, by means of round tables, teachers' institutes, and summer schools, to increase the efficiency of the force already in the field. But, at best, the training acquired by these means, in the nature of things, must be inadequate. Hence, we urge upon the legislatures of the several states, that they make provision for the establishment of thoroughly equipped normal schools in sufficient numbers to make it possible that all of the teachers of the pub-

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lic schools may receive such training as the transcendent interests committed to their charge imperatively demand, so that in the near future none but well-trained teachers shall be permitted to enter upon the work of instructing children. In this connection, we congratulate our friend and co-worker, Supt. W. H. Maxwell of Brooklyn, upon the enactment into law of the bill drawn by him so many years ago and for which he has so long and faithfully labored. We also congratulate His Excellency Governor Morton that he has risen to his high privilege of signing this bill, and thus making it a law that "no person shall be employed or licensed to teach in the primary and grammar schools of any city of the state who has not had successful experience in teaching for at least three years, or, in lieu thereof, has not completed a three years' course in, and graduated from, a high school or academy having a course of study of not less than three years, approved by the State Superintendent of Public Instruction, or from some institution of learning of equal or higher rank, approved by the same authority, and who, subsequently to such graduation, has not graduated from a school or class for the professional training of teachers having a course of study of not less than thirty-eight weeks, approved by the State Superintendent of Public Instruction." We congratulate the Empire State that it has such loyally true men to stand for the welfare of its children.

Resolved, That we make grateful and sincere acknowledgment to our retiring President and honored friend, Dr. Nicholas Murray Butler, for the untiring zeal, the unvarying courtesy, the resistless energy, and the rare genius for organization, which he has displayed in administering the affairs of the National Educational Association. We congratulate him on the wonderful success that has attended this session not only in point of attendance, but more especially on the unequaled interest shown at all of the meetings, general and sectional, and upon the extraordinary excellence of the program of exercises. We assure Dr. Butler of our warmest appreciation of this culmination of his splendid services to the National Education Association, and that our hearty esteem and good wishes will accompany him while life remains.

Resolved, That we heartily acknowledge the courtesy and liberality of the various railroad managements of the United States which have, without exception, extended every facility in their power to make our journey to and from Denver the pleasantest possible, and also to provide numberless attractive excursions; and all at most reasonable rates.

Resolved, That the thanks of this association are due Messrs. Wyckoff, Seamans & Benedict of New York City for the continuance of the gratuitous typewriter service which has been so generously furnished this year as in the past, and especially to Misses Orr and Meineke, the expert operators who have for several years performed this service, and who, by their efficiency and courtesy, have placed under special personal obligation to them the many who have received their valuable aid.

Resolved, That we return sincere thanks to Mrs. A. J. Peavey, State Superintendent of Public Instruction of Colorado, for the aid and counsel which she has afforded during the preparations for and the conduct of this meeting.

Resolved, That the thanks of the assembled teachers are due to the press of Colorado, but more particularly to the press of Denver, for the reports, admirable in accuracy and in fullness, which they have published, of the proceedings of this meeting.

Resolved, That we extend our heartfelt thanks to the citizens of Denver for their unbounded hospitality during the session of the National Educational Association. This hospitality has met us in all quarters of the city, from all classes of citizens; in short, we have everywhere met a genuine Denver reception.

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We especially acknowledge our obligations to Supt. Aaron Gove and his able assistants: to the Executive Committee having in charge arrangements for the meeting, and the various subcommittees who have labored so tirelessly in carrying out those arrangements; to the Board of Education and Common Council, whose splendid liberality has supported every effort of the Executive Committee; to His Honor the Mayor, for his cordial efforts in our behalf and the heartiness of his welcome; to His Excellency Gov. Albert W. McIntire and to Lieutenant Governor Brush, for the pleasant reception tendered the teachers at the capitol on Wednesday evening; to the Woman's Club of Denver, for their untiring courtesies at their parlors in the high school building during our entire session; to the police and fire boards, for the exhibition of their departments on Thursday; to the park commissioners, for their kind provision for band concerts at the city parks; to the Colorado State Teachers' Association, for the splendid reception tendered the members of the National Educational Association at the Brown Palace Hotel on Thursday evening; to the Apollo Club and the Euterpe Quartette of Denver, the Chicago Principals' Male Quartette, and the various other musical organizations and individuals, for their delightful services of song.

We beg to assure the good citizens of Denver, one and all, that their kind efforts in our behalf are most sincerely appreciated and acknowledged, and that the memories of this delightful visit will be cherished as long as we shall live.

Respectfully submitted,

ORVILLE T. BRIGHT,
D. L. KIEHLE,
R. H. HALSEY,
JOSEPH BALDWIN,
HORACE S. TARBELL,
CHARLES R. SKINNER,
W. N. SHEATS,
WILLIAM F. SLOCUM,
ELMER E. BROWN,
Committee on Resolutions.

On motion of Mr. Baker of Colorado, seconded by Mr. Richards of Washington, the report was received and the resolutions were unanimously adopted.

President Butler introduced Prof. Edward Channing of Harvard University, Cambridge, Mass., who addressed the association on the subject, "The Relation of Geography to History."

Organ recital by Prof. John Gower of Denver.

President Butler introduced Dr. James H. Baker, President of the University of Colorado, Boulder, who spoke on "Educational Values."

President Butler appointed the following committee to represent the National Educational Association at the Congress of Education at the Cotton States Exposition, Atlanta, in the fall of 1895:

N. C. Dougherty of Illinois, Irwin Shepard of Minnesota, I. C. McNeill of Missouri, Charles R. Skinner of New York, L. H. Jones of Ohio, W. F. Slaton of Georgia, C. B. Denson of North Carolina, J. M. Carlisle of Texas, Aaron Gove of Colorado, Miss Ella C. Sabin of Wisconsin, Miss Estelle Reel of Wyoming, Geo. J. Ramsey of Louisiana, J. H. Phillips of Alabama, Major S. T. Black of Califor-

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nia, James McGinniss of Kentucky, Ray Greene Huling of Massachusetts, E. Oram Lyte of Pennsylvania.

PRESIDENT BUTLER: *Fellow Teachers, Ladies and Gentlemen:* The thirty-fourth meeting of our association draws to its close. It becomes my pleasant duty to return to you thanks for the co-operation which has made this great meeting possible and successful, and to transfer to my successor, your unanimous choice, the gavel which is the symbol of authority and dignity. You will permit me, before taking that formal step, to say to you how profoundly I am indebted for the thousand and one courtesies and for the uniform consideration with which members of this association have treated the occupant of the chair. There has been no incident that has in the least marred the happiness or the success of our year. You will permit me, in your presence, to say to you, Dr. Shepard, and to you, Mr. McNeill, that this association may never know the extent and the character of your labors in its behalf. It is perhaps a pleasant privilege of the President to be the only person to know how difficult, how exacting, and how faithfully performed is the work of these two great executive offices. Nor may I close without saying to Mr. Gove that the incidents of this meeting have forged new bonds of affection and respect, to be added to those that have bound him to us so long and so closely. His associates upon the local Executive Committee, his lieutenant generals at the head of the various committees that constituted the most effective local organization that has ever greeted us, his major generals, his colonels, and his private soldiers, each and all, are entitled to the thanks, not only of this association but of the chair and his colleagues in executive office, and these richly earned thanks are cordially and heartily extended.

And now, Mr. Dougherty, it becomes my privilege to hand to you this gavel. I received it, sir, one year ago, at the hands of my distinguished predecessor, a citizen of your own state, and it is with peculiar pleasure that I transmit it to the gentleman whose intimate personal friendship I have long enjoyed. It is particularly interesting for me to remember that it was through your invitation, when President of our Department of Superintendence, that I first became a member of this association. I wish for you, sir, a successful and happy administration. I tender to you this gavel as an expression of our unanimous confidence and respect, and we are, sir, until the meeting of 1896 is adjourned, your faithful and loyal servants.

PRESIDENT-ELECT DOUGHERTY: *Ladies and Gentlemen and Members of the National Educational Association:* I am deeply conscious of the high honor conferred in my election to the presidency of this association, the largest and grandest organization of teachers the world has ever known. I cannot hope, I dare not aspire, to fill the vacant place of my distinguished predecessor, whose administration we all agree is peerless in the history of this association. But I can and I do promise here and now to faithfully administer the duties of this high office to the best of my ability. There never was a time in the history of man when this nation so much needed the best and highest teaching, and so much of it, as it does to-day. We belong to the Anglo-Saxon race, whose mission I believe it is to educate the people, and lead all other races in this great work; a race whose very foundation of belief is that the more perfect the culture of a people the greater is the individual freedom, the individual happiness, and the higher the grade of manhood in the people. These are the ideals which we as teachers seek to establish and maintain. It is for this purpose we have been organized. Our object is to exalt the vocation of the teacher, to hold up the noble banner, to foster a professional spirit, and generate professional enthusiasm. How well we are accomplishing this mission I think the meeting in Denver demonstrates; and it is my pleasure to say, here and now, that the meet-

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ing of the succeeding year will be continued upon the same lines and for the same lofty purpose.

And now, fellow teachers, the time has come for us to bid farewell to Denver, this beautiful city of the mountains. I am sure we all realize more deeply than ever before that the cause which has been intrusted to us is the most precious which belongs to society, and I am equally sure, as we recall the experiences of the week, the hospitality which has met us upon every side, the work which has been done by the citizens and teachers of this great and almost imperial city, that there comes up within the heart of each one thankfulness for what has been received and for the kindness that has been manifested toward us. As we leave this beautiful city at the foot of the Rockies, we carry with us feelings of the profoundest gratitude. I but express the feeling of each of the 10,000 teachers who have been in your midst, when I say, God bless Denver, and God bless her noble teachers.

And now we shall close the session with the singing of "America."

The audience arose and joined in "America," and President Dougherty declared the association adjourned until such time and place as the Executive Committee may indicate for the next meeting of the association.

Adjourned *sine die*.

NICHOLAS MURRAY BUTLER,
President.

IRWIN SHEPARD,
Secretary.

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MINUTES

OF THE

MEETINGS OF THE BOARD OF DIRECTORS.

DENVER, Colo., July 9, 1895.

The board was called to order at the East Denver High School, 19th and Stout streets, Denver, Colo., at 11 a. m., July 9, 1895, by President Butler.

On call of the roll by Secretary Shepard, the following Directors were present:

James H. Baker, Colorado; W. H. Bartholomew, Kentucky; E. R. Booth, Ohio; Nicholas Murray Butler, New York; Frank A. Fitzpatrick, Nebraska; D. L. Kiehle, Minnesota; A. G. Lane, Illinois; J. M. Mehan, Iowa; C. C. Rounds, New Hampshire; Irwin Shepard, Minnesota; W. H. Smiley, Colorado; N. C. Stewart, Ohio; H. S. Tarbell, Rhode Island; F. Treudley, Ohio; L. E. Wolfe, Missouri; Aaron Gove, Colorado; J. Pike, Illinois; A. R. Taylor; Kansas; C. W. Bardeen, New York; E. Oram Lyte, Pennsylvania; A. N. Raub, Delaware; W. H. Anderson, West Virginia; C. H. Dietrick, Kentucky; Frank Goodman, Tennessee; J. H. Phillips, Alabama; G. J. Ramsey, Louisiana; H. C. Pritchett, Texas; Jesse H. Brown, Indiana; S. A. Hooper, Wisconsin; C. B. Gilbert, Minnesota; John T. Buchanan, Missouri; Lewis B. Avery, North Dakota; John MacDonald, Kansas; R. G. Young, Montana; Warren E. Knapp, Colorado; Hiram Hadley, New Mexico; Earl Barnes, California.

On motion of Director Kiehle, the reading of the minutes of the last meeting of the Board of Directors was dispensed with, and the minutes as printed in the volume of the proceedings for 1894 were approved.

Aaron Gove of Colorado, Chairman of the committee appointed at Saratoga in 1892 to consider and report amendments to the constitution of the National Educational Association relating to conditions of membership, etc., submitted the report of that committee, as follows:

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To the Board of Directors of the National Educational Association,

GENTLEMEN: Your committee, appointed July 14, 1892, to report recommendations for reorganizing the administration of the National Educational Association, beg leave to submit the following report:

We recommend that the constitution of the association be amended as follows:

Article III.: Strike out sections 1, 2, and 3, and substitute as follows:

Section 1. There shall be three classes of members, namely, active, associate, and corresponding.

Sec. 2. Teachers and all who are actively associated with the management of educational institutions, including libraries and periodicals, may become active members. All others who pay an annual membership fee of two dollars may become associate members. Eminent educators not residing in America may be elected by the Directory to be corresponding members. The number of corresponding members shall at no time exceed fifty.

Sec. 3. All persons who have been members of the association for any two years previous to or including 1895 may be admitted to active membership without payment of the enrollment fee. Any person eligible may become an active member upon application indorsed by two active members and the payment of an enrollment fee of two dollars.

All active members must pay annual dues of two dollars, and will be entitled to the volume of proceedings without "coupon" or other conditions. If the annual dues are not paid within the fiscal year, membership will lapse, and may be restored only on payment of the enrollment fee of two dollars.

Associate members may receive the volume of proceedings in accordance with the usual "coupon" conditions as printed on the membership tickets.

Corresponding members will be entitled to the volume of proceedings without the payment of fees or other conditions.

Sec. 4. The names of active and corresponding members only will be printed in the volume of proceedings, with their respective educational titles, offices, and addresses, to be revised annually by the Secretary of the association.

Amend Article IV. by striking out section 1 and inserting the following:

Section 1. The officers of this association shall consist of a President, twelve Vice Presidents, a Secretary, a Treasurer, a Board of Directors, a Board of Trustees, and an Executive Committee, as hereinafter provided.

Further amend Article IV. by striking out section 2 and inserting the following:

Sec. 2. The Board of Directors shall consist of a President, First Vice President, Secretary, Treasurer, Chairman of the Board of Trustees, of ten additional members to be elected by the association for a term of one year, or until their successors are chosen, and of such Life Directors as are now (July 12, 1895,) in office. The President, First Vice President, Secretary, Treasurer, and Chairman of the Board of Trustees shall constitute the Executive Committee.

Further amend Article IV., section 3, by striking out the word "second" in the second line of the section and inserting the word "third."

Further amend by inserting as

ARTICLE V.—REPRESENTATION AND VOTING.

Section 1. Each state and territory shall be entitled to one vote in the meetings of the association, and to one additional vote for each twenty active members, or major fraction thereof, enrolled at the previous annual meeting. These votes shall be cast by delegates elected for the purpose by the several State Teachers' Associations. In case any State Teachers' Association shall fail to elect delegates

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in accordance with the provisions of this section, it shall be the duty of the President of the association to issue a call for a meeting of the active members from such state in order to elect the delegates to which their state is entitled. Said meeting shall be held at the time and place of the meeting of the National Educational Association. No person shall be elected a delegate from any state or territory who is not an active member of the association. State delegations are empowered to fill vacancies in their number.

Sec. 2. It shall be the duty of the Secretary of the association to notify the President of each State Teachers' Association each year of the number of delegates to which said state is entitled. Delegates shall bear proper credentials addressed to the Secretary of the association.

To further amend as follows:

Article V. shall be numbered Article VI.

Article VI. shall be numbered Article VII.

Article VII. shall be numbered Article VIII.

The committee further report that they deem it of great importance that sections 7, 8, 9, and 10, Article IV., be revised to more perfectly define the relations of the Treasurer of the association to the Board of Trustees; but at this time the committee are unable to formulate recommendations, in the absence of the certificate of incorporation and other data essential to such action. They, therefore, recommend that action on this question be deferred until a subsequent meeting.

Respectfully submitted,

AARON GOVE, *Chairman.*
IRWIN SHEPARD,
J. M. GREENWOOD,
Committee.

On request of President Butler, Mr. Gove explained the necessity for the proposed changes as indicated in the report of his committee.

The report was discussed by Directors Kiehle of Minnesota, Buchanan of Missouri, Ramsey of Louisiana, Fitzpatrick of Nebraska, Bardeen of New York, Lyte of Pennsylvania, Goodman of Tennessee, Barnes of California, Smiley of Colorado, MacDonald of Kansas, Bartholomew of Kentucky, and Pritchett of Texas.

On motion of Director Anderson of West Virginia, the report was ordered taken up section by section.

Secretary Shepard read the first section of the report.

President Butler read the sections of the old constitution which it was proposed to amend and explained the effect of the change.

Director Gilbert moved the adoption of that portion of the report as read by the Secretary.

Motion seconded by Directors Treudley of Ohio and Goodman of Tennessee.

In answer to a question by Director MacDonald, President Butler ruled that the proposed change would not affect life membership as now constituted, but would abolish the provisions for future additions to life membership in the association.

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The motion that the report of the committee, recommending an amendment to Article III., sections 1, 2, and 3, as submitted, and as read by the Secretary, be adopted was unanimously carried.

Secretary Shepard then read the portion of the committee's report amending section 1 of Article IV. of the constitution.

President Butler read the provision of the constitution as now in force and explained the effect of the change.

The report was discussed by Directors Fitzpatrick of Nebraska, Treudley of Ohio, Gove of Colorado, Buchanan of Missouri, Kiehle of Minnesota, and Booth of Ohio.

Whereupon the report of the committee was unanimously adopted.

Secretary Shepard then read the recommendation to the committee proposing to amend section 2 of Article IV. of the constitution.

Director Goodman of Tennessee moved that the word "ten" be stricken out, and the words "no more than one from each state, territory, or district" be substituted in lieu thereof.

The amendment of Mr. Goodman was duly seconded and unanimously adopted.

That portion of the report as thus amended was adopted, as follows:

Further amend Article IV. by striking out section 2 and inserting the following:

Sec. 2. The Board of Directors shall consist of the President of the National Educational Association, First Vice President, Secretary, Treasurer, Chairman of the Board of Trustees, and not more than one additional member from each state, territory, or district, to be elected by the association for the term of one year, or until their successors are chosen, and of such Life Directors as are now (July 12, 1895,) in office. The President of the National Educational Association, First Vice President, Secretary, Treasurer, and Chairman of the Board of Trustees shall constitute the Executive Committee.

Secretary Shepard read that portion of the report of the committee amending section 3, Article IV., of the constitution, which proposed amendment was unanimously approved.

Secretary Shepard then read the remaining portion of the report of the committee, suggesting an amendment to Article V. of the constitution, entitled "Representation and Voting," etc.

DIRECTOR LANE: There is so much involved in this feature of the report that I move it be laid over and referred to the incoming Board of Directors, without recommendation.

Motion seconded by Directors Ramsey of Louisiana, Bartholomew of Kentucky, and Pritchett of Texas.

The proposition was discussed by Directors Treudley of Ohio, Fitzpatrick of Nebraska, and Buchanan of Missouri.

The motion of Mr. Lane, to refer to the incoming Board of Directors, was lost by a vote of fourteen ayes and seventeen nays.

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Director Lane of Illinois moved a recess until immediately after the close of the general session in the afternoon.

Seconded.

President Butler directed the report to be printed and delivered to the members at the adjourned meeting of the board.

Director Lyte of Pennsylvania moved that the chair officially notify the association of the proposed changes in the constitution of the association at the general session to be held this afternoon.

Seconded and carried.

Whereupon Director Lane's motion to adjourn until immediately after the close of the general session of the afternoon was put, and the Board of Directors adjourned to meet at the time and place indicated in the motion.

MINUTES OF ADJOURNED MEETING.

The Board of Directors met pursuant to adjournment at the close of the afternoon general session in the Central Presbyterian church, Denver, at 5 o'clock p. m., Tuesday, July 9, 1895.

President Butler in the chair.

Further consideration of the report of the Committee on the Revision of the Constitution was taken up and discussed by Directors MacDonald of Kansas, Buchanan of Missouri, and Hadley of New Mexico.

Director Taylor of Kansas offered the following:

Resolved, That the conduct of the business and affairs of this association shall be intrusted to a Board of Directors consisting of the President of the National Educational Association, First Vice President, Secretary, Treasurer, Chairman of the Board of Trustees, as *ex-officio* members, one active member from each state and territory of the United States, and one from the District of Columbia, to be designated by the active members of the National Educational Association from each of the said states, territories, and from the District of Columbia, at its headquarters, on the second day of each session, at 5:30 p. m. The Director for each state, or some one designated by him or her, shall act as temporary Chairman of such meeting, and no one shall be entitled to vote who does not hold a certificate of active membership for that particular session of the National Educational Association; and it is further

Provided That each state or territory may elect one additional member of the Board of Directors in case its enrollment at the preceding annual meeting of the National Educational Association reached or exceeded 500 active and associate members.

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The officers of the general association shall be elected by the members of the Board of Directors elected, as above provided, at 4:30 o'clock p. m. on the last day of the general association meeting.

Seconded by Director Tarbell of Rhode Island.

On motion of Director Gilbert of Minnesota, seconded by Directors Rounds of New Hampshire and Bright of Illinois, the resolution of Director Taylor was laid upon the table for future action.

DIRECTOR GILBERT: I move that this whole matter be referred back to the committee with instructions to consider the proposed amendments that have been offered, and that a copy of their revised report be placed in the hands of each member of the Board of Directors.

Seconded by Director Treudley of Ohio.

On a vote, that portion of the report of the committee proposing to amend Article V. of the constitution concerning "Representation and Voting," with the resolution of Director Taylor, was referred back to the Committee on Revision of the Constitution, with instructions to consider the proposed amendment and present the same at the next annual meeting. That, in the meantime, a copy of their report, as revised, be forwarded to each Director of the association.

Director Rounds moved the following declaratory resolution, for the guidance of President Butler during this session of the National Educational Association, which was unanimously adopted:

Resolved, That, at this meeting, the basis of voting on proposed amendments to the constitution, election of officers, and other matters of business submitted to the house, shall be active membership; "active members" being construed to mean those who are duly enrolled this year, having paid the fee and wearing the necessary badge.

On motion of Director Richards, seconded by Director Lane of Illinois, the recommendation of the committee dealing with the financial administration was referred to the incoming Board of Directors.

A preliminary report of the Treasurer, submitted by N. A. Calkins, Chairman of the Board of Trustees, was read by the Secretary, and on motion of Director Lane was referred back to the Chairman of the Board of Trustees with instructions to complete the report and publish the same in the next volume of proceedings.

Director Tarbell reported the present status of the Emergency Fund, which report was ordered referred to the new Board of Directors.

Secretary Shepard read the following petition for the establishment of a new department in the association, to be known as the Department of Physical Education:

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We respectfully petition the Board of Directors of the National Educational Association to create, as a branch of that body's work, a Department of Physical Education.

L. H. JONES, *Superintendent of Cleveland, Ohio.*
L. W. HUGHES, *Principal Normal, Cleveland, Ohio.*
E. L. HARRIS, *Principal High School, Cleveland, Ohio.*
JOSEPH KRUG, *Superintendent of German, Cleveland, Ohio.*
BUEL T. DAVIS, *Superintendent of Schools, Winona, Minn.*
FRANK B. COOPER, *Superintendent of Schools, Des Moines, Iowa.*
W. M. BEARDSHEAR, *President Iowa State College, Ames, Iowa.*
J. W. SEAVER, *Professor Yale College, New Haven, Conn.*
W. G. ANDERSON, *Professor Yale College, New Haven, Conn.*
FRANCIS W. PARKER, *President Cook County Normal, Chicago, Ill.*
FRANCIS STUART PARKER, *Teacher Cook County Normal, Chicago, Ill.*
L. J. KOCH, *Director Physical Education, Normal School, Chicago, Ill.*
W. P. BOWEN, *Director Physical Education, Normal School, Ypsilanti, Mich.*
FRANCES C. BURTON, *Assistant Physical Education, Normal School, Ypsilanti, Mich.*
R. G. BOONE, *Principal State Normal School, Ypsilanti, Mich.*
EVA D. KELLOGG, *Editor "Primary Education," Boston, Mass.*
A. B. POLAND, *State Superintendent of Public Instruction, Trenton, N. J.*
J. M. GREEN, *President State Normal School, Trenton, N. J.*
W. C. WARFIELD, *Superintendent of Schools, Covington, Ky.*
H. R. BLAIDELL, *Covington, Ky.*
W. A. BELL, *State Director National Educational Association, Indianapolis, Ind.*
NATHAN C. SCHAEFFER, *Superintendent of Public Instruction, Harrisburg, Pa.*
HENRY HOUCK, *Dept. Superintendent of Public Instruction, Harrisburg, Pa.*
JOHN I. STEWART, *Dept. Superintendent of Public Instruction, Harrisburg, Pa.*
GEO. W. PECKHAM, *Superintendent of Schools, Milwaukee, Wis.*

Director MacDonald of Kansas moved that a Department of Physical Education be established. Seconded by Director Stewart of Ohio.

DIRECTOR LANE: I think it would be a mistake to increase the number of departments.

The subject was discussed by Directors Buchanan of Missouri, Richards of Washington, D. C., and, upon invitation, by Miss R. Anna Morris of Cleveland, Ohio, and the department was ordered established by a vote of twenty-two to ten.

PRESIDENT BUTLER: There being no further business before this Board of Directors, it passes out of existence, to be succeeded by another board on Friday afternoon. I desire to return to the board my sincere thanks for their assistance at Asbury Park and here in promoting the business of the association. This board stands adjourned *sine die.*

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MINUTES

OF THE

MEETINGS OF THE NEW BOARD OF DIRECTORS.

DENVER, Colo, July 12, 1895.

The meeting was called to order in room 3, East Division High School, Denver, Colo., July 12, 1895, by President-elect Dougherty of the National Association. On the call of the roll by the Secretary the following Directors responded:

Directors Gove of Colorado, Dougherty of Illinois, Pike of Illinois, Taylor of Kansas, White of Michigan, McNeill of Missouri, Comstock of Arizona, Barnes of California, Van Sickle of Colorado, Richards of District of Columbia, Clute of Florida, Cook of Illinois, Goss of Indiana, Cooper of Iowa, MacDonald of Kansas, McGinniss of Kentucky, Easton of Louisiana, Prettyman of Maryland, Whitney of Michigan, Gilbert of Minnesota, Fulton of Mississippi, Kirk of Missouri, Hamilton of Montana, Skinner of Nebraska, Stubbs of Nevada, Rounds of New Hampshire, Hodgin of New Mexico, Skinner of New York, Avery of North Dakota, Boyd of Oklahoma, Malone of Utah, Mayne of Wisconsin.

Certain Directors were represented by proxy, and the chair announced that they would be recognized in the discussion by unanimous consent, but that such proxies could not vote.

On the call for new business, the Chairman recognized Prof. Joseph Le Conte of California, who offered the following petition, signed by the requisite number of members, for the establishment of a department of the National Educational Association, to be known as the Department of Science Instruction, and, on motion of Professor Le Conte, the department was ordered established by a unanimous vote:

To the Board of Directors of the National Educational Association:

We, the undersigned members of the National Educational Association and teachers of the natural sciences in colleges and high schools, hereby respectfully

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petition you for the privilege of organizing a Department of Natural Science Instruction in accordance with the constitution of the National Educational Association.

JOSEPH LE CONTE,
CHARLES C. BESSEY,
ALBERT G. BOYDEN,
WILBUR S. JACKMAN,
CHAS. S. PALMER,
CHAS. J. LING,
OTIS ASHMORE,
SIDNEY T. SKIDMORE,
IRWEN LEVISTON,
ROLAND W. GUSS,
WM. C. STRONG,
GEO. F. ATKINSON,
SIDNEY F. SMITH,
GEO. M. TURNER,
G. L. CANNON,
AARON GOVE,
JAMES H. BAKER,
WILLIAM F. MCDOWELL,
WM. H. SMILEY,
C. H. THURBER,
and fifty-seven others.

Director Mayne of Wisconsin offered the following petition, signed by the requisite number of members, for the establishment of a department of the National Educational Association, to be known and designated as the Department of School Administration, and, on motion, the same was unanimously granted and the department established.

To the Board of Directors of the National Educational Association,

GENTLEMEN: The undersigned active members of the National Educational Association respectfully petition your honorable body to establish a Department of School Administration.

In view of the success and strength attained by several state organizations consisting entirely of the members of school boards, the lasting benefits to education derived from such organization in the closer co-operation of school boards and superintendents, we are prompted to ask a favorable consideration of this petition.

S. A. HOOPER, *Milwaukee High School.*
A. F. NIGHTINGALE, *Superintendent Chicago High Schools.*
A. P. MARBLE, *Superintendent of Schools, Omaha, Neb.*
J. F. MILLSPAUGH, *Superintendent of Schools, Salt Lake City.*
D. R. AUGSBURG, *Superintendent of Drawing, Salt Lake City.*
W. H. BARTHOLOMEW, *Principal Girls' High School, Louisville, Ky.*
J. L. HOLLOWAY, *Superintendent of Schools, Fort Smith, Ark.*
LEVI SEELEY, *Professor of Pedagogy, State Normal School, Trenton, N. J.*
CHARLES DE GARMO, *President Swarthmore College, Pennsylvania.*
CHAS. M. JORDAN, *Superintendent of Schools, Minneapolis, Minn.*
EDWARD D. FARRELL, *Assistant Superintendent of Schools, New York City.*
EDWARD R. SHAW, *Dean School of Pedagogy, New York City.*
JOHN A. HANCOCK, *Superintendent of Schools, Durango Colo.*
B. A. HINSDALE, *Professor of Pedagogy, University of Michigan.*
O. T. CORSON, *Commissioner of Education, Columbus Ohio.*
F. TREUDLEY, *Superintendent of Schools, Youngstown Ohio.*
JNO. T. BUCHANAN, *Principal Kansas City (Mo.) High School.*
FRANCIS W. PARKER, *Principal Cook County Normal School, Chicago.*
M. V. O'SHEA, *Professor of Pedagogy, Mankato, Minn*
Z. X. SNYDER, *Principal State Normal School, Greeley, Colo.*

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The President called for communications from the National Council as to the Committee of Nine.

Director Sabin of Iowa submitted the following report of the committee appointed to report on the subject of investigating the condition of the rural schools and of recommending reforms therein:

The committee appointed to report on the subject of investigating the condition of the rural schools and of recommending reforms therein, submits to the Council the following recommendations:

Resolved, That there be undertaken under the auspices of the Council an investigation of the subject of rural schools, embracing such topics as revenues and expenditures, the constitution, organization, and duties of boards of management and control, and the provision of suitable teachers. More definitely, said investigation shall be conducted in general on the lines laid down in the report of the Committee on State School Systems submitted to the Council at its present session.

Resolved, That a Committee of Nine be appointed to conduct this investigation, said committee to consist of the following persons: Henry Sabin of Iowa, D. L. Kiehle of Minnesota, A. B. Poland of New Jersey, C. C. Rounds of New Hampshire, J. H. Phillips of Alabama, B. A. Hinsdale of Michigan, S. T. Black of California, W. F. Sutton of Texas, and L. E. Wolfe of Missouri.

Resolved, That the Board of Directors of the National Educational Association be urgently requested to appropriate, at some session to be held during the course of the present annual meeting, the sum of $2,500, or such part thereof as may be necessary, to defray the expenses of this investigation, including the publication of the report of the committee.

Resolved, That the committee shall report within the period of two years in such form as it may determine, and that it be authorized to publish its report.

Respectfully submitted,

B. A. HINSDALE,
GEORGE P. BROWN,
D. L. KIEHLE,
J. R. PRESTON,
EARL BARNES,
Committee.

DIRECTOR BUTLER: Mr. President, I desire to offer a resolution to carry into effect the recommendation of the Council of Education similar in form to the resolution that constituted the Committee of Ten or Committee of Fifteen. The gentlemen will remember—those whose memories go back to the Saratoga meeting—that we then entered on this policy of investigation and report, some of us with misgivings and some of us with confidence. The outcome of that policy has been one which has met the unqualified indorsement of the teachers and people of the country, which has done more than any other one thing to strengthen and develop the National Association. The financial method of administration adopted then was the creation of an Emergency Fund under the control of the Board of Directors, to which was transferred a sum of money from the receipts

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from the current year, to be drawn upon, subject to the order of the Chairman of the authorized committee, by the Board of Directors.

I therefore move the adoption of the following resolutions:

Resolved, That the Board of Trustees be authorized to place in the Emergency Fund the sum of $2,500, should such sum remain after all expenses incurred by the National Educational Association in connection with the meeting at Denver in 1895 have been met.

Resolved, That, should the Emergency Fund permit, the Board of Trustees are hereby authorized to audit and pay bills presented over the signature of the Chairman of the Special Committee of Twelve on Rural Schools, appointed by the National Council of Education at Denver, July 9, 1895, for the purpose of investigating problems connected with the rural schools of the country, their financial support, the organization of boards of management, the provision of teachers, etc.;

Provided, That the total bills for this purpose shall not exceed the sum of $2,500, not more than $1,500 of which shall be drawn during the year 1895-96; and, also,

Provided, That all such bills be for expenses actually incurred with the approval of the Chairman, and that no portion of the fund be drawn upon for compensation to any member of the committee or any officer thereof;

Provided further, That the sum of $2,500 may be drawn upon, if necessary, and if it is found sufficient, to defray the expense, in whole or in part, of the publication of the report of said committee, the method and manner of publication to be subject to the approval of the President of the National Educational Association.

The adoption of the resolution was seconded by Director MacDonald of Kansas.

DIRECTOR JONES of Ohio: I merely suggest that some confusion might arise over the designation of this committee.

DIRECTOR BUTLER: I understood Director Sabin to say that three had been added to the committee, viz., Charles R. Skinner of New York, Lawton B. Evans of Georgia, and United States Commissioner of Education Wm. T. Harris, and I have therefore changed the designation of the committee.

DIRECTOR SABIN: As Chairman of that committee, I think I would rather have it called the Committee on Rural Schools.

DIRECTOR SKINNER: I suggest the words "Rural Schools" be added after the word "Twelve" in the report of Director Sabin.

PRESIDENT DOUGHERTY: It will be so inserted unless there be objection.

On a vote, the resolution of Director Butler was unanimously adopted.

DIRECTOR JONES of Ohio: I have a matter left in my hands by Director Tarbell, which he asked me to present. It is a series of resolutions, with reference to the relationship of the Treasurer of the National Association to that body, which seem to have been made necessary by certain changes that have been made in the constitution and by-laws. They are as follows:

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Resolved, That the Treasurer be instructed to make all future reports so as to include all revenues received by the association, from whatever sources, and that the reports show receipts by calendar years, and not by meetings.

Resolved, That the Treasurer be instructed to ask that all bills for all purposes be paid by him out of funds in his hands, except those chargeable to the Emergency Fund, orders for the same from the Board of Trustees to be exacted for every payment.

Resolved, That the Treasurer shall give a bond for ten thousand (10,000) dollars, the same to be made by a surety company, the fee for the same to be paid by the National Educational Association.

Acting for Mr. Tarbell, I move the adoption of these resolutions.

Seconded by Director Butler.

The resolutions as read were unanimously adopted.

On the roll call of states as to the place of holding the next annual meeting of the association, Edward T. Pierce presented an invitation from Los Angeles, Cal., with the accompanying documents. Communications were also read by the Secretary in connection with this invitation.

State Superintendent Black of California and others indorsed the invitation of Los Angeles.

Secretary Shepard read an invitation from Indianapolis; also, one from Boston, Mass., inviting the association to meet in New England next year; also, a communication from Detroit, Mich., inviting the association to assemble at that place in 1896.

Director Gilbert presented an invitation from the city of Duluth, Minn., and read and filed certain documents.

Miss Harris, Director Lane, and the Nebraska delegation indorsed the petition of Duluth.

Director Rounds presented the claims of New England.

Mr. Green of New Jersey invited the association to meet at Asbury Park, N. J., and filed written communications with the Secretary.

A delegation from Oregon seconded the claims of Los Angeles.

Director Goodman of Tennessee invited the association to meet at Chattanooga, and read and filed a written invitation.

Secretary Shepard read a communication from the Superintendent of Schools at Seattle, inviting the association to hold its next meeting at that place.

President Dougherty appointed Directors Gilbert of Minnesota and Kirk of Missouri to act as tellers.

The ballots were cast on the cumulative system, and the tellers announced the following result:

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	First Choice.	Second Choice.	Third Choice.	Total. First Ballot.	Second Ballot.
Duluth	9	11	6	26	9
Asbury Park	7	8	7	22	7
Los Angeles	13	3	4	20	12
Indianapolis	1	2	..	3	..
Boston	1	1	2	4	..
Detroit	..	2	5	7	..
Chattanooga	..	3	5	8	..

On motion of Director Butler, the question of selecting the place of holding the next annual meeting of this association was referred to the Executive Committee of the association, with full power to act.

Secretary Shepard read the annual report by Dr. N. A. Calkins, Chairman of the Board of Trustees, who was unavoidably absent.

Director Gove moved that the communication be received, and that, when the report is completed and signed by all the Trustees, it be printed in the report of the proceedings.

Seconded and carried.

Director Butler nominated Albert G. Lane of Illinois as Trustee, *vice* Edwin C. Hewett of Illinois.

Seconded.

On motion of Director Goodman, seconded by Director Gove, the Secretary was authorized to cast the ballot for Mr. Lane.

The ballot was so cast and Albert G. Lane of Illinois was thereupon declared duly elected as Trustee of the National Educational Association, *vice* Edwin C. Hewett.

President Dougherty appointed Directors Skinner of New York, Malone of Utah, Rounds of New Hampshire, Carlisle of Texas, and Faston of Louisiana as a committee to recommend names for members of the National Council. Said committee subsequently reported the following:

To the Board of Directors of the National Educational Association,

GENTLEMEN: Your committee find the following vacancies in the membership of the National Council to be filled by the appointment of this board, viz.:

James M. Green, Trenton, N. J.....Term expired 1895
A. R. Taylor, Emporia, Kan.....Term expired 1895
J. R. Preston, Jackson, Miss.....Term expired 1895
Henry M. Leipziger, New York City.....Term expired 1895
W. R. Garrett, Nashville, Tenn.....Term expired 1895
H. K. Wolfe, Lincoln, Neb.....Vacant by absence
Charles W. Elliott, Cambridge, Mass.....Vacant by absence
Oscar H. Cooper, Galveston, Tex.....Vacant by absence

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Your committee nominate the following to fill the above-named vacancies:

James M. Green, Trenton, N. J. (to succeed himself).....Term expires 1901
A. R. Taylor, Emporia, Kan. (to succeed himself).....Term expires 1901
J. R. Preston, Jackson, Miss. (to succeed himself).....Term expires 1901
A. S. Downing, Albany, N. Y. (to succeed Mr. Leipziger).....Term expires 1901
W. H. Payne, Nashville, Tenn. (to succeed Mr. Garrett).....Term expires 1901
J. F. Millspaugh, Salt Lake City, Utah (to succeed Mr. Wolfe)..Term expires 1898
J. G. Schurman of New York (to succeed Mr. Elliot).....Term expires 1897
Thomas G. Harris of Texas (to succeed Mr. Cooper).....Term expires 1900

On motion of Director Butler, the report of the committee was received, the recommendation of the committee concurred in, the committee discharged, and the names respectively were declared duly qualified members of the National Council of Education.

DIRECTOR JONES: *Mr. President and Gentlemen:* As President of the Department of Superintendence of the National Association, I have been asked to make arrangements for a meeting at Jacksonville next February. It is in the judgment of the department very desirable that I be authorized by this Board of Directors to use about one hundred dollars more than the authorized amount for that meeting, and I simply make the request.

DIRECTOR GILBERT: I move the request of the President of the Department of Superintendence be granted.

Seconded by Director Gove.

DIRECTOR BUTLER: I desire to ask the attention of the Directors for a moment, while I offer two resolutions that I deem important. It may seem to some of you that the presence of twelve or fifteen thousand members of this association in this city is a simple matter, but during the time of my experience in the office which I shall resign to my successor this evening. I have come to know how much minute labor and attention it requires and how much skilled assistance of one sort and another is necessary. It has been usual at this time for some officer, usually the retiring President, to offer to this board a resolution providing for the printing of the volume and compensation for the preparation thereof. Instead of offering the resolution which precedent would dictate, I desire to offer two resolutions, which I will read together, and ask that they be considered separately, as they stand on their own individual merits, and place this question of paying assistants upon what I believe to be the broad ground of common sense. Those of us who have been through the mill feel from our experience that this is necessary. I will read the resolutions, and if some gentleman will, as a matter of courtesy, second them, I shall be able to speak to them. The resolutions are as follows:

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Resolved, That an annual appropriation of $750 be and is hereby authorized to be paid to the Treasurer of the National Educational Association, in equal semi-annual payments, for the purpose of securing clerical assistance in the discharge of the duties of his office and for such other miscellaneous expenses as are necessarily connected therewith.

Resolved, That for the year 1895-96 an appropriation of $1,500 be and is hereby made to the Secretary of the National Educational Association, the same to be paid in three equal installments, as compensation for the performance of the duties of his office, which duties shall include the editing of the volume of proceedings and the arranging and perfecting of the roll of active members as established by the newly adopted constitutional amendments.

I offer these resolutions, and move their adoption.

Seconded by Director Gilbert of Minnesota.

DIRECTOR GOVE: I trust this second resolution will be followed next year or the year after, or very soon, by an arrangement for a permanent Secretary who will be allowed a sufficient salary to devote his entire time to our interests.

The resolutions as offered by Director Butler were then unanimously adopted.

On motion, the Directors adjourned *sine die*.

NEWTON C. DOUGHERTY,
President.

IRWIN SHEPARD,
Secretary.

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GENERAL SESSIONS OF THE ASSOCIATION.

ADDRESSES OF WELCOME.

AARON GOVE, SUPERINTENDENT OF SCHOOLS, DENVER, COLO., AND CHAIRMAN OF THE LOCAL EXECUTIVE COMMITTEE.

Mr. President and Members of the National Educational Association:

By invitation of the chamber of commerce and board of trade, seconded and supplemented by the city and state authorities, you are about to open the thirty-fourth annual meeting of your association, in Denver. It is my privilege and pleasure to pronounce a word of welcome, and to introduce those high in authority who will appropriately address you. Denver and Colorado are complimented by your presence. We believe the interests that you represent to be so intimately connected with our country's welfare that their encouragement and promotion is a necessity for national existence. The program for your deliberation has been made with skill and care. It covers the broad field of current educational effort, with provisions for expansion by scholarly representatives of the profession, and the program affords opportunity for free and unlimited discussion. You have come up from the lowlands to meet on a level with the summit of Mount Washington and above the Alleghenies. From this point you have the privilege of viewing the entire country, westward and eastward to the ocean, and southward to the gulf. The waters of Colorado flow to every sea. From such an eminence a man should be above bigotry, intolerance, enmity, or prejudice. The heart should be full of charity for all mankind. I trust the volume of proceedings of this meeting will exceed in value any that have preceded it, and that, when this association has adjourned, you are to remain with us several weeks for recreation; that you will find a welcome on the plains or in the mountains, and that for whatever expenditure is required I am sure you will be glad to learn that silver coin is the established and accepted currency of our people.

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And now, Mr. President, it having been intimated to me by your administration that long speeches at this time would be quite unnecessary, I beg to abruptly close.

HON. JUDSON L. BRUSH, LIEUTENANT GOVERNOR OF COLORADO.

Mr. Chairman, Ladies and Gentlemen of the National Educational Association:

I regret very much that I have to announce the absence of Governor McIntire, by unavoidable delay in St. Louis. As acting governor of the State of Colorado, I extend to you a hearty and cordial welcome, not only extending the right hand but both hands and both arms. The freedom of the state is yours and the fullness thereof. The people of the state are yours to command.

The people of the State of Colorado appreciate very highly your meeting among us, feeling that we cannot come in contact with the educators of the United States without being largely benefited thereby. We invite you to visit the city of Denver, a city that every Coloradian is proud of, her schools and church buildings, her places of resort. We invite you to visit our mountain scenery, which is unsurpassed in the world—the Switzerland of America. We ask you to go down into the bowels of the earth and examine the resources of Colorado in her mineral wealth, and then ascend her lofty peaks looking down upon the mystic clouds below. We then ask you to go with us and visit her coal fields, which, when developed, will surpass even those of Pennsylvania; also, her marble quarries, which for texture and beauty surpass those of all the country. We will then ask you to go to our valleys and traverse 12,000 miles of irrigating canals, covering 2,000,000 acres of agricultural lands unsurpassed in the United States. We then ask you to visit our schools, commencing with our little schoolhouses and advancing to our state institutions, which all and each are the pride of Colorado, out of which is evolved the one great principle of equal suffrage. We ask you to investigate the workings of equal suffrage in Colorado and Wyoming, believing that, if you do, you will all go to your homes strong advocates of it. One word more,—I have had the privilege of seeing in convention the statesmen of this country; I have had the pleasure of participating with many of the business men of the country; I have had the opportunity of looking upon the deliberations of the manufacturers of the country, and also many other conventions representing various lines of activity; but I wish to say, without any appearance of fulsomeness, that I have never seen so much intelli-

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gence, scholarship, and culture represented in an association. In no other calling is there so much given in what goes to make up human life for the money. There are many persons here working for salaries who in other lines could make five or six times as much.

May you have a pleasant and profitable meeting, and may success attend each and all of you. May your paths of life be strewn with flowers, and may you have a safe return to your homes. God bless you all.

HON. THOS. S. McMURRAY, MAYOR OF DENVER.

I desire to join with the governor in extending to each and all of you a cordial welcome. We welcome you, not only as you come to us as individuals,—and you are all welcome as individuals,—but we welcome you as part of our national life. We also welcome you in your representative capacity, representing the great educational system of America. We feel that you have a right to all that is good, all the best that we may have. The public school system of our country was founded away back in the infancy of the nation, and from that day to this it has held a firm hold upon the hearts of our people. As you come to us we welcome you, and we trust that your stay among us will be pleasant to each of you; that you will find recreation and pleasure everywhere. We also trust that we may derive profit from your sojourn among us. At the same time, ladies and gentlemen, addressing an audience of this kind, representing those that are teaching, those that have committed to their care the rising generation, we feel that you do not believe that commencement day is the end of study, and so we say to you, as you come among us and as you go around this state and city, we believe that you are desirous of obtaining profit and instruction as well as pleasure and recreation. If you are fond of painting, you will find fit subjects all through this country—such landscapes as you may never have seen before. Are you fond of the study of botany? In no other state will you find such a flowery kingdom as you will see in Colorado. Are you fond of geology? As you go through the mountains and see strata after strata, you will find material for new lessons in that study. The beauty which you will find here is simply the beginning. Throughout the length and breadth of this great state you will find things that will charm you. I take great pleasure in extending to you the freedom of the city. All that we have is yours. We ask you to examine our public buildings, of which we are proud. Go throughout the length and breadth of our city. Go around through our drives and parks. Visit the canons and look at

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the city from the mountain peaks. Make yourselves at home, and see to it that you get out of this all the recreation and pleasure that you can. It is all laid out before you, and the very best is at your door.

And now, ladies and gentlemen, permit me again, as before, to say, on behalf of this city, that it is an honor to welcome you as its guests, and permit me to extend to you the sincere and heartfelt welcome of the city of Denver.

MRS. A. J. PEAVEY, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, COLORADO.

Members of the National Educational Association

FELLOW TEACHERS AND FRIENDS: After the words of welcome which have already been spoken it would seem quite superfluous for me to attempt to add anything, but I may perhaps be permitted to give the emphasis of a woman's voice and heart to what has been said, and so fling open a little wider the gates of entrance to our beautiful city and the glories of our mountain state. Thus, I trust that the hospitality of deed will be found to outmatch the hospitality of words, and that you may be so impressed with our purpose and act that the long journey you have taken in order to come to us shall lose its aspect of weariness in the enjoyment of the present and passing hours. I think I have a special reason, however, for giving you welcome. You come to a state which has recognized the political equality of women, and has seen its way clear to give the full right of supervision to those upon whom it has laid responsibility. Whatever personal opinion you may entertain on the question of woman suffrage, you need have no doubt of its purpose in this state to stand for all that is noblest and best in the sacred and honorable work to which you have given your life and strength. If there is one thing that definitely marks the progress of education more than another, it is the position which woman has taken and held for the past few years in relation to it. A great deal of cheap wit has been expended upon her efforts and some sharp criticism has been flung at her accomplishments, but these things cannot rub out the fact, that, in her own personal education and in her work as a teacher and director in the schools, colleges, and universities of the land, she has contested for the palm with her brother, and in the contest has not been left behind. She may not be able to compete with him in a bicycle race or in a rowing match, but her record in Vassar, and Wellesley, and Smith, and Holyoke, and Bryn Mawr, and in such co-educational institutions as Madison University, and Ann Arbor, and Oberlin, not

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to speak of many others, shows that she is a workwoman that needeth not to be ashamed. Perhaps the chief influence which she has exerted may be spoken of as individualistic. It is certain that her rise in power furnishes the best antidote to those socialistic tendencies whose aim is to level all men down to a minimum rather than permit that natural exaltation which is the reward of personal integrity and laudable ambition. We realize the peril of greatness, and the danger that besets every one who makes his merit known; we know that every quickened aspiration is liable to be touched with self-love, and that success in any enterprise is often marred by an unsymmetrical development of life; but we still claim, that it is the privilege and duty of every one to have respect unto his divine heredity and to make the very best of that which God has made. It is this claim and full assertion of it, with such limitations as must surround every virtuous endeavor, that marks the educated woman of to-day. She has given a tremendous impetus to high culture by holding steadily to the moral and spiritual purposes it is destined to serve. I think I may say without undue boasting that she has done more to elevate the work of teaching into a definite profession than any other agency. Think for a moment of the advance which the science or art of teaching has made within the past quarter of a century. Twenty-five years ago we knew the names of a few great teachers. When we had mentioned Arnold of Rugby, Taylor of Andover, Emma Willard of Troy, Mary Lyon of Holyoke, our list was nearly exhausted, but there are hundreds of men, and more than hundreds of women, to-day who rank far above these in everything pertaining to their profession except the reverence which attaches to antiquity. Now we have a professional literature on this subject which begins to take rank with other professional literature. We have professional schools, in which the art is taught with system, and these are daily increasing in efficiency. With this rise into the dignity of a definite science the old methods are sure to pass away. The time is coming when admission to this work will no longer be regarded as a makeshift, or a temporary expedient, or the means of getting without earning a livelihood, nor even the means of paying a political debt. This elevation of the standard of this profession is due more to the individualism of woman, through the opportunities and privileges of education which she has grasped and firmly held, than to any other cause. She has stepped to the front, and by the absolute merit of her performance has obtained a recognition which a few years ago was impossible. It is only necessary in proof of this to point to the increasing number of women who are taking their degrees in science and philosophy, and who are manifesting their pedagogical and executive ability in the best institutions of learning

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in all the land, and who are also making a most practical and successful use of their talents as bread-winners in the field of professional and industrial life. I take great pride in what the women of Colorado have accomplished in this direction, and my word of welcome is made the more emphatic by the consciousness I have that you, our honored and distinguished guests, will truly appreciate their endeavors and their successes.

Associations like these are not only valuable for the work they do but for the quickening of the *esprit de corps*. Here we are at full liberty to idealize our profession. Looking, then, at the various agencies which are influential for good in the world, we must place the teachers in the highest position of honor. As public servants they have done more for the country than presidents, or senators, or representatives, more than the financial managers of great corporations, more than any who contribute to our political and material welfare, for day by day and year by year they have been training, molding, and developing the immortal lives of those who are bound to us in God-given mysteries and eternal affections. With the world in view they have looked into the future far as human eye can see, and they have set in motion powers whose dynamic energies will not cease even when the heavens be no more. They have initiated possibilities of companionship and helpful experiences which will fill our lives with hope and cause them to abound in realized anticipations. They have submitted to painful anxieties and carried weighty responsibilities in order that others may see of the travail of their souls and be satisfied. They have heard complaints, been humiliated by aspersions, and sometimes confounded by awful depths of ignorance, but they have maintained their dignity and fulfilled their duty, independent of the gross stupidities of a fractious and foolish criticism. They have evolved order out of chaotic imaginations, reduced to symmetry uncouth habits, compelled respectful attention to lawful authority, awakened dull souls out of sleep, controlled the vanities and self-conceits of the quick-witted, rebuked the idle and untruthful, praised the industrious and honorable, and out of manifold discords they have brought a well-pleasing and harmonious rhythm.

It is thus that the profession you represent is estimated in the minds of thoughtful and understanding men and women. It is to make this picture real in all respects that the women of my state are ready to lend and give their influence and their newly acquired power. As representing them, unworthily it may be, but with truth of heart and sincerity of purpose, I bid you, men and women of the National Educational Association, thrice welcome.

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RESPONSES.

NICHOLAS MURRAY BUTLER, COLUMBIA COLLEGE, NEW YORK CITY, PRESIDENT OF THE ASSOCIATION.

It is with sincere pleasure that I accept, on behalf of this vast body of teachers, the cordial expressions of welcome and good will with which you have greeted us. Our annual meetings are constantly increasing sources of pleasure and of profit to us, and we come together at this time on the crest of the continent to renew our old friendships, to make new ones, and to counsel together, as best we may, in behalf of the great human interests that society has committed to our care. Never in our history as an association have we been more heartily welcomed, never have more complete and efficient arrangements been made for our care, and never have we assembled in a city and a state that offered more to interest and to instruct us. We come from every nook and corner of this great Union and from Canada, and if any state or territory is wholly unrepresented, that fact has escaped my attention.

To many of us these vast plains and towering mountains are new revelations of the wonders of nature, and on every side there abound evidences of the marvelous ingenuity and power of man. The Centennial State has attracted us like a magnet, and it is believed that the largest attendance at any previous meeting of our body will be exceeded here. We anticipate a meeting of unusual value, both to ourselves and to the educational interests of our common country, and we are of one mind in assuring you that nothing that Denver and Colorado could do to promote our comfort and our welfare has been left undone. No representative of Colorado can truthfully say, "Silver and gold have I none," but such as you have you have certainly given us with ample generosity. On behalf of the National Educational Association, I tender you hearty thanks for this warm reception, and accept, Mr. Chairman, this gavel from your hands, and declare the sessions now formally opened.

IRWIN SHEPARD, WINONA, MINN., SECRETARY OF THE ASSOCIATION.

Seven years ago we passed through your city three thousand strong, following your honored superintendent, then president, Aaron Gove, to the Pacific coast, to that great and memorable meeting at San Francisco. We stopped on our way to enjoy for a time—all too

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short—your beautiful city and its scenic surroundings, and while we tarried we hoped that the association would soon be called to meet in Denver. The call has come, and we are here. Your cordial welcomes, so eloquently spoken, find in our hearts a glad response which words can but feebly express. At our state meetings at Christmas time, we received by telegraph greetings from the chairman of your executive committee which said to the teachers of New England: "Come in July and see our snow-capped peaks, that show a thousand welcome face in a thousand hours;" to the Pacific coast: "The crest of the continent to the Golden Gate—greeting. Come in July." Montana and Idaho received the message: "Mountains to the mountains —greeting. Come in July." The teachers of the South were invited to "Come from the land of ever-blooming flowers to see the wonders wrought in the heart of the great American Desert." While all over this broad land the welcome ran, to "Come and rest among

> The hills
> Rock-ribbed and ancient as the sun—the vales
> Stretching in pensive quietness between."

Ever since, we have read in the daily press and in the "Official Bulletin," of the large preparations which were making for our entertainment and comfort, not only in Denver but throughout the entire State of Colorado. To-day all the pleasant hopes which your forerunning welcomes had aroused are more than fulfilled in the eloquent words to which we have listened, in the cordial hand-clasp, in the spoken greetings, and in the thoughtful, courteous attentions by which we have been surrounded since the moment of our arrival.

It has been my personal privilege during the past months, and especially during the past ten days, to note the work of your local executive committees, and through their zeal, their largeness of plan, and efficiency of execution, to measure the hospitality of your people.

This is not alone a visit to Denver for social pleasure and physical recreation, but for intellectual and professional re-creation as well. We have gathered to consider the most important questions which concern the people of this great nation, namely, the complete and the right education of the children of all the people. Nearly every phase of this great problem has been presented to you. Most prominent among the topics of the general program, and occupying the central place around which all others cluster, you will find this topic, "The Duty and Opportunity of the Schools in Promoting Patriotism and Good Citizenship."

The Grand Army of the Republic once saved our country from disunion and gave it to posterity united more firmly than ever and forever free. This grand army of the past has nearly finished its

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work, and, looking about for a most fitting place whereon to set the banner they love and for the organization best suited to perpetuate the freedom they won, have planted "the flag," forever to remain, on the common school house; and have intrusted to the common school teachers of the country—that Grand Army of the Future Republic—the task, not only of preserving the spirit of '76 and '61 but of creating that new and still loftier patriotism which teaches, that, noble as it may be to die for one's country, it is still nobler to live for one's country.

You will also note by the program that the departments open with the kindergarten, and, running through the entire range of all the various grades of school organization, return in an all-embracing circle to the point of starting in the Department of Child Study, thus beginning and ending with the child.

Again we thank you for your cordial welcome, and in turn welcome you to join with us in our convention deliberations, concerning how we may best educate this child which has been set in our midst.

COL. FRANCIS W. PARKER, PRINCIPAL OF COOK COUNTY NORMAL SCHOOL, ENGLEWOOD, ILL.

Mr. Chairman and Fellow Teachers:

It is indeed a great honor to represent in any way the teachers of this great nation.

Ladies and gentlemen, never on earthly footstool was camped such an army; not in the Crusades, under the banner of the Holy Cross; not by Alexander, Cæsar, or Napoleon, was there ever marshalled such an army, so potent for good as this which is within your borders to-day—this army, the army that battles with the sword of the spirit for the freedom of the human race. The common school system of America is the most divine institution that ever sprang from the heart of man, inspired by the eternal God. It means life and character to every child under the flag, yea, under the shining sun. This army comes to camp here on this high ground. I am glad Denver has always taken such "high ground." We come to receive your generous wealth. We behold your clean streets—we of Chicago where woman has at last taken the broom. We come from the far distant New England, from Maine, from Massachusetts, and I may say that all Massachusetts teachers have fallen in love with nature, such as it appears in your mountains. We come from the Northern States, from the glorious land of the palm and the pine, and from the Mother of Presidents; from the great states that bear the mighty Mississippi to the sea; from all over this broad land, binding with

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its fertile acres and manifold interests the states of this great Union into one; from the Pacific coast, and from the Golden Gate, that land of bounteous gifts and limitless generosity; from the newest of the states, Utah—God bless her and bring her into this great Union, for she is a rainbow of promise. We clasp hands—no longer over the bloody chasm, for that is closed forever by the influence of the teacher and the common school, and over its tomb has arisen again, in a new resurrection, the spirit of the life of the Master. We clasp hands under the old flag, and swear fealty again to the interests of this great republic. With all the progress, and with all the signs of the progress, that we bring to you, there is a new spirit coming; the common school system has witnessed its organization, the work of mighty men and women, and now it is moving on in a spirit of study and research. It has taken from the old world all it could get, and that is much. It has received from Germany its philosophy and psychology and its methods, but there is one thing we never can get from anywhere on the face of this earth, and that is an educational system adapted to the evolution of pure democracy. The future public school is to solve this question, and the ideal school is to be the ideal community. The child is not in school for knowledge. He is there to live, and to put his life, nurtured in the school, into the community. This question is to be solved in the public schools of America.

EX-GOV. W. J. NORTHEN, ATLANTA, GA.

His Excellency the Lieutenant Governor of Colorado; His Honor the Mayor of Denver; Mrs. Peavey, the Superintendent of Education of this State; Ladies and Gentlemen of the Association:

Like the distinguished gentleman who has immediately preceded me, I have been puzzling my brain somewhat, since I reached this city, to determine why the president of this association did me the honor to invite me to represent the teachers of the South upon this occasion.

I am not now a teacher. The only answer that I have been able to make to the inquiry is, that the president desired to present to the convention a man who could be induced by the allurements of political office and its doubtful compensations to abandon the loftiest profession known among civilized men.

In confirmation of my opinion of your calling, I was more than pleased, Mr. President, when I reached Kansas City yesterday, to read an editorial in a leading paper, from which I quote something like this: "The teacher constitutes an important element of our

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civilization and our society. There is no profession among men that stands higher in its usefulness, or brighter in its possibilities, and more comprehensive in the great good possible in its accomplishment, than that one that is adorned by the people who are now very soon to assemble in the city of Denver." In this presence, I am sorry to say, I am not, now, a teacher. I wish I were. But I am here to speak in part for the teachers from the South.

The teachers from the South are here in large force. They came, may it please your excellency, because they were assured that a cordial, hearty welcome would be extended to them. Whilst there may have been differences among us in the past; whilst there may have been dissensions among the great people of this country that resulted in bloodshed and disaster in the past, thank God, there are none now. Whilst we of the South may be Southern in our manner, and Southern in our ideas of social interests and social advancement, we are, in every particular, essentially and thoroughly American. We came to Denver because we knew we would have the hearty greeting that has been so cordially extended to us. We came again, as teachers, because we are proud of the record we have made at the South in the great cause you advocate. Representing the South and the teachers of the South, I have great gratification to say, in this presence, that the distinguished commissioner of education for the United States has recently published to the world that there has been greater advancement in educational interests at the South, within the past recent years, than in any other section known to the civilized world.

We come, again, because we are profoundly interested in every purpose, every policy, and every plan that will be inaugurated and carried to completion by this National Educational Association for the advancement of our common interests. We come, furthermore, to say to you who do not know, as we do, that the South is, in all particulars, the best portion of this great country of ours; to say that we want every citizen of Denver and of Colorado, and every citizen of all this great West, to come down South and know us better than you have in the past.

We have reputations abroad, you know, that are sometimes unpleasant and many times untrue. We are here to correct some of those impressions. We have the reputation down South, you know, of voting not only early and often, but sometimes outside of our districts and sometimes outside of our states. I have actually voted in Colorado. A newspaper man approached me this morning, and said, "I want your vote on universal suffrage," and I voted, of course. I want to take occasion here and now to say, if the returning board has already made a report, that I did not vote; and if the board has

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not made report, it is my purpose to see that my vote shall be cast for universal suffrage. I say this especially since I have heard the splendid address delivered by Mrs. Peavey, the superintendent of education for this State.

In conclusion, I may say, I am here, Mr. President, not as a teacher, but as the chief of the department of education for the Cotton States Exposition. I am not going to make you a speech on that matter now, but I desire to make this announcement: We want every teacher and every school on the continent of America to make an exhibit at the Cotton States Exposition in Atlanta, beginning the 18th of September and concluding on the 31st of December. We want, furthermore, that this association shall have an adjourned session at Atlanta during the exposition, so as to meet with the congress of educators to be held at that time. We invite you to the South that you may know us better and more favorably; that you may understand the great-heartedness and warm hospitality of a Southern invitation and a Southern welcome, just such as we will extend to you in Georgia when you come to see us next fall.

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ADDRESSES.

PHYSICAL TRAINING.

BY EDWARD F. HERMANNS, PRINCIPAL OF HIGH SCHOOL, DISTRICT NO. 2, DENVER, COLO.

[STENOGRAPHIC REPORT.]

You have been informed by the president that I was selected only yesterday to fill a vacancy caused by the unavoidable absence of Dr. Hartwell from this meeting; and this, together with the fact that I am limited to fifteen minutes, will account for what I have to say being rather fragmentary and showing a lack of the preparation which such an important subject deserves.

It is a source of wonder that we Americans, who are noted for being able to recognize a good thing when we see it, and for having the energy to use it for all it is worth, have not made a systematic effort to make physical training an essential factor in our public school education. It is true, that, in some cities, and in some schools, great results have been attained in this direction, but nevertheless these cases are isolated. It is also true that there has been a great interest in the so-called athletic sports, but I doubt whether these can take the place of systematic instruction in physical culture, as their object is, not the harmonious, methodical development of the body but the gaining of a victory, for which purpose, I am informed, sometimes the bodily welfare is to a certain extent sacrificed. The Germans, who have investigated educational questions, perhaps not with more intelligence but certainly with more patience and thoughtfulness than any other people, have arrived at the conclusion, that education is not complete—cannot be complete—without physical training. The great impetus was given to instruction in physical culture in Germany, when, during the Napoleonic wars, the Turner societies formed such an important and potent factor in shaking off from that country, which was then in its deepest degradation, the yoke imposed by Napoleon. We have a strong illustration of the relation that exists between physical culture and national life in the fact, that, during our own Civil War the Turner regiments, as they were called, recruited from the Turner societies, not waiting to be

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drafted into the service, hurried into the ranks, and were among the best and first into the field, thereby demonstrating conclusively that they had transferred, fully and without reservation, their loyalty and their patriotism to the country of their adoption.

Physical training is necessary, first, of course, for the body itself; secondly, for the full development of the intelligence. There are other advantages that come along with it. As civilization advances, with all modern conveniences, there is a tendency to a degeneration of the body. There is a lessening of the necessity for that activity of the body which is indispensable to its perfect health. I can speak from experience on this point. When I was a boy I was puny and sickly; the professor of medicine in the University of Bonn, after examining me, informed my mother that I should die before I reached the age of manhood. No one can tell what anguish that poor woman suffered for seven years after receiving this information. I was subjected to all sorts of treatment, took all kinds of medicine, until I finally fell into the hands of a physician who had that best of all science, common sense, and who ordered at once that physic should be thrown to the dogs, and that I should go in swimming, should ride on horseback, and join the Turner school conducted by the Turner society at Milwaukee, where physical education, I believe, is carried as far as in any other city of the Union. The result was satisfactory, and I did not die, as predicted. The consumption I suffer from now is easily cured. It may be unnecessary to state, also, that I did not come to Colorado for my health. I am inclined to think that Superintendent Gove suggested my name to the president of this association to fill this vacancy for the purpose of showing this audience what the glorious Colorado climate will do for a thin man.

The necessity of training the body, on account of health, although perhaps the last in rank, is not for that reason the least important. If it were on this score alone, it would become the duty of the state to furnish such training on the same ground on which it furnishes any kind of education; that is, of producing efficient citizenship. I am not quite sure whether I believe to the fullest extent the doctrine, "A sound mind in a sound body," if it means that a sound mind cannot dwell in an imperfect body, when we all know of such cases as those of the blind Milton, the lame Byron, Napoleon, whose body was covered with a rheum, which at times caused him intense torture, and others who, in spite of their physical condition, displayed great intellectual activity. These cases prove that there are some minds so strong that they can conquer the imperfections of the body; but such minds are few, and it is a recognized fact that the influence of the body upon the mind is so great that it cannot be ignored. With all our intellectual advancement, the time will never come when we

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shall not admire physical culture and physical courage; physical courage that arises out of the assurance that every part of the body will perform its function when called upon. And it is wonderful how this faith in physical power leads the child to have faith and confidence in the power of the mind, which is almost without limit. It is power that we all want, but there are even now some people who do not realize or appreciate their own powers. There are a great many geniuses lost to the world because that sense of power is absent, because it has never been cultivated. The most important benefit, however, in my opinion, that is to be derived from physical culture, is the ethical effect. The accuracy of movement, the prompt obedience to the word of command, the feeling of responsibility in regard to the perfection of the operation to be performed, all these have their moral effects, and this training of the body furnishes one of the most important agencies in moral teaching. Experience, I believe, has shown that good morals can be inculcated only to a limited extent by instruction. If preaching were sufficient to make people moral, you and I should be almost perfect in that respect. No. good morals and ethics must be taught by the doing of them—if necessary, by the employment of the motive of compulsion—until the doing of right becomes a matter of habit, so that higher motives may be employed in the development of the moral nature.

I want to state, that I am not by any means a specialist on the subject of physical training, but perhaps it is not without profit to discuss this matter from the standpoint of general education, rather than that of the specialist, since we know that our friends, the specialists, whether their favorite branches are science, or drawing, or music, or physical culture, are very apt to demand the whole terrestrial globe, surrounded by a strong inclosure, for their own specialties. This is as it should be. Their enthusiasm, their energy will furnish a motive power that will accomplish success, if the check-valve of proper supervision is applied. The question as to what kind of physical culture we need I should like to leave to the expert and the specialist. If you ask me whether I am an advocate of the German system, or of the Swedish system, or of the Delsarte system, I shall answer that I advocate none, or all, just as you please to have it. They all have good in them, and I propose to take that good, so long as it can be made useful. I believe that the advocates of the different systems are doing harm to the good cause, by making war upon other systems than their own. I think it is possible to take the good features of all and combine them. The chief requisite, in my opinion, for instruction in physical training, is a teacher; one who is endowed with good common sense, knows the nature and laws of the body, and realizes that there are some other things in education that are of as

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much importance as physical training. When we can show good results from physical training, it will press its own way forward. I should never employ as a teacher of physical culture one who could not in himself exemplify the good results of the work. A lady who will complain of fatigue if she has to ascend the stairs two or three times a day, certainly is out of place as a teacher of physical culture. Exercises ought to be properly adjusted to the physical condition of the pupil. They certainly ought not to be carried to excess; the safety-valve must be applied. The selection of exercises from the different systems will depend somewhat on the objects you want to attain. While I believe that there are many physical exercises which are as well adapted to the girls as to the boys, I do not believe that co-education in this regard can be carried out to the fullest extent. The boys should take some exercises that the girls cannot—and *vice versa*, probably; and great care should be used in selecting exercises for the different sexes. It may be a little old-fashioned for me to say that, while welcoming women to all professions (and I think they can do good work in a great many of them), while rejoicing with them over the gaining of suffrage in this and other states, and while holding that all opportunities of education ought to be open to them that are open to men, I still believe that the spheres of women and of men are not exactly the same; that if they were to fulfill the same functions, Almighty God, in his wisdom, would have found some way of making them the same, and that, if we make, or attempt to make, men out of women, the latter will soon become what they are not now, the weaker sex. I believe that it would be a misfortune, if, by physical or mental education, we should take the femininity out of woman, and neglect or extinguish that grandest, most sacred of all instincts, the instinct of motherhood, upon which not only the welfare but the very existence of the nation depends.

And now, ladies and gentlemen, I wish to give way to Mr. Schmitt, who will bring before you a class, or several classes, from the schools of Denver, to show what can be done in the schools in the way of physical culture. It will not be possible, on account of the briefness of time, to show the methods used in teaching; we can show you only the results. He will also present some members of a Turner society under his instruction, in order to show you what can be done in the way of training the body by men who are not professionals, but follow the ordinary walks of life in different callings. I hope to see the time come when every school will be furnished with a gymnasium, which will enable our boys, especially, to go through the exercises which these gentlemen will exhibit to you. I thank you for your kind attention.

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PRESIDENTIAL ADDRESS.

WHAT KNOWLEDGE IS OF MOST WORTH?

BY NICHOLAS MURRAY BUTLER, COLUMBIA COLLEGE, NEW YORK CITY.

The student of history is struck with the complexity of modern thought. From the dawn of philosophy to the great revival of learning, the lines of development are comparatively simple and direct. During that period one may trace, step by step, the evolution of the main problems of thought and action, and discover readily how the theories of the seers stood the test of application by the men of deeds. At Athens, during the great fifth century, the inner life was the chief part of life itself. In that age of the world life was simple; and often, because of its refinement and independence, more reflective than with us. Men's ideals were more sharply defined and more easily realized. They did not doubt that the world existed for them and their enjoyment. Even that advanced stage of human culture of which Dante is the immortal exponent, believed, as Mr. John Fiske says,* that "this earth, the fair home of man, was placed in the center of a universe wherein all things were ordained for his sole behoof; the sun to give him light and warmth, the stars in their courses to preside over his strangely checkered destinies, the winds to blow, the floods to rise, or the fiend of pestilence to stalk abroad over the land—all for the blessing, or the warning, or the chiding, of the chief among God's creatures, Man." With such a conception as this, theory and practice could be closely related. In the ancient world it was not usual to find the thought of the disciple guided implicitly by the maxim of the master. *Γνῶθι σεαυτόν* and *Nil admirari* were preached by the early philosophers in the confident belief that they could be practiced by him who would.

In these modern days all this is changed. Man has come to doubt, not only his supremacy in the universe, but even his importance. He finds that, far from dwelling at the center of things, he is but "the denizen of an obscure and tiny speck of cosmical matter quite invisible among the innumerable throng of flaming suns that make up our galaxy." A host of new knowledges has appealed to human sympathy and interest, and has taxed them to the utmost. Galileo with his

*"The Destiny of Man." (Boston, 1893, p. 12.)

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telescope has revealed to us the infinitely great, and the compound microscope of Jansen has created, as out of nothing, the world of the infinitely small. Within a generation or two biology has been created, and physics, chemistry, and geology have been born again. The first wave of astonishment and delight at these great revelations has been succeeded by one of perplexity and doubt in the presence of the wholly new problems that they raise. The old self-assurance is lost. Men first stumble, blinded by the new and unaccustomed light, and then despair. The age of the faith and assured conviction of Aquinas was followed by the bold and cynical skepticism of Montaigne; and this in turn—for skepticism has never afforded a resting-place for the human spirit for more than a moment—has yielded to the philosophy of disenchantment and despair of a Schopenhauer and the morbidly acute and unsatisfying self-analysis of an Amiel. Already it is proclaimed by Nordau and his school that we are in an age of decadence, and that many of our contemporary interpreters of life and thought—Wagner, Tolstoi, Ibsen, Zola, the pre-Raphaelites —are fit subjects for an insane asylum. Mankind is divided into warring camps, and while electricity and steam have bound the nations of the earth together, questions of knowledge and of belief have split up every nation into sects. From all this tumult it is difficult to catch the sound of the dominant note. Each suggested interpretation seems to lead us further into the tangled maze, where we cannot see the wood for the trees. Standards of truth are more definite than ever before, but standards of worth are strangely confused, and at times even their existence is denied.

Amid all this confusion, however, a light has been growing steadily brighter for those who have eyes to see. In our own century two great masters of thought have come forward, offering, like Ariadne of old, to place in our hands the guiding thread that shall lead us through the labyrinth—the German Hegel and the Englishman Herbert Spencer. And as the century closes, amid the din of other and lesser voices we seem to hear the deeper tones of these two interpreters swelling forth as representative of the best and most earnest endeavors, from two totally different points of view, of our human seekers after light. Each has taken the whole of knowledge for his province, each has spread out before us a connected view of man and his environment, and each would

> assert Eternal Providence
> And justify the ways of God to men.

These great teachers typify the catholicity and the scientific method that are so characteristic of the best expressions of our modern civilization. Whatever of insight we have gained into history, into phi-

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losophy, into art, and into nature, they have incorporated in their systematic thinking and have endeavored to illumine with the light of their controlling principles. Hegel, schooled in the teachings of Kant and Fichte, and coming early to an appreciation of the seed-thought of Plato and Aristotle, Bruno and Spinoza, has taught us in unmistakable language that independent, self-active being is the father of all things. Spencer, feeling the thrill of that unity which makes the cosmos one, and receiving from Lamarck and von Baer the hint that led him to see that the life of the individual furnishes the clue to the understanding of the life of the aggregate, whether natural or social, has formulated into a single and irrefutable law of progress the terms of that development, or evolution, which has been more or less dimly before the mind of man since thought began. The German with his principle of self-activity, and the Englishman with his law of evolution, offer us a foothold for our knowledge and our faith, and assure us that it will safely support them. From the one we learn the eternal reasonableness of all that is or can be, while the other teaches us the character of the process by which the visible universe, that every day presents new wonders to our gaze, has been builded out of the primeval star-dust. At their hands the two sublime and awe-inspiring verities of Kant—the starry heavens above and the moral law within—find their places in the life of the Spirit, and together testify to its eternity and its beauty.

Despite the fact that our age is one of unexampled scientific and industrial progress, yet nothing in all our modern scientific activity is more striking than the undisputed primacy of thought—thought not in antagonism to sense, but interpretative of the data of sense. Idealism, shorn of its crudities and its extravagances, and based on reason rather than on Berkeley's analysis of sense-perception, is conquering the world. What Plato saw, Descartes, Leibniz, Kant, and Hegel have demonstrated. The once-dreaded materialism has lost all its terrors. Science itself has analyzed matter into an aggregate of dynamical systems, and speaks of energy in terms of will. The seemingly inert stone that we grasp in our hand is in reality an aggregate of an infinite number of rapidly-moving centers of energy. Our own will is the only energy of whose direct action we are immediately conscious, and we use our experience of it to explain other manifestations of energy to ourselves. Modern mathematics, that most astounding of intellectual creations, has projected the mind's eye through infinite time and the mind's hand into boundless space. The very instants of the beginnings of the sun's eclipses are predicted for centuries and æons to come. Sirius, so distant that the light from its surface, traveling at a rate of speed that vies with the lightning, requires more than eight and one-half years to reach us, is

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weighed and its constituents are counted almost as accurately as are the bones of our bodies. Yet in 1842 Comte declared that it was forever impossible to hope to determine the chemical composition or the mineralogical structure of the stars. An unexpected aberration in the motions of Uranus foretold the existence of an undiscovered planet at a given spot in the sky, and the telescope of Galle, turned to that precise point, revealed to the astonished senses what was certain to thought. A discrepancy in the weight of nitrogen extracted from the air we breathe but yesterday led Lord Rayleigh, by an inexorable logic, to the discovery of a new atmospheric constituent, argon. The analytical geometry of Descartes and the calculus of Newton and Leibniz have expanded into the marvelous mathematical method—more daring in its speculations than anything that the history of philosophy records—of Lobachevsky and Riemann, Gauss and Sylvester. Indeed, mathematics, the indispensable tool of the sciences, defying the senses to follow its splendid flights, is demonstrating to-day, as it has ever been demonstrated before, the supremacy of the Pure Reason. The great Cayley—who has been given the proud title of the Darwin of the English school of mathematicians—said a few years ago: *"I would myself say that the purely imaginary objects are the only realities, the ὄντως ὄντα in regard to which the corresponding physical objects are as the shadows in the cave; and it is only by means of them that we are able to deny the existence of a corresponding physical object; and if there is no conception of straightness, then it is meaningless to deny the conception of a perfectly straight line." The physicist, also, is coming to see that his principle of the conservation of energy in its various manifestations, is a new and startling proof of the fundamental philosophical principle of self-activity. Energy manifests itself as motion, heat, light, electricity, chemical action, sound. Each form of its manifestation is transmutable into others. The self-active cycle is complete.

But it is not from the domain of natural science alone that illustrations of the all-conquering power of thought can be drawn. The genius of Champollion has called to life the thoughts and deeds of Amenotep and Rameses, and what appeared to sense as rude decorative sketches on the walls of temple and of tomb are seen by the understanding to be the recorded history of a great civilization in the valley of the Nile. The inscrutable Sphinx, that watchdog of the Pyramids, "unchangeable in the midst of change," which sat facing the coming dawn for centuries before the storied siege of Troy, now looks down on modern men who write the very words of its builders in the language of Shakespeare and of Milton. The cries of savage

*Presidential Address, British Association for the Advancement of Science, Southport, 1883.

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man, the language-symbols of the early Aryans, and the multiform and complicated tongues of modern Europe, all so seemingly diverse to the ear and to the eye, have been the foundation for the sure laws of comparative philology that the labors and insight of Bopp and Grimm and Verner have built upon them. All these, and the many triumphs like them, are victories of insight; each marks a new stage in the conquering progress of the reason, by which it finds itself in every part and phase of the cosmos and its life.

I regard this insight as to self-activity and the primacy of reflective thought as the profoundest that philosophy has to offer; and, instead of being urged, as in centuries past, in antagonism to the teachings of science, it is now becoming the joint conclusion of philosophy and science together. It pulsates, too, in the world's grandest poetry and most exquisite art. It is the very soul of the verse of Homer and of Dante, of Shakespeare and of Goethe. It makes the marble of Phidias glow with life, and it guides the hand of Raphael and Michael Angelo as they trace their wondrous figures with the brush. It gives immortality to the most beautiful of temples, the Parthenon, that

> friend to man, to whom thou sayest,
> "Beauty is truth, truth beauty—that is all
> Ye know on earth, and all ye need to know."

It is also the inspiration of that superb medieval architecture that bears the name of the conquerer of Rome, which has given to Northern Europe its grandest monuments to the religious aspiration and devotion of the Middle Ages.

What, then, does this insight signify, and what is its bearing upon our educational ideals? Obviously the possession of an insight such as this, wrested from nature by the hand of science and from history by that of philosophy, must serve in many ways to guide us in estimating the importance of human institutions and educational instruments. We cannot accept either of these without question from the hands of a tradition to which our modern philosophy and our modern science were wholly unknown; nor can we blindly follow those believers in a crude psychology who would present us with so many mental faculties to be trained, each by its appropriate formal exercise, as if they were sticks of wood to be shaped and reduced to symmetry and order. Mental life, as Wundt so forcibly says,* "does not consist in the connection of unalterable objects and varying conditions. In all its phases it is process; an active, not a passive, existence; development, not stagnation." Herein is the mental life true to nature. Like nature, it is not fixed, but ever changing. This unceasing

*Lectures on Human and Animal Psychology (New York, 1894), p. 454.

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change, necessary to both growth and development, gives to life its reality and its pathos. It gives also to education its unending character, and the clew to its wisest processes.

The question that I am asking, What knowledge is of most worth? is a very old one, and the answers to it that have been handed down through the centuries are many and various. It is a question that each age must put to itself, and answer from the standpoint of its deepest and widest knowledge. The wisest philosophers have always seen, more or less clearly, the far-reaching character of the question and the great importance of the answer. Socrates and Plato, Augustine and Aquinas, were under no illusions as to it; but often in later years the deeper questions relating to educational values have been either lost sight of entirely or very superficially dealt with. Bacon clothes in attractive axiomatic form some very crude judgments as to the relative worth of studies. Rousseau risks his reputation for sobriety of judgment in outlining an educational program. Herbert Spencer turns aside for a moment from his life-work to apotheosize science in education, although science is, by his own definition, only partially unified knowledge. Whewell exalts mathematics in language only less extravagant than that in which Sir William Hamilton decries it. In similar fashion, others, holding a brief for some particular phase or department of knowledge, have come forward crying, Eureka! and proclaiming that the value of all studies must be measured in terms of their newly-discovered standard. The very latest cry is that studies and intellectual exercises are valuable in proportion as they stimulate enlarged brain areas; thus making the appreciation of Shakespeare, of Beethoven, and of Leonardo da Vinci solely a function of the circulation of the blood.

But to sciolists of this type philosophy and science can now make common answer. If it be true that spirit and reason rule the universe, then the highest and most enduring knowledge is of the things of the spirit. This subtle sense of the beautiful and the sublime which accompanies spiritual insight, and is part of it, is the highest achievement of which humanity is capable. This sense is typified, in various forms, in the verse of Dante and the prose outpourings of Thomas á Kempis, in the Sistine Madonna of Raphael, and in Mozart's "Requiem." To develop this sense in education is the task of art and literature, to interpret it is the work of philosophy, and to nourish it the function of religion. Because it most fully represents the higher nature of man, it is man's highest possession, and those studies that directly appeal to it and instruct it are beyond compare the most valuable. This has been eloquently and beautifully illustrated by Brother Azarias, that profound scholar who was taken from us all too soon. "Take a Raphael or a Murillo," he says.* "We

*"Phases of Thought and Criticism" (New York, 1892), pp. 57, 58.

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gaze upon the painted canvas till its beauty has entered our soul. The splendor of the beauty lights up within us depths unrevealed, and far down in our inner consciousness we discover something that responds to the beauty on which we have been gazing. It is as though a former friend revealed himself to us. There is here a recognition. The more careful has been our sense-culture, the more delicately have our feelings been attuned to respond to a thing of beauty and find in it a joy forever, all the sooner and the more intensely do we experience this recognition. And therewith comes a vague yearning, a longing as for something. What does it all mean? The recognition is of the ideal." Toward the full recognition and appreciation of this insight into the great works of the Spirit, whether recorded in literature, in art, or in institutional life, higher education should bend all its energies. The study of philosophy itself, or the truly philosophic study of any department of knowledge—however remote its beginnings may seem to be—will accomplish this end. The ways of approach to this goal are as many as there are human interests, for they are all bound together in the bonds of a common origin and a common purpose. The attainment of it is true culture, as Mr. Matthew Arnold has defined it,* "the acquainting ourselves with the best that has been known and said in the world, and thus with the history of the human spirit."

We now come in sight of the element of truth and permanence in that humanism which Petrarch and Erasmus spread over Europe with such high hopes and excellent intentions; but which Sturm, the Strassburg schoolmaster, reduced to the dead, mechanical forms and the crude verbalism that bound the schools in fetters for centuries. Of Humanism itself we may say, as Mr. Pater says of the Renaissance of the fifteenth century, that† "it was great rather by what it designed than by what it achieved. Much which it aspired to do, and did but imperfectly or mistakenly, was accomplished in what is called the *éclairissement* of the eighteenth century or in our own generation; and what really belongs to the revival of the fifteenth century is but the leading instinct, the curiosity, the initiatory idea." Many of the representative humanists were broad-minded men whose sympathies were with learning of every kind. Erasmus himself writes with enthusiasm of other branches of knowledge than literature. "Learning," he says,‡ "is springing up all around out of the soil—languages, physics, mathematics, each department thriving. Even theology is showing signs of improvement." But unfortunately this broad sympathy with every field of knowledge was not yet widespread. The wonders and splendor of nature that had brought into

*Preface to "Literature and Dogma" (New York, 1889), p. xl.
†Pater, "The Renaissance" (New York, 1888), p. 34.
‡Froude, "Life and Letters of Erasmus" (New York, 1894), p. 186.

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existence the earliest religions and the earliest philosophies were now feared and despised as the basis of paganism; and on wholly false grounds a controversy was precipitated as to the relative worth of literature and of science that in one form or another has continued down to our own day. The bitterness with which the controversy has been carried on, and the extreme positions assumed by the partisans of the one side or the other, have concealed from view the truth that we are now able to perceive clearly—the truth that the indwelling Reason by whom all things are made is as truly present, though in a different order of manifestation, in the world of nature as in the world of spirit. One side of this truth was expressed by Schelling when he taught that nature is the embryonic life of spirit, and by Froebel when he wrote,* "The spirit of God rests in nature, lives and reigns in nature, is expressed in nature, is communicated by nature, is developed and cultivated in nature." The controversy as to the educational value of science, so far, at least, as it concerns educational standards and ideals, is, then, an illusory one. It is a mimic war, with words alone as weapons, that is fought either to expel nature from education or to subordinate all else in education to it. We should rather say, in the stately verse of Milton,

> Accuse not Nature; she hath done her part;
> Do thou but thine.

And that part is surely to study nature joyfully, earnestly, reverently, as a mighty manifestation of the power and grandeur of the same Spirit that finds expression in human achievement. We must enlarge, then, our conception of the humanities, for humanity is broader and deeper than we have hitherto suspected. It touches the universe at many more points than one; and, properly interpreted, the study of nature may be classed among the humanities as truly as the study of language itself.

This conclusion, which would welcome science with open arms into the school and utilize its opportunities and advantages at every stage of education, does not mean that all studies are of equal educational value or that they are mutually and indifferently interchangeable, as are the parts of some machines. It means rather that the study of nature is entitled to recognition on grounds similar to those put forward for the study of literature, of art, and of history. But among themselves these divisions of knowledge fall into an order of excellence as educational material that is determined by their respective relations to the development of the reflective reason. The application of this test must inevitably lead us, while honoring science and insisting upon its study, to place above it the study of

*"Education of Man" tr. by W. N. Hallmann, New York, 1888), p. 154.

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history, of literature, of art, and of institutional life. But these studies may not for a moment be carried on without the study of nature or in neglect of it. They are all humanities in the truest sense, and it is a false philosophy of education that would cut us off from any one of them or that would deny the common ground on which they rest. In every field of knowledge which we are studying is some law or phrase of energy, and the original as well as the highest energy is Will. In the world of nature it is exhibited in one series of forms that produce the results known to us as chemical, physical, biological; in the history of mankind, it is manifested in the forms of feelings, thoughts, deeds, institutions. Because the elements of self-consciousness and reflection are present in the latter series and absent in the former, it is to these and the knowledge of them that we must accord the first place in any table of educational values.

But education, as Mr. Froude has reminded us,* has two aspects. "On one side it is the cultivation of man's reason, the development of his spiritual nature. It elevates him above the pressure of material interests. It makes him superior to the pleasures and pains of a world which is but his temporary home, in filling his mind with higher subjects than the occupations of life would themselves provide him with." It is this aspect of education that I have been considering, for it is from this aspect that we derive our inspiration and our ideals. "But," continues Mr. Froude, "a life of speculation to the multitude would be a life of idleness and uselessness. They have to maintain themselves in industrious independence in a world in which it has been said there are but three possible modes of existence—begging, stealing, and working; and education means also the equipping a man with means to earn his own living." It is this latter and very practical aspect of education that causes us to feel at times the full force of the question of educational values. Immediate utility makes demands upon the school which it is unable wholly to neglect. If the school is to be the training ground for citizenship, its products must be usefully and soundly equipped as well as well disciplined and well informed. An educated proletariat—to use the forcible paradox of Bismarck—is a continual source of disturbance and danger to any nation. Acting upon this conviction the great modern democracies—and the time seems to have come when a democracy may be defined as a government, of any form, in which public opinion habitually rules—are everywhere having a care that provision be made for the practical, or immediately useful, in education. This is as it should be, but it exposes the school to a new series of dangers against which it must guard. Utility is a term that may be given either a very broad or a very narrow mean-

*"Short Studies on Great Subjects" (New York, 1872), II; p. 257.

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ing. There are utilities higher and utilities lower, and under no circumstances will the true teacher ever permit the former to be sacrificed to the latter. This would be done if, in its zeal for fitting the child for self-support, the school were to neglect to lay the foundation for that higher intellectual and spiritual life which constitutes humanity's full stature. This foundation is made ready only if proper emphasis be laid, from the kindergarten to the college, on those studies whose subject-matter is the direct production of intelligence and will, and which can, therefore, make direct appeal to man's higher nature. The sciences and their applications are capable of use, even from the standpoint of this higher order of utilities, because of the reason they exhibit and reveal. Man's rational freedom is the goal, and the sciences are the lower steps on the ladder that reaches to it.

Splendid confirmation of this view of science is found in the great Belfast address in which Professor Tyndall stormed the strongholds of prejudice one-and-twenty years ago. Said Professor Tyndall:*

"Science itself not unfrequently derives motive power from an ultra-scientific source. Some of its greatest discoveries have been made under the stimulus of a non-scientific ideal. This was the case amongst the ancients, and it has been so amongst ourselves. Mayer, Joule, and Colding, whose names are associated with the greatest of modern generalizations, were thus influenced. With his usual insight, Lange at one place remarks that 'it is not always the objectively correct and intelligible that helps man most, or leads most quickly to the fullest and truest knowledge. As the sliding body upon the brachystochrone reaches its end sooner than by the straighter road of the inclined plane, so through the swing of the ideal we often arrive at the naked truth more rapidly than by the more direct processes of the understanding.' Whewell speaks of enthusiasm of temper as a hindrance to science; but he means the enthusiasm of weak heads. There is a strong and resolute enthusiasm in which science finds an ally; and it is to the lowering of this fire, rather than to the diminution of intellectual insight, that the lessening productiveness of men of science in their mature years is to be ascribed. Mr. Buckle sought to detach intellectual achievement from moral force. He gravely erred; for without moral force to whip it into action, the achievements of the intellect would be poor indeed.

"It has been said that science divorces itself from literature; but the statement, like so many others, arises from lack of knowledge. A glance at the less technical writings of its leaders—of its Helm-

*Presidential Address, British Association for the Advancement of Science, Belfast, 1874.

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holtz, its Huxley, and its Du Bois-Reymond—would show what breadth of literary culture they command. Where among modern writers can you find their superiors in clearness and vigor of literary style? Science desires not isolation, but freely combines with every effort toward the bettering of man's estate. Single-handed, and supported not by outward sympathy but by inward force, it has built at least one great wing of the many-mansioned home which man in his totality demands. And if rough walls and protruding rafter ends indicate that on one side the edifice is still incomplete, it is only by wise combination of the parts required with those already irrevocably built that we can hope for completeness. There is no necessary incongruity between what has been accomplished and what remains to be done. The moral glow of Socrates, which we all feel by ignition, has in it nothing incompatible with the physics of Anaxagoras which he so much scorned, but which he would hardly scorn to-day. * * *

"The world embraces not only a Newton, but a Shakespeare; not only a Boyle, but a Raphael; not only a Kant, but a Beethoven; not only a Darwin, but a Carlyle. Not in each of these, but in all, is human nature whole. They are not opposed, but supplementary; not mutually exclusive, but reconcilable. And if, unsatisfied with them all, the human mind, with the yearning of a pilgrim for his distant home, will still turn to the Mystery from which it has emerged, seeking so to fashion it as to give unity to thought and faith—so long as this is done, not only without intolerance or bigotry of any kind but with the enlightened recognition that ultimate fixity of conception is here unattainable, and that each succeeding age must be held free to fashion the mystery in accordance with its own needs—then, casting aside all the restrictions of materialism, I would affirm this to be a field for the noblest exercise of what, in contrast with the knowing faculties, may be called the creative faculties of man."

The actions of the lower animals are conditioned by sensations and momentary impulses. Man, on the other hand, is enabled to raise himself above fleeting sensations to the realm of ideas, and in that realm he finds his real life. Similarly, man's will gradually frees itself from bondage to a chain of causes determined for it from without, and attains to a power of independent self-determination according to durable and continuing ends of action. This constitutes character, which, in Mr. Emerson's fine phrase, is the moral order seen through the medium of an individual nature. Freedom of the will is not, then, a metaphysical notion, nor is it obtained from nature or seen in nature. It is a development in the life of the human soul. Freedom and rationality are two names for the same thing, and their

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highest development is the end of human life. This development is not, as Locke thought, a process arising without the mind and acting upon it, a passive and pliable recipient. Much less is it one that could be induced in the statute of Condillac and Bonnet. It is the very life of the soul itself.

There is a striking passage in "The Marble Faun" in which Hawthorne suggests the idea that the task of the sculptor is not, by carving, to impress a figure upon the marble, but rather, by the touch of genius, to set free the glorious form that the cold grasp of the stone imprisons. With similar insight, Browning puts these words into the mouth of his Paracelsus:

> Truth is within ourselves; it takes no rise
> From outward things, whate'er you may believe.
> There is an inmost center in us all,
> Where truth abides in fullness; and around,
> Wall upon wall, the gross flesh hems it in,
> This perfect, clear perception. * * *
>
> * * * And, to know,
> Rather consists in opening out a way
> Whence the imprisoned splendor may escape,
> Than in effecting entry for a light
> Supposed to be without.

This is the poetical form of the truth that I believe is pointed to by both philosophy and science. It offers us a sure standing-ground for our educational theory. It reveals to us, not as an hypothesis but as a fact, education as spiritual growth toward intellectual and moral perfection, and saves us from the peril of viewing it as an artificial process according to mechanical formulas. Finally, it assures us, that, while no knowledge is worthless (for it all leads us back to the common cause and ground of all), yet that knowledge is of most worth which stands in closest relation to the highest forms of the activity of that Spirit which is created in the image of Him who holds nature and man alike in the hollow of His hand.

THE NEXT STEP IN THE EDUCATION OF THE INDIAN.

BY DR. W. N. HAILMAN, SUPERINTENDENT OF INDIAN SCHOOLS, WASHINGTON, D. C.

[STENOGRAPHIC REPORT.]

The next step in the education of the Indian can hardly be taken, because the first one is not yet complete. This task has been relegated to the government, and the American people have given them-

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selves over to a culpable lethargy and indifference to this work which has well-nigh ruined it; and I trust that my words to-night, addressed to those who are leaders of the hearts and hands of the people that are to come, will cause them to enlist with me in the effort to solve this question.

The Indian problem is not the Indian's problem. It is the white man's problem. The Indian hasn't brought it about. We have brought it about. The Indian question doesn't trouble the Indian, but it should and does trouble the white man. The Indian question is, upon our body politic, a sore spot, which has gradually poisoned the blood of the nation, which is doing an injury to you and to us all, and it is necessary, for our sake and for the sake of our dear country, that something should be done by the American people to get rid of this disease. It will always be an injury, when in a nation there are races, smaller bodies of people, that are not subject to the same laws that govern the bulk of the nation, but whose habits and training are entirely different. This is the case with the Indians. The Indians are subject to no law. They are not amenable to the law of the land. They have practically no laws among themselves. There is practically an organized, legalized lawlessness among them, and this lawlessness will breed much mischief. Until perhaps a quarter of a century ago, the only means that were used for solving the Indian question were the few philanthropic men and women missionaries working among them, and after a long time they gradually stepped aside, and the schoolmaster stepped in, or rather the schoolmistress stepped in, and she has accomplished now in a shorter time and in a far better way what the bullet could not accomplish during all the years that had passed. Yet the work of the schoolmistress is beset with untold difficulties. It has until lately been beset by difficulties which upset all the good that was sought to be accomplished on this line, through the wiles of the selfish politician; but the schoolmaster is now practically free and untrammeled. It now remains for us to take the next step; that is, the one that can bring full success, which is the education of the Indians. There can be no doubt that an education which inculcates the tastes and establishes the ideals of current American civilization constitutes the proper first step in the work of civilizing the Indians. This work is being fairly well done both in the schools for the Indian youth and by the influences brought to bear on older Indians at the agencies. There are perhaps 250 of these schools, scattered through the land, attended by perhaps 25,000 children, and all of these under the direction of the government. In addition to this, there are many schools conducted by missionary societies and philanthropic associations, in which large numbers of Indian children are being educated.

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but these schools must not be thought of as being of exactly the same character as our schools. The Indian does not rest upon tradition. He has been in contact with an entirely different social organization, with entirely different ideas from those with which our children are familiar. The Indian school must, of necessity, differ widely from the school for the white man, because, very naturally, the Indian has little taste for literary refinement or literary enjoyment. In fact, he hasn't yet learned to take the first step towards independent life or self-activity, which is the art of self-dependence, taking care of himself, and making his own livelihood. The Indian must first learn self-activity, independence. The next step leads to interesting him in industrial pursuits in the farming districts; in the cattle-raising districts, to herding cattle; and in districts where perhaps manufacturing may be carried on, to manufacturing. In all the districts, it leads to teaching the girls sewing and cooking, and to interesting them in all the work about these boarding schools. Gradually the next step will accustom the Indian to the white man's way of living, teaching him a life of cleanliness and a life of order, leading him to subordinate the various selfish instincts and cultivating the refinements of life, mutual trust, consideration, courtesy, politeness, and so on. I merely wish to impress this one fact upon you, that there is a difference between the Indian and any other class of people with which educators have to deal. It is equally evident that it is practically impossible to cultivate these tastes and to hold fast these ideals under the conditions and influences of tribal life on reservations. The recognition of this impossibility has led the government to the policy of allotments, by which tribal life is to be broken up and the Indian brought into the habits of industry and thrift incident to a life of individual responsibility and self-dependence.

Tribal life is based simply upon the desire to continue the tribe. The traditions of the past are adhered to. The idea of individual development, of which we make so much, does not exist in the typical tribe. There is not the same free government, based upon the development of the individual, as with us; but there is a half-despotic, a half-anarchic government there, which subordinates the individual to the traditions of the tribe, to its customs, etc., and disregards all else. We know these conditions, and upon returning to such conditions the Indian student, who has been taught the ideals of the white man at some of the different Indian schools, has little opportunity to make use of these things in his life. We hear superficial observers, sometimes hostile critics, say, that the Indian student, on his return to the reservation, relapses into the former state of half savagery. What would a student of Harvard or Yale, or perhaps a student of

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a less elevated institution, do, if, after coming from one of those institutions, which sought to lift him upon a higher plane—what would such a student do, if, taken from the slums, he were returned to the slums, and had no chance to get out of the slums? What good would it do to impress these higher ideals upon him, if, day after day, back among his old associates in the slums, he was constantly being ridiculed? Is it any wonder that the Indian sometimes relapses? What does he need in many cases? Why, he absolutely needs that you people, leaders of the people, should bring the nation to see that the Indian can never prosper so long as he remains upon the reservation. Remove that trouble by legislation, and leave the Indian free to go. The reservation must go, and it can go only through you, and unless the reservation does go we shall always have with us the serious white man's question about the Indian—not the Indian's question. The specific Indian school must go; must yield to ordinary common school education. There must be one law for all; the Indian must be made one of us. There must be one education for him and for us. He must be educated by the side of our children. He must be assimilated.

For the older Indians, however, the transition is too sudden, and a great number of them find themselves unable to succeed and therefore turn with feelings of hostility against the new institutions and cling stubbornly to their old ways of living. They learn to look with distrust upon education, and labor in many ways, by fear, cajolement, and ridicule, to regain the young educated Indian for the old ways of Indian life. Much wretchedness, therefore, comes to these young people who find among their own folk little or no opportunity to cultivate their new tastes and to hold fast their new ideals. With the breaking down of the tribal relations the leadership of the older Indians will have passed away, and a new order of things will follow upon this education of the Indian. There, of course, will at first be constantly the old Indian on the one side, exerting his influence; and on the other will be the comforts of civilized life—the new life free to him. But when an Indian student returns from one of our Eastern schools to the reservation, he is distrusted; and without help and encouragement, it is a wonder if he succeeds. At one time there was a young Indian educated at one of our schools. He returned to the reservation, and there he sickened and died, and they have a story that after his death his soul went to heaven, and there he applied for admission to the white man's heaven. Heaven seemed to have, in the minds of these Indians, departments. But the poor Indian was refused admission to the white man's heaven, because he was an Indian. He applied afterwards to the red man's heaven, and there also he was refused admission, because he was an edu-

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cated Indian. And so you see the unfortunate soul had no place to which it could go. That illustrates, very often, the future of the educated Indian who does not die. There is no place for admission into the white man's life. Let the Indian knock at the white man's door for work, or something to do, and he will be told, "You are an Indian; we don't want you." Then he goes back to his red people, and he says, "I have come back to you; let me be one of you again." But there he is not trusted, because he is educated, and they are afraid that he might in some way break up the tribe.

It is needful that we should look these things squarely in the face. Frequently it is not the best white men that come in contact with the Indians upon the reservation. They speculate in the blankets, and shoes, and coats, and other things which the government so lavishly bestows upon the Indians. It is a profitable piece of business, you know, buying articles of clothing and other supplies which the government has issued to the Indians. Out of all this, of course, the Indian has come to distrust the white man, and this, you see, must be so just so long as there is this relation between the two races, and so long as the Indian reservation is maintained.

This condition of affairs is complicated by the attitude of the white population near the Indian reservations and settlements and in the states inhabited by the Indians. While with many good people this attitude is one of helpfulness, confidence, and respect, it is possibly with the greater number one of hostility, distrust, contempt, and, in many cases, one of direct abuse and overreaching cupidity.

In Wisconsin there is a tribe of Indians, traveling from place to place, who have no regular marital relations, among whom a sort of polygamy prevails, with whom the woman is still the slave; but yet the cultured people of Wisconsin look on indifferently, and say, "It is not our business." It is a disgrace to a civilized community to have that condition of things, which is poisoning our youth and bringing demoralization to our community, and bringing shame upon us, but still the people say, "It is none of our business; it is the government's business."

I go through the beautiful State of Iowa as I come here to this convention, and right in the center of that beautiful state I find 400 Indians who have purchased from the white people 3,000 acres of land, and who are permitted to live there in a state of bigamy and polygamy, in all sorts of relations which are absolutely unlawful for the white man, giving an abominable example of the indifference with which we regard these important things and our relations and duties to the Indians. And yet the good people of the State of Iowa say, "It is not our business; it is the government's business." And so we American people go on and continue in a state of indifference

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and lethargy. Are we going to allow this condition to continue? Is Iowa never going to be stirred to realization of her sense of duty, and to ask the government to give her the right to educate and care for these Indians? It is the duty of those states to ask the government to let them assume the great responsibility of the care and development of these wards of the nation. Will not Wisconsin, and Iowa, and New York follow the example which has been tried in a helpless sort of a way by the government for some time past? Will not the other states where Indians are being held back take this same step? That is also a necessary next step in the work of civilizing the Indians.

This condition of affairs is further complicated by the fact that these states, as states, are relieved by the general government of all responsibility concerning the care and civilization of Indians. These are therefore apt to be looked upon as burdensome foreigners, and are practically excluded from the benefits of state institutions accorded to actual and prospective citizens. The necessary next step in the work of civilizing the Indians is, therefore, to remove these obstacles and to bring about conditions which may afford the Indians opportunities to engage in the pursuits of civilized life and to reap the fruits of their efforts as full citizens of the states which they inhabit.

Much may be done in this direction by missionary and other philanthropic associations interested in the welfare of the Indian; by efforts to secure for young educated Indians employment in families and communities, on the farms, and in the workshops of the states in which these Indians have their homes; and possibly, also, by the establishing of suitable industrial enterprises at or near Indian reservations and settlements.

Permanent good, however, will come only when the respective states shall realize their responsibility with reference to the Indians within their borders, and will claim from the general government the right to assume this responsibility, and with it, possibly under the supervision of the general government, the burden of carrying out the various treaty stipulations by which the consent of the Indians to become American citizens has been purchased.

And again, how much wretchedness comes to the Indian girls, if they are compelled to return to the reservation. After having learned some of the refinements of civilized life, and after having admired the beauties of life among the white people, they are thrown back upon the reservation, to be treated as chattels and to be sold to be some man's wife, or rather, some one's slave; to be, perhaps, an Indian's slave in the household.

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For all of these reasons I would appeal to you to do something to arouse an intelligent interest in this great problem.

I have nothing to say for the Indian as such. For him I do not plead. But I honor and respect the man in him—the possible American citizen. With this downtrodden part of him I sympathize deeply. To this and to the child of God in him I would ask you to extend the helping hand. In head and heart possibilities he is in no way inferior to his more favored white brother, who has learned to turn his face away from the past and to seek the better, higher future. Like his white brother, he loves freedom and his children, respects truth and integrity, unselfish devotion and forceful achievement. He sees as clearly, interprets as accurately, and reasons as cogently as his white brother. His soul is stirred by gratitude and good-will, is lifted by worshipful faith in the Father, as is the soul of his white brother. What he needs for fuller fellowship is but to turn away his face from the traditions of a past that has become barren and dead, and, like his white brother, to look upward to brighter and better things.

A superficial criticism sees in the Indian only his failures, and these, because of a false policy pursued by his white brother in mutual dealings, are sadly numerous and painfully wretched. But a kindlier wisdom and truer justice looks for the true Indian, not in his failures but in his successes. Indians have attained respectable skill as physicians and lawyers, as preachers and teachers, as farmers and artisans, as nurses of the sick, as philanthropic dispensers of material and spiritual good. It is these successes that reveal to us the true Indian. One such success teaches more real, fundamental truth than a thousand failures; and it is because such successes are many that I appeal to you.

You are the teachers of dawning public opinion. You, as instructors of the nation's youth, are the fountain-head of the nation's progress towards a broader humanity and a deeper Christianity. To you the future looks for whatever of patriotism, truth, justice, and higher benevolence may be its portion. To you, therefore, I appeal, that you give this matter earnest thought in order that you may direct rising generations aright.

The Indian reservation must be abolished, kindly but firmly; specific Indian education must yield to equal patriotic public education; from our Indian brother the Indian must be eliminated, that the brother may be seen and loved. The several states, as the strongest and most compact political organizations of our land, must see their duty and responsibility in this weighty work, and yours it is to reveal this to them.

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THE PRINCIPLES UPON WHICH THE CO-ORDINATION OF STUDIES SHOULD PROCEED.

BY DR. CHARLES DE GARMO, SWARTHMORE COLLEGE, SWARTHMORE, PA.

If of old it was considered unwise to put new wine into old bottles, so to-day must it be pronounced difficult to adjust old words to new ideas. Co-ordination, correlation, concentration of studies—who has defined their likeness or distinction? They are used almost interchangeably for an idea whose vagueness is evinced by the etymological diversity of its symbols. During the debate at Cleveland over the report on the correlation of studies, we have Dr. Harris declaring that the term has no right to the meaning ascribed to it by his critics, while they, in turn, charged that he had borrowed the term correlation for his report on the time-worn subject of educational values. From this fact we are at liberty to conclude, not that one party was right and the other wrong but only that there was world-wide diversity of meaning ascribed to the word correlation.

To determine clearly the significance of this new idea would, therefore, appear to be the first duty of a paper that presumes to discuss the principles upon which a co-ordination of studies should proceed.

There is little or no help for us in etymology antecedent to an examination of the scope of the idea itself. To co-ordinate is to place in the same rank, to establish in the relation of equality; to correlate is to bring into relation, perhaps of equality, perhaps of inequality; to concentrate is to bring to a focus at a center, but how, to what end, or to what center in the case of the studies does not appear in the etymology. The symbol failing us, we must turn perforce to the thing symbolized.

The condition that confronts us is slow evolution of race-ability and rapid evolution in knowledge. The boy of to-day is probably but little, if any, abler than his prototype of a thousand years ago, but even within the memory of the youngest person here to-day knowledge has advanced so rapidly and in so many directions that not even the ablest man in the longest life could hope to master even this margin of advance. How shall this new condition of things be reflected in the school? Will the antique course of study suitable to primitive civilization suffice to fit the child for his new environment? Nobody believes it; yet we are overwhelmed when we contemplate the demands that may be made upon us if we admit the need of fitting for life as it is. Our only hope lies in such a unifying organization of studies as shall, with the greatest economy of time

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and labor, most efficiently equip the child for his function as a future citizen of the present highly developed civilization. How to bring about this organization is the problem that bears the various names co-ordination, correlation, concentration of studies.

The man who has the first right to be heard upon the significance of the term correlation is our honored commissioner of education, Dr. Wm. T. Harris. It was he who prepared that part of the report of the committee of fifteen which pertains to the correlation of studies. The prevailing conceptions of that are, first, that the purpose of school education is to fit the child for his environment as a citizens, by enabling him to master its elements one by one as they are presented in the studies; and, second, that each study has a value or function in thus educating the child. The inevitable consequence of such a position is that the report should be what it is, a critique of educational values, each study, though standing alone, being reflected and completed in the others. The best illustration of this conception is our national government, which has three departments, the legislative, the executive, and the judicial. These departments are separate and independent, yet they are perfectly correlated, since each has a distinct function in effecting the common purpose of the three, namely, government. Legislation implies judicial approval and execution, so likewise the executive department implies and reflects the other two. With this image before him, Dr. Harris can easily maintain that each of the studies, history, literature, mathematics, natural science, and the like, has a specific function to perform in effecting the purpose of the school, and that there is the same sort of correlation existing among them that we find in the departments of government, since each influences the other, without which it would have small significance. Impelled by this conception of correlation, Dr. Harris has presented a masterly exposition of the rational grounds of our present choice of studies.

It is indeed good for us to be doubly certain that history, literature, grammar, and arithmetic should be taught in the public schools, yet we may fairly ask what new impulse this report may be expected to give in our educational progress. Taken by itself this view of correlation is so foreign to the problem of correlation as it appears in the daily work of the schoolroom that those who expected other things of the report may be excused for not having classified the estimation of educational values under the head of correlation of studies at all. The whole consideration is static and *a priori;* it does indeed give us logical reasons for what we are already doing, just as Kant investigates the presuppositions of the experience that everybody has. Such knowledge is for some purposes by no means useless, but this (Hegelian) exposition of the reasons for teaching the common

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branches does not touch the real problem involved in their correlation. The function of studies is something that in the nature of the case can never appeal to the consciousness of the pupil himself. Just as, until in his maturity he studies Dr. Harris' "Introduction to Philosophy," he will be totally unconscious of the fact that he uses the second figure of the syllogism every time he recognizes his father in the distance, so he must wait until he reads Dr. Harris' report on the correlation of studies to know the philosophical reason why he studied grammar and arithmetic. This functional correlation, furthermore, gives no hint as to the place and sequence of topics in the studies. Shall natural science be introduced in the primary or in the high school? The category that explains the function of science in education gives no answer. Beyond the fact that this consideration shows us that all the conventional studies must be put in, no man is assisted by the report in making his program. It is true the report expresses an opinion on this subject, but the opinion has no organic connection with the remainder of the report. These categories, voiceless as to the place and sequence of topics, are likewise dumb when interrogated as to methods of teaching. But the most depressing aspect of Dr. Harris' report on correlation appears when in an unhappy moment it gives the impression, that, like the separate departments of government, each study should be kept in strict isolation from the others. This idea, suggested by the effort to demolish a man of straw, viz., the fear that all studies are to lose their identity in a synthesis that shall teach everything at once, is a most unnecessary, illogical, and unfortunate one. Nor is the mischief greatly mitigated by Dr. Harris' more recent declaration, that what he said is not to be thus interpreted. It implies that the studies shall not help one another, but that they shall proceed in carefully isolated underground tunnels. The pupil discovers only at the end of his school career, if ever, the bearing that one has on the other in fitting him for his life-work. There is probably no fault so monumental in all our school and college education as this systematic isolation of the departments of knowledge. Life stimulates a man to focus all his power and knowledge upon every line of conduct. If he loses money in the market because he did not think of something he knew perfectly well, he does not forget a second time; but the school, giving the pupil a thousand advantages in the way of knowledge, thought-power, and culture, often through this very isolation of knowledge tracts renders him helpless in competition with one who knows but little but who has learned to co-ordinate what he does know. We have ascribed to Latin and Greek too much of the non-practical results of school and college education. The difficulty lies deeper. Its root is to be found in this very ingrained habit of non-correlation

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whereby the school helps to cancel the very advantages it furnishes by refusing to give, even in principle, the kind of discipline to be found in life.

All honor, then, to Dr. Harris for the contribution of his analysis. It is probably the best one ever made, and will clarify the thought of every man who reads it; but let us not delude ourselves with the idea that this static philosophic analysis of studies according to their educational function really solves any one of the important problems arising from the need of an economical organization of studies. There is something else. Correlation is not exhausted by the static demands of civilization, which affect the destiny but not the consciousness of the pupil. It extends to the daily work of the schoolroom as it appeals to the child's mind, to his capacity to grasp and assimilate knowledge; it includes the formation of his mental habit, whereby conduct becomes the resultant of correlated knowledge, not the effect of isolated impulse. There is, in short, a correlation resting upon psychological grounds, which does for the studies what civilization does for individuals, rendering them mutually helpful to one another, enabling each to be helpful to all and all to each. This is a correlation whose investigation is the end and aim of all our study of the child. It may be confidently affirmed, therefore, that the most practical, interesting, important, and even vital phases of correlation come under the head of psychological rather than of social or civil considerations. Do we ask what the organization of the curriculum should be, that we may best economize time, that we may most effectively appeal to the pupil's natural love of learning, that we may secure the quickest and most permanent assimilation of knowledge, that we may most compactly present the essentials of modern learning, and that we may promote the greatest possible facility in the concentration of thought upon conduct? The answer to all these inquiries must be found in the correlation of studies upon the basis of the nature of the child.

There is no present need of another critique upon educational values; that work has been sufficiently well done for our day and generation. Progress lies in the other direction. Of the two aspects of correlation, the first, that urged by Dr. Harris, has indeed all the validity that naturally belongs to an estimation of the educational value of studies, but as a guide to their real organization and their presentation to the children, it is like the moon, bright but barren; whereas the other, that based upon the nature of the child, is rich with the possibilities of life and progress. In it the teacher finds a source of infinite suggestiveness, through it he has a means for touching all the springs of activity in the child, and by its agency he is

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enabled to secure in each child the highest possible attainments in the application of knowledge to conduct.

The ground having now been cleared, and the two kinds of correlation set clearly before us, we may proceed rapidly to the consideration of the principles that must dominate the co-ordination of studies in the psychological sense.

We need, first of all, to distinguish between a correlation that has its roots deep in the inherent relations of studies and that transient association of topics that springs from a desire to give vivacity and color to the instruction. The former teaches the pupil to discover the relations that are abiding and important, and helps him to form the habit of focusing his knowledge upon his conduct; the latter tickles his fancy, claims his passing attention, but leads to no permanent interests and develops but small tendency to search for the really true and essential relations among things.

We could, of course, associate butter with butterflies, and cows with cowslips, but though such associations might indicate ingenuity, they would never be an index of wisdom. If the correlations are to be productive of good results for interest and conduct, they must be founded on essential rather than accidental relations.

Any arrangement of studies, therefore, that might just as well have been otherwise, hardly belongs to correlation in the scientific sense; it should be classified rather with educational devices for enlivening instruction.

The first and in many respects the most imperative need of correlation is a better articulation of the parts of what are now recognized as departments of education, such as natural science, geography, language, history, etc. To take but a single illustration: It has been the custom of the schools to separate geography into several isolated parts, such as political, mathematical, commercial, and physical, and to present each part separately in a series of facts and definitions, no series having any appreciable connection with the others in the mind of the child. Not only is geography isolated from other related studies, but its most intimately related parts are rigidly isolated from one another. The result is unfortunate alike for knowledge and for mental habit. Geography is a concrete epitome of civilization, and through a study of its elements of difference, as overcome and utilized for the benefit of man through productive industry, business, commerce, government, newspapers, education, and society, the pupil may comprehend, as in no other way, the essential conditions of good citizenship and of personal prosperity and happiness. Along with a study of the elements of difference in lands, climates, productions, and peoples, there should be the study of their harmonious utilization through human industry and institutions. Under these conditions

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alone does geography attain its true value as an instrument for the education of the people.

The first principle, therefore, upon which the co-ordination or correlation of studies should proceed is, that the various topics in each great department of knowledge should be articulated in accordance with their true and abiding relations, restricted and guided always by the child's capacity to understand; for, then, in the mind of the child, the knowledge of these constituent elements will be no longer characterized by the inertness that is inevitable to isolation. Co-ordination among the elements of study is antecedent to correlation among the departments themselves, since, other things being equal, the educational value of a correlation depends upon the closeness and importance of the relations to be established, and it seems to lie in the nature of the case that the elements of geography, for instance, have more intimate and important relations to one another than geography can possibly have to literature, mathematics, or any other study. It is our first duty, therefore, to re-examine each of our leading studies, like history, language, geography, science, mathematics, in order, in the light of the child's capacity, to discover, at each stage of advance, the most effective correlation possible among its various elements. The principle that must govern each of these correlations must, after the child's comprehension has been taken into account, be the end to be subserved by the study. Every subject of instruction has some essential function in fitting the child for life, in revealing to him some phase of the future relations that should exist between him and his organized fellow-men, and it is this ultimate purpose, exhibited so forcibly in Dr. Harris' report, that must show how the correlation is to be made. In the case of geography, the prevailing unifying idea is the economic and social utilization of the elements of difference as they exist in the world of nature and of man. It is this idea, therefore, that, in geography, must determine the process of correlation.

It must not be assumed, however, that the co-ordination of each separate department is altogether a separate problem, for the compactness and unity of the whole course and the utilization of the intimacy of the cross-relations existing among the studies depend, in a large measure, upon the observance of common principles of sequence in the organization of the various departments.

If each subject had a principle of sequence differing essentially from that of every other, the correlation of studies would thereby be practically prohibited. The complexity of this subject of sequence makes it the most difficult part of the whole problem of correlation. In its solution, at least three factors must be taken into consideration, two pertaining chiefly to the child, and one to the subject-matter.

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I would point out, first, that in the early stages of the instruction in all branches, the past experience of the child and the experience easily obtainable from his natural and social environment, is an important factor in the determination of a proper sequence. But this influence is a perpetually changing one, and is alike in no two school neighborhoods. The environment in the city differs vastly from that of the country, while different cities, different parts of the same city, and different rural neighborhoods present widely varying aspects. Imperative though it is that we take environment seriously into account in the determination of the choice and sequence of topics, yet, on the whole, it seems in itself more of a disorganizing than an organizing principle. It is only by isolating and emphasizing certain of its elements that the teacher can make environment contribute to unity of studies.

The second psychological factor that I would mention is a formal and constant one, holding to a large extent for all children alike. It pertains to the various stages of mental development, observable in all children. The advantage of such a principle is easily perceived, since, if children have common stages of development, we can, by grading them properly, easily adapt the work of each study to the class, and, using a common principle of selection for the various topics in the different branches, we can bring them into important perceivable relations. This fact explains why the Herbartians lay so much stress upon the so-called culture epochs as a guide to sequence. The value and limitations of the principle are discussed in Dr. Van Liew's masterly exposition to be found in the new "Year-Book of the Herbart Society for the Scientific Study of Teaching." The limits of the present paper preclude further discussion of this point.

The third factor in determining sequence is the logical unfolding of the studies themselves as completed systems of thought. This order, though of undoubted significance, is not the one in which these subjects were actually developed, and it is often at sad variance with the child's understanding and interest. It did very well as a principle of sequence so long as the child was left out of the calculation, but taken by itself is now quite inadequate to a solution of the problem.

This whole problem of sequence is so new, so complicated, so fundamental, that its adequate discussion is quite beyond the range of a limited paper like the present.

We come now to the co-ordination of studies in the wider sense of discovering and bringing to consciousness the still intimate relations that actually exist among the various departments of learning. History has relations to geography, geography to science, science to

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number, and literature to all of these. How can these natural relations be utilized to enhance the interest and insight of the pupil and to aid in forming the desirable habit of bringing all pertinent knowledge to bear on conduct?

It is here that we come for the first time to the conventional pedagogical use of the word "concentration." It originated with Ziller, and signified with him that about the culture studies, history, and religion, all other branches should be concentrated, or related in such a way as to take the principle of their selection and sequence from the two leading subjects, the sequence in these being determined by the so-called culture epochs. The reason for this arrangement is, that the end of education is conceived to be moral training through instruction, and the assumption is made that biblical and profane history are *par excellence* the studies that reveal the moral order of the world. The validity of the very groundwork of Ziller's scheme must, however, be questioned, at least on this side of the Atlantic; for, in the first place, we can hardly teach Biblical history in schools at all, and, in the second place, it would not be difficult to show that geography, as suggested in this paper, literature, and perhaps mathematical science, are quite as potent instruments as history for revealing the moral order of the world. At any rate, they do reveal relations that are quite as important. It is questionable wisdom, therefore, to subject these studies to principles of selection and sequence that arise from the needs of alien subjects. Ziller's reasons for thus attempting to fuse all the ideas of the child into a mass whose center is an ethical conception, are founded on two assumptions, as follows:

1. That the whole effort of instruction must be to turn the mind directly and constantly to the good, the influence of indirect moral teaching being denied or ignored.

2. That interest and volition grow in strength as ideas are unified and concentrated.

Neither of these assumptions is well sustained by psychology or experience.

To keep continually harping on the strings of sensibility, to point a moral to every tale, to preach a perennial sermon in the schoolroom, is to make moral prigs or moral rebels. As Dr. Harris well says in his report, "The child protects his inner individuality against effacement through external authority by taking an attitude of rebellion against stories with an appended moral." If this is true of literature, which has a distinct moral content, what must be the result of constantly trying to arouse the moral sense through the agency of non-moral subjects like mathematics and science? Ziller's idea of moral training seems to be a pietistic attempt to dissolve the soul in sentiment; but all such efforts quickly reach their limit,

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especially in an age like the present, in which sentimentality is mostly confined to those who are not in contact with the active realities of life.

Not less defective is his second assumption, that interest and volition are proportional to the amount of association to be found among the ideas, for both interest and volition are checked by irrelevant, accidental, or opposing associations as much as they are assisted by pertinent and natural ones. We must, indeed, be able to focus the resources of the mind upon each line of conduct; but no two lines are likely to demand the same combination of ideas. It follows, therefore, that associations must be founded upon natural and important relations, not upon artificial or subjective ones.

However suggestive we may find Ziller's scheme of concentration, especially in the primary grades, the conclusion from this argument is, that for American schools it must be rejected in principle.

The ablest exposition and defense of this form of correlation though it must be confessed much modified by American conditions, experience, and common sense, is that from the pen of Dr. Frank McMurry in the "Herbart Year-Book," referred to a moment ago.

Another form of so-called concentration has been attempted in the United States, which places science at the center and which makes the ultimate unity of natural law the basis of correlation. This plan obliterates in principle the lines of investigation that gave us departments of study. Each concrete science blends with the others, while linguistic and mathematical form studies have only a borrowed validity, being merely modes of expression or judgment for the uttering of intrinsic thought. Philosophy does not question the existence of this ultimate synthesis of these fields of knowledge through a network of intertwining relations; but education may well question the advisability of adopting the step-by-step method of mastering knowledge, such as is pursued when we attack it along the lines of study indicated by near, closely connected, and obvious relations. Where cross-relations between different studies are close and more important than those determining the sequence in the individual studies themselves they may be utilized in correlation, but to set a child in the maze of recorded knowledge without the guidance of definite lines of study would be like abandoning him in a pathless forest.

This form of concentration which sacrifices all specific departments of study to an ideal philosophic unity, like that of Ziller, which subordinates most studies to a few, cannot, therefore, be unconditionally accepted as a guide to the correlation of studies in the American public schools.

It has been claimed in this paper, that, in order to effect the correlation of studies, violence should not be done to the integrity of

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any one of the great departments by making its choice and sequence of parts depend upon the convenience of alien branches, yet a word may be spoken concerning those studies in which the logical sequence is of the least and the psychological of the most importance. To this class belong, especially, literature, geography, and science. No less an author than Professor Huxley failed, even in the high school grades, when he attempted to teach biology strictly in accordance with the logical order of evolution in nature. He found it better to follow the lead indicated by experience, environment, and interest. The biologist now emphasizes the study of the types that lie nearest to the experience and interest of his pupils. This being true, there is no good reason evident why the correlationist may not, in the early grades at least, determine the order of the types that the child shall study somewhat in accordance with the interests of other subjects. Yet, nevertheless, science must remain science; it must not be dissolved in literature, history, or geography.

Literature, again, has no necessary logical sequence. The theory of culture epochs gives us many hints as to the types best adapted to the mind of the child at the various epochs of its development. But, after granting that literature for the child shall be childlike (not childish), we are free to determine as we will the order in which we shall take it up. Nor should we lose sight of the purpose for which we correlate literature to other subjects. There is a literature of nature, of society, of history, of industry, and its function in all these cases is to idealize facts; it is to cast a glow of feeling over hard realities, to bring the æsthetic and moral into juxtaposition with the material and prosaic. Literature, therefore, is a natural correlating agency, serving to unite in the child's mind the ideal and the real. Knowledge must not be dissolved in literature, but there is no reason why the hardest of material facts should not be softened and idealized by the glow of her transcendent beauty.

Geography, as has been said, unites man and nature through industry and commerce, yet after a few elementary ideas have been acquired, we are free to choose any field of geographical knowledge that may be made desirable by the demands of history or science. I think it consonant with truth and sound educational doctrine to make these concessions to the ably defended position taken by my friend, Dr. Frank McMurry, in the "Year-Book" of the Herbart Society.

Finally, I have not deemed it prudent to discuss at length that form of correlation known as the relation of form to thought studies. No topic has of late years attracted so much attention from live teachers, and especially from the courageous work and writings of Col. F. W. Parker, whose example we seek to emulate, and whose noble contributions on this subject we are proud to honor.

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WHAT HAS BEEN ACCOMPLISHED IN CO-ORDINATION IN THE FIELD OF NATURAL SCIENCE.

BY WILBUR S. JACKMAN, COOK COUNTY NORMAL SCHOOL, ENGLEWOOD, ILL.

The great activity in the educational movement of the present time has resolved itself almost wholly into a search for fundamental principles. The times are distinctively scientific. We are entering upon an era that will be dominated by a belief in the supremacy of natural law. This creed, the simplest, the most comprehensive that the world has ever known, and the only one that all peoples can adopt, is to be from now henceforth the great rallying center, the great harmonizing influence, in every field of human thought. The debt of our age of science is not, alone, for the direct results, attained through scientific study and research; it is chiefly for that respect for natural law, daily growing more profound, which her achievements have engendered in every intelligent being.

All study is an investigation of relations for the purpose of finding the natural law by which they are determined. In a course of study, philosophically planned, the so-called different subjects of study must be so arranged that their natural and mutual relations shall most readily appear. The subject-matter of all study appears to be reducible to that which presents itself to us under the conception of energy. It is through the fundamental conception of energy that the essential unity of all subjects of study appears, and they, then, present themselves simply as varying aspects of the one all-embracing subject.

The region of human study includes the human being itself; it embraces the student himself among the things to be studied, all alike being subject to the same unyielding law. The human student himself is a means for the transfer and transformation of energy, not more divine in either his origin or destiny than the so-called brute, the plant, the cloud, or the sunbeam. The mutual and irreversible relations which the mind perceives to exist among the different subjects of study, and through which they become organized into a unified whole, may be termed, for convenience, logical relations; those through which the different subjects naturally unfold themselves to the mind of the student may be termed the psychological relations. If one may correctly judge by the nature of the different curriculums prepared in the past and at the present time, there is this fundamental difference between the old and the new education: the former placed the greater stress upon the logical relations of subject-matter and the latter places the emphasis upon the psychological relations.

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The psychological presentation of all the varied subjects in such an order that their logical and mutual relations shall most readily appear may be taken to be the essential meaning of correlation. It is with this idea in mind that schoolmen are now, in this country, attempting to formulate courses of study which shall be rational in conception and practical in application, and by which an effective policy of public instruction may be developed. The practical character of the results of research in the fields of natural science, and their wide application through inventions to the actual affairs of life, have given to even the average mind a powerful stimulus to study in that direction; and allured by the infinite outlook into the universe, which she presents to the contemplative mind, Science has drawn to her service a vast host of followers that includes in its numbers the most enthusiastic, open-minded, cultured, and conscientious men and women of the time.

The innovations in human belief and action produced in the past thirty-five years by the strides of science have at last reached the heart's core of the schools with revolutionary effect. The introduction of nature study into the common schools has made it obvious to the most obtuse that complete reorganization of the course of study is imperative.

In the work of reforming the curriculum of the primary and grammar schools nature study is playing the leading part. Its strength at present lies chiefly in its fulfillment of the public demand for that work which will acquaint the pupil with the conditions of modern life and at the same time best develop his native ability. Ultimately, it will take that high place which will be determined by the acquirements, the culture, and the liberality of mind that it can so richly give.

The entrance of nature study into the grammar school from the side of the high school was a misfortune; it should have come from the kindergarten. The high school teacher seeks wisdom in his subject; the kindergartner, in the child. As a result of the specialization, as well as the isolation, of subjects in the high schools, each branch of natural science had its champion who entered the lists determined to place his subject at the head or center of the grammar school course. There is not a subject whose cause was not urged with untiring vigor. Books were written, and, until quite recently, the educational journals were filled with the clamor of these air-beating knights of the various subjects, each seeking the immortality of a first place. The immediate effect of this spirited contention was chaotic confusion, and the luckless primary and grammar teachers were plunged into the depths of despair.

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The work of the first epoch, therefore, in the earliest serious attempt at correlation was directed to the misguided efforts to make some one subject the organic center of the course, to which all others should be tributary. Nature study was doubly unfortunate; with it the struggle was twofold. On one hand, it was rent by internecine strife—each separate branch endeavoring to assume the function of an organizing center for all the others; on the other hand, it was involved in a dispute regarding a more important question as to whether the organizing center for the entire course should be an historic or a scientific one. The first step towards a reconciliation of the conflicting interests was taken by a general recognition of the pedagogical principle, that subject-matter of whatever kind must be selected and arranged in all cases from a psychological standpoint, regardless of its logical relations. It has been actually demonstrated in scores of schoolrooms that every branch of science presented to the pupil, under normal conditions of life, some aspect of subject-matter which is psychologically near to the child. A human being is never too young to escape the influences of the natural forces which focus upon him, and it is but reasonable to expect that his early unconscious reaction should very soon develop a conscious and lively interest in them. The common experience of teachers upon this point has brought about a change of base in their efforts at correlating the different branches of science. It is evident that no subject can become an organic center of the course of study, but that all must be allowed to respond with equal freedom to the actual psychological necessities of the child. Under this conception of the arrangement of a course of study, the heat of the early discussions respecting the relative value of subjects has gradually cooled down, personal prejudices are fast disappearing, and a second most decided step in advance has been taken towards rational correlation.

Nature study found the grammar school course utterly poverty-stricken from the standpoint of actual thought material. The children were in a state of intellectual starvation. The only resource that remained within the reach of the teacher for preserving even a semblance of interest lay in the claptrap of device. Almost the whole attention of both teacher and pupil was devoted to the study of empty form. The wealth of material offered by the subject of nature study was a godsend. It was like sunlight breaking through gloomy clouds. The fields of thought opened up to hungry minds were entrancing. It is small wonder that a movement began which closely resembled a stampede. It actually seemed as though the three R's were about to lose their grip. In educational journals the question was gravely discussed as to how much of the old could be entirely discarded to make room for the new, and for a second

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time the work of the grammar school teacher was reduced to a state of apparently hopeless confusion.

From this struggle in the dark, the majority of teachers in the country have hardly, as yet, begun to emerge. The curriculum is still the subject of much aimless experimentation, and is too frequently the prey to whim. The half-educated and poorly-trained teacher, distinguished by his great enthusiasm for one favorite subject, is still abroad in the schools, crowding this way and that to the utter discomfiture of childhood and the disgust of public intelligence. This is the present condition of the school question, in the year of grace, eighteen hundred and ninety-five.

Nature study, with the proper correlation of its several departments fairly understood, holds at least a tentative place in the course of study for the primary and grammar grades. It has made a host of friends amongst the teachers. The permanency of its place, however, and its ultimate usefulness depend upon a still further step in correlation—that involving its natural relations to the already long-established subjects of study. The work yet remaining to be done in further correlation presents itself under two aspects, each of which involves a disputed question. The first may be broadly stated from a pedagogical standpoint as follows: Can the form studies—making, modeling, drawing, painting, reading, spelling, writing, form, and number—be well and sufficiently taught as a direct result of the natural demand of the thought-work that is presented in the subjects of science and history? The second and more difficult question is, Is there a natural basis for the correlation of science and history? In the first question, science and history have a common interest in the result. This paper, however, must deal chiefly with the relations of science. In the second question is involved the place of each in the curriculum.

Assuming what is generally conceded, that the subjects of science and history, with their various subdivisions, comprise the thought studies, it remains to consider specifically what demands the former subject has made for the various means of expression. Doubtless there are many teachers present who are better qualified to speak of what has been done in the country at large; but the writer will confine himself to what has been accomplished in the school with which he is connected.

Making is chiefly valuable in a preparation of conditions for study; that is, in the construction of apparatus. As a rule, the pupils have been so little accustomed to manual labor of this kind they are not skillful enough to entirely supply the demand. The interest is so great, however, that skill is rapidly acquired. No one has yet been able to plan a series of models or pieces of apparatus, probably, that

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would be accepted by the sticklers in manual training for the logical development of the subject. Yet, irregular as the work, as a rule, may be, its educational advantage is beyond question and the material is all that can possible be used.

Under the old regime, there was scarcely any attempt to give the pupils just conceptions of form through modeling in clay. Form was not studied. The subject-matter of nature study strongly appeals to the pupil through form, and much of the significance of what is studied depends upon this accurate conception which modeling is best fitted to give. The material is abundant and marvelous skill is rapidly acquired. Color as a study had no place whatever in the old schools. Through nature study it now mounts to a conspicuous and honorable position. The growth of the pupil's expression through the use of brush and color is strong and beautiful. The teacher's ignorance of the principles underlying this mode of expression has long hindered the children. It is not with the single leaf, the single fruit, or small object that the child should begin, but with the great irregular mass of the tree or landscape. This insures from the first the enlistment of the æsthetic sense, and it develops from the beginning an artistic touch. A similar elevation has been given the subject of drawing.

But it is concerning the relations of nature study to reading, writing, and number that the gravest apprehensions have been felt. The relation of reading to observation is close and organic. By it the pupil obtains new views of the subject he has himself studied, and he may avail himself of information respecting other allied subjects. The mind, to study, must reflect, and expression by writing is the handmaid of reflection. The mind thinks in judgments; but the indefinite judgments of childhood can become definite and accurate only through a determination of numerical relations.

As before mentioned, prior to the comparative recent advance of nature study the great drawback to school work was poverty of thought-material. Reading was nothing more than a struggle with words; institutes and educational journals wasted their energies in learned babble about methods, and, in the end, the schools did less for the pupils than they could have done for themselves had they been turned out upon the streets.

Writing was a prolonged and tedious wrestle with hieroglyphics, while the Great Sahara of arithmetic was scarcely even attempted. A few points respecting these subjects have been demonstrated. First, by a judicious and rational use of the thought-material furnished by the subject-matter of nature study and by means of the school printing-press, beginning with the first sentence that is presented to the child upon entering school, the subject of reading may

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be made to appear to him what it really is, namely, a means of enlarging his own thought through study. That correlates it naturally with observation. It should be here added, that, in this work, the subject-matter of history and literature, including the myth, is a valuable support and ally. It has been shown that the idiotic compilations of the majority of the reading charts and early readers, for the sake of stocking up a vocabulary, are absolutely unnecessary. The child may be taught to read from precisely the same motive that will actuate him as an adult to continue his reading, namely, the desire to enlarge his field of thought. He can be so taught that the printed word shall never appear in his consciousness above the level of a purely incidental thing; as merely a means of his mind to further thought, as the window-pane is a medium through which his eye reaches the landscape expanse.

And, finally, within the first three years of school life, not only may the mechanics of reading be mastered but a cultivated taste and a refined literary habit can be established which will have a beneficent effect upon all subsequent life, no matter how unfortunate the conditions may be.

The proper presentation of subject-matter involves a demand for an amount of written expression that puts the matter of formal training in this subject of writing beyond the shadow of a doubt. The mechanical difficulties are not conquered quite so early as in reading, on account of the later development, physiologically, of the organs concerned; but the final and timely mastery on the same plan is certain. From the first sentence written, the feeling grows with the pupil that writing, like reading, is simply a necessary means to his thinking.

In determining the relations of number work to nature study, less definite, because less persistent, work has been done. This work seems to most teachers especially hopeless. Definite judgments respecting the mathematical relations of matter and force are comparatively late in appearing in children, and in many teachers they have not appeared at all. But the full significance of form can only be understood when its proportions are definitely known; the value of force can only be known when it is accurately measured, and number work in nature study is therefore clearly implied. Suffice it to say, that, without the aid of mathematics, the grandest conception of nature possible to man must forever remain hidden from sight. As teachers more clearly realize this, more demand for number work will be made, and it is safe to venture the prediction, that the day is not distant when nature study will be regarded as sound a basis for arithmetic as it is now for other form studies.

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It may be said, in conclusion, that, at the present time, there is a fair agreement among teachers who have studied the question as to the basis upon which science may be correlated with all other subjects except one, namely, its yokefellow, history, including literature. The writer has discussed elsewhere ("Educational Review," for May, 1895,) at length, the basis for the correlation of these subjects, and only a mere mention of the points can be made here. The attempts at the correlation of the two subjects, thus far, have been but little more than efforts to find for the jingling words in one, appropriate rhyming companions in the other. So long as teachers relate nature study to the intellectual side of the mind, and history and literature to the moral side, it is evident that a chasm will exist between the two subjects. It is here submitted that a rational correlation can take place only on two conditions. First, that it can be shown that nature study does directly influence the moral character of the pupil; and, second, that the events of history be taken out of the domain of chance or whim and be referred for interpretation to the operation of natural law. When the importance of these two fundamental points is understood and the requirements of the two conditions are conceded, the mystery and difficulty attending correlation will rapidly disappear.

The teachers of the country will understand the principles of correlation long before they acquire sufficient skill to apply them in actual practice. It is safe to predict that we shall have to pass through an epoch of miserably poor teaching. The chief blunders and miseries of this stage will be due to the efforts to "make over" old methods for new purposes. Inventive genius is not called for more in mechanics to-day than in the schoolroom. If teachers could but learn this lesson and forget the making-over process, years of effort might be saved. Nevertheless, the teachers of this generation are called upon to begin the new work, and, beginning, they must expect to blunder. If we can do no more, we can at least transmit to posterity these blunders as evidence of our sincere desire for better things and as proofs of our courage in trying to attain them.

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WHAT HAS BEEN ACCOMPLISHED IN CO-ORDINATION IN THE FIELD OF HISTORY AND LITERATURE.

BY CHARLES A. McMURRY, NORMAL UNIVERSITY, NORMAL, ILL.

I. The effort to co-ordinate history and literature with the other studies has led, first of all, to a serious effort to determine the rank of history and literature among studies. This has led to valuable practical results. Chief among these results is the fact, that the highest quality and function of history and literature as culture forces have been brought prominently to light. The culture influence which these studies may exert upon the deeper thought and character of children until recently has been little understood or thought of. But the awakening along this line is bringing a rich treasure of culture and inspiration into our school course.

We are beginning to use some of our best American and English masterpieces with full appreciation of their educative power and value. For example, the "Courtship of Miles Standish," which we use in its complete form in reading classes of the sixth grade, has become an important link in the chain of culture influences which we wish to make effective with children. For them to take up with and appreciate the life and character of that plain and hardy Plymouth folk is to imbue them with one of the strongest and best sentiments that American history and civilization have yet manifested to the world. As a preparation for this sort of reading in the history lessons of fifth or beginning sixth grade, let children study the narrative of Puritan hardship and virtue as given in Nina Moore's "Pilgrims and Puritans." Then let them take Longfellow's "Miles Standish" in the regular reading lessons, and enter fully into its spirit. The fact, still more than the historian, will lay hold of their affections and sympathy. Most of us, no matter what our study of history, people the Plymouth shore with the forms of John Alden, Priscilla, and Miles Standish as Longfellow thought them. The poet has acquired complete ascendency. And well it is, for deep under this Puritan poem is the Puritan faith and grit which have entered into the backbone of our nation. And there is no other source from which children can better absorb this strong sentiment into their own spiritual life. This sort of literature has vigorous educative potency. It has been looked upon too much as a luxury, as an ornamentation, as an æsthetic charm for leisure hours; but it contains the fiber and strength of the oak. The true poet is no fair-weather prophet, no holiday entertainer. He abides with us through the

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storms of life. He touches the profounder chords of thought and feeling with a magic hand. In the hours of deepest national distress and danger the voices of Bryant, and Whittier, and Lowell have rung out in bugle notes of no uncertain sound, inspiriting the nation to its best effort. Our cherished poets and writers have more and better to teach us, and they know better how to teach and inspire than anybody else. Their lessons, in such graphic form as "Evangeline," "Snow Bound," "Vision of Sir Launfal," and "Thanatopsis," contain the essence and strength of our culture. They furnish the meat rather than the condiments of a strong ideal education. In measuring and estimating the value and rank of studies this sort of literature is coming distinctly to the front.

II. But co-ordination sets out, not only to determine the rank and value of studies but also their inter-relations and interdependence upon each other, just as the three co-ordinate departments of our government are of equal rank yet stand in close relation and dependence upon each other. The notion is, that, if children see the important relations and connections of history and literature to other branches, the combined effect of the studies as correlated will be much greater than if each is to exercise its influence separately. The studies, if linked together by casual and rational relations, re-enforce each other. In their union is strength; in their isolation and dismemberment is weakness.

Among teachers the conviction is becoming widespread that history and reading, as well as other studies, have been too much isolated from each other. Each study has stood by itself and been looked upon as complete in itself and in its influence. But the outcome of education is now sought in a strong mental unit, a character with a center toward which all educative influences converge. It must be built upon a simple framework of principles which control and harmonize all acquired habits, experience, and knowledge. If this character which the school studies help to form has a distinct center and unity, then the school studies themselves must have a unifying rather than a divergent and scattering tendency. It is impossible longer to satisfy teachers with that permanent isolation of studies which has thus far been the rule. We may well isolate each topic in a study for the purpose of a clear and distinct grasp of its central idea, but it should be at once linked back to related topics in its own and other branches. There is an important sense in which every study should be isolated and its important ideas kept apart, but to isolate a whole study and keep it apart by destroying or ignoring its necessary relations to other studies, is to break the organic connection of thought and to disregard the close practical associations which are ever apparent in real life.

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III. It is a fact that many school principals and superintendents are now rearranging and reorganizing the course of study, and the idea of co-ordination is having considerable influence with them both in the order and adjustment of studies and in the method of handling them in classes.

1. One influence of co-ordination in laying out school courses is seen in the effort to select parallel series of important topics in different studies and in so devising and arranging the parallel series as to keep in mind the mutual helpfulness of history and literature to each other and to the other branches. Thus, in several grades, the reading, history, geography, natural science, and language stand related to each other much like the strands of a well-made rope.

The literary series used in first, second, and third grades, namely, "Folk Lore Stories," "Robinson Crusoe," and "Greek Myths," are a distinct and positive aid and preparation for the reading exercises in the same grades. The "Wonder Book Stories," for oral narrative and discussion in third grade, supply also the best of reading for fourth grade. They provide, also, for the best incidental language drill, and suggest many suitable objects for natural science lessons.

Again, American history stories, beginning in fourth grade and continuing through the periods of exploration, colonial life, and the Revolution, for fifth, sixth, and seventh grades, not only give the children a lively and hearty introduction to the instructive part of American history for them but also open up the fields of literature and geography in such a natural and interesting sequence that a profitable partnership between the studies is manifest even to the children.

In the fifth grade, for illustration, a group of studies has been selected in parallel lines, so that they render valuable support to each other. The history stories of Hudson, Champlain, Penn, Washington, Columbus, Raleigh, and other explorers, dealing with the first survey and settlement along the Atlantic coast, run closely parallel with the geography of the Atlantic States in the same grade. But this history and geography of the Atlantic coast become an introduction to much of the literature used in the regular reading lessons of fifth and sixth grades. These literary materials are both American and European, just as the history stories of Raleigh, Hudson, Columbus, and Champlain are a link of connection between Europe and America.

The reading matter for fifth and sixth grades includes Higginson's "American Explorers," Hawthorne's "Grandfather's Chair," Longfellow's "Courtship of Miles Standish," "The Autobiography of Benjamin Franklin," Rolfe's "Tales from English History," "The Story of Ulysses," and "The Lays of Ancient Rome." The books just mentioned are only a spirited introduction to the body of myth, tradi-

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tion, historical narrative, and poetic masterpieces which embody in strong educative potency those ideas and characters and episodes in history which the master minds of literature have deemed best worthy of preserving. Such, also, are "Evangeline," Irving's "Sketch Book," "Snow Bound," "Hunting of the Deer," "Lady of the Lake," "Lay of the Last Minstrel," "Tales of Chivalry," the stories of Waverley, etc.

Along the lines just mentioned, history, literature, geography, and language are of strong mutual service to each other. These connections between studies are not artificial but natural. The early history stories are unintelligible without geography. Literary works like "Evangeline," "Miles Standish," "Hiawatha," "Lady of the Lake," "Tales of a Grandfather," and "Sketch Book" are so full of geographical picture and suggestion that considerable geographical detail and survey are necessary to their comprehension. On the other hand, nothing is able to contribute more interest to geography than stories, traditions, and poems which find their setting among these objects and places.

2. A second idea which the effort to co-ordinate literature and history with other branches has accentuated is, the setting out in each study of the distinct units of thought which form, as it were, the nerve ganglia of that subject. Before real co-ordination can begin we must have distinct centers of thought to which labor and effort can be directed. In history, for example, we are taking a few choice biographies, episodes, and epochs as the chief centers of study. In literature we are selecting the best complete masterpieces and treating them as wholes.

The emphasis which is being placed upon the relations between studies is leading to a clearer grasp of the necessary conditions for co-ordination. A few important topics in a study, fully treated, will give far better opportunity to trace relations than a multitude of facts in one study learned only in those relations.

We have been wont to look upon the facts of history or geography as a mass of material to be learned in its historical or geographical sequence. Under the influence of co-ordinating tendencies, we are seizing upon a few central topics in a study, and from each one as a central stronghold we sally out into the adjacent country and bring it under tribute. If it is a geographical topic, we find that the adjacent country furnishes historical and literary associations that stand in close and vital relations to the geography and need to be drawn into the discussion. As men have actually developed in society, we find history, geography, and literature, not distinct forces, each operating as a unit by itself, but combined and intermingled in a close network of mutual relations and dependencies. If our education is to be natural, practical, and according to the facts as apparent

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in life, it must see these close and vital relations, or the children may study the facts in the schoolbooks and not recognize them again when they see them in life.

The selection and setting out or isolation of a few leading topics in each study is one of the important conditions or preliminaries to a right treatment of studies. From this vantage ground we may see the powerful effect that a study of co-ordination is already having, and is destined to exert in still greater degree, upon the original selection and arrangement of topics in each study and upon the method of handling topics in classroom exercises.

If this doctrine is accepted by our schools and teachers, it is sure to effect a wide and radical change in the whole business of teaching.

Let us consider one other reason for attributing importance to this theory of the value of cross-relations between the studies. The significant and vital relations of a topic are often found, not in its connection with other topics in the same branch of study but in the deeper root connections with other studies. In the study of the oak tree, for example, the pure botanist would examine the leaf, flower, stem, and root, and classify and relate to other trees and plants on that basis. But these relations of the tree to other plants are not so important, either for the plant or for the child, as its relations to other things outside of botany. The tree gets its food from the soil and air, and its growth is influenced by water and sunshine, and these things belong to geology, physics, and astronomy. The circulation of the sap in the tree and the changes in the leaf-cells belong to physics and chemistry. For favorable environment and food, for the processes of internal development and growth, the tree is totally dependent upon these other sciences outside of botany. The cross-fertilization of the flowers by insects, the gall nuts and worms living upon the oak, are a part of its relation to zoology. Moreover, if the child is to get a legitimate and proper understanding of the oak tree, he must see it in these living and intimate relations. They are its dependence for life and growth. The artificial connections emphasized by our text-books are important for science and eventually for children, but if they are to understand these things as they exist in the outside world, they must see these vital causal relations.

The more we look into this matter the more we see that all appreciative and instructive study into nature is based upon an effort to follow up and understand these vital relations which are really cross-sections between the sciences. The person, therefore, who accuses the Herbartian pedagogy at this point of emphasizing superficial and accidental relations shows plainly that he has no proper understanding of the meaning of this educational movement.

But the same deeper connection of studies may be seen in the relations of history to other branches. Many things in history are

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better understood by seeing the relations to geography and literature than by a rigid tracing of chronological connections.

If you wish to understand Burgoyne's invasion, study the geography of New York and Canada, as well as Washington's movements and the plans of the British cabinet. If you wish to appreciate Schiller's masterpiece, "Wilhelm Tell," look into the traditions and geography of Switzerland. The geography of Scotland, of Italy, or of Greece will be threefold more attractive and suggestive of thought if we travel through these lands under the lead of the heroes of myth, tradition, and history who have made the mountains and valleys to echo with battle song and with the fame of great deeds. Not that geography, and history, and literature are to be mixed or confused. Our fundamental requirement is, that the topics in each study stand out clear and distinct. To trace important and numerous lines of connection between studies does not destroy the distinct identity of each any more than numerous railroad lines between cities impairs their corporate individuality.

3. A third idea which co-ordination is laboring specifically to work out in history and literature is a method of treatment of these central topics which will weld the links of connection with other studies.

4. A fourth idea that is practically operative is a constant tendency to estimate every topic from the standpoint of the children and their experience, thus bringing into relation and unity the school and home influences.

DISCUSSION.

DR. B. A. HINSDALE, University of Michigan, Ann Arbor.—The three papers that have been read open up a very wide field of discussion. As a matter of course, it is wholly impossible for any speaker to do more than comment upon two or three points that may have impressed themselves upon his mind as having been particularly important. I shall try to illustrate the meaning of the term *concentration* by focalizing the most of my remarks upon the first of the three papers.

First, however, I wish to call your attention for a moment to a single paragraph in Professor Jackman's paper that I have transcribed. He tells us, that, prior to the comparatively recent advent of nature studies in the school, the great drawback to school work was poverty of thought-material. This is true. He tells us further that reading was nothing more than a struggle with words. This is very largely false. He declares that institutes and educational journals wasted their energies in learned babble about methods. This contains a measure of truth and also a measure of falsehood. The paragraph concludes with the declaration that the old school did so little for the children that they would have been better off if they had been turned out upon the streets. Now, sir, I have been accustomed to extreme

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and radical statements in the discussion of educational topics, but I must confess that this last declaration has taken my breath quite away. I have no knowledge of any school that is more artificial and mechanical than the Chinese school, but I am willing to commit myself to the declaration that the Chinese children who attend it are better off then they would be without any school at all. When I say that the declarations which I have quoted are wholly or partly false, of course nobody here understands me as reflecting upon my friend Jackman in any ethical sense. What I mean to say is that his statements are very largely mistaken, that they are gross exaggerations. I shall take leave of this subject with observing that we teachers of the present generation are become very self-conscious and extremely self-complacent; so much so, in fact, that if Job were to return to the earth he would not taunt us by saying, "No doubt but you are the people and wisdom shall die with you!" but he would taunt us by saying, "No doubt but you are the people and wisdom was born with you!"

As respects Dr. De Garmo's paper, I have to observe, in the first place, that the term "co-ordination" was unfortunately chosen as its title. It seems to me rather that it should have been "concentration," because concentration is distinctly the culmination and climax of the argument.

In the second place, we have reason to congratulate ourselves that Dr. De Garmo has opened his discussion with definitions of his leading terms. I shall call attention to his definitions, especially to one of them. My first observation is, that I have been a little at a loss to know what he means. Referring to the syllabus that I hold in my hand, his expressions are "correlation shall be used," "concentration shall be used," etc. This smacks of fiat language, which I cannot suppose the doctor intends to use. On the other hand, he can hardly mean that the definitions which he sets down here are accepted definitions; because, in one instance, at least, this is decidedly not the case. I am, therefore, compelled to conclude that when he gives us these definitions he gives them as definitions that he thinks should be attached to these terms, and I shall, for the most part, say what I have to say about them on that basis.

I have no objection or criticism to urge to his definition of "correlation," except to say that originally it was limited to two things—two facts or ideas; but the term has been so extended in meaning, that, no doubt, it is now used in the broad and comprehensive sense in which he has employed it.

Secondly, I do not object to his use of the term "co-ordination," because it is undoubtedly used as he has used it.

I shall next refer to his definition of the third term. He says: "Concentration shall be used to denote that certain primary studies shall form the center or nucleus of the curriculum to which the other studies, conceived as secondary, shall be related as subordinated to the principal. It is not etymology but the usage of representative schoolmen, like Ziller and Parker, which justifies this meaning." Not only is this not etymology but it is not even the dictionary. I am acquainted with no dictionary that defines the term in that way. Now, it is perfectly competent for Dr. De Garmo, or anyone else, to say that the term should be so defined; but to assume that such is the established usage of the word in the English language is certainly a mistake. I do not know or suppose that the doctor intends to say that such is the case. I am merely calling attention to the fact that his definition has yet to be established, and also suggesting, that, in my judgment, it will never become established until he is able to bring forward authorities in addition to those that he has mentioned. Ziller and Parker alone are insufficient.

Professor De Garmo next tells us, that, when it comes to the choice of educational material or agents, there are two points of view from which the subject may be considered. There is, first, the standpoint of civilization; and, secondly, the

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standpoint of psychology. He puts the subject to us with such directness and clearness that we have no difficulty in understanding that it may be looked at from either one of these two points of view. He contends that one is right and that the other is wrong. I am not about to enter upon the discussion of that question. I wish rather to give the discussion a somewhat different turn. I shall seek to give it that turn by asking a question. How far, under the conditions that surround us, are we left to practically the same conclusion, no matter whether we view the subject, abstractly considered, from the one point of view or the other? Last evening the subject of Indian education was brought before us. We were told that the materials for educating the Indians cannot be found within their own culture or civilization; that the teacher who has to lead them forward must go outside of that culture or civilization. And I suppose we should all agree that this is the truth with respect to all the barbarous and semi-civilized peoples of the world. To a great degree, they must be educated out of their present civilization if they are to be brought up to our standard. I assume that there will be no difference of opinion among us so far as that point is concerned. With this remark I shall throw everything out of the account, except the great progressive nations of the present day, those that are in a condition of vital, growing, or expanding culture or civilization. Here the question is, Does it make any great difference which one of the two points of view is chosen? One guide says we should go to psychology; another that we should resort to civilization. But if the most advanced civilizations are psychological developments; if they are, in the main, movements along the proper course or track of human development (which does not seem a violent assumption), the two views are practically merged into one. I have no time to argue the question, but only to state it, and to avow my own conviction that those who contend for psychology and civilization, respectively, as suggesting educational ideals, will ultimately find that this question suggests a common standing-ground. Dr. De Garmo says we should find the educational ideal in the mind itself; Dr. Harris says we should seek it in civilization rather; but if the two men should sit down together to work out a practical scheme of school study, how far would they differ? Not widely, I am thinking. And if I am right in so saying, it is because the psychological point of view is the culture point of view, and *vice versa*.

EDWARD D. FARRELL, Assistant Superintendent of Schools, New York City.—After proving by copious extracts that concentration has never been used as the equivalent of correlation, and that correlation was brought into the resolution creating the committee of fifteen as a substitute for co-ordination, Dr. Harris remarked that there would have to be more word-study on the subject of correlation before points of agreement could be reached. So we are not surprised to find President De Garmo resorting to definitions as a means of establishing the claims of concentration.

Our language abounds in Latin words which are made to vary from time to time both in meaning and use. The lens is the instrument of concentration. The movement of forces is towards a center. What is generally known as radiation is now called concentration. Latitude and longitude are co-ordinate measurements—always distinct but both necessary for exact knowledge. They seem to illustrate how thought and form studies in the elementary schools may follow separate lines and still accomplish educational work.

The prism makes known the correlation of colors forming sunlight. The bands of color illustrate Dr. Harris' determination of the educational value of the various subjects. No matter where the color-band is unrolled the individual colors are found in the same relations. They are parallel; they blend; they harmonize. This harmony and mutual relation of studies shines forth in Dr. Harris' report. It may

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be objective correlation mainly, but its fruits may be seen in the individuals constituting the extraordinary gathering of teachers now present in Denver.

President De Garmo presents correlation as the general term, and co-ordination and concentration as particulars. If this presentation be accepted by the educational world, harmony among the leaders may be secured by substituting co-ordination for correlation in the title of Dr. Harris' report, and declaring that this meeting is discussing correlation and not co-ordination of studies. As the headings now stand, President De Garmo's word-study prevents him from discussing one for the other, since he makes the terms mutually exclusive. We are glad to see, however, that he does not feel bound to respect the limitations of his own definitions.

The principal speakers show that there are two methods by which the leading studies may be correlated. One is by arranging them in parallel lines; the other, in radiating lines—a thought-study, either physical or moral, being the center, and the formal studies occupying ever-increasing areas of the circle of education.

The difficulty of the latter plan consists in expecting pupils and teachers to leave the attractive central subject and move off in the direction of studies that can only be mastered by a strong effort of the will.

Upon entering school the pupil must be possessed of sufficient mental power to take hold of instruction. Without the co-operation of the will, this thought-power can never be directed to the accomplishment of that work which is an absolute necessity for progress.

Radiation goes hand-in-hand with diffusion and results in the dissipation of energy. At best the child's energy radiates along lines of least resistance. Desire suggests his mode of expression, and he neglects those studies which have not yet awakened his interest. Desire leads to passionate fondness or to unreasoning repugnance, and the strong will of the teacher must be invoked sooner or later to overcome the resistance of an unwilling mind.

It sounds well to place Nature on the throne and let the little ones gather round her for instruction. To one she says: "I manifest myself in form and color: represent me as you see me;" to another, "Life is action; notice my variations, count my movements, number my children;" and to a third, "You shall not know me until you read the wisdom which is treasured up in books."

How shall the teacher force nature to inspire each little one with the same thought, so that there shall be class-work instead of individual instruction? In centers of dense population how shall nature be studied by children, who are walled in by the artificial life of a great city, where the sky is not visible, where the din of commerce replaces the music of nature, and where the only growing thing in sight are the children themselves?

At the threshold of the school the child is confronted with the three most difficult problems of school life. These are the symbolism of language, number, and form. They are imposed upon the schools by the authority of the state. They make self-instruction possible in after life. They are indispensable qualifications for intelligent citizenship, and the vicissitudes of life warn us that the children most in need of school training must receive the instruments of learning at the earliest moment.

The presentation of these subjects taxes the ingenuity of the ablest teachers. The work can only be done in the allotted time by close study and rigid isolation of particulars. The subjects must not be isolated,—they are to one another as the color-bands of the rainbow,—but from time to time attention may be fixed on salient points so as to secure subjective correlation of things and thinking.

While mastering the elements the child is not poverty-stricken, neither does he suffer from deprivation. He carries with him into the school a store of knowledge.

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It is made up largely of facts related to nature studies. It is rich in home experiences. Hope and fear, love and hate, have already worked themselves into his moral nature.

In his chance-education may be found the beginnings of two strands that will reach from the cradle to the grave. As the new strand is spun out and then twisted with the others into a life-rope, the contents of the head and heart undergo unconscious modifications. Old things take new forms, remembered facts become knowledge, and judgments upon right and wrong engender a love for noble deeds and high ideals.

Hence it is, that concentration upon formal studies during the initial period of school life seldom works injury. The child can live for a time upon the food with which the image-making power has enriched the memory. Here is the place, and the first and second school years the time, to present the abstractions of form, reading, and figures, that they may become a part of the child's equipment for progressive school work.

After this is accomplished, the child may be led to review the products of chance-education, and correlate them with the elements of systematic nature studies on the one hand and history and literature on the other. While these two groups of thought-producing studies are developing by the chemistry of the teacher's art, instruction in the formal branches may be made incidental, and school work will henceforth animate the mind, touch the heart, and direct the will along the paths of right living.

I know that this is possible from personal experience, and I believe that the admirable papers of Professors Jackman and McMurry unfold successful plans for the rearrangement of school programs in the middle and higher portions of the elementary schools. Experiments below are dangerous. My fear is, that children may be allowed to drift into the world without learning to read and write. One hundred new pupils entered a well-established city school at the beginning of the term. At the end of three years eighteen remained. These may be extreme figures, but they indicate the danger of substituting thought studies for the instruments of learning at the first stage of education.

PROF. LEVI SEELEY, State Normal School, Trenton, N. J.—In the first place, concentration seeks to bring together a vast number of subjects which are now crowded into our curriculum and bring them into common usage. Not many years ago arithmetic, reading, and writing were the principal things in the common schools, but in later days there has been crowded in upon us a variety of branches—science, geography, grammar, and a thousand and one other subjects—and the end is not yet. This work, inaugurated by the Herbartians (I think we must give them the credit), has had a tendency to bring these together.

The other remark which I wish to make is this: You and I have often brought our pupils to the threshold of comprehension or apperception of a subject, and have left them there, because we had not properly brought the subject into correlation with other subjects or other knowledges which they possessed. The proper working of this principle will bring together these things so there will not be such a waste of time in the subject presented, so that the children brought in contact with subjects shall view them, not simply from the threshold but shall enter into a comprehension of them.

PROF. F. LOUIS SOLDAN of St. Louis, Mo.—Being in sympathy with the new movement, and having been identified with it, I wish to say a word for the old. The Latin saying is, "If you put two pupils to doing the same thing, the two are not doing the same thing." I shall apply this in attempting to teach things, in a

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disconnected way, with the studies separated, as it were, by iron walls. Those that attempt it do not teach things separately, distinctly, and disconnectedly. There is an element of co-ordination to which I wish to draw attention for a moment. It is that inevitable co-ordination that is going on, independent of the will of the teacher and pupil, in every human soul. Goethe says, in a certain place, that the thinking mind is wonderful in itself; like the weaver's loom, one activity sets in motion thousands of others. It is a mistake to suppose that the child in his soul builds up walls that separate facts from facts. There is a further element of co-ordination which the American schools have, and which the German schools, especially the city schools, lack altogether. In the German city schools, the teacher who teaches arithmetic in the primary schools goes from one room to the other and teaches that subject in five or six classes. The teacher of other branches does the same thing, as far as his time allows. Now, with us the case is different. There is an element of co-ordination, if you please, in the fact that the same teacher in America teaches grammar and history; and I should like to see the man or woman who is so artificially constructed, and is such a rare specimen of humanity, that she or he can teach geography or history on the old plan, entirely separate from each other.

I wish to add one other point. I do not speak against the attempted co-ordination. I do not know what noun to use for the idea, that there should be a center of instruction—concentric instruction. Is not the old plan such a center of instruction? Is not the fact that all along language is a common center in itself? We speak of natural science. I want natural science taught in every school in the land, from the first year; but, on the other hand, we say that the child should be educated for life. You have been listening to-day for two hours and a half to speeches—deep, thoughtful utterances—and 15,000 words perhaps have been spoken. Point out a single word so far, in the ideas expressed, that is taken from botany, or zoology, or physical science, or chemistry. There is a broad field in humanity, which lies outside of the mind-training which natural science gives. Still, I am in favor of teaching natural science. While I think there may be defects in our schools in that direction, I should not like to see the humanities replaced, as the center of the work, by natural science study.

FRANCIS W. PARKER of the Cook County Normal School, Illinois.—Does anybody in this world propose any such a thing as Dr. Soldan implies, viz., to replace the humanities by science?

EDUCATION ACCORDING TO NATURE.

BY WILLIAM H. PAYNE, UNIVERSITY OF NASHVILLE. NASHVILLE, TENN.

He would do the world no mean service who would write an impartial history of fads, showing the rise, progress, termination, and results of each. Such a history would doubtless discover to us the fact, that even the thinking world is addicted to hobby-riding, and that successive fads are the rungs of a ladder on which thought ascends from lower conceptions to higher, and thus gains wider and wider horizons of truth. What were nominalism and realism but

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philosophical fads, engrossing men's thoughts for a season, kindling the controversial spirit up to the fighting-point, then waning in interest, and finally giving place to other fads? Phlogiston, Malthusianism, Darwinianism, the nebular hypothesis, phrenology, and probably free coinage, Christian science, and hypnotism are phenomena of the same sort. These are all "guesses at truth." Their devotees, indeed, regard them as truth itself, but successive thinkers finally separate the grains of pure metal from the larger volume of alloy, garner the precious residue into the general storehouse of science, and then make a venture at new guesses. The line of Sherman's march to the sea is now marked by abandoned forts, exploded shells, and half-filled trenches. So the triumphal march of thought is marked by abandoned hypotheses, exploded theories, and empty conjectures.

The same phenomenon is observable in the special science to which we are addicted. Men of my years have lived through a succession of educational fads, and our predecessors, near and remote, were doomed to traverse a similar route. Within our own time object-teaching rose in the East, if not as the sun, at least as a star of the first magnitude, but its distinctive light has been lost in its passage across the horizon. Then appeared other lights, from time to time, great and small, to which we did homage, such as manual training and the inductive method; and now the suns or meteors that are beginning to blaze on our pedagogic firmament are concentration and "a pot of green feathers."

We are not to forget that the monitorial system swept over the country eighty years ago like an epidemic, and that it took such a stalwart as De Witt Clinton clean off his feet. The head that could project the Erie canal could also utter such a wild prophecy as this: "I recognize in Lancaster the benefactor of the human race. I consider his system as creating a new era in education—as a blessing sent down from heaven to redeem the poor and distressed of this world from the power and dominion of ignorance."* Returning to the figure just employed, Lancastrianism was a blazing comet, creating a profound sensation at the time of its appearance; but it speedily burned out, leaving hardly as much as a poor cinder by way of remembrance.

In place of fad I might have used the word craze, or hobby, but fad is the newer term, and I use it to denote a wide class of phenomena, social, political, philosophical, educational, and even religious. I use the term in a more serious sense than the ordinary, to indicate a phrase of thought, that, while serious, is at the same time partial and shallow, and, in its appearance and disappearance, epidemic.

* S. S. Randall, "History of the Common Schools of New York," p. 28.

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It will be readily guessed that I include "Education according to Nature," or "Follow Nature," among educational fads. In the sense just stated, I do; only "Nature" must be considered as the most respectable of these fads, by reason of its antiquity and longevity; though sometimes, as in the case of Joseph Payne and other imitators of Mr. Spencer, the whole treatment is little better than cant —shallow and offensive.

The precept, "Follow Nature," is prevalent in ethics, in education, and in medicine, where Nature is set up as a criterion of right and wrong, of true and false. A practice that is supposed to be in conformity with Nature is thereby proved to be right, or true; while a practice that can be shown to be contrary to Nature is assumed to be wrong, or false. Thus, Aristotle defends slavery because it is "natural," some men being born to rule, others to serve, some being strong, others weak; while he condemns usury, or the taking of interest, because it is "unnatural." Flocks and crops springing from the soil are wealth proper, and for convenience they may be converted into money; but to produce money from money, a dead thing from a dead thing, is unnatural, and therefore wrong.* Our modern temperance reformers use the same argument. Alcohol is an evil, because it is produced by the decay or rotting of a natural product, as corn, rye, or wheat; though just why vinegar should escape condemnation is not at all clear.

Peter the Great suffered a similar delusion when he ordered his naval cadets to use sea water for drinking purposes. Is not the sea the natural domain of the sailor, just as the land is the natural domain of the soldier? The sailor must therefore adapt himself to his environment; he must draw his sustenance from the elements on which he lives. Had Peter taken wise counsel before giving this order, he might have been reminded that it was a scientific error to include sailors and salt-water fish in the same category; but he was following Nature, as he supposed, and his cadets had to perish.

The same false analogy betrayed John Locke into his "hardening process." Men in a "state of nature" wear no shoes, and though their clothing is very scant, even in winter, they adapt themselves to rigors of temperature without harm; my young gentleman should therefore follow Nature, rather than art, in the matter of clothing, and so should wear no shoes; but as he is compelled to live in society, we will strike a compromise, and he may wear shoes, provided they are plentifully supplied with holes.

The phrase "Education according to Nature" at once suggests the name of Rousseau, for it was he who, in his "Émile," fairly set the

*"Down to the Norman conquest the Britons had 'living money' and 'dead money,' the former being slaves and cattle, the latter metal."

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fashion for subsequent writers on education, great and small. Mr. Spencer adopts the new fashion, and his pages are overshadowed with capital N's. He accepts the new mythology, writes out a new creed, and virtually founds a new school of theorists. No theologian was ever more dogmatic. He postulates Nature as an infallible guide, and then deduces educational processes with almost mathematical precision. Whatever will not fit into his system, as history, he conveniently rejects.

Rousseau was essentially a pessimist, placing the Golden Age in the distant past rather than in a distant future. Civilization, so-called, was full of perversions and defilements; the arts and sciences were instruments of corruption; and the only salvation for the race was a return to primitive simplicity and purity. As the main principle of political philosophy was the assumption that society was retrograding because it was receding from Nature, he readily adopted the conception that the salvation of society lay in a new system of education, whose purpose should be to bring men back to Nature, and thus to purity and to peace. The myth Nature dominated Rousseau's thought, or rather his feeling; for he felt rather than reasoned. Everything must be "natural," even his children. Like Mr. Spencer, though in another manner, Rousseau was a rhetorician, enamored of the sound of his own voice; and such rhetoric is always fatal to logic. He carries conviction, as the advocate or the orator does, by enlisting the feelings on his side of the controversy. Hence, his "Emile" is a romance, and the characters that appear in it are as unreal as any that one may find in modern fiction. And yet it is not a contradiction to say of it what Rousseau himself said of the "Republic": "*C'est le plus beau traité d'éducation qu'on a jamais fait.*"

Though Rousseau nowhere defines Nature, it is not difficult to understand the general sense in which he uses this term. His whole creed is virtually contained in the opening paragraph of the "Émile": "Everything is good as it comes from the hands of the Author of Nature; but everything degenerates in the hands of man. He forces one country to nourish the productions of another; one tree to bear the fruits of another. He mingles and confounds the climates, the elements, the seasons; he mutilates his dog, his horse, and his slave; he overturns everything; he loves deformity, monsters; he will have nothing as Nature made it, not even man; like a saddle-horse, man must be trained for man's service; he must be made over according to his fancy, like a tree in his garden."*

In other terms, restore the world to the condition it was in before it began to be modified by man's agency, and we have it in its ideal state, "the state of Nature." Relieve a modern garden from human

*"Émile," bk I., p. 1.

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interference, and it will soon revert to a state of nature. Natural fruit is better than fruit that has been cultivated. The ideal horse is the wild horse. The ideal man is the red Indian. Education is not an ascent from wildness, but a return towards wildness. Rousseau admits men to his state of Nature provided they make no attempt to refashion one another or to modify their environment. The moment they begin to do this, perversion sets in, and art usurps the place of Nature. This perversion of Nature by art has gone to the greatest length in cities. Hence, relatively, we return to Nature when we go from the city into the country, as from Paris to the woods of Montmorency.

How much of this is rhetoric, and how much sober conviction, it is doubtless impossible to tell with any exactness. In construing Rousseau's theory we must make some allowance for temperament, and also for the extravagances into which reformers invariably fall. Over-statement is an element in a reformer's outfit, whether it takes the form of a satire, as in Rabelais and Dickens, or of fiction and fancy, as in Rousseau. All an interpreter can do is to trace the main lines of the argument and show the limitations of the theory by typical examples. This I will attempt to do in the sequel.

The practical application of Rousseau's theory is well exhibited in his doctrine of discipline by natural consequences. Through willfulness, Émile breaks the windows of his chamber. His father replaces them, but the boy again breaks them. The transgressor is thereupon turned over to the relentless laws of Nature. The windows are not replaced, but the boy is confined to his room, where the cold wind blows on him by day and by night, thus exposing him, not only to discomfort but to danger; he might take a severe cold and die of pneumonia. The great danger of this exposure occurs to Rousseau, but he promptly replies that it is better to die of a cold than to be a fool! In the case of Émile, however, matters do not come to this sad pass, but he is finally conquered by suffering the disagreeable consequences of his own folly and reforms in a manner befitting the author's theory.

The application of this doctrine is extended still further. To cure Émile of his vanity and forwardness, he is allowed to compete with a professional juggler, who readily makes him the laughing-stock of a jeering crowd. To teach him worldly wisdom and caution, he is allowed to fall into the hands of sharpers and cheats, who fleece him in fine fashion; and, finally, to make him virtuous, he is allowed to fall into vice—he is drawn through the mire in order that he may afterward be washed and experience the sensation of being clean. In outline, this is Émile's course in experimental ethics.

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Though Rousseau, as before noted, does not define Nature, he makes it quite easy for us to infer what he means by the term, and a proximate definition would stand about as follows: The material world affected by physical forces (gravity, heat, light, electricity, etc.,) and inhabited by uncivilized men.

For purposes of right education, Émile is to be pushed as far back as possible into this primitive and uncorrupted world; and society itself, in order to be rescued from growing corruption, must make a return toward this primitive simplicity and perfection. This was Rousseau's ideal education and his ideal state of society; but he had the sense to know that these ideals were impracticable, and so he accepts a compromise. He uses consummate art to reproduce a quasi state of nature, but this more than Herculean effort involves him in countless contradictions, absurdities, and follies.

Mr. Spencer personifies Nature, and thus carries the myth to its most perfect development. With him, Nature is physical force personified, and education is experience, or contact with environment. His general theory may be summarized as follows: The individual of to-day must be educated just as the race was educated historically; the race was self-instructed through experience; the individual must therefore rely on his personal experience for his knowledge and training. As Nature was the tutor of the race, so Nature must be the tutor of each individual of the race. Of course, in accordance with this theory, the knowledge that is of most worth is science, for science has grown out of the experiences of the race; is, in the Aristotelian sense, a natural product; and is knowledge that can be reproduced and verified by each succeeding generation of learners. Past experiences constituting what is commonly known as history cannot be thus reproduced and verified, and therefore history is not knowledge proper. And as literature—a play of Shakespeare, for example—cannot be rediscovered or reproduced according to the Spencerian dogma, there is no natural place in this system for literature and kindred subjects. Literature is too much tainted with art to fit into a scheme of education according to Nature.

Like Rousseau, Mr. Spencer is clearest when he applies his hypothesis to moral education. Prior to experience, an infant, if permitted, will put its little fingers in the flame of a candle. Let it do this, advises Mr. Spencer, even though a painful blister is the consequence. According to the same method the child may lay hold of hot fire-bars and spill boiling water on its tender skin. In this fashion the infant is being educated through experience by its godmother, Nature. This is a reappearance of Rousseau's doctrine of consequences. From this point of view education may be defined as expe-

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rience coming from contact with matter and with physical force, or, in shorter phrase, with one's environment.

It may be urged against Rousseau and his disciples that the Golden Age of society is not in the remote past, but in the future—that humanity is making a forward movement, slow, perhaps, but sure; that what we call civilization will not be abandoned for savagery; that cities, Rousseau's especial abomination, are both a product and an agent of civilization; and that his assumption of the nobility of primitive man is an unsupported fiction. The untutored savage, as seen and described by travelers, is Nature's handiwork, a fair specimen of what she can do in the way of educating when unassisted by human art. It has not been observed, however, that men are made either happier or better by being allowed to revert to a state of nature.

Again, a proper conception of Nature will include man, his endowments, and his works. Is not man as natural a product as a beaver or a horse? If instinct is a natural endowment of the beaver, why are not reason, imagination, and language also natural endowments of man? Why make a radical distinction between the defenses built by beavers and the defenses built by men? Why is it less natural and right for men to live in communities than for bees and ants? Why is not a poem as natural a product as a bird's nest?

When Mr. Spencer asserts that "humanity has progressed solely by self-instruction,"* he either falls into an obvious error or he uses terms in an extraordinary sense. It would be as true to assert that humanity has progressed solely by capitalization. Men capitalize their experiences in labor-saving machines and in proverbs. One generation invents a snare, a trap, or a hook; the next generation is spared the effort of making these inventions, but simply accepts and uses them, and devotes the time and effort thus saved to the making of other inventions. Experience begets wisdom, this wisdom is embodied or capitalized in proverbs, and then these proverbs serve other men for warning and guidance in place of wasteful experience. Humanity has never squandered its time in reinventing and rediscovering. The "genesis of knowledge in the race" takes place through capitalization and discovery, and thus understood, it is quite true that the individual must follow the same course. Mr. Bain is evidently right in declaring that the assumption that the child's education is to be in the main a process of discovery or of rediscovery is a "bold fiction." In some subjects, as mathematics and physical science, rediscovery is conceivable, but, in the main, impracticable; while in others, as history and literature, it is impossible, if not inconceivable. Mr. Spencer's hypothesis of Nature as the true guide

*"Education," p. 125.

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in human education easily runs into the *reductio ad absurdum*. Let us see where this specious hypothesis will land us:

This Nature is simply brute matter or brute force, absolutely divested of feeling, without sympathy and without pity; the teacher should therefore be the personification of brute, unfeeling force.

In her distribution of pains and penalties Nature never distinguishes between innocence and deliberate transgression—the same punishment falls on the infant as on the hardened criminal; the teacher is therefore to take no account of motive, but must regard the fact of transgression only.

Nature makes no distinction between a block of wood that falls from the roof of a house and a child that tumbles from a chamber window—for her use they are merely two pieces of matter, which she treats in the same manner, or, if she makes any distinction at all, she favors the block of wood, life and feeling here being at a discount; children should therefore be manipulated, shaped, and governed as though they were inert, senseless matter.

There are no gradations in Nature's lessons; she deigns no explanation, she is as silent as a sphinx. The graded school is therefore unnatural, and the teacher should be merely a stern and silent monitor.

I call attention to these absurdities, not because they are sanctioned by Rousseau and Spencer but because they show the near limitations of this specious doctrine of Nature. Both these writers set up Nature as a criterion and guide, and they quote her in a free and easy way as standard authority for certain educational processes. Their argument runs in this wise: "Nature does so and so; therefore we should do so and so." But, evidently, this Nature does some things that no sane or moral man should ever think of doing. Mr. Spencer allows a little child of three or four years to lay hold of hot fire-bars with his little hands, but objects to his playing with an open razor. It is plain, therefore, that Nature is not to be followed at all lengths. Who is to decide how far, or in what cases, we are to follow Nature? Some who have had larger experience in the management of children than Mr. Spencer has probably had, would stop short of the fire-bars and the boiling water. It is a reasonable presumption, therefore, that we are not here dealing with science, but with opinion; and that it is an open question, not only how far we should follow Nature but whether we should follow her at all; seeing how unnatural she sometimes is and how questionable some of her proceedings are.

Instead of accepting the poetical fiction, that Nature (still using the term in the Spencerian sense) is our goddess and our guide, some of us who have not the fear of the new mythology before our eyes

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would respectfully maintain that this same Nature, in some of her work, should be disinfected, deodorized, and otherwise prevented from doing her worst. Only give her a fair chance, and Nature, in the form of scarlatina, diphtheria, or cholera, will decimate whole villages and cities. In such and all similar cases Nature is a remorseless, relentless fury, who is to be pursued, captured, and thrown headlong into the sea and miserably drowned. In other terms, and dropping the figure, the joint work of Christianity, science, and civilization is to subdue Nature, to make her man's servant rather than man's master, to make her minister to his joys rather than to his sorrows. There is to be a new earth, rescued from Nature and transformed by human art, and it is to be peopled by a race re-created by education and the gospel; and throughout this secular process the dominant force is to be the human intelligence and the human will. The Nature that we are to follow is "Nature humanized," or "Nature informed with humanity," to adopt the happy phrase of Richard Grant White.

So far, the treatment of my theme has been negative, in the main; the purpose being to show that the hypothesis of Nature as a faultless paragon is subject to grave limitations; that this general doctrine is very far from being safe and wholesome; and that, like all other fads, it seizes upon a fraction of a truth, fancies that it is the whole truth, and then proclaims the new marvel to the world with a cackling of delight.

I will now venture on a more positive treatment of this theme, and, putting entirely aside whatever is mystical or mythical, will try to state in plain prose some of the things that seem to be implied in education according to Nature. I hope my hearers will do me the favor to remember that my purpose in this discussion is not controversy, but the discovery of truth. I aim at nothing more than interpretation. The writers who invoke Nature so persistently and so freely make no attempt whatever to define the term; they leave their readers to interpret the word for themselves.

In dealing with the precept "Follow Nature," the task of the interpreter is twofold: (1) To determine what Nature is and what she does; and (2) to determine whether it is wise to follow her in the cases stated. At this stage of educational science it is high time to disregard fiction, myth, and personification, and to give to this vague term an articulate meaning. My interpretation of the term Nature may not be the correct one, but it is an honest effort to reach the truth. Those who reject any given interpretation owe it to the cause they are attempting to serve to state in plain terms their own interpretation.

The one word that most nearly interprets Nature, as it seems to me, is experience; and to follow Nature is to make experience the

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sole or the main source of our knowledge and discipline. It is usually said that there are two sources of knowledge—experience and language; but the precept "Follow Nature" forbids the intervention of language as a source of knowledge, and makes the process of learning a course in personal experience. Experimental knowledge, it is claimed, is the only real knowledge; all we truly know is included within the circle of our personal experiences, of our sensations, and of the inferences we draw from them. Rousseau sequesters Émile, so far as possible, from the society of men, in order that he may be tutored by Nature; that is, by experience. Instead of the mother, Mr. Spencer makes the candle-flame, the fire-bars, and boiling water the teachers of the child. Primitive man, we are told, had no teacher but experience; the successive generations of men have gained their knowledge in the same way; experience is therefore the typical process of human education, the only royal road to learning.

A few tests applied to this theory would seem to show its general unsoundness. Is history knowledge? On the hypothesis that the real test of knowledge is experience, there can be no such thing as historical knowledge, for we cannot be brought into personal relations with the events which have given rise to history. This high doctrine has been maintained on the floor of this association.*

Is our knowledge of geography limited to what we have learned by travel? May we be said to know anything of the countries we have never visited? I once had a pupil who was a thorough convert to the Spencerian doctrine that there could be no knowledge where there was no personal experience. "Have you ever been abroad?" I asked. "No." "Then do you know that there is such a city as London?" "No." "How would you gain this knowledge?" "I would go there." "How would you know when you reached there?" So authority confronts us on every hand—the new theory broke down at this point.

Again, on this hypothesis, what is the function of books? Possibly Mr. Spencer may have learned all his philosophy from his own observations and reflections; but, on his own hypothesis, why does he write so many books for other men to read? Scholarship and culture have always meant and will ever mean a loving devotion to good books.

I venture to say that the following statements are substantially true:

The process we call civilization is the triumph of art over Nature, and is a mark of human progress. Men will not renounce the essential concomitants of civilization and revert to a state of Nature in pursuit of happiness or moral good. The men of each new generation

*At the meeting in Madison, Wis., in 1884, by Hon. John W. Dickinson.

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will start forward from the vantage ground secured for them by their predecessors on the earth. They will accept and use the labor-saving machines which they inherit from the past, and, without wasting time and strength in the effort to reinvent, they will capitalize their own experience and wisdom in some other or better labor-saving devices.

The knowledge gained by experience and experiment is capitalized and transmitted in books, and the great mass of men in each new generation will gain their knowledge by the interpretation of the books left by the wise and the good. The pretense lately set up, that students in science are to gain their knowledge inductively, by personal research in the way of rediscovery, is a shallow fad. It would be just as reputable to counsel men to construct their own almanacs. Try to imagine a class of even university students attempting to rediscover the atomic weight of chlorine, or even the specific gravity of iron! If we commit ourselves to such folly at all, why not be radically and consistently foolish, and set about reinventing the apparatus of the modern laboratory? Students should certainly have some training in physical manipulation and experiment, not on the pretense of rediscovery but rather as a means of initiation into the processes of modern scientific research. The culminating absurdity of this doctrine of rediscovery is vivisection, which, as practiced in all ordinary cases, is nothing less than a crime.

Can virtue, in an intelligible sense, be capitalized, transmitted, and taught, so that in the moral life each generation may start from a higher vantage ground; or must we be remanded to an experimental ethics, as our reformers would remand us to experimental science? This question cannot be argued at this time, but a little reflection will show that the world can grow better only on the hypothesis that the attainment of virtue is made somewhat easier for each succeeding generation. In other words, virtue can be taught; each child is not to construct a code of ethics out of his own experiences, but is to accept the highest code of ethics that humanity has bequeathed to him.

Interpreting Nature in the sense of experience, or contact with environment, which is the prevailing sense in which Rousseau and Spencer use this term, and, speaking only for myself, I find but little that is really helpful in the stock precept "Follow Nature," save this: It serves to keep alive the fact that learners are ever in danger of mistaking words for things, and so guards us against an education that is purely "livresque," as it has been styled. Thomas Hobbes uttered the same caution when he declared that "words are wise men's counters, but the money of fools."

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I find much more help in a side-conception which appears in the "Emile" as a sort of undertone—that there is an imminent tendency in civilization toward a distracting and unwholesome complexity, and that the need of the age is a return to simplicity. Rousseau's illustration of his meaning is very happy. Speaking of teaching children to read, he says: "We no longer know how to be simple in anything. Look at the machines we invent for teaching children to read—cabinets, charts, and what not—all useless lumber. We do everything save the one thing essential, creating in the child a desire to read; do this, and all methods are good." As I interpret this phase of Rousseau's educational philosophy, it is this: Follow main routes; abandon bypaths; strike at creative motives; occupy strategic or dominant positions. Educate as artists paint. Begin with broad strokes, leaving details for after consideration. Imitate the unity of Nature, and, instead of reducing a child to fractions, treat him as an integer, making his education wholesome and humane.

The stress we put on training is the symptom of a general unsoundness. A trained horse or a trained pig is not a normal and wholesome horse or pig, but an animal artifically shaped and fashioned into a fraction or fragment. A thin glaze of book-keeping converts an ignorant boy into a writing or adding machine, and unfits him for the functions of a man proper. Teachers are now being trained rather than educated, and these fractions tend to perpetuate fragments. The one great merit of the kindergarten is, that it keeps children whole and allows them to grow by an organic process into symmetrical units. The danger of the graded school, and even of the college, is stratification—the deposition of knowledge in layers by specialists; and the remedy for this and kindred evils is a return to a wholesome simplicity of Nature—to an education according to Nature.

In a more specific sense, we follow Nature when we adapt our instruction to the organic mode of the mind's activities. The mind is an organism having its own predetermined mode of activity. This constitutes its nature; and, when we respect this order of procedure in the presentation of knowledge, we may with scientific accuracy be said to follow Nature. When the mind works naturally—that is, in accordance with the laws of its organization—it proceeds from aggregates to parts, from the vague to the definite, and, in childhood, from the concrete to the abstract; and the teacher follows Nature when he allows the mind to elaborate its knowledge in this order.

In conclusion, I venture to offer this bit of advice to those who are trying to make of their teaching a rational art: In your thinking and writing never allow yourself to personify the term Nature, but leave the mythologist, the poet, and the novelist in sole possession of this deity.

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THE EDUCATION OF PUBLIC OPINION.

BY CHARLES R. SKINNER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, ALBANY, N. Y.

What is public opinion? How shall it be educated? Clamor is sometimes mistaken for public opinion; the shouts of a mob for public sentiment; an aroused passion for the voice of the people. Inquiry as to what public opinion is finds itself confronted with the frequent belief that there does not exist any real standard of public opinion. In religion, in politics, in society, and in education, there is no guide which can be implicitly followed which will be invariable under all conditions. We may accept, as the most satisfactory definition, that public opinion is the united judgment of few or many citizens which dominates the community. But this judgment may not express the opinion of the majority. A person with a strong will, personal magnetism, and popularity may so influence a community that his individual opinion will be accepted for public opinion. But for the community this is not an educated public opinion. It is acquiesence. Education may teach such followers that they do not express a real opinion. Communities are often too confiding and too careless. To save the trouble of investigating public questions, the opinion of a leader is accepted without further thought.

Sometimes a political leader makes known his opinions and expects his party followers to fall into line, and to accept his views as a test of personal or political loyalty. The opinions of one man have been known to control a school board, who sit still, say nothing, and ratify; in religion, the opinion of the minister finds the door open to belief; in society, the leaders set the fashions, and no questions are asked; in journalsim, the views of the editor with a strong individuality are accepted as conclusive; in education, the schoolmaster's opinions are the guide of those who have faith in them. Sometimes it seems as if there were no opinions behind these strong men and women who impress themselves and their ideas upon the people.

Countries, states, and communities illustrate the lack of an accepted standard of public opinion. That which is considered orthodox in one country may be heresy in another. That which is believed to be blasphemy in one state is considered moral over the line. That which one state permits by law another state prohibits. That which one city embraces as right another city rejects as wrong. That which one community would fight to build up another community would struggle as hard to tear down. The changes in public opinion are well illustrated by the thermometer. They vary with lo-

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cality. Zero and summer heat may change places under changing conditions. The mercury touched by public opinion indicates its force at different altitudes. When the mercury of public opinion rises to a certain point in one city, we will find justified the Sunday ball game, the opening of public gardens, the Sunday liquor selling; in another city public opinion will close all its saloons and business places and stop the street railways. There is a different moral standard. In one state public opinion justifies lynch law; in another every criminal is guaranteed a fair trial. In one state, trial and conviction means swift punishment, in another the law's delay. One state may cling to the established whipping post, while in another its advocates are denied the courtesy of a hearing, and are escorted from the halls of legislation as offensive lobbyists. That which would satisfy Oklahoma would not be accepted in New England.

In many of our Eastern States public opinion seems to believe that a single gold standard would be best for the business interest of our country; while here public opinion, by a large majority, believes that financial safety lies only in silver, sixteen to one, and it does not hesitate to express itself.

What is public opinion on the great question of the relative values of silver and gold—a question which may yet confuse all the old political parties? How shall it be determined? How shall we reach an agreement as to what is best for the greatest prosperity of all our people? So we find that public opinion is a constantly varying quantity. How shall it be educated on all public questions, so that all citizens may stand upon common ground, and that ground safe and strong?

Public opinion will surely work its way when rightly educated. In New York's capital city is a fine high school in which for many years every national holiday has been observed by patriotic exercises under the lead and inspiration of the soldier principal, whose love of country took him through the war and whose interest in education has brought him with us here. This spirit of patriotism has spread its influence over many communities. It has been caught up by the Grand Army of the Republic, and to-day we have a new law which places the American flag on every schoolhouse in our state. Public opinion sustains this law. Public opinion in favor of cleanliness, and health, and decency has given us laws which slowly but surely will secure better schoolhouses and pleasanter school grounds. Public opinion sustains Arbor day, and surrounds our children with trees and flowers, in the belief, that, if we would have them lovers of the beautiful in life, we must give them glimpses of the beautiful in our schools.

For many long years there were no fixed standards of qualification for our teachers, or they were low and worthless. Efforts to

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engraft a better system into law were futile for awhile, but public opinion became aroused; the cry went up from the people, "Put none but qualified teachers on guard," and we have to-day a system founded on both law and public opinion, by which only qualified teachers may enter our schools; a system which has done more to uplift the cause of education with us and to increase professional spirit among our teachers than any other influence felt in a half-century. Public opinion approves and applauds, and under the influence of such approval New York has just added a law which increases the qualifications of the teachers in our cities and villages to a point which exceeds the expectations of the most zealous friends of education in our state.

Sometimes public opinion seems a plant of slow growth; but when that opinion is pure and strong and the soil is right it is bound to grow.

So a general sentiment of public approval and interest may come to any community, or state, or country which persistently and faithfully strives for what is best. As public opinion has come to approve and sustain in most generous manner the efforts for greater care in the selection of our teachers, why may it not some day demand similar tests of men and women who sit upon our school boards; of men who compose our boards of aldermen in our cities? Why may it not demand increased educational qualifications of those who make our laws in state legislatures and in congress? Who knows but public opinion will one day be educated to insist upon higher standards in law-making?

But what of the education of this variable public opinion? Education itself is variable, and admits of an infinite number of values in the same expression. It may mean teaching youngsters to be expert pickpockets, after Fagan's method in "Oliver Twist." It may mean so much mathematical, classical, and other study, fitting young men and women to be teachers, principals, and professors. It may represent the technical study necessary to become a painter or a sculptor, or the training which prepares young men to become merchant princes and presidents of banks and railroads. It may include the education in culture, refinement, and purity needful in preparing men for the ministry. It may, and should, embrace whatever is indispensable in life and character in the highest types of American citizenship.

So we find both public opinion and public education are alike variable. We are met by an equation. What, then, is public opinion plus or minus public education equal to? The equation must change with the different values given the variables. Out of the infinite number of values in the same expression which shall we select? What combination of values shall we make? No question will more severely tax the patience and wisdom of the strongest and best citi-

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zens than how rightly to educate public opinion. No graver problem confronts us, and there is no greater force in the solution of the problem than this great association and the mighty army of teachers and educational thinkers and workers which it represents.

I. The education of public opinion is a right inherent in every citizen. He is a member of the body politic. Whatever concerns the commonwealth concerns him as an individual. Citizenship is the highest privilege of an American; higher than any office the state or nation can confer. Proud as was an Athenian in the days of Pericles of his privileges as a member of the state, exultant as any Roman could be "in the most high and palmy state of Rome," in the lofty place his country held and the honor conferred upon him, the American citizen outranks all in the privileges enjoyed. His right is more absolute, his place more secure than that which any Athenian or Roman ever enjoyed. If the study of American history means anything, if it is studied aright, it means that it is a grander thing to be an American now than to have been a Roman two thousand years ago. Wherever he is, he may exert every power to impress his views upon others, in the making of opinion to stir the masses. By word and pen, on the platform, in the pulpit, in the schoolroom, and through a free and untrammeled press, he may do all possible to educate public opinion to his views, so long as he does not teach treason nor rebellion.

II. The education of public opinion is a duty devolving upon every citizen. Every right enjoyed or privilege conferred brings upon its possessor recognized obligation. Here, if anywhere, the state has a right to exact the best from every citizen. This can never be given unless each individual exerts the wisest and best influence possible upon the other; unless he strives to have every other individual obedient to law and anxious to better his condition. In a country where each individual is part of the state, it is a duty resting upon each to help form public opinion; to help form it on the basis of individual and national right; to uphold the honor and dignity of the country at home and abroad. Self-interest, as well as loyalty to his country, makes it the duty of the citizen to seek the highest glory and the best welfare of the state.

III. The education of public opinion is a necessity urging every citizen to action.

The welfare and safety of the individual are bound up in that of his country. If the country is thriving, so are its people. If it is depressed, the people are cast down. In the long run, public happiness and prosperity are measured by public adherence to truth and justice, equity and honor.

When a people have been grasping and over-reaching, the penalty always follows. The history of many European nations demonstrates

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this. Because of the inevitable penalty exacted, sooner or later, for national mistakes and national crimes, it behooves a people to take heed and set the nation on the right track through the force of a sound public opinion.

The condition of the public in larger or smaller divisions affects the individual. Take, for example, a community where no religious advantages are enjoyed—no open church; no worship; no reverence for law and order, human or divine; no love for truth—how long can an individual, going among such surroundings with exactly opposite convictions and training, remain without being affected and contaminated by the malign influences around him? Or, let a man go from a town where school facilities are excellent and the tone of society is literary and refining into a place without a school, without the uplifting power of rightly educated men and women, what is more natural or more probable than deterioration and decay? Insensibly, perhaps, the man becomes like his neighbor in manner and spirit. Like the lizard on the rock, he becomes of the color of the rock itself.

Is there not a necessity, then, urging men and women to educate public opinion—to form in the minds of people everywhere right views of character and of life, setting before them high ideals, lifting them up to noble conceptions of the possibilities inherent in every human being?

How shall this education be secured? Certainly not by leaving education to work its own way in a country like ours.

If public opinion be accepted, then, as the united judgment of individuals which dominates the community, then the education of that opinion involves the education of that judgment. This, in turn, demands the segregation of the individual, so that the judgment of each shall be educated. If, then, education is worth anything to public opinion, it is worth everything to individual opinion.

It is only as the opinion of each is modified, uplifted, purified, ennobled, that the opinion of the many takes on coherence, symmetry, beauty, and force, and makes itself an impelling power in the community and state. It is important that this education should begin early; that the child should be trained to feel that his highest aim is, not to prepare for business nor a profession but for life; for place and work among men, for his own good and for the advantage of others. As an integral part of the commonwealth, he is more or less affected by others, who, in turn, he must also affect. The action is reciprocal. The question is, How shall we make education mutually beneficial and uplifting? Answer that, and our problem is solved.

The education insisted upon will never be gained by regarding public opinion as right because sanctioned by a majority. Law is

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not always the answer to public opinion, and public opinion is not always able to create a law to express that opinion. A score of busy, earnest men may visit our legislatures and their committees and procure legislation which a great wave of public opinion would be powerless to obtain. Again, a legislature or a congress may, and often does, resist public opinion, and legislate contrary to every public demand or public expectation.

It has been well said, that no community can be great and good without the force of opinion, and that opinion must be on the side of the great and good.

President Lincoln stood on that platform, the only one upon which an honest citizen can safely stand. In reply to an address from a deputation of clergymen during the war, in which they said, "Mr. Lincoln, we believe the Lord is on our side," Mr. Lincoln replied, "Gentlemen, I think we are on the Lord's side." It is said that he who has God on his side is always in the majority. Public opinion may be on that side, or it may not. Much depends upon the time and the locality.

The one essential element in the variable education must be the element of right, whatever the latitude, whatever the majority. As applied to public opinion, education must always seek to bring it over on the side of what is right, of what is good, of what is great, and then to keep it there. The effort to accomplish any other result is unworthy the name of education.

Education always insists that prejudice and passion be not taken for public opinion. Prejudice is an unreasonable judgment formed or held under the influence of some other motive than the love of truth. It is true that public opinion is often swayed from the truth by prejudice. Prejudice has so influenced public opinion as to carry elections without regard to right. The anti-masonic craze in New York elected a legislature and a governor as the result of sudden prejudice against that organization; and the Anti-Renters of that state also elected their candidates for office through an adverse public opinion caused by prejudice. But the public conscience which means to be right becomes aroused and in time makes itself felt in the correction of political mistakes. Politicians sometimes make a mistake when they forget, that, after all, the people have a conscience.

Passion has also played its part. More sudden in inception, and perhaps less durable in effect, it surely warps judgment and overthrows reason. Mobs ruled by passion are the result of prejudice. Passion led the weavers of England to destroy, in their fury, the first improved machinery introduced into the mills. Passion has induced railroad employes, in their senseless strikes, to burn cars, ruin locomotives, and destroy property indiscriminately, to the amount of millions of dollars in value.

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An old writer has said: "All passions are good or bad according to their objects. Where the object is absolutely good, there the greatest passion is too little; where absolutely evil, the least passion is too much; where indifferent, a little is enough."

It is the solemn duty of education to see that the passions are fixed upon objects absolutely good; to so impress the mold of the child's intellect, affections, and will that purity, truth, and love shall be stamped there forever. As teachers we can do our country no nobler service than to educate up to this standard. Exactly as our children are thus educated, so will public opinion be fashioned into noble and inspiring forms.

True education for the individual must always be progressive and uplifting. Its reach is above the stars, beyond time. True education respects the personality of each pupil. While it aims to expand and ennoble, it always honors the individuality of each. What the child holds as its peculiar gift from God, educators must carefully guard and form. Conformity to particular pattern, mode, and method can never take rank in right education above liberty and obedience to the laws of life. Individuality must always be held sacred, and devoutly studied and encouraged. If we lose a child's individuality, we may lose its soul.

Education, to be worth anything to society and the world, must always write on the tablet of human consciousness the lessons of infinite wisdom. Education teaches that every grand idea comes from God. If truth comes to one mind, it comes for all minds. Each receiver and lover of truth becomes through the power of right education a moral lighthouse, diffusing everywhere glorious beams to cheer and lighten others.

Let us carry away with us from this great national gathering of educators a fixed resolve to educate, educate, educate; educate for home and society, for citizenship and country, for life, for eternity. Let us educate, not only the children but the fathers and mothers of the children. Let us send the influences of the schoolrooms into the homes of our beloved country. Let us arouse the people to the glories and benefits of education. Let us draw all the people into our schools or within their influence. We touch the people's pockets in the liberal support given our public school system. Let us touch the people's hearts and lives and arouse their interest. Man is never at his best until education brings him there. If our education is a mere form, it is a hollow mockery. We must have education with a heart in it. Through the child we must reach the parent. If the child's heart is right, if the parents' hearts are right, education becomes a living force—a vital element. It refines the gold which makes character and right living.

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Why not an educational revival throughout our land, which shall arouse our people to the mighty power of education—which shall mean better teaching, better study, better schoolhouses, better men and women, better states, and better country? We have religious revivals to fill our churches with Christians; we have political revivals which agitate our country from shore to shore. Why not an educational revival, to fill our homes with educated fathers and mothers, as well as educated children? Education will make every Christian a better Christian, will make politics dignified and honorable politics—which look to the formation and preservation of good government, and not altogether to the control of caucuses and conventions. Let us ever plead for a closer relationship between the public and the schools, a better understanding between the people and the teachers, an elevated public opinion which shall comprehend all. That which uplifts one, uplifts the other; that which uplifts both uplifts the community and the state.

Every political and social reform that is worth having must come through an educated public opinion. We must constantly reach for higher standards if we would have a public opinion strong enough to win victories.

In our country the people themselves are the source, not only of power but of moral and political forces which erect high standards. They can and will have just as high ideals of social and political and educational life as they are willing to insist upon and work for.

Teachers, the work is ours to elevate in our schools these standards of action and of life. Through our pupils we must work upon the parents, if we would lay the foundations of public opinion broad and deep. If there is now no standard of public opinion in our country, let us agree upon one and work faithfully and constantly toward it. Once anchored in our schools and our homes, an enlightened public opinion will work its own way into our politics and into our government and bless our country with its ennobling influence. If we would make public opinion, we must have opinions ourselves, right, and strong, and constant. If we would educate public opinion, we must throw education into it. It will not come in a day, but, like the silvery waters that find their way down these grand mountains, it will make its path over the firmest rock. Little by little, faithful work will tell at last. Teachers, superintendents, principals, professors, presidents, from the kindergarten to the university, this great work is largely yours, of educating the people, of educating public opinion.

"Seek ye first the education of the people, and all other political blessings will be added unto you."

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NEW STANDARDS OF PATRIOTIC CITIZENSHIP.

BY GEORGE H. MARTIN, SUPERVISOR OF SCHOOLS, BOSTON, MASS.

Five hundred years of history have become crystallized in our American notion of patriotism—five hundred years of passionate struggles for liberty, of breaking chains and abolishing formulas.

Oppressive forces, organized into institutions, deep-rooted and tenacious of life, have been resisted and overcome. Feudalism, villanage, serfdom, chattel slavery, and constitutional absolutism have, one after another, gone down in fight. Successively, free towns, free men, and free states have come into being. During this entire half millennium the whole Western world has been a militant host.

Blazing across its sky, as the cross blazed before the army of Constantine, has been the legend, "The Rights of Man." To secure and maintain these rights men have sacrificed and endured; they have died by thousands—in battle, in prison, at the stake, by the assassin.

Speak of patriots, and we think of William Tell, and William the Silent, and Cromwell, and Lafayette, and Mirabeau, and Touissant, and Bolivar, and Kossuth, and Garibaldi, and Washington—all men with swords in their hands. The common thought has found expression in proverbs, "Rebellion to tyrants is obedience to God;" and it has revived an ancient saying, "It is sweet to die for one's country."

In the opening chapter of his "French Revolution," Carlyle wrote: "Borne over the Atlantic to the closing ear of Louis, king by the grace of God, what sounds are these—muffled, ominous, new in our centuries? Boston harbor is black with unexpected tea; behold a Pennsylvanian congress gather; and, ere long, on Bunker Hill, Democracy announcing in rifle volleys, death-winged, under her star banner, to the tune of 'Yankee-doodle-doo,' that she is born, and, whirlwind-like, will envelop the whole world."

For a hundred years, to American children, Bunker Hill has been presented as a type of patriotism in the concrete. A patriot is a man who loves his country and is ready to die for it. Since the Civil War new names have been added to the list: Lincoln and Grant in the North, and, with precisely the same sentiment, Lee and Jackson in the South.

All our patriotic literature has the same ring—the songs we sing: America is a sweet land of liberty; land where our fathers died; Columbia's heroes fought and bled in freedom's cause; in the rocket's red glare, and with bombs bursting in air, the star-spangled banner waves o'er the land of the free and the home of the brave.

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As a perpetual stimulus to this emotion we have put the flag over all our schoolhouses and have taught our children to salute it. Just now we are experiencing a powerful revival of this sentiment. Not content with chanting the praises of the country's heroes, men and women everywhere are beginning to glory in descent from them; the Sons and Daughters of the Revolution are organizing, and still more select and exclusive is the Society of the Colonial Wars.

What does it all mean, and what is to be the outcome of it all? is the practical question for us to consider. Here is a sentiment of tremendous power, widespread and deeply felt. Hitherto, this sentiment has had the weakness of the old theology, which aimed to teach men how to die. It has been an immense reservoir of potential energy, waiting for foreign aggression or internal disturbance to become kinetic, but always waiting, anticipating—always thinking of war as the field for its exploits. Now, the practical question, I take it, is this: Shall this sentiment of patriotism be allowed to expend itself in mere effervescence, in Fourth of July orations, and after-dinner speeches on battle anniversaries? Shall it content itself with building monuments to patriots of the past and garnishing their sepulchers? Shall it pride itself chiefly in a patriotic ancestry, or shall its energy be transmuted into useful work? Shall men and women be ambitious to be themselves fathers and mothers rather than sons and daughters of revolution? In a word, shall our people be willing to live for their country while they are waiting to die for it?

To bring about this change will necessitate new standards of patriotism; or, at least, more comprehensive standards. To form these we shall have to change our point of view, to get a new πομστω. We must move from the fifteenth century to the twentieth. Instead of a poor, feeble, downtrodden people struggling to become erect, we must see an independent nation, grown rich and powerful. Instead of galling restrictions upon personal liberty, we must see personal freedom. Instead of class distinctions, embodied in laws and customs, we must see legal, social equality. And we must see that a great, independent nation, composed of free and equal people, will not have to fight over the old battles or to meet again the old foes. Whatever demands it makes upon the love and devotion of its citizens will be to meet new enemies and will call for new weapons.

When we have come to know what these new enemies are, we shall realize that the work of patriots is no longer to be done under the glamour of military glory; is no longer a struggle with principalities and powers, but with the rulers of the darkness of this world, against spiritual wickedness in high places.

Our work, therefore, in the education of the young for citizenship, will be three-sided. We shall need, first, to get beneath the mani-

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festations of patriotic emotions in the past to the essential and underlying principles; from the deeds to the spirit. Next, we shall need to show what are the peculiar perils of our country to-day; to discover the real enemies. And, third, we must teach how these enemies are to be met and conquered; in other words, how the old spirit must manifest itself under the new conditions.

It may be easier for us than for children, but surely not impossible for them, to see, that, in all the patriotic deeds they have been accustomed to honor, there is the common element of self-sacrifice, a putting aside of personal and private interest for the sake of the public weal. And it will be our task to bring to light the more obscure examples of this self-sacrifice; to show, for instance, that the women of Boston, in giving up their tea, were as patriotic and as heroic as their husbands, in feathers and paint, emptying the boxes into the sea; or, that, for the Dutch boy to sit all night, stopping with his hand the leaking dike, was as patriotic as for his ancestors to break down their dikes and flood their land to save it from the Spanish invaders; that, for Washington to leave the quiet retreat of Mount Vernon to become president, was a more signal exhibition of patriotism than for him to fight the battles of the Revolution.

By some such course of instruction as this, having brought into prominence the essential element of all historic patriotism; having shown that, whoever, at any time and under any circumstances, sets aside his personal interests for public ends, is doing a patriotic act; that to sacrifice comfort, or time, or reputation, or friends, or money, or health, or life is, in its essence, patriotism—our next step will naturally be to show what dangers beset our country to-day, under what colors its enemies fight.

We know too well, and it will be our business to teach, that our foes are of our own household; foes not to be met by cruisers and torpedo boats, nor by coast fortifications, nor by a standing army. We may show that private vices may be more dangerous than foreign armies; that idleness, intemperance, luxury, and extravagance may destroy a people—are, so far as they exist, to-day destroying our people. We may show that a venal ballot tends to undo the work of centuries of struggle for political freedom through universal suffrage. We may show that a corrupt judiciary may throw down in a night all the bulwarks of civil liberty which have been set up through the ages. Wicked men on the bench may light their pipes with Magna Charta and the Bill of Rights and state and national constitutions. We may show that combinations of men for selfish purposes in a country as rich as ours may make and unmake laws, so that under the cloak of freedom and equality and under the guise of laws made by the people and for the people the great body of the people may

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be oppressed in person and estate. And we may show, that, in comparison with these dangers, the bombardment of a city by a foreign fleet or the invasion of a foreign army would be light afflictions.

In the presence of these enemies, and such as these, possible or actual, the new patriotism is to find reason for being and ample scope for exercise. If, now, we set ourselves to characterize a twentieth century patriot, we shall find, that, first of all—a foundation for everything else—there must be sound manhood, personal integrity; a man in whom the beatitudes have been fulfilled, who has hungered and thirsted after righteousness and has been filled.

American society has reached that stage in its development, when, from each extreme, exudes a class of idlers, one over-fed and over-dressed, the other hungry and ragged, but both alike preying upon the public, both alike subject to the vices which idleness entails; one killing time by coaching and fox-hunting, the other by tramping on the road; one, by the very contrast, baiting and exasperating the other.

More and more, as time goes on, we shall find our ingenuity and our effort taxed to limit these classes. The extreme of peril in popular government is reached when one of these classes furnishes leaders and the other voters, as in the later days of the Roman republic. All our educational forces need to be directed to the dignifying of labor, to building up a society which, from top to bottom, shall consist of independent, self-supporting producers, whose very independence is in itself patriotic.

Next, the new patriotism will recognize in a substantial way the mutual obligations which grow out of the interdependence of men in society. Modern society is built on an industrial basis. Zigzagging through it from top to bottom there runs the line which separates employer from employe. It is of supreme importance that this relation shall be one of mutual respect and good will. There must enter it on both sides the qualities of large-minded and large-hearted personality. Especially should these qualities be found in the employing class, as having been specially favored by nature or circumstances. This personality must be helpful, sympathetic, generous; but, above all things, just. Fair dealing must be its supreme characteristic, and it must be shot through with the spirit of the Golden Rule.

Here, again, we are confronted with peril. The magnitude of industrial interests has tended to eliminate the personal element on both sides. The employer is no longer a man with a soul dealing with another man, also with a soul. But it is a corporation, a mere body; and it deals with a union, also a mere body. The employer's personality, and with it his personal responsibility as a man to his fellow-man, has been given over to boards of directors and superin-

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tendents and foremen of all grades, until all sense of it has been lost. The employe has lost himself in the officers of his union and the walking delegate. Both alike have abdicated the throne of personal sovereignty, and have subjected themselves to the tyranny of their respective orders.

The whole industrial system to-day is practically in the hands of irresponsible agents. No wonder there is trouble. Friction is inevitable, and friction produces heat, and heat fire, and fire is combustion, and combustion is ruin.

The new patriotism will penetrate to the core of this system, and bring back to it the sense of personal responsibility which it has lost. Measured by the new standard, men who retreat behind the philosophical abstraction called capital, or behind the legal dummy called a corporation, and calmly see, or refuse to see, men and women and children subjected to excessive toil for scanty remuneration—existing, but not living; who hear unmoved, or refuse to hear, the appeal for justice, based on real or fancied wrongs; such men, whatever else they may be called, will not be called patriots. Not even though they enrich universities, and found libraries, and build churches, and contribute liberally to campaign funds.

The patriotic citizen in business will have intelligence enough to see that the public weal—the national life—depend on social harmony, and that for such harmony he is responsible as far as his business relations extend, and beyond to the outermost circle of his personal influence, and he will be guided by his intelligence.

While the patriotic citizen will, for his country's sake, live up to these personal and social obligations, he will distinguish himself by constant and cheerful participation in public affairs. Our modern representative system has weakened the sense of personal responsibility for good government. Too many good men are content to sell their birthright of sovereignty for a mess of pottage. Not only are they unwilling to do their part in municipal administration and jury duty, but they fail to meet the prime obligation of citizenship—to vote. They have lost the spirit of the fathers. In the old English parish and in the chartered towns of the fifteenth century the obligation of personal service in public affairs was recognized and enforced by law. The early settlers of New England brought with them the same idea, and there are still on the statute books penalties for refusing to serve in certain local offices.

The new patriotism will return to the old standards. It will insist, that, if it is culpable to go into politics to serve selfish ends, it is still more culpable to stay out for selfish ends. If juries are packed, and so justice perverted; if votes are sold, and so elections purchased; if bribes are received, and so legislation is made corrupt; if public business is in the hands of spoilsmen, the blame will be laid

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at the door of the good men who allow it to be so. If the wolf gets into the sheepfold, it is not the fault of the wolf. It is his nature. It is the fault of the shepherd, whose business it was to keep him out—with his life, if need be.

By this standard will the patriotism of men be measured: Are they willing, for the public good—for country's sake—to sacrifice private interests of time, and money, and thought; to sink partisan prejudices, and to unite with all other men similarly inclined in an alliance, offensive and defensive, for good government, pure government, business government?

Will they vote? Will they go to caucuses? Will they take municipal offices? Will they serve on juries? Will they fight the saloon interest and the gambling interest on their own ground? Will they fight the spoilsmen in their own party? Will they demand and fight—first, last, and all the time—for clean men and clean measures?

Nothing less than this will satisfy the demands of the new patriotism. It does not supersede the old; it does not cease to reverence the old. The spirit that rebels to-day, and declares its independence of saloon rule, and corporate rule, and boss rule, is the spirit of '76 arming itself with twentieth-century weapons for twentieth-century conflict.

THE STUDY OF AMERICAN HISTORY AS A TRAINING FOR GOOD CITIZENSHIP.

BY DR. J. BALDWIN, PROFESSOR OF PEDAGOGY, UNIVERSITY OF TEXAS, AUSTIN, TEX.

[STENOGRAPHIC REPORT.]

MR. PRESIDENT, LADIES AND GENTLEMEN: At half-past the eleventh hour I consented to say a few words on this important subject, and as a preliminary I wish to say, in the Herbartian phrase, that conduct is central in education. As conduct-study awakens the most brain cells and develops the largest brain areas, these studies are educational and of the highest importance. I would say that conduct-studies deserve to stand first. I am longing to roll back the wheels of time a half a century, and to join this mighty army of young women and young men who are pushing this educational work to new and better conclusions. We who have worked during a half century realize that we are just beginning to get hold of the great principles that are to prepare us to lead the race to a higher and better life; and, without any leader, without seemingly a purpose, we are coming to an organization of a new department in our educational work, which, it seems to me, is

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destined to stand at the head of educational effort. The word is coming from various lands and countries, that the department of conduct-studies, in which we shall make prominent the development of character and preparation for life, is the most important part of our educational work. We long have done this work in a general way. France, to-day, is systematic in making the development of conduct in manners and morals primary in its educational work, and the result in a few years has been marvelous. All the nations are turning their attention to this subject, and we are just now considering one phase of the conduct-work, good citizenship and patriotism, which is our theme to-day. The Herbartians have been looking around for a center. Surely, conduct is central in our educational work. All subjects contribute to this. First, we want to make grand men; men of thought; men of achievement. And in doing so we want to develop character, conduct. Our highest conception of it all is pure self-activity. Our psychologists have been studying, investigating, and talking, and they arrive at pure self-activity as the basis of all moral training. This activity goes out in thought—in all the realms of knowledge. This activity goes out in devotion—in noble, lofty impulses of the soul. This activity goes out in that highest act, self-determination; culminating in action, culminating in conduct, culminating in character, and man becomes essentially a history-maker. Now, I am speaking of this new department, including conduct-studies, manners, and morals, including our school and family discipline, including the highest studies, until it reaches our religious nature. It includes man as an actor in history, including good citizenship, including the study of self. In this group, history is the central feature. History seems to come to us in a world of action, as nature and art in other fields. The artist studies first in nature and art. He gets his ideals and his inspiration, and he produces something better. The writer studies in literature, and gets his ideals and his inspirations, and produces Shakespeare's poems, "Paradise Lost," and other great works of literature. Now, in conduct, history gives us the best in the individual and the best in the nations. We get our ideals and our inspirations, and it seems to me that the committee of fifteen did a wise thing in demanding that we begin this history work in the kindergarten. We somehow get into the souls of the children the best things of all ages. It elevates their souls, and they are better prepared to study philosophy and history in the university. It seems to me in this way we can best fit men for higher, grander lives.

Now, the lesson of the hour is patriotism, as developed in the study of the past—in history. I think that you all will say, that the study of Homer—the study of the character of the Greek people—produced for a thousand years races of heroes. When we study into the darker periods of all history, it seems to me that we learn that the stories of patriotism and heroism, and the songs of heroes, and the great achievements of the people, have done much to mold the race, almost from the beginning. When we look at England to-day—if I were not an American I would want to be an Englishman—when we look at England to-day, what an inspiration is found in English history and English achievements! Her mighty men (and there are a host of them) stand out as an inspiration in every department of life to-day. Gladstone is an inspiration to the entire world The history of England—the greatest empire the sun has ever shone upon—abounds in the greatest achievements the world has ever seen, by her mighty men and her mighty women. We turn to our beloved America. I am glad, in the paper just read, that we have had a sketch in such a masterly way of the influence of history in molding our marvelous people. I remember, as though it were yesterday, how my heart swelled with pride as I read of the achievements of our pioneers, and of our revolutionary fathers, and of our history-makers, all along this struggle of the making of the Constitution, of the building of the government, of the building of the states. It seems to me that if

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we get into the minds and hearts of our youth these lessons, they will grow up to be worthy. Patriotism is not narrowing; indeed, it seems to me to be broadening. All the world loves a lover, and of all the men in the world to be pitied to-day are the men without a country, who should be pitied as we pity the poor bachelor without a wife. I love my family, and loving my family does not unfit me to love my country. The man who loves his country warmly, dearly, is fitted to become a citizen of the world. I would have every man broad. The American, of all people, should be the broadest. I think our hearts are large enough and warm enough to love all people—the brotherhood of man.

While we love our country with all our hearts, we are prepared to love all countries, and can appreciate what is done well in France, and praise what is done well in England. We should be ready to applaud even Russia or Japan when they do the right. I think that I can express the sentiment of every heart when I say, that we are proud to-day that little Japan has made such great achievements in civilization. Just a little while ago, when I studied geography, it was almost unknown, away in the far-off ocean, and now we find there a civilization that is becoming grand. They have an educational system that compares favorably with our own. They are becoming christianized people. We should be ready to applaud the achievements of all peoples.

Now, the one subject that I was asked especially to present to you is patriotism in our Southland, and I will say some things to you that will surprise you. Nowhere in all our country do the fires of patriotism burn quite so brightly to-day as in our sunny Southland; and I want to say to you just one other word that you are not prepared to hear: that all the South—all our Southern people, I think, without exception—rejoice to-day that the Lost Cause is a lost cause. We realize how great a thing it is to be a part of this great country. We love the South, and we love it because it is a part of our common country. We revere the memory of the heroes of the South, because they were true and brave.

We have problems to solve in the South that are difficult, but we are solving them as best we can. We have there 8,000,000 of colored people; a downtrodden race; a race who for a thousand years were a race of slaves and regarded as chattels. We have the problem of lifting up these millions and educating them into citizenship and into patriotism. I wish, when you come down to the Cotton States Exposition, that you could spend a month in the Southland and study the object lesson, this great lesson of the ages, where we are taking hold of this race of downtrodden humanity and lifting them up, as no race ever was lifted up, to a position of citizenship and patriotism. We realize they are there to stay. We realize that they have the ballot. We realize that the interests of all the country demand that they should be made intelligent and virtuous citizens. Hence, first, we are giving the colored people of the South every advantage that we give to the white people. If we have a common school for the whites, we have a common school for the colored people. If we have a high school for the whites, on equal terms we have high schools for the colored people. If we have universities for the whites established by the state, we have colored universities, giving the highest education to the colored people.

I wish you could study this problem as an object lesson, and see the marvelous power of our government. I confess I am astonished every day, to see these people taking hold of education as I have never seen a people, with a thirsting and a burning desire for knowledge. Go into their meetings, and you would hardly hear a better discussion of many current questions in our educational conventions or in our great cities than you hear in the meetings of these colored people. It may be in crude phrase, but they are discussing these questions of good government and

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good citizenship with original ideas, and they are learning these lessons of intelligence. Now, you blame us because we have made some restrictions. Before you all to-day I simply state what I believe to be the true position, that intelligence should govern. Senator Foster, a few years ago, at our State Teachers' Association, made a declaration that seems to me to be right: "Universal education and limited suffrage." Now, I do not defend many things that seem to have been found necessary, but the whole South is coming to this, to leave the colored man to vote as freely as the white man as fast as he becomes intelligent, able to read and write, able to understand his duties as a citizen.

Now, in conclusion, I wish to say a word with reference to history. All we ask is, that history should be impartial and generous. I somehow feel every day more and more that the lines between the state sections are growing dimmer. This great national meeting, where we almost forget our states, and come together as a nation, makes us feel the patriotism of our whole country. The Christian Endeavor and various other organizations that are now meeting, revolutionizing the sentiment of the country, it seems to me, together, as a whole, will do more and more to obliterate the lines between North and South and East and West. I am glad to see these lines are becoming dimmer and dimmer in our country, and that patriotism is coming to the front; and, as we write history, let us be generous. You can afford to do justice to the South. In the South we love to do justice to the whole country. We have our Washington and Lincoln, the peerless patriots of all the world. We have our Webster and our Clay, the world's peerless statesmen. We have our Grant and Lee, the world's peerless generals. We can afford, fellow teachers, to be large-hearted and generous. We love the South. We love the North. We love our whole country, and, as we teach history, let us hold up all that is grand and lofty in all sections. Let us be large, and broad, and uplifted. Let the fires of patriotism burn warm with love for the whole country, and that love an intelligent love. We want good citizenship. We want a broad, grand citizenship, and let it be that the children make grand men and grand women, and then we will have a grand country and a glorious immortality.

THE ETHICAL ELEMENT IN PATRIOTISM.

BY A. P. MARBLE, SUPERINTENDENT OF SCHOOLS, OMAHA, NEB.

Patriotism—love of country—is fatherism (if we may coin a word) or filiation. It is derived from the Latin word, *pater*. This word comes through the Greek from the Indo-Germanic root, *pa*, whose first meaning is to protect, and whose secondary meaning is to provide or to feed. Protection, then, and provision, as well as origin, are inherent in the word father. It is interesting to trace the various words and the wide range of ideas that are allied to this word *pater*, and to note all that is involved in those words and in their various connections and ramifications—all coming from that one root, *pa*. From these we may perceive more fully the broad extension of the meaning of patriotism. Of these we have paternal, patriarch, patron,

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patroon, patois, pattern, and others—in all thirty or more words; and from the secondary sense of the root, *pa*, we have pastor, pasture, pastern, with their various derivatives, making about as many more. And in all this group of words the fundamental idea of the original root-word is found in one or the other of its meanings. Hence, patriotism, in the present meaning of the term, involves all those basic ideas.

I. The first form of government was patriarchal. The father governed his family in early times, however it may be at present. He was the author of their being, he protected them, and he provided for them. In return they owed him filial obedience and service. In that early, archaic, and semi-barbaric age there was no organized society. Abraham, for example, took many wives, had a numerous family, and moved west after the place whence he started had become too thickly settled. Soon afterwards, Lot, Abraham's nephew, set up for himself. His family and his flocks also increased rapidly; and, to avoid trouble with his uncle, he moved to a new claim on the frontier. This was at a time when Henry George's theory about the ownership of land was in practical operation. Both these patriarchs, Lot and Abraham, were rulers of their own family; and loyalty to them on the part of their descendants was the patriotism of that day. It is probable that there were other men in the neighborhood of similar age, just as there are a few men in our time, without families. We can account for the prominence of the few, like the patriarchs just named, and the obscurity of the many only upon the theory of the survival of the fittest.

In process of time, these unmarried men and many of the younger members of the family who were married became attached or remained attached to the family of the older patriarch; so that his family or patriarchate consisted of both his direct descendants and others more remotely connected with him or not at all related. And then, of course, when the patriarch died, as they did in some cases after several hundred years, it became an interesting question who was the head of the family; for family trees in those early days were not always closely trimmed.

II. Hence, the family at length expanded into the tribe, or gens; and the ruler, selected on whatever ground, remained still the patriarch with a more extended sway. Here, also, as in the family, the idea of protection, of provision, and of union for the common weal still continued. Loyalty to the tribe replaced loyalty to the family, though there were instances where family feuds continued within the enlarged union, as in the case of the Capulets and the Montagues, hinted at in "Romeo and Juliet."

III. With the increase of population in that ancient world which we are now considering, and with large and diversified interests, tribes at length became consolidated, so as to embrace whole peoples with

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a common origin and a common language. And such combinations have often been made not without war and bloodshed and with violence to the patriotic instinct on the part of the conquered tribe; an instinct that develops later for the larger community; as in the case of the Scotch and Welsh (though not yet of the Irish) that form parts of the British empire.

IV. And lastly, through contiguity or by conquest, the small nations have been united to form a single empire with interests more or less identical, and cohering by bonds of sentiment as well as of common interest. There are families, tribes, peoples, nations, in the world at the present day in all these various stages of attachments and coalescence, in the islands of the sea, in remote Africa, in Asia, and on the continents of Europe and America; and in them all, through the successive stages of their development, the fundamental idea of protection from foes without, of provision for human needs, has a prominent place. This idea is essentially selfish; it is the attempt of each man, each tribe, each nation, to get the best at whatever cost to the rest of mankind. And this state of things was from the first a necessity; a necessity unlovely, indeed, but one from which something better and broader has grown and is growing. In the conflict with the blind forces of nature, men soon learn that combination is necessary in order to achieve success; and advanced, progressive tribes and nations have found that they must act in unison if they would advance and gain, and preserve what they have already gained. Selfishness has therefore been an aid to progress and a conservator of what that progress has achieved.

Selfishness, then, or more strictly speaking self-interest, is not an unworthy quality. Without a proper regard for one's self, there would be no progress in the world. It is a man's duty to care well for himself and for his own, in order that he may be helpful to humanity. People are generally quite enough inclined to look out for themselves. In a majority of cases, probably, they care for themselves too much. They are selfish in excess, and too little altruistic.

It sounds beautiful to hear the young admonished to forget self and to work for others. Noble examples of self-denying heroism are pointed out as models for the young to emulate, and the Scriptures of the New Testament emphasize the quality of self-denying love. This is what is needed by nine people in ten; perhaps, by ninety-nine in a hundred. But for the last one in the ten or in the hundred the opposite admonition is needed: that he care for himself—look out for number one. For there are a few timid, self-depreciating souls, fine-grained, made of the best timber, who neglect their own interest, and cripple their own power for good both to themselves and the world at large. All such persons need to be reminded, that this world is a battlefield where he who wins must fight for himself; that

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self-preservation is the first duty of man; that doing to others as you would have them do to you does not generally mean ruining yourself for their sake; for, carried to that extent, the Golden Rule would imply the extreme of selfishness—that you wish other people to ruin themselves for your sake. I put in a plea, then, for selfishness occasionally, for the tenth or the hundredth boy; or, since that word has so long stood for evil, for self-interest—that self-interest which has been from the first, and is now, an important element of patriotism.

V. In tracing thus the gradual extension of the original family interest, as it embraces the tribe, the people, and then the nation, we find that patriotism has a constantly widening horizon. The petty personal interest broadens from the family to the tribe, and from the tribe to the individuals of the same race. From this it extends, with the advance of civilization and the complexity of human interests, to all the people living in the same country. But it does not stop at that point. Of the millions of people in our country, no person can have a personal interest in the vast majority. That interest is confined to but few, and is not bounded by city or state lines.

The community of interest in a municipality or a commonwealth, founded on a policy beneficial to that organization, does indeed create a warmer attachment among its members. But such an attachment, with advancing enlightenment and civilization, is modified and controlled by regard for mankind outside of that narrow boundary; modified both by that sincere regard which an enlightened man has for all humanity and by a far-seeing self-interest. For it has gradually become known, that righteousness and justice exalt a nation and that public wrong is a reproach to any people. It is as true of a nation as it is of an individual, that honor and justice are the most profitable in the long run; that sin does not pay.

VI. And further. In the present complex organization of enlightened society no part can be harmed without injury to all. Within this century one part of the world was comparatively but little affected by the prosperity or the adversity of another part. At present, by rapid transit and the telegraph, every part of the civilized world is interested in every other part, and the condition of the whole world—its crops, its social status, and its wars—are known at the breakfast table. The value of the wheat crop in the Mohawk valley is determined by the product of Minnesota and Manitoba, of Southern Russia and Argentina, and all Europe and America watch with eager interest the insurrection in Cuba, the disturbance in Samoa, the deposition of Lilioukalani, and the march of the Mikado towards Pekin.

VII. In this widely-extended interlacing of national interests, true patriotism comes to have an ethical element that comprehends all

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humanity. Ethics is the science of duty—morality; the knowledge of rules for human guidance that have developed with the race and that contain the results of human experience. Patriotism has broadened itself outward from the narrow conception of the interest of the family to the tribe and nation, and now, in its wider significance, to the whole world; because, in the wider experience, it has been discovered that the welfare of one is best subserved by the prosperity of all, and that the true patriot is also a citizen of the world.

It is this broad, truer patriotism that should be cultivated in the schools. To raise the flag over every schoolhouse; to celebrate the glorious Fourth with guns and banners; to march in procession to the sound of martial music, as a lesson in patriotism, is well enough, and not to be despised. But this is not all. There must be a loftier conception than this as the basis of duty. Minnesota may push to the front her wheat; Nebraska, her tasseled corn; Louisiana, her sugar; Colorado, her silver; the South, her cotton; and New England, her manufactures; but beyond them all, and over them all, is the Union. And so, beyond the Union there is a commonwealth of nations, a community of enlightened men on whose sympathy and co-operation the world's prosperity largely depends—a prosperity in which we share, and without which our own advancement would be enfeebled. It is to such a goal that all civilization and all true patriotism tends; and progress will be along the lines, dimly traced above, by which the race has advanced from the patriarch to the prince—the uncrowned princes—of a free republic.

VIII. We best teach ethics, as other subjects are best taught, in the concrete and by example. Our holy religion, and all other great religions of the world, so far as I know them, are revealed and illustrated in the life of a person; and the law of love, the life of sacrifice, which conquers the world, the flesh, and the devil, is displayed in the life of Jesus. That life is the ideal of all Christian endeavor. It is by such a method that patriotism may best be inculcated; and fortunately for the youth of this great country we have an exemplar of the noblest and the best, an example that more than any other has commanded the admiration of all lovers of freedom throughout the world. In the apotheosis of the father of his country, however, his character has been sublimated, and only his transcendent virtues appear. It is doubtful whether the human character, with all its nobility contrasted and brought into relief by its inevitable frailties—the real Washington—might not furnish a better model for us all, as being something attainable and not beyond our reach. That character will bear the searchlight of such scrutiny; and Washington the man, as well as Washington the hero, Washington day by day, is a worthy text for American patriotism, both ethically and practically. His apostle was Abraham Lincoln, and his Gideon, his Ulysses, was Grant.

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DISCUSSION.

W. H. BARTHOLOMEW, Principal of Female High School, Louisville, Ky.—We in the South appreciate the purposes of our government and endeavor to keep before us the high ideals that have been presented to us this morning. We believe the time has come in the history of our civilization when we are not only to teach the man to die for his country, but, in a higher and better sense, we are to teach man to live for his country. We cannot teach him to live for country until we have taken these heaven-born endowments and have developed them into beauty and symmetry based upon the principles of justice, equality, and righteousness. And this is the work to which you and I have been called. Now, it matters not whether we live in the North or in the South, whether we live in the East or the West. If you and I realize the grave, serious responsibility that is imposed upon us, and we make an earnest, conscientious, prayerful effort to discharge that responsibility in the presence of God and to give to this nation of ours men of intelligence and virtue, then we have placed this nation upon the granite foundation of truth and justice, and there is no power within nor is there any power without that can ever make her conquest. So I can this morning heartily indorse the sentiments that have been expressed by these speeches. May I again say that which has been implied this morning, that the center from which emanates the moral and spiritual power is the family, and that nation which disregards its obligation to the family is the nation which cannot survive. This external demonstration must have something lying within. This flag, as such, is nothing but a cloth flag. When that flag indicates equality, when that flag indicates justice, when that flag indicates truth, then it means something. So it is our purpose—our privilege, rather—to take these boys and these girls, over whom we have been called to preside, to take their power and to create in them strong and earnest desires—not only to know what is right, not only to know what is true, but to create in them a disposition and a purpose to do what is right and what is true; not because it pays, but simply because it is right and true.

May I say this morning, in the language of the Great Teacher whom we all love and whom we most revere, if we would make this nation of ours what we would have it, "He that would be the greatest among you must be the servant of all." As Mr. Marble said this morning, there is an element of selfishness that enters in; but it was not in that narrow sense. The Great Teacher said that he who cannot love himself cannot love another. It is true that patriotism begins at the home, but it does not stop there. It is said that charity begins at home; but the man who practices all of his charity at home is absolutely a selfish man. We want that charity which begins at home, and passes out from the home, and takes in others, and realizes that there are other interests than his own. Or, perhaps—to state it in another way—when I cultivate my intellectual powers, when I cultivate my heart powers, when I cultivate my powers of will, I do so in order that I may be more helpful to others. Then I have placed myself in an attitude where I am discharging, not only my obligations to myself but also my duty to my fellows. Some one said this morning, that if he were not an American he would wish to be an Englishman. I want to say this morning, that I don't want to be anything else but an American. That which has given me the sincerest pleasure for perhaps ten or fifteen years is coming up here and meeting you, gentlemen, who have dedicated your lives to—what? Why, to educating these little boys and girls in their infancy and weakness and developing them into Christian manhood and into Christian womanhood.

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SUPT. C. B. GILBERT of St. Paul, Minn.—I rejoice that at last the schoolmaster has a higher idea of patriotism than the average citizen, because in that is the only hope of the future. I came up here with fear and trembling, expecting to hear members discuss the relation of the great *Ego* which we call the nation. I have not heard a word of it. All of these schoolmasters have told you that patriotism is the sentiment that leads; that the country is not represented by the domestic cat which loves the spot where it lies down to sleep, or by the undomesticated cat which drives you away from its lair or eats you up. But the country is simply an opportunity for service and cultivation of the doctrines we have heard. That doctrine, you and I, schoolmasters and schoolmistresses, believe. The motto which we take away from here is not, "My country against the world," but, "My country for the world." Now, the practical question comes, How are we to impress this truth upon the children? Not by what we have been wont to call education—reading, writing, and arithmetic—and the filling of the mind with knowledge, and the training of the powers so as to make them strong; that does not make them patriots. The most powerful men that history has known have many of them been the very worst, and I regret exceedingly that this generation has seen a reviving of one of the great examples of selfishness—who stands for selfishness above all those that ever lived—Napoleon. Napoleon is to-day the ideal of millions of boys of this land. We schoolmasters must put down such stuff.

Now, society is not the result of a social compact. It is a divine institution given to man by the Father, that he might make the most of himself and then give himself for the good of others; because it is through society, as has been well said by Dr. Bartholomew, that man can do the best service. Hence, we must create such an atmosphere about the child in school that he shall become habituated to the thought that he is a member of society; that he may serve society, and through society the world. That is the business of the teacher, inspired by the gentle spirit of the Master. This influence you can carry with you into the schoolroom, so that it will take hold of the children. It is your duty to create an atmosphere so that the children shall, from day to day, live in love and live in service, and go out from the schoolroom to serve mankind; not to fight them but to serve them by noble deeds—serve them in all the glorious ways that have been referred to this morning. It is a powerful influence for good and for patriotism which the teachers of this land can exert, so that the whole world may be inspired with the spirit of love toward mankind. You, ladies and gentlemen, and you alone can do that.

STATE SUPT. J. R. PRESTON of Mississippi.—I have listened with profound pleasure to all that has been said, and the noble and high ideals of patriotism that have been set up for us. I represent in some ways, not the trans-Mississippi, not the North, not the East, but I represent the far South—the State of Mississippi. I had the honor a few years ago of reading a paper at the National Educational Association in Toronto on the subject of teaching patriotism, and the foundation principle that I laid down there I believe to be true to-day. I find reported in the papers of this morning that the true patriotism is to live for one's country. That is what we are trying to do. Fellow teachers, in this great nation, with us of the South the problems of the past have been submerged in the history of the past. The problems of the present are pressing with mighty weight upon our greatest energies, and we are trying, in faith, and in patriotism, and in truth, and in honor, and in honesty, to meet these problems day by day, according to the best light and the best knowledge and the best thought which we possess. We are honest; we are sincere; we are struggling with great difficulty; and we come and claim from you a charitable appreciation of the efforts we are making. We come and ask you to do what we are trying sincerely to do—to lay aside all prejudice, and to teach

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the right, and cease to teach or allow to be created any of the baneful feelings of hate which once tore asunder this mighty country. We come to you with open hearts, and we believe that the teachers have a grand opportunity—the grandest opportunity and the grandest power—to allay prejudice, to smother hate, to come to a consideration of this question with fairness and with justice, and we believe that this great Union, established as it is upon the principles of justice and equality, is worthier to-day of the love and admiration of every citizen, North and South, than it ever was, or than any portion of it separated apart ever could have been.

Let us forget all that is past, and remember the great issues that are before us to-day. Let us grapple with them in faith and truth and honesty. Let us look at them with all the intelligence that we can summon. Let us, as teachers, feel that here is the work of the nation, and let us enter into it with a profound love, not for the North or South, the East or the West, but love for this whole nation.

THE EFFECT OF THE THEORY OF EVOLUTION ON EDUCATION.

BY JOSEPH LE CONTE, UNIVERSITY OF CALIFORNIA, BERKELEY, CAL.

Like all great truths, the idea of evolution has been held in a vague way even from the earliest dawn of thought. But only very recently do we observe any attempt to apply it to life. We find the explanation of this in the profound difference between the old philosophy and modern science in their respective attitudes toward truth. To the old thinkers, pure thought and gross matter, the ideal and the real, belonged to two different worlds. They never dreamed of bringing down their noble thoughts to the practical concerns of life—to apply them to social organization, or politics, or religion. These glorious ideas were for the delectation of thinkers only. These daughters of the intellect were too pure and holy to be married to the grossly practical. They were vestal virgins about the sacred altar of truth; beautiful exceedingly, but forever barren. To modern science, on the contrary, every truth has, and must have, its practical application. The tree of knowledge must bear appropriate fruit for the material benefit of humanity. Evolution is now, therefore, applied to practical life, because it has passed from the domain of vague philosophic speculation into that of definite scientific knowledge. This change has not taken place all at once, but only by the successive labors of many men, each contributing his own characteristic part. It was the part of Lamarck to awaken scientific attention and deeply stir the scientific mind. It was the part of Darwin to convince the scientific mind of the truth of the evolution of the

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organic kingdom. It was the part of Spencer to extend the law of evolution to embrace every department of nature, and thus to make it applicable to society, to religion, and to education. It was the part of Huxley to fight the battles of evolution and to conquer its acceptance by the intelligent, but unscientific, public. It was, and is, the part of American evolutionists to complete the evidence from palæontology where it was weakest, and also—for we are less hampered by tradition here than elsewhere—to apply it fearlessly, yet I hope reverently, to religious and social thought.

The final effect has been to revolutionize our whole view of nature and of man, to change the whole attitude of the mind toward truth, and thus to modify deeply our philosophy in every department; and, therefore, also to modify profoundly our theory and methods of education. It is this effect on education that I wish to bring before you this evening. But the subject is so large, and my time so short, that I can only touch lightly some most salient points.

I would be glad to point out to you how the theory of evolution indirectly, but in a most important way, affects education (as it does all departments of thought) by simply elevating the intellectual standpoint and widening the intellectual horizon; but I must forego this and proceed at once to its direct effect on our theories and methods of education. And here, as you already anticipate, I must speak first of all of its immediate effect on biology; and then afterward on all its indirect effects, through biology, on nearly all the higher departments of thought. These I shall call higher lessons taught in the school of evolution.

Organic evolution is evolution *par excellence*. In the mind of Darwin evolution was, and in the minds of very many it still is, identified with the theory of origin of species by descent with modifications. To many it means only a continuous genetic chain of all organisms from the earliest to the present, and, therefore, a blood-kinship among all existing organisms from lowest to highest. It is to Spencer that we owe the extension of this law of continuity to every realm of nature, and thus this mode of thinking to every realm of thought. Organic evolution, therefore, whether of the individual or of the organic kingdom, is the type of evolution. In that department the battle of evolution was fought and won. Right here, in the origin of new organic forms, was found the barrier to the acceptance of the law of continuity—the stronghold of supernaturalism in the realm of nature. When this barrier gave way, the whole domain of thought was immediately conquered. It is right, then, that I should take up this department first.

There is a striking contrast between the old natural history and the new biology. The one is, perhaps, best represented by Audubon,

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the other by Huxley. In the one imagination predominates, in the other reasons; in the one love of field and forest and mountain, in the other thoughtful work in the laboratory. The one studies form and habits, the other structure and function. The characteristic implements of the one are the shotgun, the insect-net, and the dredge, of the other the scalpel and the microscope. In the ideal biologist, these two must be united in equal proportions. Such union was nearly realized in Agassiz and Darwin, because they stood just at the parting of the ways. Zoologists now belong mainly to the one class or the other, but predominantly to the second class. In botany, the differentiation has not been so extreme. The change is, therefore, best illustrated in zoology.

Such, then, is the contrast between the old and new style naturalist. The change may, perhaps, be regretted by some, but was absolutely necessary in the development of biological science. The old-style naturalist had been working from time immemorial, enthusiastic in traveling, observing, collecting, describing, classifying; in a word, gathering the materials of science; but thoughtful men began to ask, "Where is the science itself?" "What light does all this throw on the real problem of life?" "What is the meaning of the classification so laboriously constructed?" "What is the meaning of the facts of geographical distribution of species gathered by such extensive traveling?" The old natural history as a real science seemed to have reached its limit, if it was not indeed moribund. Collections of dry plants were contemptuously compared to gathered hay. Geographical distribution of organisms was a tiresome chaos of curious facts without connecting idea. Just then came evolution —a great new idea, informing and giving life and meaning to this dead mass of facts, bringing order out of this chaos, "creating a soul under the dry ribs of this death." The true meaning of classification is at once revealed, viz., the various degrees of blood-kinship in descent. Geographical distribution of organisms is at once completely explained by migrations produced by the glacial epoch and the slow evolution-changes produced by a changed environment, physical and organic. The strange and hitherto inexplicable course of embryonic or ontogenic development becomes now but a brief recapitulation of the phylogenic or family history. It is easy to imagine the prodigious impulse given to the sciences of life. The deepest problems of plant life, animal life—yea, of human life and social life—seemed now within reach of science. The army of investigators was increased tenfold. Biological laboratories sprang up everywhere, on lake- and sea-shores, and, still more numerously, in schools, colleges, and universities.

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Such was the intellectual impulse given by the introduction of a great new idea. But great new ideas always involve new methods of work, and, therefore, new methods of teaching. The new method has been called by different names. I will call it the "evolution method." But as this is only one of many methods of science, I must introduce its discussion by a few words on scientific methods generally.

We all know the prodigious enlargement of the domain of modern thought produced by the birth and rapid growth of the sciences of nature. But until recently there has been but little corresponding change in the subject-matter of education, especially in the lower schools. This was right. The reason is obvious. All attempts to teach science by the old text-book methods gave very unsatisfactory results. Science-teaching as a means of mental culture seemed far inferior to mathematics and the languages. These latter, at least to some degree, threw the pupil on his own resources; but science-teaching by pure classroom, text-book methods is the barest *memoriter* exercise. Now, science is nothing if not a knowledge of nature at first-hand, and science-teaching is nothing unless, in some degree, it brings the pupil in contact with nature. The new knowledge must have new methods. In a word, science must be largely taught in the field and in the laboratory. This field and laboratory method must supplement every other method in science-teaching. This is now so generally understood that it is unnecessary to dwell on it.

But there is another and deeper sense in which we may use the term method, which is even more important. It is method, not in the sense of use of eye and hand but of use of brain; not in the sense of dexterous manipulation but of orderly thinking. In this sense, scientific methods bear the same relation to intellectual progress that tools, instruments, and machines bear to material progress. They are intellectual contrivances whereby we accomplish results which would otherwise transcend our power. As the civilized man has no superiority over the savage in bare-handed strength, and the great material results accomplished by the former are wholly due to the use of material contrivances called tools, instruments, machines—so the scientific man claims no superiority over others in unassisted intellectual power, and the great results accomplished by him in the acquisition of knowledge and in the conquest of nature are wholly due to the use of intellectual contrivances called scientific methods. These are mainly three: 1. The method of symbols, or mathematical method. We all know the power of this method. We all know how by the use of a few numeral digits, a few letters, a and b, x and y, and a few signs, +, −, and =, the veriest school-boy may quickly solve questions which would defy the unaided power

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of an intellectual giant. 2. The method of experiment, especially applicable to physics and chemistry. Physical phenomena are usually too complex, too affected by disturbing causes and complicating conditions, to be understood at once as they occur in nature. The physicist, therefore, removes, one by one, these disturbing causes and complicating conditions, watching the result, until the true cause and the necessary conditions are discovered. I need not tell you what this method has accomplished. 3. The method of comparison. The phenomena of life in its higher forms are so complex that we cannot understand them without simplification, and yet so delicately adjusted that in most cases we cannot, we dare not, use the method of experiment. If we introduce our rude hands to modify the phenomena, we are in danger of destroying life itself—the very thing we are investigating. But Nature herself has prepared for us three series of experiments. 1. As we go down the scale of life from man, through vertebrates and invertebrates to the lowest protozoa, the complex structure and functions of the animal body become simpler and simpler, by the removal of one complication after another, until finally the complex problem of life is reduced to its simplest terms. This is the taxonomic series. 2. Again, as we go backward in the history of the development of any one of the higher animals, say man, from the mature condition through the stages of youth, newborn embryo, to the earliest germ cell, we find that structure and function again become simpler and simpler until again the problem of life is reduced to the simplest terms. This is the embryonic or ontogenic series. 3. Again and lastly, if, commencing with the fauna of the present geological epoch, we go backward in geological time, taking successively those of earlier and earlier periods, even to the dawn of life, we find a similar series of simplifying structures and functions until we again reach the simplest possible expression of the problem of life. This is called the geological or phylogenic series. This last is *par excellence* the evolution series. But they are all evolution series, since they are similar and all have their origin in evolution.

It is by comparison of the terms in each one of these series, and of the three series with one another, that all true scientific knowledge in biology has been attained. It is therefore called the "comparative method." It was to some extent used and so framed before the birth of evolution as a scientific theory; but evolution has given it a new meaning and a new power and greatly extended its application, and, therefore, it should now be called the "evolution method." It is the great method of discovery in all departments which are too complex to be investigated by other scientific methods. When phenomena are too complex to be readily understood, and at the

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same time too delicately adjusted to submit to the method of experiment, all we can do is to watch all the stages of increasing complication—the process of gradual becoming. If by the method of experiment we put Nature on the rack and extort from her the truth, we obtain the truth by the method of evolution less boldly but not less efficiently by watching and surprising Nature in her most secret modes of working.

This method, although first used in biology, may be and has been extended to all the more complex phenomena of human life—to psychology, to sociology, to politics and government, and even ethics and religion. Scientific methods generally, but this one especially, may be likened to the "little leaven which a woman took and hid in three measures of meal"—a little, very little, scientific method introduced into three measures of the old curriculum has "leavened the whole lump." But we all know how much depends on the leaven. Alas, how much bad leaven has been used, especially in sociology! It is necessary, therefore, to say something of how to make good leaven. This brings me to the subject of what I call schools of methods.

It may be regarded as a law, that, although each one of these methods may be used in several departments, yet it is best developed and is used with most success in the simplest and lowest department, where it was first introduced; and thus this department becomes the school for its skillful use. Thus, for example, while the method of symbols is used in other departments,—as in physics, chemistry, and even sometimes in logic,—yet the proper school for its skillful use is mathematics, where it was first introduced and is still most powerful. Again, although experiments may be used in many departments,—as in chemistry, physiology, psychology, and even, perhaps, in sociology,—yet undoubtedly the proper school for the skillful use of this method is physics. So also the method of comparison or the evolution method may indeed be used in all the more complex departments of knowledge, but the only proper school in which to become imbued with its characteristic spirit and practiced in its skillful use is biology. Other and still higher departments can never take on a true scientific form until they use the method which has proved so successful in biology; and this they must learn to do in the biological schools. As anatomy, physiology, and morphology became scientific only by becoming comparative anatomy, physiology, and morphology, so also psychology will never become scientific until it becomes comparative psychology, nor sociology until it becomes comparative sociology.

I have said that the leaven of scientific method has leavened the whole lump of the school curriculum. I now go further, and say that the leaven of evolution and the evolution method has leavened the

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whole lump of human knowledge, especially in all those departments which are too complex to be subdued by other methods. This method is applicable, not only to plant life and animal life but also to all the phenomena of human life, individual and social, and therefore to psychology, to language, to history, to sociology, and to ethics. In fact, the enormous recent advances in all these are due wholly to the use of the so-called historic method. But what is this but another name for the evolution method? It would carry me too far and take me too long to justify this assertion in all these departments. Let me draw your attention only to a few of the most important lessons taught us in these higher departments.

A Lesson in Psychology.—Until very recently, the psychical phenomena of man were studied as a separate department of knowledge, having no possible connection with any other and capable of investigation only by the method of introspection; and an elaborate system of philosophy has thus grown up wholly separated from other knowledges. But it is now no longer possible to admit such disconnection. There can no longer be any doubt that man, both body and spirit, came by a process of evolution from some lower form of animal; that humanity emerged gradually by a natural process out of animality. Not only every organ and function of the human body, but every faculty of the human mind, has its beginnings and foreshadowings, its embryonic condition in the higher animals. It is quite evident that psychology can never become a progressive science until every stage of the development of the physical nature of man is traced; until the psychical phenomena of man are studied in comparison with those beginnings of the same which we find in the higher animals and in infants; until we trace all stages of the process by which they become what we find them in the mature man. Moreover, even the experimental method is now applied to psychology with encouraging success. We have thus in psychology at least three methods of research, viz., the method of experiment, the method of comparison (or evolution method), and the method of introspection. The relative domains of these have not yet been adjusted. The experimental method, from which so much is now hoped, although undoubtedly of great value, is, I believe, limited in its application to the lower phenomena, *i. e.*, those most allied to physiology. Introspection, on the other hand, is limited to the higher phenomena, *i. e.*, the distinctively human. The method of comparison, or evolution method, is probably without limit in its application. It is to this method, therefore, that I look with most hope.

A Lesson in Sociology.—The old idea of the origin of things was that of creation at once by fiat, without natural process, and permanence thereafter until another creation. Hence arose the doctrine

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of instantaneousness of specific origin and the permanency of specific types. According to this view, if the organic kingdom advances at all, it must be by successive exterminations of old forms and re-creations of new and better forms. According to this view, applied to the domain of philosophy and science, all truth must be absolute, unchangeable, and permanent; and, therefore, if knowledge advances at all, it must be by a succession of theories exploded and other and better ones substituted. In theology, views of God, of man, and of nature, and their mutual relations, must be either perfectly true or utterly false and baneful. Forms of religion and creeds are either perfect, God-given truth or else inventions of the devil to deceive mankind. Toleration, therefore, is inconsistent with loyalty to truth. In politics, the unreasoning antagonisms of parties come necessarily from this attitude of the mind. In social philosophy, improvement in society can only come by utter destruction and complete reconstruction out of entirely new materials. Thus, in all things, by this old view, advance can take place only by a succession of catastrophes and re-makings out of the whole cloth.

Evolution changes the whole attitude of the mind in this regard. The very first lesson taught by evolution is that nothing originates all at once, like a creation by fiat; but all things are in a state of continuous change and growth. Progress is not by a succession of destruction and re-creation, but by a gradual process of evolution. As in the evolution of the organic kingdom, some forms, *i. e.*, the more rigid, perish and leave no progeny, while some, *i. e.*, the more plastic, are modified into new forms, better suited to the ever-changing environment, and all the new forms come thus only by modification of the old; so, in the advance of science, some ideas and theories die out and leave no progeny, while others are modified to newer and truer forms, and all the new and true forms come thus only by modification of the old. And so, also, the progress of society, of religion, of all things, is not by sweeping destructions and re-creations out of new materials or reorganizations on an entirely new basis, but must be only by modification of old forms into the higher new. In a word, the social organism is not made, but grows.

A Second Lesson in Sociology.—There are two views of the relation of the individual to society which may perhaps be called the ancient and the modern. According to the one, the individual is wholly subordinate to society, and has no rights in the presence of social interests. The individual has no value except as an organ of the body politic. This view is abhorrent to the modern mind, which has indeed gone to the other extreme of apotheosis of the individual. This great change was undoubtedly due to the introduction of Christianity, which exalted to infinity the worth of the individual immortal

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human soul, while it correspondingly belittled the value of society as earthly and temporary. This was especially true of the early Christians, for whom the end of the world was near at hand. This idea of the supreme importance of the individual, and that society exists only for us, the individuals of to-day, has reached its culmination in the present time, and nearly all the evils which now threaten society may be traced to this source. The higher law of the ancients was the interest of society; the higher law of the moderns is the dictate of the individual conscience. The evils of this extreme view are becoming so obvious that there is a strong tendency to swing back again to the other extreme of socialism. Now, there is a profound truth in both these views, and they must be combined and reconciled in a true social philosophy. This, I believe, evolution will help us to do. Let us see.

Organic evolution reached its term and completion in achieving man. But evolution did not stop there; for in achieving man it achieved also the possibility of another and higher kind of evolution, and was therefore transferred to a higher plane, and continued as social evolution or human progress. Now, as the highest end, the true significance, the *raison d'être* of organic evolution was the achievement of man; so the highest and real meaning of society and social progress is the achievement of the ideal man. This view entirely changes the relation of the individual to society by giving a new and nobler meaning to society. Individual interests must be subordinated to social interests, not only because society is the greater organism, nor even because it represents all other individual interests; but also, and chiefly, because society is the only means of achieving the ideal. The higher law from this point of view is loyalty, not to society as the ancients would have it, nor yet to the conscience as we moderns would have it, but to the divine ideal humanity. Fortunately for us, however, the highest interests of the individual are also thereby subserved.

This point is so important that I must stop a moment to explain and enforce it.

The social organism has often been compared to the animal organism, the body politic to the animal body, and social progress to organic evolution. Doubtless this comparison and the inferred likeness may be, and have been, carried much too far. Doubtless there are many fundamental differences arising from the presence of new and higher forces in the social body, and of new and higher factors in social progress; and no one has insisted on this more than I. But it is a mistake also to minimize the resemblance. It has been common for the opposers of such resemblance to say, that, in the ideal of the animal organism, the life and individuality of the constituent

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parts are completely merged in the life and individuality of the whole; that the part is of no value except as an organ of the whole; and that, while this ideal may have been to some extent realized in some ancient societies, it is utterly abhorrent to the modern mind; the infinite value of the eternally, enduring human soul forbidding any such merging of the individual life into the common social life. But let us not exaggerate the contrast. It is not true that in the animal body the life of the part is wholly lost in the life of the whole. On the contrary, such life as each part is capable of is completely realized; each part has the very best that it is capable of. Again, it is not true that the part works for the whole without corresponding benefit in return. On the contrary, the acknowledged ideal of the social organism, viz., that each part works for the whole and the whole for each part, is completely realized in the animal organism. Where, then, is the difference? For it must be very fundamental. It is this: In the one case, the integrating bond is material and necessary, and the function of each part unchangeably fixed forever; in the other, the integrating bond is spiritual, and therefore free, and the function of each part is freely chosen and may be freely changed for the better. In the one case, the union is by necessary law of mutual dependence; in the other, by a free law of mutual love and mutual help.

Now, if society consisted only of ideally perfect, happy, unimprovable beings associated only for mutual enjoyment, then, indeed, I suppose, the infinite worth of the immortal human soul, in comparison with any temporary association, would make such association wholly subordinate to the individuals. But when we remember that human society is an association of individuals not long since emerged out of animality, nor far on the way toward a true, *i. e.*, an ideal humanity, and that the achievement of that ideal is the real end and meaning of our earthly life; and, finally, that an organized society is the necessary and only means whereby the ideal may be achieved, whether in the individual or in the race, we see at once that the immediate individual interest must be subordinate to this, the highest interest of humanity. But subordination is not sacrifice. On the contrary, it is the highest success for the individual. In subserving this, the highest interest of humanity, each individual is thereby subserving his own highest interests. In striving to advance the race toward the ideal, he is himself realizing that ideal in his own person.

Why, then, are we so slow to learn this lesson? Why are we so loath to surrender our extreme individualism? I answer, not only because it is in accord with our natural selfishness, but also, and I believe chiefly, from the effects of an inherited narrow philosophy of

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life. Is it not evident that so long as the Golden Age was behind instead of before us; so long as man was regarded as in a state of sad fall from a pristine ideal condition; so long as it was believed that the perfect image of God, once possessed, had been lost and must be restored, not through society but by some inscrutable miraculous agency; so long as this was the mental attitude, the supreme importance of society as a means of salvation, *i. e.*, of attaining the ideal, must have remained unrecognized? The outcome of such a mental attitude was of necessity the individualism run-mad of the present day. But if, on the contrary, as evolution teaches, our race has gradually emerged out of animality into humanity; if the divine image was at first dim, scarcely recognizable, and the mission of humanity is, not to restore but to brighten that image until it is perfect—if the ideal, the Golden Age, is not in the past but in the future—then our whole mental attitude toward society becomes changed—then the good of the individual must be, not sacrificed indeed, for that is not necessary, but freely subordinated to the good of society; then the prevailing law is not the law of mutual antagonism and struggle, and survival of only the strongest and fittest, but the law of mutual love and mutual help, and the making of as many as possible strong and fit to survive.

Still Another Lesson, and the Last.—But whether to call it a lesson in psychology, or in sociology, or in ethics, I do not know, nor does it matter much; for all departments meet on the highest plane. But I suppose it may be most properly called a lesson in ethics, for it offers us a moral ideal.

I have said in a previous lesson that individual interests must be subordinated to the attainment of the ideal. Now, what is this ideal? I believe that evolution will help us to find it. If man has indeed emerged out of animality into humanity, as evolution teaches, then must he approach his ideal just in proportion as he rises above the distinctively animal and lives habitually on the distinctively human plane; and he completely attains it when the distinctive humanity is carried out to its highest limit. Now, it is evident that this proposition involves not only a moral ideal but a means of attaining it, *i. e.*, a philosophy of the right conduct of life. Let us stop, then, to differentiate it clearly, but very briefly, from other and older philosophies of life. I feel constrained to do this lest you should think that it involves an ascetic philosophy.

There are two opposite philosophies of life which have hitherto dominated the world of thought, aye, and of conduct, too. According to the one, our nature is essentially dual, *i. e.*, animal and spiritual, without cordial relation between. The pure spiritual nature is imprisoned here on earth for a brief space in an impure material body

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and dominated by it, and the higher spiritual nature becomes purer, nobler, freer, just in proportion as it despises, tramples under foot, and extirpates the animal nature. This is the ascetic philosophy of life. According to the other, our nature is one. Man is simply a higher kind of animal. His pleasure may, indeed, be higher, more refined than that of other animals, but still they are all on the same plane—the animal. Pleasure, enjoyment—the more refined the better, of course—is the only end of human as of animal life. Virtue is only a more refined kind of selfishness. This is the hedonistic philosophy of life. Now, evolution completely combines and reconciles these two mutually excluding opposites, both as to the nature of man and as to the philosophy of life, and is, therefore, more rational than either. According to the evolution view, humanity emerged out of animality, the spirit of man out of the *anima* of animals; but at the moment of emergence it was born into a new and higher spiritual world of self-consciousness and immortality. If this be so, then evidently the mission of man and the true philosophy of the right conduct of life are not an extirpation but a subordination of the animal to the higher spiritual nature. And this is attained, not by the natural decay nor by the voluntary extirpation of the animal but by the natural growth and the voluntary strengthening of the higher spiritual nature. The animal was in evolution the mother and is still the nourisher of the spiritual; and, therefore, the stronger the animal nature the better, if so be it is held in due subjection. There is not an appetite, passion, or emotion of our animal nature but is contributive to our spiritual nature, if only it be duly subordinated. In our complex human nature the higher is nourished and strengthened by its connection with the more robust lower, and the lower purified and refined by its connection with the higher, and the whole man is thus elevated to a higher plane without violating the integrity of his manhood.

So much was necessary to say lest I be misunderstood as sustaining an ascetic philosophy. I repeat, then, if man has emerged out of animality into humanity, then he approaches his ideal just in proportion as he departs from the characteristically animal plane and lives on the distinctively human. In animals the whole life and activity are concentrated on the now. Man, on the contrary, by memory and imagination, and more and more as his distinctive human nature predominates, lives also in the past and the future. His life expands more and more backward and forward, until in the ideal man he lives equally in all time. For him there is equal reality in all moments, past, present, and future. He weighs in equal balance all events without any prejudice in favor of the now, and is thus, as it were, unconditioned by time. This is the ideal of wise and prudent con-

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duct, the intellectual ideal. Again, in animals the whole life and activity are concentrated on the self, although an unrecognized self, for selfhood is first recognized in man. Man, on the contrary, and more and more as his distinctive human nature predominates, lives also in and for other selves. His life expands and incorporates more and more the lives of others, through a realizing sympathy and love. He reaches his ideal in this direction when his life spreads equally over all other lives in proportion to their real work; when self-love no longer in the least disturbs the justness of judgment or unduly influences conduct; when self and other selves are weighed in the same just balance; in a word, when he is at last unconditioned by self. This is the ideal of right conduct—the moral ideal. The moral law of equal love to self and neighbor is now fulfilled. This ideal, first given by the moral insight of the Founder of Christianity, is now at last verified by science. Observe that the condition and beginning of this whole process of evolution are the recognition of selfhood in man. But observe also that man finds selfhood only to lose it again in love.

SCIENCE AND EDUCATION.

BY WM. L. BRYAN, UNIVERSITY OF INDIANA, BLOOMINGTON, IND.

Modern science is, for the most part, outside the public school. I believe that this should not be so.

I am not one of those who believe that science can now, or ever, fully determine any art or occupation. On the contrary, I believe on principle that no principle, scientific or philosophic, is sufficient to determine a single skillful deed. Every deed, in the school or elsewhere, is a concrete thing, subject not only to the tangible forces which your method can grasp but also to the million intangible forces which no statable principle can grasp. The power to take account of these intangible realities, which all men not debauched by learning possess in some degree, we call tact, common sense, gumption, administrative genius. For my part, I believe that these qualities are more important in the school, and in every business, than anything which science or philosophy can add. More than any other one thing, I should like to-day to see a crusade in favor of common sense in the public school. With scientific and philosophic Don Quixotes riding their Rosinantes against innumerable windmills, and sometimes carrying windmills with them, I know of no hope for

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the children except in that saving salt of common sense which the American people generally show in the long run in all their undertakings. I particularly rejoice that we have in so many cities schoolmen with a genius for the practical administration of affairs. At a time when the ferment of educational ideas is everywhere working, it is worth while to remember that there is no sort of man greater than the great executive. A man who can successfully administer a great school, who can meet rightly everybody who has to be met from the janitor to the mayor, who can face the whole problem of life from the price of coal to the co-ordination of studies, and who can bring out of all this conditions that will suffer the children to live and to grow, that man is a statesman and all the rest of us should take off our hats in his presence.

In the second place, I do not believe that empirical science makes valueless the philosophical contributions to education. Some of my colleagues do not agree with me in this. There are those who believe, that, although men have lived in the world some thousands of years, nothing worth the while was known until lately. Plato might as well never have lived; Kant is a corrupter of the youth; Hegel is an enemy of human progress; and so following. I cannot agree with this. In general, I have found that these critics do not know the philosophies they deride. Their derision is generally ignorant derision and their scorn is self-disgrace.

For my part I rejoice in the priceless inspirations of Frœbel. I do not doubt that the disciples of Hegel and Herbart have done vastly more than their unintelligent critics realize to lift educational theory from the plane of capricious debate. I should like to see in this association a Plato Club or an Aristotle Club. I should be glad to see a genuine revival of any of those greater masters who have taken the raw material of human experience through spiritual fire until it has become gold. I am glad, also, that we have in some cities the philosopher-superintendent—provided he is like that one of your number of whom his friends say that he can fly and also walk—he can fly with the seers and he can keep step with the children.

But, ladies and gentlemen, there is another influence which I believe should more largely touch the public school. Of the vast social movement commonly called modern science, doubtless because of its relative magnitude in our time, we are all more or less attentive witnesses. It is perhaps too great and too near for adequate definition at present by anyone, but something of the outside of its secret is the secret of everyone. The best experiences of the best observers are saved, and these are by degrees brought together so that they emerge special laws, and then general laws, sciences, and the promise of science. Through this wide and delicate and or-

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ganizing contact with things, our race has experienced such a re-birth, such an inflow of new truth and such re-enforcement of power for growth and for efficiency as that which comes to a tree in the spring. The old core of life was there, but it has awakened to the new life of growth and productivity under the thousand touches of the outside world. The old fable of Antæus has come true. We have touched the earth and it has given us new life. We have touched the earth and it has not degraded us. There are those who think otherwise. "Tell Evenus," said Socrates on the day of his death; "tell Evenus to follow me as soon as possible into the house of death." For, he goes on in substance, as everywhere in the dialogues, it is the business of a wise man to die, to escape from the confusion and corruption of the senses, to escape from the degradation of work with the hands, to escape every day of one's life, by every means, from every sort of contact with the earth, and by pure reflection to ascend into complete fellowship with the Absolute Good.

That sounds like gospel. It is gospel; but there is a better gospel. I appeal from these earth-despising prophets to a prophet who did not despise the earth; who came eating and drinking; who cared for the bodies of men; whose last prayer and whose last command was that his disciples should not desert the world even to dwell apart in a mountain of transfiguration, but should go out into the earth where the people are.

There is another band of disciples not less sacred, not less brave. Their mission is not to preach, but to see. What are they looking at? The dictionary is too short for an answer. At the earth, from skin to core, wherever it can be set eyes on; at every living thing and every shred of its body; at every man and every work of man, from the playthings of a baby to the pyramids, and constitutions, and philosophies, and to science itself—nothing is insignificant. An earth-worm is studied to as good a purpose as an empire. Nothing is common or unclean. Swamp and plague and boil, dark age and savage continent, uncouth dress, grotesque religion, Hottentot, Zulu, child, and pedagogue; everything comes into its divine right of being looked at.

I have seen a picture of a roomful of monks sitting in elegant leisure hearing the story of a returned missionary. It may be that among those who listened were good men, who had faith in God, in the goodness of His world, and in the triumph of righteousness. But the haggard story-teller was one who believed that the world has to be made good, and so he had gone forth to struggle with publicans and with Pharisees, to have the mother-love within him insulted and tortured by those he longed to save, and to lie prostrate in Gethsem-

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ane, with every friend fled and the face of God hidden. I would have beside this picture another. I would have a roomful of philosophers listening to the story of the scientist. They sit aloft in peace, declaring that the world is rational. He also believes that the world is rational; but that is not enough. He must go forth and see that it is rational, and how it is so. He must go forth to be tortured by exceptions. Again and again he must fail

> Through the granite-seeming
> To see the smile of Reason beaming.

Again and again he must see the well-ordered, schematized reason of the books shattered by pitiless reality—all this in order that there may rise, vast and substantial, the Reason which is.

I need not say how profoundly this whole movement of modern science has affected the world. This movement has without doubt given us an incredible advance toward the millennium. It has helped us to master the brute earth and made us all neighbors and brothers. It has changed the whole spiritual atmosphere, so that there was doubtless not a sermon preached here this week not deeply modified by what a century of science has done.

And still modern science is for the most part outside the public school. Can it come inside? Not easily. It is not easy for any good thing to get really inside of any institution. You cannot get common sense or philosophy or any sort of science inside the school between the lids of a handbook. You cannot get any of these things entirely and thoroughly inside from a committee of great outsiders who talk at the school. There are special reasons why it is hard to get science into any kind of art, such as teaching. There are two battle lines in human progress. Some are trying to find out what is true; some are trying to find out what to do. Sometimes the two lines are near together, and they may become one. Sometimes they are far apart. What science discovers may have to wait a dozen or a hundred years before it can be turned to practical account. Faraday was long dead before there was commercial electric light. And so the discoveries of science must often pass through a long digesting process before they can be schoolroom wisdom.

Nevertheless, there are those who believe that elementary education and modern science cannot much longer remain as isolated from each other, and as ignorant of each other, as at present. We must short-circuit the connection between the university and the common school. The established results of science must get a quicker path from the laboratory into the schoolroom, so that the children will not be taught so many as true which are known to be false, and so that most certain conditions of physical and mental health will not

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be ignored. We need to get the method of science inside the school, so far at least that everybody, from the kindergarten baby to the normal school president, will acquire a habit of not deciding questions without reference to the facts involved. We need to get the spirit of science to fill us, every one, with zeal for work, with infinite patience, with the secret of growing along with all that is good in the old into the ever new, with humility because we have seen so little, and with reverence because we have seen so much.

All that I have said in plea for science has been more powerfully said in the person of the distinguished scientist who has preceded me. He has brought us a message not found without infinitely laborious study of minute facts by himself and other such missionaries of science as he. That message has touched our late-born race to the marrow, and that man stands among us a living proof that one may spend his life in scientific study of the earth and therewith grow into the spiritual vision of a prophet.

THE INSTRUCTION AND IMPROVEMENT OF TEACHERS NOW AT WORK IN THE SCHOOLS.

I. By Teachers' Institutes.

BY ARVIN S. OLIN, UNIVERSITY OF KANSAS, LAWRENCE, KAN.

The advancement of the teacher's work is in no particular more manifest than in the views now held concerning the preparation of teachers for that work. Sixty years ago there were in this country no agencies for specifically preparing teachers to do their work. "What one knows, that he can teach," was the maxim everywhere believed and acted upon, and plans of school organization, government, and methods of instruction, so far as they may be called plans, were traditional, or were derived, either consciously or unconsciously, from imitation. Now, a distinction is made between knowing and the ability to impart knowledge, and among the teacher's qualifications methodology is given a scarcely lower place than a complete knowledge of the subjects to be taught.

To supply these technical or professional qualifications half a score of different means are provided, all tending toward the same general end. This technical training of teachers is the specific func-

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tion of the normal school. Allied to this, in form or purpose, are teachers' associations of all kinds, teachers' institutes, reading circles, teachers' classes, teachers' colleges, and chairs of pedagogy in colleges and universities. All of these have for their main object the giving of the ability to use one's powers most economically and advantageously in the work of teaching.

To this group of special agencies the institute belongs. It is differentiated from the normal school and the college by its lack of permanence and continuity; it differs from teachers' associations in the fact, that, while an association is an assemblage of equals, gathered for the purpose of deliberating on questions of common interest, the institute is a definite part of a school system, with a certain responsible headship and a definite and systematic plan of work. In its time-limits the institute often resembles the association; in the character of its work it is like the normal school. Indeed, Chancellor Payne defines the institute as a normal school with a very short course of study.

The institute came into existence at almost the same time as the normal school, and, like it, has had a rapid development, especially within the past twenty years, and its influence has never been more widely felt than now. Together with the other agencies for enriching the teacher's work, the institute has been partly a cause and partly an effect of the improved conditions of the present day, when teaching is more scientific and the teacher's work is receiving a wider and more generous recognition than formerly.

The successful teacher has three cardinal qualifications—character, knowledge, skill. Character is mainly the product of heredity and home influences; knowledge is the joint product of the home and the school; for the development of skill we look to the normal school, or to its substitutes and equivalents. The teacher has no greater need than for skill to make potent the character and knowledge which she possesses.

There are two classes of teachers in our schools—professional and non-professional. By professional teachers, I mean those who have been thoroughly trained for their work and who are permanently engaged in that work. Their efficiency is usually increased by skilled supervision. The positions held, the compensation received, though inadequate, and their personal qualities, make them worthy representatives of a real profession.

The class of professional teachers is both absolutely and relatively larger now than ever before. But in spite of the 200 normal schools in the country, the great body of American teachers are almost entirely without special training for their work. They are educated in the district school,—which may be good, so far as it goes,—perhaps re-

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ceive some high school training, secure a teacher's certificate, and teach in district schools for a longer or shorter time until they can make more lucrative or more attractive engagements. This is the non-professional class of teachers, who comprise, it is safe to say, at least three-fourths of the 400,000 teachers of the country.

The division between the two classes is thus loosely marked, but there is a constant interchange between them. Non-professional teachers seek to align themselves with the professional class, and it is not an unusual thing to see a professionally-trained teacher assume a non-professional attitude toward her work. One can find large cities among whose teachers there is more of intellectual and educational provincialism than among the teachers in many villages and small towns.

The most important work of the institute is to aid the first and check the second of these tendencies; to make it easy for a teacher to pass from the non-professional to the professional class, and to prevent a teacher from dropping out of the professional class.

It is plain that institute work for the professional class should be of a character different from that required for non-professional teachers. For the latter more time, more concrete work, less of abstract philosophy, is required than for the class of professional teachers. The institute for professional teachers needs not to deal so much with the matter of instruction; even the methods and devices of presenting knowledge may not need to be emphasized; but the principle lying back of the method or device, the law of mind involved, and the determination of general educational relations should be emphasized. Though it be not through a study of the rudiments of pedagogical science, still the institute has its message and its work for the professionally-trained teacher. If for no other reason, its existence would be justified as a sure prevention of stagnation. As a single illustration, I have in mind a city school system with which are connected nearly 400 teachers, whose energy, skill, and excellent work are known in all parts of the country. One day each month is devoted to institute work, and it is safe to say that the marked success of these schools is due, in no small measure, to the unifying and energizing influence of the institute. The superintendent says, "During the past year the monthly institutes have been, as always with us, efficient means of unifying the schools, rousing enthusiasm for new information and better work, developing hidden talent, cultivating professional feeling and *esprit de corps*, and encouraging sympathetic social relations among the teachers." The work was carried on as a general meeting, in which subjects of common interest were treated, and section meetings, in which more detailed work was done. In the list of topics presented to the general meeting I notice such subjects

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as "Motives," "Hereditary Environment," "Relation of School-Work to Citizenship," "The State's Duty to the Feeble-Minded," "The Science of Ethics," etc.

Of the sectional meetings, two studied the history of education, one following Rosenkranz's outline of educational systems; another group broadened their interests and their sympathies by a study of German literature. All this work was in addition to the discussion of the common, every-day problems of the schoolroom. I mention this instance because it seems to me an ideal form of institute work for professional teachers and because the benefits of this system have been remarked by so many educators.

But, as the non-professional class of teachers is the larger, and as their need is greater, so the work of the institute for non-professional teachers is more important, and what follows relates to this form of institute work.

What, then, should the institute do for teachers? Among the most important uses of institutes are:

I. To enable teachers to gain and regain scholarship. This is not to say that academic work should occupy the greater part of the time in institutes. It is not to say that teachers have a right to demand that the work of the institute be so planned that they may acquire a knowledge of any subject from the foundation. But it is the legitimate work of the institute to make knowledge of a subject richer and fuller; to review and emphasize the salient points of the subjects under discussion. There are two good reasons for this view: First, without this knowledge-drill it is difficult to make institute work profitable or interesting to the comparatively untrained teachers in attendance. Second, academic instruction supplies the best of illustrative material for more strictly professional work.

Another reason might be given. An institute conductor or instructor rarely presents to his class a lesson on the principles of percentage, or evolution, or the drainage system of a continent, or phrase modifiers, or any other important topic familiar to institute workers, but, that, for some in his classes, the lesson is the first scientific development of the subject that has come within their experience. And yet with our present status such persons may be, and often are, teachers. They are distinctly the gainers by the presentation of the important points in the academic branches with which they have to do.

Institute reviews are beneficial to teachers, also, in that they restore elements of knowledge which had sunk below the level of consciousness, and so had become unavailable for teaching purposes. A good illustration of this is found in the case of a teacher engaged in routine work within rather narrow limits, as in intermediate work. Such teachers have often said to me that they felt themselves losers

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by the fading out from consciousness of the elements of scholarship formerly possessed. To such the academic work of the institute is an intellectual tonic and restorative.

I have said so much concerning this question because it is a much mooted point. From a study of the question on its merits, from observation, and a somewhat extended experience, I am convinced that it is unwise to attempt to banish academic work from the institute; that instruction from the knowledge standpoint given by a master is not only a legitimate part of institute work, but is almost indispensable for reaching the best results.

II. The second and the greatest object for which the institute exists is to enable teachers to master the special principles of their art. This has to do with the strictly professional part of the teacher's equipment. Roughly speaking, the institute presents four phases of this work: the principles of psychology, organization, management, and methodology. The reasons for emphasizing these elements are obvious. Psychology is to the teacher's art what anatomy is to the medical practitioner. President Stanley Hall declares psychology to be the heart of modern pedagogy. But it is not the skeletonized psychology of the old book-makers that will be a source of strength in the institute. What is needed is the applied, vitalized psychology which discovers in the living child the powers, the tendencies, and the capacities of the human soul, and reveals in the teacher's art the means of influencing and guiding that soul aright. To secure right school government and methods of presenting truth are problems in applied psychology, and it is pre-eminently the business of the institute to promote conditions for their successful solution. These conditions will be met, not only in the giving of formal instruction on psychological and allied subjects, in lectures and discussions, though these are good; but the whole attitude and atmosphere of an institute should be such as to promote professional growth in the highest sense.

The institute is one of the most efficient means of keeping in touch with the leaders in educational thought. The ablest educational journalism, the most attractive book-writers, cannot rival the institute in the propagation of what is really an educational gospel. Let me cite a single illustration of this. An honored member and former officer of this association was, some years since, conducting a state school of institute workers. He brought up the then comparatively new script method of teaching reading to beginners. Practically the entire body of institute workers was against him at first; but as he developed the principles of the method the able conductor won for it the approval of all, and through the institutes of an entire state the new method was presented and indorsed.

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In professional matters the good institute is to the teacher what the newspaper and magazine are to the general scholar, keeping her abreast of current thought.

III. A third important object of the institute is to enable teachers to acquire the right relation to their work. The dignity, the worth, the possibilities of the teacher's work are ideas which slowly grow into the mind, and depend largely upon association and a knowledge of the professional elements of the teaching work. One may sometimes plod drearily along a road, oblivious to beauty appealing to every sense until a more observant friend points it out; and as we may through greater knowledge increase our appreciation of the beauty in a landscape, or a picture, or a poem, so we may through the proper means come to more truly know and feel the dignity and the worth of the work in which we are engaged. The institute furnishes most favorable conditions for acquiring this right relation to one's work. Aspiration may be fostered; inspiration may be generated; unity and harmony may be developed. Under the care of skilled instructors, the tide of ambition and earnestness and enthusiasm rises higher and higher, until the gates are opened and the generous flood flows out to enrich all the tributary fields.

IV. The fourth great object of the institute is to enable teachers to establish right relations to each other. These relations have greatly changed since the influences which draw and bind teachers together have begun to be felt. Formerly, teachers worked in isolation; now, side by side, in the heartiest co-operation. Formerly, the tendency was to evolve pedagogical plans and processes from one's inner consciousness; and sometimes in the mind of the pedagogue, as in the minds of the villagers—

> Still the wonder grew
> That one small head could carry all he knew

Now, the greatest as well as the humblest gladly learns from his fellows and the records of experience.

To learn the lessons of good fellowship, of interdependence and mutual helpfulness, the institute provides excellent conditions, and one of the most obvious and most encouraging results of the institute system has been the cordial personal relations existing among teachers.

At this point I make brief mention of the relation of the institute to the permanent agencies for the training of teachers. The institute makes no pretension to completeness of work. For the class of teachers who offer themselves without any professional training it is only an imperfect substitute for the normal school. But, as a rule, the institute stimulates the desire for fuller knowledge and a higher

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training, and it often happens that the institute becomes the guide-post to the normal school and the college for those who but for the awakening influence of the institute would never have been in attendance upon them.

These are among the important benefits which the institute brings to teachers at work in the schools. The extent to which teachers appropriate these advantages will mainly depend upon right methods of doing institute work. For this purpose the most general and most advantageous organization is similar to that of a school. There is a double gain in this. It is the most efficient form of organization, and it makes the entire institute an illustration—a model—in school management. And this is as true in the details of institute work as in its general control.

Ordinarily an institute should, for at least part of the work, be divided into classes, according to the varying abilities or needs of its members. There are two methods of conducting these classes: the lecture method and the recitation method. Each of these has its place, and it would be unwise to exclude either. In short-session institutes the lecture will, of necessity, be the principal medium of instruction; but even here there should be some opportunity for members of the institute to "talk back." In institutes having longer than one-week sessions there should be an earnest attempt to secure energetic study of the subjects dealt with in the institute and a large and intelligent participation in the classroom work. Lecturing is an exposure to knowledge; but often it does not "take." Intelligent study is an inoculation which never fails to produce the expected results.

I hold firmly to the idea, that, in institutes whose sessions continue longer than one week, the recitation should be the standard method for carrying on institute work. These are the reasons for this view of the case:

1. Institutes are largely for those teachers who have not enjoyed a liberal training; it is only for those who are liberally trained that the lecture system will yield the largest advantage.

2. All teachers are given more or less to imitation. Continually deluge institute members with oceans of talk, and they will go and do likewise, to the infinite harm of thousands of innocent children. On the other hand, every recitation skillfully conducted in the institute—questions carefully framed, topics properly correlated, all matters of detail firmly in hand—stimulates the teacher-pupils to a more artistic and efficient use of the recitation.

3. One grows strong by what he makes his own. Teachers appropriate for themselves that which they themselves investigate. From such investigation, if properly directed, they will get more,

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and more permanently, than by merely listening to a lecture on the same subject. There are exceptions; but this is true of the average work of the average institute.

4. The judicious institute conductor can usually so guide and supplement the recitation as to secure all the advantages of the lecture with none of its disadvantages.

5. To the teacher the power of clear, connected, worthy expression is of the highest importance. The institute recitation is a powerful auxiliary in developing this power.

The disposition to make the institute mainly a means of recreation and amusement is to be deprecated. By all means let the institute be attractive; but let it not be forgotten that there is a serious work to be done—so serious as to engage the best efforts of all who have to do with institute management. To review and re-enforce the scholarship of teachers; to impart the elements of skill and professional knowledge; to give to teachers right views of, and right relations to, the work in which they are engaged; to establish the most helpful relations of teachers to each other; surely these interests are so important as to forbid spending the major portion of the institute sessions in listening to humorous lectures and engaging in social diversions.

There have been many attempts to make the work of institutes more efficient by grading them. These attempts have been attended with varying success. In long-session institutes there would seem to be the same reason for grading as in a school. But the baleful shadow of the examination for teachers' certificates, which is usually held at the close of an institute, generally prevents complete grading. The impending examination causes a large part of the institute to ask, not what the institutes can give, nor what they most need, but what they can do which will help them most in the examination.

Institutes have been in existence since 1839; under their present name since 1843. What results have they brought to pass?

Among the most important effects which have been brought about by institutes may be named the following:

1. They have been the forerunners of more complete methods of fitting teachers for their work, and their existence and activity have made it easier to establish such complete instrumentalities.

2. The institute has reached a class which otherwise would have remained almost unaided in their efforts to gain technical preparation for the work of teaching.

3. The institute has done much to rouse an interest in education, not only among teachers but among all classes of people. Not every county can go to the normal school; but the institute, as it were,

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brings the normal school to every county. It might be called normal school extension.

4. The institute has aided much to raise the standard of professional qualifications for teachers, especially in rural schools; and this makes it possible to raise the legal requirements for teachers, and so protect the schools, in a measure, from empiricism.

I have tried in this paper to show the ways in which the institute is helpful to teachers, the methods by which these advantages may be best assured to those for whom they are intended, and the most obvious results of institute work in the past.

There is every reason to believe that an agency so democratic, so progressive, and so adaptable will in future exert an even wider and more helpful influence than it now exerts; and that the institute will remain, as it is, pre-eminent among the instrumentalities for instructing and improving teachers now at work in the schools.

THE INSTRUCTION AND IMPROVEMENT OF TEACHERS NOW AT WORK IN THE SCHOOLS.

II. By Teachers' Classes.

BY EARL BARNES, STANFORD UNIVERSITY, CALIFORNIA.

The question is often asked, Why do teachers need to be kept under constant instruction more than any other professional class? The steady development of human knowledge and the development of new educational methods add no problem to the teacher's work which is not met by the physician, and we have no physicians' classes. Owing to the monopoly of education by the state, however, the teacher's work is subject to peculiar limitations. The money available for the support of the half-million teachers needed in our country to-day is not sufficient to enable us to command the services of well-trained men and women, and the inertia of governmental organization makes it impossible for the money to be so distributed as to offer those rewards to genius and preparation that we find in the physician's calling. The great governmental machine, with its financial limitations, makes the employment of a large number of poorly-prepared teachers unavoidable. This same necessary element of economy leads to overcrowding these ill-prepared teachers so that most of them have neither time nor strength, even if they had the

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training and the habit of intellectual work, to carry on individual lines of study. This condition of things makes it imperative that the superintendent, or some one else, should devote time and effort to the training of the teachers now in actual service.

The aim of such a class should be, to awaken professional interest and enthusiasm and to direct the teacher's educational thinking into valuable lines. Such classes cannot be expected to give much liberal culture, or information, or intellectual training. If these have not been secured by the previous education of the teacher, little can be done in teachers' meetings. The teachers' class is not a broadly educational institution, destined to develop and find permanent place in our school system. Institutes, associations, and clubs will furnish sufficient distributing points for new educational supplies when we are able to admit no one to the teachers' calling who is not professionally trained. The teachers' class is a makeshift device needed to-day to fill a gap.

The materials for this study are drawn largely from personal experience in New York, Indiana, and, more especially, in California, where for the past four years I have been constantly at work with classes of teachers in active service.

In the organization of the teachers' classes we have found the following method effective: The superintendent of a city or town sends out a circular to his teachers, saying that, beginning with a certain date (taking care to avoid holiday seasons), a course of study will be taken up by the teachers, under the direction of Mr. Blank, covering some particular field, and asking their hearty support for the work. All financial friction is avoided if the board of education sets aside a small sum to pay the printing bills and the expenses of the instructor. This also secures a sense of personal responsibility. If the board provides special instruction for the teachers they ought to avail themselves of it. Still further personal responsibility is secured by dismissing the schools a half-hour or an hour earlier than usual and holding the meeting at some central location at three or four o'clock. Friday is a bad day to meet; Tuesday works well. If the lectures and discussions are accompanied by schoolroom experiments or tests, a Saturday morning meeting for the working up of results is desirable. Attendance on this session must be purely voluntary—a few teachers attending on compulsion will ruin the work. But these are details unworthy consideration in such a body, it may be said. The man who disregards these details ruins his work before he begins it. The conductor who is going to work with a class of women teachers—and all our town and city teachers are women now—wearied by long hours of exhausting work in our overcrowded schoolrooms, worried by small economies that small wages make im-

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perative, cannot be too careful about the details of his arrangements. If he calls the teachers together Friday evening, under compulsion from the superintendent, with a request that they contribute to necessary expenses, the conductor will find himself confronted by a mass of wearied irritability that paralyzes the activity of even a professional educational agitator.

What is the best subject-matter for such a series of meetings? Academic subjects, whether languages, literature, history, science, or art, belong to the field of so-called university extension. Teachers are the best patrons of such courses; but, with the differences in tastes and previous study that prevail in all school departments, it is unwise to organize the teachers as a class for the study of these subjects. The teachers' class should be given up to professional work, and not all professional study is adapted to its use.

The history of education is not good material for such a class. The value of this study lies in tracing lines of development during periods of time. The members of teachers' classes have too unequal preparation, too little time for study, and too few available collections of historical records to make such study valuable. Besides, the whole spirit of American pedagogy is opposed to such study. We live on the near edge of the immediate present; witness the fact that in this great national meeting of American pedagogues our program does not contain a single historical study, though we have abundant forecasts of the future.

Educational classics, if studied as biography or as links in a historical chain of ideas, are subject to the same difficulties as broader studies in the history of education. If taken up and studied as isolated attempts to answer educational questions, and if through discussions these answers are brought into immediate relations with the actual schoolroom experience of the class, Rousseau's "Émile" or Pestalozzi's "How Gertrude Teaches Her Children" may form the basis for interesting and broadening study.

Formal works in psychology are likewise barren reading for the teachers' class; and it must be remembered that I am speaking, not of a little club of congenial spirits but of a class that includes most of the teachers in the department or in some branch of it. The unequal intellectual standing of such a class and the lack of vital points of contact between text-books of psychology and actual teaching make such study perfunctory and of slight value. This leaves us as valuable subjects of study the whole range of real questions concerning the children themselves, the curriculum, the methods of instruction, and the problems of school organization and management. How, then, should these questions be taken up? Is it better to start with

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some treatise on pedagogy or methods, or is it better to gather up details and work out home-made generalization?

It seems to me there can be no question that the last method is the one to pursue. The teacher, like the child, must be approached through his lines of natural interest. Listen to a group of teachers of the class who especially need this training, and see how uniformly they talk about the details of their every-day schoolroom life. They are lost in the details; there are so many trees that they never see the woods, and it is exactly here that they need help. They seldom turn to a discussion of Rousseau, or experimental psychology, or Herbart, or the committee of ten. Those teachers who care for these topics are those who have broad training, in the school or in life, and they are capable of self-sustained professional life. But, you say, "It is not what these untrained and overworked teachers like to do that concerns us; it is what they ought to do." Even admitting this, we must nevertheless begin where these teachers now are if we are to lead them effectively where we want them to go. Besides, who knows where we want them to go? Do we want them to get anywhere in particular? Is it not that we want them rather to get power—power to observe clearly and honestly the phenomena about them in their schoolrooms; power to select the essential from the merely passing; power to see the relations of these concrete essentials to Mary Gibbs or Tommy Hodge; power to see the relations of Mary Gibbs or Tommy Hodge to the community in which they live and to the possible industral, political, religious, moral, and æsthetic life which opens before them? This is surely the problem—to get the teacher where he is strong enough and is well enough acquainted with the actualities of his work so that he can direct himself.

At first, then, I should say, the method of work in the teachers' class should be inductive; taking up simple studies on the children themselves; their ways of seeing things and thinking about them; their ambitions, passions, and fears, their plays, their language, their various forms of expression. Along with this we may have simple definite experiments in the subjects taught, noting how the children respond to number, or literature, or nature lessons in the various grades, under different conditions of presentation; or we may take up the problems of school organization and discipline. Every schoolroom should be a laboratory; no one can be a vital teacher who is not an investigator.

But this kind of work requires a conductor of no mean ability. The teachers' class contains such a variety of personalities, having different preparation, with many of its members set in a mold of habit by years of work, that the instructor must be a man or woman

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of versatility and sympathetic understanding, backed by a wide knowledge of human nature and pedagogic theory and practice. In some of our cities and towns this work is being admirably done by superintendents of ability and professional training, who call on outside talent for occasional assistance. I believe such a superintendent is the ideal conductor; but at present we have not enough of them to go around. The special teacher and the teacher who has done something especially well can both be used to great advantage in the teachers' classes, with, of course, a constant danger of jealousy. Progressive teachers from neighboring towns can be invited in to excellent advantage to lead or direct some piece of work. There still remains, however, a large place for the professional trainer of pedagogues. True, he does not know the teachers personally, though that is sometimes just as well, and he is ignorant of the local conditions and practices; but he brings from his university or normal school an air of freshness. He, in a sense, connects the class with the institution he represents, and he has the advantage of the prophet who is out of his own country. The rapid development of departments of education in our colleges and universities and of the professional sides of our normal schools, now going on, will furnish a limited number of such leaders, but nowhere else in the teacher's world is the demand so far in excess of the supply, and the demand is growing more rapidly than is the supply.

The state is rapidly broadening its activity as an educator. In 1850 it generally provided for education between the ages of seven and twenty; but gradually the age limit has been pushed down and up, until now, through the development of the public kindergarten and the state university, it has become possible in many parts of our country for a person to attend a free school under the charge of the state from the time he is two and one-half years old until he dies of old age. Nor is the end yet: The present tendency of the state is to take upon itself the care of the child wherever it can do the work better than the parent can do it. Hence, the demand for teachers will multiply in the future even faster than our population grows. With a better appreciation of the teacher's work more money will be forthcoming, but we shall necessarily have for years to come great numbers of badly paid and hence weak teachers, incapable of self-sustained professional life. To train them into efficiency we need thousands of strong superintendents, or directors, or class conductors, selected for reasons of special fitness and finely trained in the best educational thought and practice of all time.

To put the matter of this paper in condensed form, I should say: For many years there will be a large demand for teachers' classes.

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A permanent director or professionally trained superintendent, aided by occasional outside courses, gives the best leadership; but for the present we must depend on outside inspiration for much of the work.

The subject-matter of instruction should be taken from the actualities surrounding the teacher's work.

Formal texts on psychology, pedagogy, or the history of education should be introduced only after a considerable work with concrete details, if at all.

The method of instruction should be inductive, gathering up the details of school life and showing their possibilities.

In the organization of the class the greatest freedom and flexibility should prevail, yet the class should be organically connected with the school department.

Badly conducted teachers' classes do far more harm than good; they weary and disgust the teachers, degenerate into petty debating clubs, and arouse dissatisfaction and little jealousies.

Wisely conducted teachers' classes are of the greatest value, filling a present gap in our system of training teachers.

They enable the superintendent to detect genius, draw it out, and use it to advantage. At the same time, they enable him to detect superficiality and indifference and get rid of them.

They enable the teacher herself to discover her weakness and her strength—genius finds itself.

They introduce the student spirit into the teacher's work. This spirit alone can give strength and value to such meetings.

They give opportunity for free discussion and for the development of the spirit of give-and-take so necessary in a school department largely composed of women.

They give unity and purpose to the work of the school department, arouse a professional spirit, and an *esprit de corps* which is contagious and which is the very soul of school life.

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THE INSTRUCTION AND IMPROVEMENT OF TEACHERS NOW AT WORK IN THE SCHOOLS.

III. By Teachers' Reading Circles.

BY L. H. JONES, SUPERINTENDENT OF SCHOOLS, CLEVELAND, OHIO.

The reading circle as a means of training teachers now in service has large advantages connected with marked limitations. Too much must not be expected from it. As a piece of mechanism, or as a part of an organization, its nature must be studied, its proper place and use be found, and its correlation with other forces strictly observed.

In large school systems, as of the great cities, its place is mainly taken by the class or pedagogical club, though there is still room for each. The club has as its chief idea discussion—the reading being more in the form of study and preparation for the discussion. The reading circle, on the other hand, must have as its chief element the reading of books; other things, as meetings and discussions, being incidental, however desirable. The real or causative idea of the reading circle is an attempt to overcome what might properly be called the inertia of books. This inertia of books is not entirely dependent on the nature of the book, but somewhat, also, upon circumstances connected with the life of the reader. Each of you can recall in your own experience that the reading of some particular book was an epoch-making influence in your life, shaping for you even the trend of your after-life and action. A closer reflection will, in most of these cases, show that it was not the book itself which enforced its reading upon you, but that some circumstance outside the book, and even outside your own line of conscious effort, became the force which determined that you should then and there read that particular book. It was the casual reference to it by a friend, or some notice of its contents in the paper, or something of this nature which gave the impulse and supplied the occasion. Now, the reading circle does this kind of thing for the average teacher, supplies motive and arranges due occasion, and finally enforces by competitive struggle the necessary reading and thinking. To sum up briefly, the reading circle acts as a distinctive force to overcome the inertia of books in several ways, among which I mention the following:

1. It places definitely before the attention of its members the particular book or books adopted and shows how best to obtain them, secures better rates financially,—which is no small part of its service,

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—and puts the entire matter into tangible shape. The teacher by merely joining the organization adds to his own arm the strength of the entire organism; the latter does the rest, and actually places the book right end up in the teacher's hand.

2. If rightly managed, it furnishes a key to the book itself by a well-considered outline, duly prepared by some competent teacher, who gives suggestions as to the practical applications that the ordinary teacher may make of the teachings of the book when once his attention has been called to them. To persons unskilled in reading, as many teachers are, as most teachers in the rural schools are, this is an important function of the reading circle as an organized form of help to the teacher.

3. It furnishes an immediate and forceful motive for reading, through the very idea of the organization itself. It is a lamentable fact, as has been pointed out already, that most persons must have an immediate and more or less external motive for much of their reading—a motive outside any interest felt in the ideas as such. These influences may come from many sources. The very fact of belonging to an organization of large membership is of itself a mighty influence. The fact that stated times are set for reading certain portions, and that many persons are thus known to be engaged simultaneously on the same work, is not only a strong motive to the reading itself, but it introduces an important element of education into the life and habits of the teacher, viz., an appropriate time for each separate thing to be done; and last, but not least, some form of test in the way of examination is possible where such close organization as is herein described exists.

It is true that the reading circle is not wholly a modern institution. Its present form and use among teachers is relatively modern. Of all the reading circles known to me, that with which I am most intimately familiar is the Indiana circle, on whose board of directors I had the honor and pleasure to serve for eight years. The circle in that state consists essentially of two parts, both carried on under the auspices of the same board of directors. The first is called the Teachers' Reading Circle, and is given up distinctively to work more or less definitely professional in its nature; the other is devoted to the direct interests of young people, and is known as the Young People's Circle.

The former, known distinctively as the Teachers' Reading Circle, was organized in 1883. It has steadily grown in numbers until it now has a membership of about 12,000, out of something over 15,000 teachers employed in that state. Its members have pursued each year at least two lines of reading, one of which is distinctly pedagogical, ranging year by year through psychology, methods, history of education, etc. Another line of reading, pursued simultaneously,

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has been more largely literary or scientific. In literature it has been the effort, not to read or study about literature but to read standard literary works themselves for the spiritual nourishment and enlightenment which comes from reading and assimilating the brightest and best creations of human genius. I mention, as typical of the kind of books used in this work, that this circle has had on its list from time to time characteristic selections from Shakespeare, Carlyle, Hawthorne, and Ruskin.

The board of directors has followed the plan of having prepared by some competent person each year a somewhat exhaustive outline of the books to be read in that particular year, containing explanatory notes, philosophical comments, suggestions and questions, etc.; and it has further arranged the books into definite portions by periods of months. It is very important that a set time be arranged for particular portions of the work, that the idea before mentioned of having large numbers of people working simultaneously on the same thing, may act as motive to induce careful reading of the text.

I am not in general an advocate of the policy of indirection; but there are some things that seem more easy of accomplishment when the end to be attained is not kept too closely in the consciousness of the one in whom the purpose is to be realized. It is in this view of the case that I have watched with great interest the effect upon the teachers of Indiana of the Young People's Reading Circle, organized in that state about seven years since. In the six years during which I was a member of its board of directors, the membership of that circle rose to more than 200,000 children. For the present year, I am told by State Superintendent Geeling of Indiana that the membership exceeds 400,000 persons, each of whom has read one or more of the books on its list for the current year. The board of directors early decided never to place on the list a book of questionable merit. The books have therefore been exceptionally well selected. Pupils of the ordinary school have been roughly cast into five grades, and from two to three books assigned to each of these grades for a year. The teachers of the state were asked, through circulars, to become the agents of the board of directors in securing the interest of children and parents, and they were especially asked to make use of the books on this list as supplementary to the work of text-books in school. The township trustees were asked to buy, from the public fund, a set of books each year for the library of each district school. A system of district libraries of the best reading for young people has thus been established in more than half of the counties of that state. It is in connection with the use of these books in the schoolroom that a point of the greatest interest to me has arisen. In order to be able to use these books to supplement school work, and in order to be able to direct the children in the reading of these books in

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their homes, and in order to interest the trustees in the purchase of these books for the libraries, the teachers have been obliged to read the books for themselves; and, strangely enough, through this reading of the books—at first compulsory; afterwards, with ever-increasing interest, voluntary—such interest in juvenile literature has been established that I verily believe the Young People's Reading Circle has done more to arouse enthusiasm and develop power among the teachers of Indiana than the Teachers' Reading Circle itself has accomplished. For the books selected for the Young People's Circle were almost in every case those universal books, touching all ages, temperaments, and interests. Such books can be written only by geniuses. The teachers became at once interested in a line of reading of which they had known nothing, a new bond of sympathy between them and the children was established, and themes of conversation above the commonplace were suggested by the mutual reading of these books. I consider this last point a matter of no mean consequence. The bane of companionship, not alone among children but even between adults and children, is the tendency to gossip. That there shall be suggested worthy themes of conversation, through the means of which sympathies of a higher order shall be established, is alone worthy the efforts of any reading circle that has ever been established; and it is true, as I have observed, that, out of this mutual reading of teachers and pupils, the teachers themselves have learned better how to talk to children, how more fully to sympathize with them, as I believe, than they were ever likely to have learned in any other way.

But turning from this somewhat theoretical study of the question, I will refer very briefly to the testimony of those who have had an opportunity to know as to what has actually been the effect, practically, upon the teacher, the school, and the pupils of the reading-circle work in Indiana, where it has in the last twelve years had a faithful trial under at least fair conditions.

I sent recently a circular letter to each of ten county superintendents in different sections of the state, asking for an answer to the following question, "What have been the most marked effects of the reading-circle work upon teachers, schools, and pupils, so far as you have observed them in your work, during the years in which these circles have been in operation in your county?" From the various answers which I received I quote a few sentences, showing the general tenor of all the answers. I might have condensed this a little more, but I have, in each instance, preferred to use the exact words of the particular county superintendent. Among the number, one speaks as follows in reference to the Young People's Circle:

I take most pride in the good results of the more permanent kind. Facts, figures, etc., can state what occurred only in a certain way. During the time that I

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was working for numerical results, I was really on the lookout for the spiritual forces that must be set into operation in my county schools, both as a direct and as an indirect result of the reading circle work. It affected the whole country—pupils, teachers, trustees, and patrons. Some of the direct results were: (1) Pupils became more industrious; (2) books were used as much as possible to aid in the lessons of the day; (3) the general increase of knowledge from this source enabled pupils to prepare and recite their regular lessons more intelligently and perfectly, and the knowledge gained from these books was frequently applied in new and unexpected ways to the topic under discussion; (4) a great desire was developed to know more than the mere text-book contained; (5) the order in the schoolroom became much better and the general discipline of the school very much easier, both these effects being very marked in many cases; (6) ambitions for a higher education were aroused in many pupils; (7) improvement in the moral tone of the school was very marked, and was traceable in an immediate way to the influence of the books read.

As to the teachers, they read more, they were much more careful in their teaching; they themselves became much more ambitious for higher education; and, directly or indirectly, through this influence there was a greatly increased ratio of teachers who went each year to higher institutions of learning.

As to the trustees, they became more loyal, more enthusiastic over the work of the schools; in fact, they became proud of them, and sounded their praise from the housetop. The influence was marked upon the patrons. They were brought into closer sympathy with the schools; more anxious for the advancement of their children. They became frequent visitors in the schools. Many parents became eager to read the books from hearing the children read from them in their homes of evenings.

Another says, in reference to the Teachers' Circle:

The teachers have acquired a taste for professional reading and a greatly increased power to comprehend professional books. The close study required of them to master the books of the reading-circle course has given to them the key to a much better comprehension of the work in their school journals. The whole result is a better knowledge of the laws of mental growth, and the greater power to see principles in the subject-matter, and a clearer view of the relation of the law in the mind and the principle in the subject—stronger and more logical and original thinking in both teachers and pupils. The Young People's Reading Circle has cultivated a taste for good books on the part of the rising generation. It has influenced parents to buy good books for their children. Our book stores report a greatly increased sale of good juvenile books and magazines. Parents themselves have become interested in the reading of these children's books. The regular daily work of the school has been greatly strengthened by the use of these books as supplementary to the regular texts.

Another writes:

There has never been anything that has done more to create an interest in literature and good reading than the two reading circles now being operated in our state. This has borne good fruit in the increased enthusiasm and power of the teacher and the increasing good order and industry among pupils. Schools have been much better attended. There has been a much smaller amount of tardiness; a much larger number of pupils have graduated; a much larger number of pupils have entered the high school in this county; indeed, the greatest thing, educationally, that has been done in this state in the last quarter of a century has been the

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organization and conduct of these two reading circles. May God continue to bless the work in this county and state.

The teacher of the future is to represent, more and more, a liberal degree of culture as well as professional training; and the reading circle, in my judgment, is destined to hold an important place as a means toward this end.

DISCUSSION.

MRS. A. J. PEAVEY, State Superintendent of Public Instruction of Colorado.—In Lucian's "Dialogues of the Dead" there is a representation of a teacher of rhetoric, who comes to the banks of the Styx and demands a passage. Charon replies to him, "You must strip off all that boundless length of sentences that is wrapped round you, and those antitheses of yours and balancing of clauses and strange expressions, and all other heavy weights of speech, or you will make my boat too heavy." I sometimes think as I listen to the voluminous discussions concerning the work and wages of teachers, that we are apt to overload ourselves with classifications, analyses, and syntheses until we have well-nigh covered up the purpose and aim of the teacher's work in the methods of its performance. This may be the reason why so many teachers are wandering up and down the land vainly seeking the wherewithal to enable them to purchase a passage to the Elysian fields where work and rest are happily combined. We are certainly living in a time when "training" is the order of the day. Physical exercise is carried to the point where the man becomes simply a highly developed muscular organism. The aim of the athlete is to make himself a steam engine for speed, a trip hammer for pounding, and a hydraulic ram for lifting. The intellectual man has an analogous ambition. It is his aim to master all the knowledge; or, at least, all the knowledge pertaining to his specialty. The aspirant in the mental conflict offers the prayer and resolve of Paracelsus:

> Make no more giants, God;
> But elevate the race at once. We ask
> To put forth our strength; just our human strength;
> All starting fairly; all equipped alike—
> Gifted alike; all eagle-eyed, true-hearted;
> See if we cannot beat the angels yet!
> Such is my task.

Even in the spiritual realm this ambition is seen. There are men who seem to despise the needs of the body and the achievements of the mind in order that they may reach some attitude of perpetual adoration and lose themselves in God. I do not mean to overdraw the picture, but I think we have only to look about us to see those inordinate endeavors to attain the highest possible development, and, as a result, an over-weighting which finally destroys the only purpose for which the development is valuable. We are placed here in this world to contribute to the welfare of others. All self-development which loses sight of this divine end can only result in a final depreciation of value. It is our business to make the most of all the faculties with which God has endowed us, and while, in doing this, we must necessarily make a choice of some particular work, we shall surely fail if we pursue that choice to the extinction of those things that constitute a well-rounded life.

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The bearing of these remarks on the subject before us is evident. There is such a thing as too much training for the teacher's profession. I readily admit the value of all the agencies which are provided for instruction and the improvement of the men and women who are engaged in this work. I hold it as fundamental to success that every teacher should take advantage of the opportunities offered for improvement, and that the motto of each one should be, "This one thing I do;" but I also deem it essential to success that the teacher should realize his limitations, and that he should regulate his ambition to become great by a firm determination to become good. If anyone needs a well-rounded life—physically, spiritually, and intellectually—co-ordinately developed, it is the man or woman who comes to the work of training and educating the young.

The institute, the class, and the reading circle ought each of them to keep in view the necessity of a symmetrical development; but it is out of the question for any teacher to take in, at one time, all that these three sources of improvement offer.

My first suggestion, then, is, that the teacher should select one of these sources as a principal means of improvement and make the other two entire subsidiary. This may be done for one year. The next year the same plan may be pursued, choosing one of the other sources. In three years the course would be completed, and much more would be realized than from the attempt to use all three to their full extent at the same time.

To be a little more explicit: Suppose a teacher chooses institute work as a specialty. In that case, all the institutes within a given locality should be faithfully attended and faithfully prepared for. A young teacher would not expect to take a prominent part in such a gathering, but the directors of it, knowing the purpose and determination of such a teacher, would provide special opportunities of exercise for such talents as might be developed. Before the year was out it might reasonably be expected that such a teacher would be something of an adept in the work of the institute, and consequently there would be a definite advancement in professional life. If a teacher, having determined on this course, should find time to attend a teachers' class or a reading circle, there would be no objection, but it is evident that no burdens or responsibilities could be assumed.

In order to make this suggestion practical and efficient, it should be the self-imposed duty of the superintendent of education in a given city or county to summon the teachers to make an election at the beginning of the year as to which of these three means of improvement should be taken; provided, of course, that they are all in existence.

Under such an order of things it would not be long before special merit would display itself, and, if properly rewarded, the standard of professional life would be raised, both to the advantage of the teachers and the community they serve.

My second suggestion is in reference to the reading classes. These classes should consist of circles of not more than half a dozen members each. If the session were to occupy two hours on a given evening, this small number would give time for suggestion, discussion, and questions, and without these the reading would be of very little value. A theme should be chosen, and each one of the six should bring something to be read or an abstract or analysis of something previously read on the subject. It might be well sometimes to devote several sessions to the reading of one theme, in which case a subsequent meeting should be held for conversation on the theme without the books. This would incidentally improve the power of conversation—a great desideratum in a teacher's life.

On stated occasions—say, once in three months—several of these circles might gather for a general meeting, in which representatives from each circle might set forth the attainments of their respective circles, and at the end of the year all

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the circles of the town or county might meet to make a report of their work and discuss the value of it.

Concerning the books to be read in such circles I need hardly speak. It is evident that only works on education should have a place there. To a limited extent, biographies of great teachers, such as John Amos Comenius, Froebel, and Pestalozzi, might be profitably perused. The history of Greek education in the second and third centuries of our era is especially interesting and profitable, as showing its general diffusion, the emoluments and honors obtained by teachers, and the position which they held in the social life of the day.

The main course of the reading, however, should be devoted to those works which are strictly pedagogical in character. As an example of easy reading in this line, I might suggest Landon's "School Management," "Day Dreams of a Schoolmaster" by Thompson, and Klemm's "Chips from a Teacher's Workshop." These are specially valuable for young teachers. Of a little higher order and demanding more study and thought are works on psychology, with special adaptation to the work of teaching.

One advantage of the reading circle will be the gradual accumulation of a library of a professional character. I look for the time when a teacher will as much expect to have a library devoted to his work as a minister, or lawyer, or physician expects to have his theological, legal, or medical library.

I have one other suggestion to make: Attendance upon teachers' institutes, classes, and reading circles should be entirely voluntary. The only way to raise a profession to dignity and honor is to give it a free course. If there be not an inward compulsion to improvement no external force will avail. If you put it into a contract that a teacher must attend so many institutes, or classes, or circles, it will seem like a reflection upon the professional enthusiasm, and it will reduce the work to drudgery. Non-attendance upon these sources of improvement will soon bring its own penalty. The teacher that fails to advance will retrograde and must soon drop out. Competition ought to settle this matter, as it does in other branches of professional labor. The people want the best, and there are so many determined to be the best that there will be little difficulty in rejecting what is manifestly inefficient, however much difficulty there may be in choosing between what is good.

As I said in the outset, this does not mean that one must undertake more than he can do. The daily work in the schoolroom is the chief thing; next to this comes a careful, systematic, and well chosen order of auxiliary work. This is fully within the compass of the teacher's ability, and, if persistently pursued, will bring power, influence, and corresponding reward.

The present tendency to limit the teacher's work to one branch of instruction is greatly in favor of this method of improvement. The time has gone by when a teacher is expected to teach everything, from the alphabet to ancient and modern languages and from notation to the calculus.

In all well-regulated schools the teacher is now the occupant of a single chair. This is a common sense order and one that is in line with a true scientific method. Having one thing to do it can be done well. The subject, whether it be mathematics, or language, or history, or natural science, becomes the center from which there may be infinite radiations to an infinite circumference. Under such a plan one may become master of a subject, knowing it as it is and as it appears in all its relations. Such a mastership gives confidence to the teacher and certainty to the teaching, makes it effective, arouses enthusiasm in the pupil and communicates aspirations which make his work a delight more than a task. The main object of the training of teachers will, I think, be attained if those who have supervision over them will keep steadily in view the fact that all methods must be flexible and adapted to immediate practice. Beyond all else they must be influential in the

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molding of the character. They must give the teacher a sense of his power, his responsibility, and his need of humility. They must keep before him the fact that his work, in its possibilities for good or evil, is well-nigh unlimited.

In closing these few remarks I would like to quote to you a saying of Dion Chrysostom, a noted teacher and rhetorician of the first century, a man greatly honored by his emperor, Vespasian, and afterwards by Trajan. "There are two kinds of education," he says; "the one divine and the other human. The divine is great and powerful and easy; the human is mean and weak and has many dangers and no small deceitfulness. The mass of people call it education, as being, I suppose, an amusement, and think that a man who knows the most literature is the wisest and best educated man. And then, on the other hand, when they find a man of this sort to be vicious and cowardly and fond of money, they think the education to be as worthless as the man himself. The other kind they sometimes call education and sometimes manliness and sometimes high-mindedness. It was thus that the men of old used to call those who had this good kind of education—men with manly souls, and educated as Herakles was—sons of God." And this from the last words of Comenius: "I thank God that I have been a man of aspirations."

DR. JAMES M. GREEN of the State Normal School, Trenton, N. J.—I dislike to follow in a discussion of this character such able papers as have been presented on each of the various subjects. It is by no means an easy task. I shall devote myself to emphasizing one or two points, and to suggesting one or two lines of thought that have been set forth in the papers.

I have noticed in that which has been said little in favor of the institute, in which all of the teachers are engaged. There seems to be a tendency to classify the institute into departments. There is no doubt but this tendency is good, especially where we may have what may be termed a longer institute; but I desire to lay emphasis upon this, which seems to me to be the fact, that there should be two or three days in each institute in which all the teachers are engaged together, for this reason, that I do not think that education can be entirely divided into stalls, or compartments, or departments.

These teachers' schools should be compulsory. It is herein that I differ with those that have spoken. I would make attendance compulsory; not that the teacher should by law be compelled to attend that class, but that the teacher should be called upon to pass an examination for a license to teach that would involve the knowledge which would be given in that class. It strikes me as very interesting, from a pedagogic standpoint, to say that the teacher's attendance should be voluntary, but I have seen some of these voluntary results on the part of persons who didn't know what is involved in the work. It is easy enough to get voluntary action after a person has been developed, but until that development has been reached a teacher doesn't know what is involved in professional training; hence, doesn't seek it.

I would only have this particular kind of a compulsory class for young teachers. I would have presiding over that class a person who has been under the training or direction of some one of the normal schools, or the universities, or some other competent center of training. This could be easily accomplished in the appointment of teachers throughout our states. One or two such workers can be located in each county in the state and can be placed at the head of the class, and the pay of that teacher supplemented by the state or by some organization which will make it an inducement to give to these beginning classes what can be acquired in the higher institutions.

Now, why I am so desirous upon this point is, that, as has been said, three-quarters of the teachers of our country to-day have had no training before going

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into the work. I desire to have compulsory training schools established in order that these teachers may be brought within this line of influence, and this would readily come about if teachers were required to have a license to teach. The very fact of the license is a compulsion. They must do a certain amount of work. It is simply to cover that point that I would make attendance compulsory over a given period.

N. C. SCHAEFFER, State Superintendent of Public Instruction, Harrisburg, Pa.—I agree with the first speaker in dividing teachers into two classes; but, nevertheless, my classification is somewhat different. According to my thinking, the first class of teachers consists of those who die before they are ready for burial. In other words, they cease to grow before they are ready to quit the schoolroom.

Since education is the play of mind upon mind; since the growing mind is a quickening mind; since the teacher who has ceased to grow has also lost his power to awaken life, and interest, and thought in those intrusted to his care, it is evidently incumbent upon us to ask ourselves the question, What is to be done with these teachers who have reached the dead line? Shall we find a remedy for the difficulty in the reading circle, or shall we say that the teachers' classes and the teachers' institutes are the remedies for revivifying the work of these teachers in the schoolroom? I confess to you that I have tried all three of these remedies without avail, and in my despair I turned to my catechism and learned something new about the resurrection from the dead. I find taught there in clear and explicit terms the resurrection of the dead in the world to come, but I find not a word about the resurrection of the dead in the world of school-teaching.

My conclusion, therefore, is, that, for the sake of the children, we should entirely eliminate from the schoolroom this first class of teachers who have ceased to grow. We should eliminate them by a comfortable marriage if she is a woman; and if the teacher belongs to the opposite sex, then, by placing him upon the emeritus list—the most decent form of burial ever invented for a human being.

I turn my attention to that second class of teachers—to the teachers who have not yet reached the dead line, to that class of teachers who are still susceptible of life and of growth. With reference to these it must be confessed that every one of the three agencies discussed here to-day may be helpful in keeping them from reaching that dead line. And yet it is possible that every one of these remedies may fail. It is possible for that teacher to look upon all knowledge gathered from these three instrumentalities as the end in itself; to look upon the pupil as simply existing for that knowledge, as simply existing in order that the teacher may take the knowledge thus gained and put it into the child's mind as a receptacle. For that reason I deem it necessary to combine these three remedies with the additional remedy found in the materia medica of my friend, Dr. Barnes; I mean the study and love of the child. And here do not misunderstand me. I do not by this refer to that abstract pedagogical entity oftentimes known as "The Child." I am willing to admit that it may be like breaking of light from above when the teacher finds out what are the three stages of growth in the development of the human soul. It may be like a revelation from on high for a teacher to find out that just as there are nascent periods for the first teeth, for the second teeth, for the moustache, and for the beard, so there are nascent periods for the different organs and functions of the body, and for the different faculties and sentiments of the soul. It may be reviving the work of the teacher when he learns that there is a nascent period for this part of the arm, and a nascent period for that part of the arm, and a still different period of growth for the nose and fingers, and it may save that teacher very many a sin when he finds, that, by reason of the laws of life, he may ruin the child by imposing upon the little one, before the nascent period has come, too great

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burdens. I say, it may be like a revelation from on high for a teacher to find out that there is a time when the head grows that way (indicating), and that there is still a different time when the head grows that way (indicating), and still a different time when the head grows that way (indicating); and it may save the teacher from many a sin to find out how these nascent periods are related to the development of the child—the development of the faculties of perception through the eye and through the ear. Studies of this sort may be carried on for the purpose of adding something new to the sum of human knowledge. They may be carried on for the purpose of preparing articles for the "Forum," or writing books for Americans. These investigations may be carried forward in the same scientific spirit with which the entomologist studies the bugs and insects of his collection. Now, a scientist and investigator of that sort may say, "Suffer the little children to come unto me, and forbid them not," but the children never come. There was an entirely different spirit in the life of the Great Teacher in the Book of Books. That is the grandest book on teaching ever written, and in that book I am taught to keep the heart with all diligence, for out of it are the issues of life. Education is not wholly the result of mind playing upon mind, but it is also the result of heart influencing heart.

When Horace Mann made a famous speech for the dedication of a building that had cost many thousands of dollars, devoted to the reformation of bad boys, he said, "If all this which has been spent upon this building results in the reformation of one boy, it is money well spent." Somebody said to him, "Mr. Mann, do you think that one boy is worth all that money?" He replied, "Yes, if it is my boy or your boy."

I would have the teacher look upon every member of his class as "my boy," and go out toward each member of that class with the same fullness of love with which the mother's heart and father's heart go out towards that boy. Is not that what is meant by the famous inscription upon the monument of Pestalozzi, where on one side you read, "Everything for others; for myself nothing," and upon the other, "I lived like a beggar, that beggars might learn to live like men?"

I am so anxious about these two ends,—of study and love of children,—side by side, and as part of the work of every teacher and a necessity in every teachers' class, that I will try and turn my thought into the concrete.

About three years ago an acquaintance of mine brought his wife and a little child to the Pennsylvania Chautauqua at Mount Gretna. The child was a favorite with everybody, and near them lived a sickly woman, who persisted in bestowing her admiration upon that child, frequently in kissing the child's hand. A month after the Chautauqua had closed, that child was very sick, and at a consultation of five experts death was pronounced inevitable. When they examined the spittle of that humble woman, who was troubled with some sort of grave-yard cough, they found in it the germs of tubercular consumption, and the theory of one of the doctors was, that, by the kiss upon the hand, one of these germs had lodged there and had been carried by the hand to the mouth, and become inoculated in the system, and death was the result. When the father told me the mournful tale he wound up, with a tear in his eye, with the words, "Is it not strange that the kiss of love should become the angel of death?" And I went away, saying to myself, "The kiss of love the angel of death!" and I vowed that I would study child-life as I had never studied it before, lest something that I might do in love might, after all, prove to be the angel of death.

I would have every reading circle, every teachers' class, and every teachers' institute conducted with that conviction, that even what we do in love to children may, through our ignorance, prove a source of wrong—an angel of death.

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JOHN R. KIRK, State Superintendent of Public Instruction, Jefferson City, Mo. —Lest you think that I lack in fidelity to current pedagogical thought, I desire to say in the beginning that I do not know of any state—I have not heard of any state—where teachers and pupils are more assiduously and faithfully engaged in trying to make use of these three means of grace and salvation which have been spoken of this morning than in my own State of Missouri, and this is true from the very head of an admirably equipped state university down yonder to the lowlands and mountains among the Ozarks.

For twenty-five years, in an unsystematic and unorganized way, we tried to work these things out. For four years just past I think we have been working in an organized way, and with perhaps good results, to find out what there is that can be done by these means. But honest as I am, for my part, in undertaking to make use of these means, I look upon much of it as being hedged in by many limitations.

I would not go to the extent that one of the speakers did, who said that he would banish from the teachers' class all books on pedagogy and psychology, and similar subjects; I would not do that. If we have a teachers' class I would try, not only to make use of the knowledge which can there be gained that has not yet been put into books, but I would try, if possible, to interpret some of the books that have already been written.

But there are limitations on the value of teachers' classes. If there is anything that tends to destroy the personality and the independence of the individual teacher, it is the improperly managed teachers' class.

I want to tell you a secret this morning. It is only known to a few of us. If there is one of you who is a principal or superintendent, where both you and your predecessor have lately been promoted and have moved into a new town, and you don't know the actual details of your business; if you actually cannot go into the fifth grade as principal or superintendent and take charge of any recitation there and do about as well as the ordinary teacher; if you know you cannot do that; if you know you are not an expert in passing upon the work in the third grade or the first—let me tell you how you can cover up these defects and stay longer with those who pay you a salary. Further, if you feel yourself to be deficient in scholarship; if you know you are somewhat narrow with regard to pedagogical information, let me tell you a secret: Go right to work and organize some kind of a reading circle or a number of teachers' classes, and keep them as far as you can under your control, and select the books used and select the instructors used, and keep the discussion going, and talk about your classes, and your reading circles, just as much as you can, and these deficiencies of yours will be undiscovered.

Now, that is not said in irony. It is in good earnest. There are a great many principals and superintendents—at least, I have heard of a great many; of course, I don't meet them in associations like this, or in our state associations—there are great numbers of them that are admirable managers of large schools, yet cannot get down to the details of the instruction of the teachers that purport to be under them, and by this superficial and artificial means keep up an agitation, and thus cover up their defects.

Regarding the institute, I wish we might turn toward the improvement of it; that we might take from it the incomprehensible vagaries that are constantly preached to the teachers who must submit to instruction in our institutes. I will venture to say that in our country there will be 10,000 lectures on apperception, coordination, and correlation that will be like the lecture of a gentleman from Massachusetts whom I heard at Council Bluffs, Iowa, some three or four years ago. It was full of beautiful oratorical effects. A lady, speaking to me about it, said, "That was beautiful, but what did he mean?"

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I would have a great deal of illustrative work introduced into all our institutes, whether they be for one day or for four weeks. Instead of the lecture, talk, talk, talk, I would have introduced into every institute—and we are going to do this in Missouri—a model school, where the first grade class is brought into the presence of the institute and taught, and where the second grade class is brought there and taught; and where the fourth, sixth, seventh, and eighth grades are brought in there and taught, and let the discussion follow the observation and the illustration.

COL. FRANCIS W. PARKER of Illinois.—The sweet, strong spirit of this magnificent convocation is accumulative and culminating. Not long ago a skirmisher on the advance line was often driven back by the brickbats of contempt; or if he stayed he was covered with the mud of ridicule. There is just a little now and then left. The new idea which brought a new name was covered with talk. If anyone does not know what apperception is, buy a "Century Dictionary," and make it more easy for the new idea to be born. The great organization is being perfected. All honor to the heroes and pioneers of the coming school system, who have made it possible to march on. Obstructions are passing away, and we search for the truth. We are learning to understand. We do not propose to cling like barnacles to traditions or to any system. We propose to take from Hegel all he has, and from Pestalozzi, and Froebel, and Herbart all they have to give, and what they have to give is a magnificent spirit of progress. We will take all these, and march on to higher and better things.

The one thing now is the training of the teacher. You have had that eloquently and profoundly discussed this morning. The superintendent is one who teaches directly, earnestly, honestly, for the welfare of the pupil. If he does not do that, he is not a teacher. I believe in the resurrection in this life, and I believe there is a new spirit coming.

I am not going to speak of the delights of the grand old past, but I love to think of the progress of the last forty-one years, in which I have been a teacher. I thank God for living now. I would not have been born later for anything in the world. Everything is tending toward the training of the teacher. With the 450,000 teachers of our land, it has been impossible to train and educate them all together. We have had to bend to circumstances, and it is all right; but we are going to elevate the standard. Legislation is going to ass'st us.

I have the great pleasure of announcing to you—perhaps to some of you for the first time—that the greatest event for education in the United States since the planting of the first normal school near the old battle-ground in Lexington has just occurred. Governor Morton of New York has signed a bill, as perhaps very few of you know—I have just found it out—that he has signed a bill, which means more for the teaching profession in the United States than any other legislation that ever took place.

Let me give you briefly the terms of this bill. After 1897 no one can enter the schools of any city or village in the great Empire State without at least one year's professional training. More than that. The state superintendent of schools of New York can determine the high schools which may send graduates to the normal schools. In three years' high school course the state superintendent can determine the pedagogical value of that school, and put it off or on the list. Never was given to any superintendent of this country a mightier, grander power to help the schools than is now given to Superintendent Skinner, and I fully believe he will be equal to the great responsibility.

I announce this because it gives me great courage. Seven long years one man has worked for this bill. Twice it passed the legislature, and once it was killed by the politicians. Another time it was vetoed by another politician, but persistent,

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indefatigable effort won the day. One of our number has accomplished this grand result, and I say, all honor to W. H. Maxwell, superintendent of schools of Brooklyn, for this victory.

In twenty-five years from this time, I predict there will not be a state in this Union which has not followed the magnificent example of New York. Let us work to this end. Let the spirit of this meeting enter our souls, and let the grandeur of our past enter fully into our hearts and lend dignity and enthusiasm to our professional lives.

This grand army is to march on—not the army of thirty-four years ago—but with the sword of the spirit this army is to march on.

Mine eyes have seen the glory of the coming of the Lord;
* * * * * * * * * * *
In the beauty of the lilies Christ was born across the sea;
* * * * * * * * * * *
As he died to make men holy, let us live to make men free;
For Truth is marching on.

THE RELATION OF GEOGRAPHY TO HISTORY.

BY PROF. EDWARD CHANNING, HARVARD UNIVERSITY, CAMBRIDGE, MASS.

Mr. President, Ladies and Gentlemen:

I feel that an apology is due to you—who have attended this convention since the beginning—from a speaker who reached Denver only this morning. Indeed, on occasions like the present it might be a good rule to permit no one to speak who had not earned his right to the attention of others by giving his own attention to what others have said; or, at all events, by giving security for future good conduct in this regard. I have followed your debates in the newspapers as well as I could, and wish to add my testimony to the truth of a remark which fell from Dr. Hinsdale. He protested—if the published reports are correct—against the idea that all good teaching is of the present day. There were undoubtedly just as good teachers one hundred years ago as there are today. The old-time teachers knew little of what we call method; but it is not impossible that too much weight is given to method nowadays. The first-class teacher should, and does, invent his own methods. He will be a method unto himself. Methods invented by others unquestionably aid second-class and third-class teachers; but they also prevent their rising to higher grades. Because there was no method of doing this or doing that in the olden time, it by no means follows that there were not good teachers and good teaching. The main object of teaching was and is—or should be—the training of the mind, and not the turning out of walking encyclo-

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pædias or dictionaries of dates. In the former regard, the older teachers were oftentimes remarkably successful; we of the present may congratulate ourselves if we succeed as well. Many of our modern methods employ too much machinery between the teacher and the pupil. In my opinion, the less machinery there is employed the better it is for both teacher and student. A good text-book properly used is a blessing; the best text-book abused is a great evil. Probably in no branch of teaching is the text-book so misused as it is in the teaching of history. Another topic of which we hear a great deal at the present time, especially in such gatherings as the present one, is the educative value of this or that study. I had intended to say something on this topic to-night, but I find that President Baker is to read a paper on the matter. I will content myself, therefore, with the remark, that, in my opinion, the educative value of any subject depends mainly on the way in which it is taught and studied. Any subject taught in the perfunctory way that history is often taught has no educative value whatever. On the other hand, history as it is taught in at least two secondary schools not far from Boston possesses the highest educative value.

History is the record of man's experience on this earth; geography is the description of the forces of nature which have affected man's destiny. Without a knowledge of the latter it is impossible to understand the former. At the present day one must also understand the influence of the great inventions of the last hundred and fifty years as modifying the action of the forces of nature. The history of man is largely dependent on means of communication and transportation. The railroad of to-day is as important as the river of the seventeenth century. As an example to illustrate my meaning: It is impossible to judge fairly the Southern leaders in our Civil War unless we take into account the great change in conditions of transportation which bore its first military fruit in that stupendous conflict. The Southern leaders were justified in believing the conquest of the South to be practically impossible under the old conditions of warfare; but the Northern leaders, by a lavish use of the railway, solved a problem which would have been incapable of solution fifty years earlier. The same thing is true of the Franco-German war; the effective use made of the railways by the Germans contributed materially to the hastening of a conclusion which may have been otherwise inevitable. History for the most part, however, treats of man's activity before the age of steam. To understand the conditions under which the nations of modern Europe were brought into existence or under which our own country was settled and developed in the earlier epoch, we must first discard our modern ideas of distances and our contempt for natural obstruc-

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tions to communication—like rivers and mountains, for instance. We must endeavor to picture to ourselves the conditions which prevailed before the advent of the steam locomotive and the marine engine, and we must endeavor to estimate the triumphs and catastrophes of our ancestors from their point of view—geographically speaking. Even at the present day the physical conformation of a continent determines many things in a nation's life. The Pyrenees still separate Spain and France; the Alps still cut off Italy from the rest of Western Europe. In some respects, as, for example, in the transportation of goods and soldiers, the railroads have effected great changes; but these mountain blocks give different conditions of life to the peoples living south of them and to those living north of them. The German and the Italian must forever be unlike. Bodies of water still affect human progress as they did in the days of Genseric and his Vandal crews. The "silver streak" still separates "perfidious Albion" and the Continent as it separated them in the days of Napoleon and the younger Pitt. You remember Sir John Seeley's remark to the effect that England belonged to Europe or America, as she might choose. Even at the present moment similar conditions seem to be bringing about a repetition of history in the Far East, where, in Japan, our children may see another Britain domineer the ocean.

Water separates nations in time of war; it brings them together in time of peace. In this way the historian accounts for the early civilization of the Mediterranean lands and for the colonization of the Atlantic seaboard of the United States. It is difficult for us to realize the importance of interior waterways in the development of Europe and America, because the railroad has almost superseded the river steamboat in our country. It is interesting to go back to the early time and to compare the life of the citizens of London or Venice with that of the inhabitants of some small village only a few miles away; or to visit a town like Lubeck, once full of busy commercial life but now an interesting historical museum. But the greater part of the history of Europe was written before its fall, and in the natural causes contributing to its prosperity and decay we find that which explains to us many things in the history of Europe.

One of the best examples of the influence of physical conditions on a country's history is that great phenomenon of human industry known as Paris. Why is it that Paris is the most important place in France? Many factors have combined to produce this marvelous city; but one of the principal causes of its greatness is to be found in its geographical position. Paris is on the Seine; but Rouen and many other towns are on the Seine. Paris, unlike Rouen and these other towns, is on precisely the point of the Seine

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designed by nature for a great city. A glance at the map of France will show you that this is so. At almost the spot occupied by Paris the Seine valley widens out somewhat in the shape of a palm-leaf fan, the branches of the river forming the ribs of the fan, with Paris at the point where the handle ceases and the leaves spread out. One branch points southeastwardly, toward the Rhone valley, Italy, and Switzerland; another points eastwardly, toward the Moselle, the Vosges, and the Rhine—toward Elsass-Lothringen and Central Germany; another points northeastwardly, toward the Maas and the Scheldt—toward Luxemburg and Belgium. The lines of commerce of the Middle Ages followed these subordinate valleys of the Seine system, as the canals and railroads of our time follow them. Westward the Seine connects Paris with Rouen, Havre, and the ocean. Southward, at nearly the most northern point of the Loire, stands Orleans, guarding the route from Northern France to Southern France. Paris is thus at the center of a vast network of lines of communication. The traveler, the bale of goods, the invading army, all find themselves sooner or later at this spot. Paris, besides being a great commercial center, is the military key to Northern France; it is, to all intents and purposes, a frontier fortress. No conqueror can hope to long occupy Northern France unless he holds this fortified city.

Turning, now, to our own country, we have an admirable example of the relation of geography to history; not quite at our feet, to be sure, but only twenty-nine hours away—the Mississippi river. Two hundred years ago the French possessed the mouths of the Mississippi and the St. Lawrence, which were then regarded as the keys to the continent. Were they the real keys of the continent? Was it due solely to the better colonizing qualities of the British race that this northern continent of ours became British and not French? It seems to me that this question must be answered in the negative. Of course, the more we exalt the facilities nature placed in the hands of the French, by just so much we exalt our ancestors who triumphed in spite of nature. Fresh from a ten days' trip on the Lower Mississippi, I feel impelled to assert, that, for effective colonizing value, the Chesapeake was worth more to the British than the Mississippi could possibly have been to anyone before the days of steam navigation. If anyone doubts this assertion, let him do as I have done, and picture to himself, not an Indian trader in his light canoe but a heavily laden Mayflower, with its hundred precious pilgrims and their household goods; or let him think of an Arbella, with John Winthrop and Isaac Johnson and a year's provisions for the thronging colonists on board. Think of these immigrant ships overcoming the four-mile current of that turbid stream, "poled" over this sandbar by hand, hauled along

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that bend by a tow-line from the shore. Let us suppose that the attempt to carry the ship herself up stream to Cairo, for instance, is abandoned and the ship's longboat and the canoes of the natives are used for transportation. Think of the father of one of those pilgrim households, aided by a servant, perhaps, rowing day after day against that ceaseless current, making good two miles an hour; often not so much. How long would it have taken him to reach Cairo, one thousand miles from the sea, or St. Louis, two hundred miles farther up stream? And what provisions of food and clothing would have remained at the end of his journey? It seems, therefore, that the colonization of the Mississippi Valley from the Gulf of Mexico was an impossibility before the days of steam. The case of the St. Lawrence is different. There the tide penetrates far inland, and the river can be navigated by sailing vessels from the sea to Montreal, where the Lachine rapids bar the way. But the navigation of the river is dangerous; that of the Gulf of St. Lawrence and its approaches is even more dangerous; and for many long months the river is closed by ice to navigation. For purposes of colonization the Delaware system was of more value than the St. Lawrence—although of far less value for purposes of exploration, missionary enterprises, or trading expeditions. The gateways of the continent were Chesapeake bay and Delaware bay, the Hudson river and the passes of the Appalachians, in the seventeenth and eighteenth centuries. They are to-day.

Another interesting topic is the influence of climatic conditions on our history. Prof. Josiah D. Whitney has published (in his "United States") a most interesting table of comparative isothermal lines, showing the rapid change of climate on the western side of the Atlantic compared with the conditions which prevail on the eastern side of that ocean. This great diversity of climate on the Atlantic seaboard of our continent necessitated a corresponding diversity of agricultural products and means of earning one's living. Many of the divergences which marked off the New Englander from the Carolinian were due solely to his climatic environment. Different modes of life necessitated in time different social fabrics and varying governmental institutions, and in this way we can account for many of the most important facts in our historical development as a nation.

In these brief remarks I have endeavored to set before you a mode of historical thinking sometimes neglected in our text-books and in our schools. The study of history is valuable only as it is a living study; only as the subject conveys to the student something beside mere fact; only as it is interesting. It can be best made interesting by being understood, and it can never be understood without a knowledge of the geographical conditions under which man has been obliged to work out his destiny.

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EDUCATIONAL VALUES.

BY DR. JAMES H. BAKER, UNIVERSITY OF COLORADO, BOULDER, COLO.

EDUCATIONAL IDEALS.

We estimate a man's worth by his intellectual grasp, his æsthetic and ethical insight, and his power for action toward right and useful ends. If these characteristics make the ideal man, they should be the ideal aim of education, and a study is to be valued as it best contributes toward developing them. The same test of efficiency is to be applied to the whole curriculum of a school period.

There is a correlation between the field of knowledge and the knowing being. The objective world, with its varied content, answers to the mind with its varied powers. It is through the objective world of nature and of man that the subject comes to a consciousness of himself. Each important phase of the objective world makes a distinct contribution in extent or kind of knowledge to that consciousness. We do not live in a world where cucumbers grow on trees, or where human beings fail in their ever-recurring characteristics; and we believe it possible to discover the kind of value which each source of knowledge may furnish toward the education of the child, with the expectation that we shall not find the choice of studies to be a matter of indifference.

VALUES.

Without laying claim to a best analysis, we may use a customary division of the field of knowledge: (1) Mathematical relations; (2) natural phenomena; (3) human action; (4) human thought; (5) æsthetic and ethical qualities. The studies corresponding are (1) mathematics; (2) natural science; (3) history; (4) language and literature; (5) art and ethics. Mathematics treats of quantitative knowledge, furnishes a peculiar intellectual training, and makes possible all commerce, all great structures, and the higher developments of physical science. Natural science acquaints us with the field of physical phenomena and of plant and animal life, is the best training in induction, and is largely the basis of our material civilization. History reveals the individual; and our present civilization is the light of all human action, is a source of ethical training, and has high practical value for the problems of government and society. Literature reveals the ideal thought and the speculations of men, gives æsthetic and ethical culture, and in a practical way applies poetry to life. Art and ethics deal with distinct types of knowledge, cultivate the higher

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emotional powers, and, like ideal literature, set up standards of perfection in execution and in conduct of life.

The world in which we live is the world we are to know in order to adapt ourselves to it in thought; the world we are to know in order to gain power to work therein with success; the world we are to know as representing the thought of the Creator and the correlated nature of man; the world we are to know to gain the soul's highest realization; and for these ends, to know it in its various phases. Each department of study makes its own peculiar contribution to knowledge, each has its peculiar fitness for developing some given power of the mind, each makes its own contribution in preparing the individual for the practical world. In three distinct ways does each subject have a peculiar value—for knowledge, for power, for practical life.

While a classification of studies without cross-divisions is impossible, we may say that the first four groups give us the power of knowledge for action; the fifth the feeling for perfection of action and righteousness of action; and these in their exercise and their tendency create the right kind of power in action.

Can the exact absolute and relative value of each line of study be determined? No; but we may make approximate estimates through philosophical study of the relation of the mind to the world, through the history of education and the experience of practical teachers. Every position is tentative and subject to constant readjustment, with a closer approach to truth. A re-investigation of many problems through careful observation of children will doubtless make an important contribution to knowledge of values, if the experiments are conducted with a wisdom that takes them out of the realms of fads, and if the Platos of the world are not given a seat too far back. Important as this kind of investigation is, extreme advocates may undervalue the store of educational philosophy that has become common property. From Cain and Abel down, the child has always been the observed of all observers; the adult man recognizes the nature of the child in his own nature, and has recollections of many of his first conscious experiences. From the time of the early philosophers, the data have been sufficient to discover universal truths. Child-study serves, not so much to establish principles as to bring the teacher's mind in close sympathy with the life of the child, in order to observe carefully facts for the application of principles.

THEORY OF EQUIVALENCE.

In an ideal course of general training, can there be in any exact meaning an equivalence of studies? As well ask whether one sense can do the work of another in revealing the world to the mind. To be sure, the fundamental conceptions of the material world can be

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obtained through the sense of touch alone; but we also attach importance to the revelations of sight and hearing, and these revelations have a different quality. He who lacks these other senses is defective in sources of soul development. So he who neglects important fields of knowledge lacks something that is peculiar to them. Each study helps every other, and before special training begins each is to be used up to the time when the student becomes conscious of its meaning. By contact with nature and society, the child, before the school period, gets an all-around education. He distinguishes numerically, observes natural phenomena, notes the deeds of his fellows, gains the thoughts of others and begins to perceive the qualities of beauty and right. The kindergarten promotes all lines of growth; the primary school continues them. Shall the secondary school be open to broad election? At a time when some educators of strong influence are proclaiming the formal theory of education, that power without reference to content is the aim of study, and some universities encourage a wide choice of equivalents in preparation for admission, and the homes yield to the solicitation of pupils to omit different subjects, it is important to answer the question in the light of the previous analysis. And we say, no, for the simple reason that not until the secondary period can the meaning of the various departments of knowledge be brought within the conscious understanding, not until then are the various powers developed to a considerable degree of conscious strength, not until then has the natural bent of the student been fairly tested. In this period one would hardly advocate the exclusive study, for instance, of history, to the entire neglect of mathematics and physics; nor would he advocate the choice of mathematics to the entire neglect of history and literature.

The question of college electives is to an extent an open one. But it is clear that where general education ends special education should begin, and that indiscriminate choice of studies without purpose is no substitute, either for a fixed curriculum or for group election in a special line. I believe most fully in the freedom of modern university education, but not in its license. Its freedom gives the opportunity to choose special and fitting lines of work for a definite purpose; its license leads to evasion and dilettantism. We hear of a senior who took for his electives Spanish, French, and lectures in music and art, not because they were strong courses in the line of his tastes and tendencies, but because they were the lines of least resistance. There appears to be a reactionary tendency toward a more careful guarding of college electives, together with a shortening of the college course, in order that genuine university work may begin sooner. If this tendency prevails it will become possible to build all professional and other university courses upon a substantial foun-

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dation, and we shall no longer behold the disgraceful spectacle of law and medical students entering for a degree upon the basis of a grammar-school preparation.

The opportunity to specialize, which is the real value of college election, is necessary even for general education. To know all subjects one must know one subject. The deepening of one kind of knowledge deepens all knowledge. The strengthening of power in one direction strengthens the whole man. And education is not complete until one is fairly master of some one subject, which he may employ for enjoyment, for instruction, and for use in the world of practical activity. Here we reach the ultimate consideration of the intellectual side in estimating educational values.

SOME THEORIES.

"But," says some one, "my conservative, not to say old-fashioned, friend, do you not know"—etc.? Yes, I know that we have before us new problems, or a reconsideration of old problems; and I hope I am with the vanguard. I believe the trend of educational thought is right, however we may for a time deviate in curious paths. I know that mental capacity, health, time, money, home obligations, proposed occupation, and even deviation from the normal type, are all to be considered in planning the education of a pupil. But the deviations from ideal courses and standards should be made with ideals in view, a different proposition from denying the existence or possibility of ideals. Yes, I know that the mind is a unit-being and a self-activity; that it develops as a whole; that there are no entities called faculties. But suppose the various psychical activities had never been classified, as they now are, in accordance with the facts of consciousness, the usage of language and literature, and the convenience of psychology, what a herald of fresh progress would he be who would first present mental science in clear groupings! We may call the world one, but it has many phases; the mind is one, but it has many phases; these are more or less correlated, and our theory of educational values stands. Yes, I know that interest is the *sine qua non* of success in education, and nothing is more beneficent than the emphasis given this fact to-day. I also know that pleasure is not the only, not even the most valuable, interest; and that the disagreeable character of a study is not always a criterion for its rejection. The pleasure theory will hardly overcome the importance of a symmetrical education.

In regard to some things, however, you must permit some of us to move slowly. We must use the principle of "apperception," and interpret the new in the light of that which has for a long time been familiar—attach it to the "apperception mass;" we must be indulged in our right to use the "culture-epoch" theory and advance by degrees

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from the barbaric stage to that of deeper insight; we must "concentrate" (concenter) with established doctrines other doctrines that present large claims, and learn their "correlations" and "co-ordinations."

A new object or idea must be related to and explained by the knowledge already in mind; it must be so placed and known or it is not an idea for us. If "apperception" means the act of explaining a new idea by the whole conscious content of the child's mind, then it is the recognized process of all mental growth. In a given study topics must be arranged in logical order, facts must be so organized as to constitute a consistent whole, important relations with other studies must be noted, and one subject must be made to help another as opportunity arises. If "correlation" means to unite and make clear parts of subjects and subjects by discovery of valuable mutual relations, then it is a vital principle of all good teaching. Studies, while preserving their integrity, must be adjusted to each other in time and sequence so that a harmonious result may be produced. If "co-ordination" means the harmonious adjustment of the independent functions of departments of study, we own the triteness of the truth.

If the theory of "culture-epochs" finds a parallel in order of development between race and individual, and throws light upon the selection of material for each stage of the child's growth, then let the theory be used for all it is worth. Its place, however, will be a subordinate one. Here are the world and the present civilization by means of which the child is to be educated, to which he is to be adjusted. Select subjects with reference to nature as known by modern science, with reference to modern civilization and the hereditary accumulation of power in the child to acquire modern conceptions.

If "concentration" means subordinating all other subjects of learning to a primary subject, as history or literature, which is to be used as a center throughout the elementary period, we refuse to give it a place as an important method in education. Intrinsically there is no such thing as a primary center except the child himself. He possesses native impulses that reach out toward the field of knowledge —and in every direction. It is difficult to imagine a child to be without varied interests. Did you ever see a boy who failed to enumerate his possessions, investigate the interior of his automatic toy, delight in imaginative tales, applaud mock-heroic deeds, and appreciate beautiful objects and right action? If the child lacks normal development and has not the apperceiving mind of the various departments of knowledge, create new centers of apperception and interest, cultivate the neglected and stunted powers. The various distinct aspects of the objective world suggest the selection of studies; the nature of the mind suggests the manner in which the

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elements of knowledge are to be organized. The parts of a subject must be distinctly known before they are correlated; subjects must be distinctly known before they are viewed in a system of philosophy. Knowledge is not organized by artificial associations, but by observing the well-known laws of classification and reasoning. Moreover, all laws of thought demand that a subject be developed in a definite and continuous way, and that side illustration be employed only for the purpose of clearness. In practice the method of concentration can but violate this principle.

We may ask whether apperception, correlation, co-ordination, and concentration are anything but a recognition of the laws of association. The laws of association in memory are nothing but the law of acquisition of knowledge, as all good psychology points out. These laws include relations of time, place, likeness, analogy, difference, and cause. Add to these laws logical sequence in the development of a subject, and you have all the principles of the methods named. Have these investigations an important value? Yes. They explain and emphasize pedagogical truths that have been neglected. Having performed their mission and having added to the progress of educational theory, they will give way to new investigations. This is the history of all progress.

INTEREST.

The subject of interest deserves a further thought. It goes without saying that all a man thinks, feels, and does centers around his own personality, and in that sense is a self-interest. But we are not to infer that therefore interest must be pleasure. We are born with native impulses to action, impulses that reach out in benevolence and compassion for the good of others, impulses that reach out toward the truth, and beauty, and goodness of the world without regard to pleasure or reward. These impulses tend toward the perfection of our being, and the reward lies in that perfection, the possession of a strong and noble intellectual, æsthetic, and ethical character. The work of the teacher is to invite these better tendencies by presenting to them the proper objects for their exercise in the world of truth, beauty, and right. Interest and action will follow, and, later, the satisfaction that attends right development. Whenever this spontaneous interest does not appear and cannot be invited, the child should face the fact that some things must be, because they are required, and are for his good. When a course of action is obviously the best, and Inclination does not lead the way, Duty must come to the rescue.

I am not touching this matter as an old ethical controversy, but because I am convinced it is a vital practical problem of to-day in

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education; am convinced that the pleasure theory is bad philosophy, bad psychology, bad ethics, bad pedagogy, a caricature of man, contrary to our consciousness of the motives of even our ordinary useful acts—a theory that will make a generation of weaklings. Evolution does not claim to show that pleasure is always a criterion of useful action. Herbert Spencer, in his "Ethics," says: "In many cases, pleasures are not connected with actions which must be performed, nor pains with actions which must be avoided; but contrariwise." He postpones the complete coincidence of pleasure with ideal action to the era of perfect moralization. We await the evolutionist's millennium. Much harm as well as much good has been done in the name of Spencer by well-meaning teachers, and much harm has been done in the name of physiological psychologists; I would avoid a misuse of their noble contributions to educational insight. Listen to a view of physiological psychology with reference to the law of habit: "Do every day or two something for no other reason than that you would rather not do it. The man who has daily inured himself to habits of concentrated attention, energetic volition, and self-denial in unnecessary things, will stand like a tower when everything rocks around him and when his softer fellow-mortals are winnowed like chaff in the blast." The fact is, it is impossible to create character, energy, and success without effort that is often painful. This view is an essential part of our theory of educational values.

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Report of the Committee on Necrology.

BY C. W. BARDEEN, SYRACUSE, N. Y., CHAIRMAN.

James McCosh.

Among the deaths of the year, this association as a body suffers most in that of James McCosh, ex-president of the College of New Jersey, who died on November 16th. He is remembered here for his paper on "Upper Schools," at the Elmira meeting in 1883; for his discussion in the association and afterward of the project for a national university; for his paper at the Chautauqua meeting in 1880 on "The Importance of Harmonizing the Primary, Secondary, and Collegiate Systems of Education;" and, most of all, for his service as chairman of the Department of Rational Psychology at the International Congress of Education in 1893, where the keen enjoyment of controversial discussion by this veteran of eighty-two years was one of the features of the meeting.

He was born in Ayrshire, Scotland, April 1, 1811; was graduated from Glasgow and Edinburgh; in 1851 became professor of logic and metaphysics at Belfast; and in 1868 came to America as president of the College of New Jersey. He resigned his office in 1888, after making of a provincial institution a great college. He secured for it more than three millions in money, and he left upon the students the impress of a vigorous and healthy individuality. He was also a voluminous writer and a controversialist of remarkable skill and power.

President Patton said of him, in a baccalaureate address:

> Dr. McCosh was a philosopher and a theologian; but above all, he was a teacher of men, and as president of Princeton he will always be thought of as one of the few who had the gift of wielding a fascinating power over the youth of his time.

Julius Hawley Seelye.

Another of America's great college presidents died on May 12th. Julius Hawley Seelye was a graduate of Amherst College and of Auburn Theological Seminary. After pursuing theological studies

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in Germany he was settled in 1853 as pastor in Schenectady, N. Y. In 1858 he resigned his pastorate to accept the professorship of mental and moral philosophy in his alma mater. This professorship he held till 1877, when he was elected president of Amherst College, from which position he resigned in 1890 on account of failing health. His connection with Amherst College for thirty-three years was broken for two years, 1875-77, by a term of service in congress, to which he was elected as an independent.

The "Outlook" well says:

It is given to few men to excel in so many departments of life as did Dr. Seelye. As a preacher he easily ranked among the first twenty-five in the country. As a publicist he set an inspiring example of purity and independence in political life, and rendered invaluable service to his country in a crisis involving serious peril. As president he carried Amherst College safely through the period of adolescence, from an epoch in which college students were treated as boys under governors to that in which they are treated as men. As an inspirational teacher he exerted his profoundest and most permanent influence. Preacher, publicist, administrator, teacher, President Seelye was in all a man of vision, trusting to it in himself, and believing in its sacred power in others.

Henry Coppée.

Another college president died on March 21st. Henry Coppée, acting president of Lehigh University, was born in Savannah, Ga., Oct. 13, 1821, and was graduated from Yale in 1839 and from West Point in 1845. He took part in the Mexican war, and in 1848 was made assistant professor of French at West Point. In 1855 he resigned from the army and became professor of English literature in the University of Pennsylvania. In 1866 he was elected president of Lehigh University, but afterward resigned to hold the professorship of English literature.

Henry A. Coit.

Another teacher, who might have been a college president but preferred to remain at the head of one of our great preparatory schools, died on February 5th. Henry A. Coit was born in Wilmington, Del., Jan. 20, 1830, and was educated in St. Paul's School, College Point, L. I., and at the University of Pennsylvania. He early entered the ministry of the Episcopal Church, and became a missionary in Northern New York. When St. Paul's School was founded, in Concord, Mr. Coit was chosen its first rector, assuming the position in April, 1856. The school opened with three students, but under Mr. Coit's direction it gradually increased to more than 300, its present number, and has become the leading Episcopal school in the country. Dr.

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Coit was elected, in 1867, president of Trinity College, and in 1871, of Hobart College, but in both cases he declined the honor, preferring to go on with the work which he had undertaken.

Daniel Kirkwood.

Daniel Kirkwood, who died on June 11th, though better known as a professor of mathematics and an astronomer, had also been president of Delaware College. He was born in Bladensburg, Md., Sept. 27, 1814, of Scotch-Irish descent. His early life was spent on a farm, and at the age of twenty he entered the academy at York, Pa., where, after a four years' course, he was elected first assistant and mathematical instructor. In 1843 he became principal of the Lancaster (Pa.) High School. In 1851 he was chosen professor of mathematics by Delaware College, and three years later became president. He was called to the chair of mathematics in Indiana University in 1856, and in 1866 to a similar chair in Washington and Jefferson College, Pennsylvania. In 1867 he was recalled to Indiana, and remained until his retirement as emeritus professor in 1886. He was a member of various scientific societies, and contributed largely to scientific journals. He was the author of three books, "Meteoric Astronomy" (1867), "Comets and Meteors" (1873), and "The Asteroids or Minor Planets Between Mars and Jupiter" (1887).

Oliver Wendell Holmes.

Among college professors, the year is marked by the loss of two of the most famous in America. Oliver Wendell Holmes is most widely known as a literary man, yet he was an eminent medical professor and author, and was the inventor of the stereoscope. Indeed his versatility was perhaps his most marked characteristic. He was a physician, a professor, a scientist, an essayist, a novelist, a wit, a poet; and withal a gentleman, a man of the world, and pre-eminently a citizen of Boston, which on public occasion was glad to put him forward as her representative. His poems were never fully appreciated save by those who heard him recite them on the occasions for which they were written. He had the faculty of turning, as Lowell said,

> The phrase that stuck but never stung,

and could hit off contemporary men and doings with a felicity seldom rivaled.

His life of sunshine ended peacefully on October 7th, at his home on Beacon street, Boston. He was the last to go of the great quintette which included Emerson, Longfellow, Lowell, and Whittier.

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He was born, the son of a clergyman, in Cambridge, Aug. 29, 1809, the same year with Tennyson, Darwin, Lincoln, Poe, and Gladstone. He fitted at Andover, and was graduated from Harvard in 1829. He began to study law, but turned to medicine, and in 1833 went to Paris to study. He returned in 1835, took his degree in 1836, in 1838 was made professor of anatomy in Dartmouth, and in 1847 was called to the same chair in Harvard. In 1849 he gave up medical practice to devote himself to literary work; and in 1883 he gave up his chair in the medical school.

His literary fame had come suddenly. In 1830 there was talk of breaking up the old frigate Constitution, and it stirred him to write and send to the "Advertiser" "Old Ironsides." Though he was but twenty-one, the poem saved the ship, which lies to-day in the harbor at Portsmouth. In 1836 he published a volume of poems, but his reputation was still local when, in 1857, he began to contribute to the "Atlantic Monthly" "The Autocrat at the Breakfast Table." These papers insured the success of the magazine, and made him famous. In 1859 he began "The Professor" and in 1873 "The Poet at the Breakfast Table," and many of his best poems appeared in these papers. "The Professor's Story" was "Elsie Venner," a novel which appeared in 1861, and "The Guardian Angel" was the chief attraction of the "Atlantic" in 1867.

In 1866 he visited Europe with his daughter, and was welcomed by the most distinguished men in England; his travels were entertainingly reported in the "Atlantic."

When the Department of Superintendence met at Boston in 1893, Dr. Holmes was present at the reception given, and read a poem written for the occasion.

James Dwight Dana.

James Dwight Dana, who died on April 14th, was born in Utica in 1813, was graduated from Yale in 1833, and was appointed instructor in mathematics to midshipmen in the United States navy, visiting many foreign countries. From 1836 to 1838 he was an assistant at Yale to Professor Silliman, and in the meantime was made geologist to the expedition sent by the United States to the Southern Pacific ocean, under Captain Wilkes. His report was published by the government in several volumes with many plates. In 1850 he was made Silliman professor of natural history and geology at Yale, where he remained till his death. His text-books have always been the standards upon their subjects. When Professor Marsh was studying geology in Germany his fellow students were advised to learn English for the sake of studying Dana's text-book of mineral-

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ogy, assured by the German professor that they could learn the English language and the subject both easier than they could learn the subject alone from any other text-book. With all his eminence as a scholar and an author, Professor Dana was the simplest and most lovable of men. The writer remembers being one of a party of freshmen whom he took out over the hills near New Haven and showed the elementary characteristics of the rocks with as much interest and patience as though he had been a newly appointed tutor.

Daniel C. Eaton.

Another Yale professor, who had acquired eminence in the field of botany, died on May 29th. Daniel C. Eaton was born at Fort Gratiot, Mich., Sept. 12, 1834, and graduated from Yale in 1857. In 1864 he became professor of botany in that institution, where he remained until his death. He was the author of several works, including "The Ferns of America." He made quite a number of important expeditions in the interest of science, among them one to the Wasatch mountains in Utah.

Theophilus Adam Wylie.

Theophilus Adam Wylie, a veteran professor of the University of Indiana, and author of the published volume giving its history, was born in Philadelphia, Pa., Oct. 8, 1810. He was the son of Samuel Brown Wylie, an eminent classical and oriental scholar. He was graduated at the University of Pennsylvania in 1830. In 1837 he was appointed professor of natural philosophy and chemistry in the University of Indiana. In 1852 was made professor of mathematics in Miami University, but three years later he returned to his former post. In 1864 he was transferred to the chair of ancient languages. In 1886 he withdrew from active work and was made professor emeritus.

N. H. R. Dawson.

Among supervisory officers, we have lost the former commissioner of education under President Cleveland's first administration, who died February 1st. N. H. R. Dawson was born in Charleston, S. C., and was a descendant of Paul Hamilton, secretary of the navy in 1812, and also of several early colonial governors of South Carolina. He was also a brother-in-law of President Lincoln, their wives being sisters.

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Joseph Estabrook.

A foremost teacher of Michigan died September 30th. Joseph Estabrook was born in Bath, N. H., July 3, 1820, was graduated from Oberlin College, and in 1853 was made principal of schools in Ypsilanti. After fifteen years of service there, he went to East Saginaw to organize the school system, and in 1871 returned to Ypsilanti as principal of the State Normal School. In 1880 he retired to accept a professorship in Olivet College. In 1886 and 1888 he was elected state superintendent of public instruction. He was cheery, warm-hearted, and broad-minded—a noble old man.

Henry A. Ford.

Another Michigan teacher of much influence was Henry A. Ford, who died last November. He was a captain in the army during the Rebellion, and afterward became professor in Kalamazoo College. He was for many years editor of the "Michigan Teacher," and did editorial work on the Kalamazoo "Telegraph" and the Cleveland "Leader."

Mrs. Mary J. Platt.

On September 20th, on the Pachango Indian reservation in Southern California, Mrs. Mary J. Platt, teacher of the school, was killed by an assassin, who placed her body in the center of the floor of the schoolhouse, covered it with stovewood, and set it on fire. An illustrated sketch of her work was given in the "Review of Reviews" for November.

Michael Frank.

In the death at Kenosha of Col. Michael Frank, Wisconsin lost the man who has been called the father of her public school system. He had reached the age of ninety.

David Swing.

David Swing, who died in Chicago last October, though best known as clergyman, was a graduate of Miami University and had been a professor in that institution. While pastor of a Presbyterian church in Chicago, he was accused of heresy, and though acquitted by the lower ecclesiastical courts withdrew from the church rather than carry the trial further, and became pastor of the Central Church, organized for him, where he taught "a faith full of love and gentleness and charity." He was also a successful writer, and was noted for his familiarity with the classics.

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This report can hardly close without reference to some of the notable deaths abroad.

John Stuart Blackie.

John Stuart Blackie, who died March 2d, was well known in America through his "Self-Culture," and his fame as one of the great teachers of the century is widespread.

He was born in Glasgow in 1809, and after studying in Germany and Italy returned in 1834 to Edinburgh, where he published a metrical translation of "Faust," and became a lawyer. In 1841 he became professor of Latin literature in the University of Aberdeen. A metrical translation of the works of Æschylus led to his being called to Edinburgh, where he was professor of Greek from 1852 to 1882. Since 1882 he devoted himself to authorship, sometimes lecturing on modern Greek at Oxford and Cambridge. He was one of the most interesting personalities of his generation, and a remarkable instructor.

Among the many anecdotes told of him, the following is so characteristic that it should be repeated here:

He was lecturing to a new class with whose personnel he was imperfectly acquainted. A student arose to read a paragraph, his book in his left hand. "Sir!" thundered Blackie, "hold your book in your right hand!"—and as the student would have spoken—"No words, sir! Your right hand, I say!"

The student held up his right arm, ending piteously at the wrist. "Sir, I hae nae right hand!" he said.

Before Blackie could open his lips there arose such a storm of hisses as one perhaps must go to Edinburgh to hear; and by it his voice was overborne. Then the professor left his place and went down to the student he had unwittingly hurt and put his arm around the lad's shoulders and drew him close, and the lad leaned against his breast.

"My boy," said Blackie—he spoke very softly, but not so softly but that every word was audible in the hush that had fallen on the classroom—"my boy, you'll forgive me that I was over-rough? I did not know—I did not know!"

He turned to the students and with a look and tone that came straight from his great heart, he said: "And let me say to you all, I am rejoiced to be shown that I am teaching a class of gentlemen."

Scottish lads can cheer as well as hiss, and that Blackie learned.

Thomas Henry Huxley.

The name of Thomas Henry Huxley, who died on June 29th, only a few days ago, is as well known in America as in England. He was

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born in 1825, at Ealing, Middlesex, and educated at Ealing School, in which his father was one of the teachers. At twenty he was graduated from the Charing Cross Medical School, and in 1846 entered the navy as assistant surgeon. He was appointed to H. M. S. Rattlesnake, about to sail upon an exploring expedition in the South Pacific. In the course of the long voyage he had splendid opportunities to make observations of the natural history of the sea, particularly with reference to the anatomy of the mollusks and medusae. He wrote several admirable papers, afterward published in the philosophical transactions of the Royal Society, which in 1851 made him a Fellow. In 1853 he resigned his navy appointment and became professor of natural history in the School of Mines. He was also connected with other institutions as instructor and lecturer, and began to occupy a distinguished place as specialist in zoölogy and biology. From 1863 to 1869 he was Hunterian professor in the Royal College of Surgeons, and contributed as much to researches in zoölogy as any investigator of his time. He was a warm friend of Professor Tyndall, and in early life traveled with him over the Alps. In 1870 he became a member of the London School Board and was prominent as a fierce opponent of denominational education. In 1872 he was elected rector of the University of Aberdeen, and in 1881 became inspector-general of fisheries. In 1884 he was elected president of the Royal Society. About this time a letter published through breach of confidence showed him a bold adherent of the agnostic doctrine that it is impossible to define the unknowable in terms of the known. In this letter Mr. Huxley declared himself the first to introduce the word agnostic into modern philosophical discussion. In 1876 he visited America, delivering lectures in several cities. Among his more important works, apart from those strictly scientific, are, "Lay Sermons, Addresses, and Reviews," 1870, and "Critiques and Addresses," 1873. With Darwin, Tyndall, and Spencer, he formed the great quartette which succeeded in forcing upon an unwilling public the doctrine of evolution.

James Anthony Froude.

James Anthony Froude, who died October 20th, was born in Devonshire, April 23, 1818, and was graduated from Oxford in 1840, and made Fellow of Exeter College at the age of twenty-four. At this time he was in sympathy with the Newman high church movement, and, when ordained deacon in 1844, wrote "The Lives of the English Saints." But in 1848 he published "The Nemesis of Faith," which was considered an attack upon religion, and he was forced to resign his Fellowship. He became a writer for the "Westminster

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Review," and in 1856 published the first volumes of his "History of England," the last appearing in 1870. In 1869, he was installed rector of St. Andrews, and was for a time editor of "Fraser's Magazine." In 1873 he lectured in America, afterward amplifying his lectures into "The English in Ireland in the Eighteenth Century." His "Short Studies on Great Subjects" appeared in 1867, his "Cæsar" in 1879, his "Reminiscences of the High Church Revival" and his "Reminiscences of Carlyle" in 1881, his "Thomas Carlyle" the next year, his "Oceanea" in 1886, and afterward "Thomas á Becket," "The English in the West Indies," and a novel, "The Two Chiefs of Dunboy." In 1892 he was made Regius professor of history at Oxford.

Hermann Helmholtz.

In the death of Hermann Helmholtz, the world loses perhaps its greatest scientist. He was born Aug. 21, 1821, at Potsdam, the son of a professor in the gymnasium. He took the degree of M. D., in 1842 became an army surgeon, and in 1847 read a paper on the conservation of force that made him famous. In 1849 he was made professor in Königsberg, in 1855 at Bonn, in 1858 at Heidelberg, and in 1871 at Berlin. In 1891 he was made president of a school for the experimental furthering of natural inquiry and the technics of precision. His principal investigations were upon sound and sight, but his memoir on eddies or vortices, in the field of hydrodynamics, was second in importance only to that on the conservation of force.

William Moon.

William Moon, who died on October 11th, was the inventor of the embossed system of printing for the blind, which he had adapted to 476 languages and dialects, and in which more than 200,000 volumes have been printed.

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DEPARTMENT OF SUPERINTENDENCE.

CLEVELAND MEETING.

SECRETARY'S MINUTES.

FIRST DAY.

MORNING SESSION.—TUESDAY, FEB. 19, 1895.

The Department of Superintendence of the National Educational Association met in annual session at Cleveland, Ohio, in Association Hall, at 9:30 a. m., the President, Supt. W. H. Maxwell of Brooklyn, N. Y., presiding.

Robert L. Blee, the Mayor of Cleveland, opened the meeting by an address of welcome. He was followed by H. Q. Sargent, Director of the city schools, who welcomed the department in behalf of the teachers of Cleveland. Prof. Chas. F. Olney also gave a brief address of welcome.

President Maxwell responded to the addresses of welcome in behalf of the department.

Superintendent Jones of Cleveland extended an invitation to the department to visit the city schools.

President Staley of Case School of Applied Science invited the department to visit that institution.

Papers on the subject, "How to Test the Quality of a Teacher's Work," were read by Supt. W. C. Warfield, Covington, Ky., and Supt. Aaron Gove, Denver, Colo.

The papers were discussed by Supt. Chas. W. Cole, Albany, N. Y.; Supt. Frank D. Cooper, Des Moines, Iowa; Supt. W. W. Chalmers, Grand Rapids, Mich.; Supt. John E. Morris, Alliance, Ohio; Supt. Chas. W. Cole, Albany, N. Y.; Supt. J. M. Greenwood, Kansas City, Mo.; Supt. John Burke, Newport, Ky.; Miss N. Cropsey, Indianapolis, Ind.; Miss Sarah L. Arnold, Minneapolis, Minn.; Supt. F. Treudley, Youngstown, Ohio; President E. A. Sheldon, State Normal School, Oswego, N. Y.; Prof. Charles A. McMurry, Normal, Ill.; President Irwin Shepard, State Normal School, Winona, Minn.; Supt. Edward P. Seaver, Boston, Mass.; Dr. E. E. White, Columbus, Ohio; Supt. W. H. Maxwell, Brooklyn, N. Y.

Superintendent Gove of Denver, Colo., closed the discussion.

Miss Ellen G. Reveley of Cleveland was called upon and was received enthusiastically. She declined to speak, owing to the lateness of the hour, but extended a very cordial welcome on behalf of the superintendents of the primary schools of Cleveland.

The department then adjourned.

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AFTERNOON SESSION.

President Maxwell announced the following committees:

COMMITTEE ON NOMINATIONS.

President A. S. Draper, Champaign, Ill. Supt. J. R. Preston, Jackson, Miss.
Supt. Aaron Gove, Denver, Colo. Supt. A. B. Blodgett, Syracuse, N. Y.
Supt. Henry Sabin, Des Moines, Iowa.

COMMITTEE ON RESOLUTIONS.

Supt. Chas. B. Gilbert, St. Paul, Minn. Supt. O. T. Corson, Columbus, Ohio.
Supt. Chas. R. Skinner, Albany, N. Y. Supt. Z. H. Brown, Nashville, Tenn.
Supt. H. S. Tarbell, Providence, R. I.

Supt. Horace S. Tarbell, Providence, R. I., presented a paper on "The Training of Teachers—Report of the Committee of Fifteen."

The paper was discussed by Prof. A. B. Blodgett, Syracuse, N. Y.; State Supt. N. C. Schaeffer, Harrisburg, Pa.; President John W. Cook, Normal, Ill.; Dr. W. J. Milne, Albany, N. Y.; Professor Nicholson; Supervisor Geo. H. Martin, Boston, Mass.; Miss Ellen G. Reveley, Cleveland, Ohio; Dr. D. L. Kiehle, Minneapolis, Minn.; Dr. Walter B. Hervey, New York City; Dr. Gordy, Athens, Ohio; Dr. E. E. White, Columbus, Ohio; Dr. E. A. Sheldon, Oswego, N. Y.; Supt. H. S Tarbell, Providence, R. I.

EVENING SESSION.

At 8 p. m. the President called the department to order.

Director Sargent extended an invitation to the department to attend a reception at Gray's Armory at 8 p. m., the same being tendered the visiting teachers by the teachers of the Cleveland city schools, the faculty of the Western Reserve University, the Case School of Applied Science, and the citizens of Cleveland.

Miss Emma C. Davis, on the part of the teachers of the city of Cleveland, seconded the invitation in behalf of the lady teachers of Cleveland.

Orville T. Bright, Superintendent of Schools, Cook county, Illinois, read a paper on "Changes—Wise and Unwise—in Grammar and High Schools."

Miss Sarah L. Arnold, Supervisor of Primary Schools, Minneapolis, Minn., next read a paper on "Recent Improvements in Primary Work."

SECOND DAY.

MORNING SESSION.—WEDNESDAY, FEB. 20, 1895.

The department was called to order at 9:30 by President Maxwell.

Dr. W. T. Harris read a portion of the "Report of the Committee of Fifteen."

This was followed by a discussion by Frank M. McMurry, Buffalo, N. Y.; Francis W. Parker, Cook County Normal, Chicago, Ill.; Charles De Garmo, Swarthmore College, Pennsylvania; Wm. H. Maxwell, Brooklyn, N. Y.; C. A. McMurry, Normal, Ill.; Dr. Walter B. Hervey, New York City; Dr. B. A. Hinsdale, Ann Arbor, Mich.; Dr. E. E. White, Columbus, Ohio; Dr. Nicholas Murray Butler, New York; Samuel T. Dutton, Brookline, Mass.; Dr. W. T. Harris, Washington, D. C.

The session then adjourned.

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AFTERNOON SESSION.

N. C. Schaeffer, State Superintendent, Harrisburg, Pa., read a paper upon "The Powers and Duties of State Superintendents."

J. R. Preston, State Superintendent, Jackson, Miss.; State Supt. Henry Sabin, Des Moines, Iowa; A. W. Edson, Worcester, Mass.; A. E. Winship, Boston, Mass.; State Supt. E. B. Prettyman, Baltimore, Md., and State Supt. R. E. Emery, Madison, Wis., took part in the discussion.

Supt. N. C. Schaeffer then closed the discussion.

The department then adjourned.

EVENING SESSION.

A paper on "History Teaching in School, with Reference to the Report of the Committee of Ten," was presented by Dr. B. A. Hinsdale, Professor of Pedagogy, University of Michigan.

Charles F. Thwing, President of Western Reserve University, addressed the department on "The Teaching of Political Economy in Schools."

The department then adjourned to attend the reception at Gray's Armory tendered by the teachers of Cleveland.

THIRD DAY.

MORNING SESSION.—THURSDAY, FEB. 21, 1895.

A. S. Draper, President of the University of Illinois, read the report of the Committee of Fifteen on "The Organization of City School Systems."

The paper was discussed by Dr. E. E. White, Columbus, Ohio; Albert Bushnell Hart, Harvard University; Supt. A. P. Marble, Omaha, Neb.; Dr. B. A. Hinsdale, Ann Arbor, Mich.; Supt. F. Cogswell, Cambridge, Mass.; Superintendent Seaver, Boston, Mass.; Col. F. W. Parker, Chicago, Ill.; Robert C. Metcalf, Boston, Mass.

President Draper closed the discussion.

The selection of place for holding the next meeting of the department was then taken up.

State Superintendent Sheats of Florida extended an invitation to the department to hold their next meeting in Jacksonville, Fla.

There was also an invitation to hold the meeting in Indianapolis, Ind.

Supt. H. R. Pattengill of Lansing extended an invitation to hold the next meeting in Detroit, Mich.

The balloting showed the following results:

	First Ballot.	Second Ballot.
Jacksonville	103	131
Indianapolis	80	99
Detroit	19	...

President Maxwell declared Jacksonville as the place for the next meeting of the department.

The Committee on Nominations recommended the following names as officers for the department:

President—Lewis H. Jones, Cleveland, Ohio.
First Vice President—J. H. Phillips, Birmingham, Ala.
Second Vice President—Chas. W. Cole, Albany, N. Y.
Secretary—R. E. Denfeld, Duluth, Minn.

The report of the committee was adopted.

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AFTERNOON SESSION.—THURSDAY, FEB. 21, 1895.

Department called to order by President Maxwell.

"Individualism in Mass Education" was the subject of a paper read by P. W. Search, Superintendent of City Schools, Los Angeles, Cal.

The paper was discussed by Supt. L. H. Jones, Cleveland, Ohio; Dr. Richard G. Boone, Ypsilanti, Mich.; Dr. W. T. Harris, Washington, D. C.; Col. F. W. Parker, Cook County Normal School, Chicago, Ill.; Supt. W. J. Shearer, New Castle, Pa.; A. E. Winship, Boston, Mass.; H. R. Sanford, Institute Conductor, New York; Dr. E. E. White, Columbus, Ohio; Dr. Eugene Bouton, Pittsfield, Mass.

Superintendent Search then closed the discussion.

The department then adjourned to meet at 8 p. m.

EVENING SESSION.

The closing session of the department was called to order at 8 p. m., President Maxwell in the chair.

A paper on "Application of Child Study in the School" was read by Col. Francis W. Parker, Principal of the Cook County Normal School, Illinois.

The Committee on Resolutions made its report through its Chairman, Supt. C. B. Gilbert of St. Paul, Minn., as follows:

REPORT OF THE COMMITTEE ON RESOLUTIONS.

SUPT. C. B. GILBERT, *Chairman.*

Whereas, The institutions of this country are undergoing at the present time a severe strain, and possibly a final testing, which condition has aroused in the minds of thoughtful people grave unrest and gloomy forebodings as to the future; and

Whereas, The sole hope of perpetuity for a free state is found in the intelligence, virtue, and patriotism of its people; and

Whereas, The only reliable and controllable means possessed by the state for securing these safeguards is its system of public and universal education; therefore, be it

Resolved, By the school superintendents in convention assembled, that it is the duty of every citizen, whether directly engaged in the work of education or not, but especially of those who are so engaged, and who are for this reason more familiar with the needs and difficulties of a school system, to see to it that the public schools of this land reach and maintain the highest efficiency possible.

Resolved, That, to this end, we declare our belief in the following propositions, and pledge ourselves to use our utmost efforts towards securing their general adoption:

I. *As to School Management*—

First—The public schools should be absolutely free from the domination of those who would prostitute them to political or personal ends.

Second—The management of the schools should be in the hands of educational experts clothed with adequate power, protected in their tenure of office, and held responsible for results.

II. *As to Teachers*—

Since the character of the teacher sets the standard of the school and provides the true basis of all educational work, we declare, first, that the standard of scholarship required of teachers should be high.

Second—That all teachers, both of elementary and higher schools, should have thorough professional training.

Third—Not only all teachers of all grades but also principals, supervisors, and superintendents should have thorough professional training. To this end, we heartily favor the establishment of fully-equipped training schools of pedagogy in connection with colleges and universities.

Fourth—Only those should be employed as teachers who have refinement of mind and soul to such a degree that, both consciously and unconsciously, they will influence children for good.

Fifth—Teachers doing good work should be secure in tenure of office.

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III. *As to the Training of Children—*

We believe that the studies with which the child's mind is to be busied while in school should be those which will give him sympathetic acquaintance with the material and social world in which his life is to be spent. We further believe that the chief study for all teachers should be the child himself, to the end that all efforts at education may be directed along the line of least resistance as determined by the child's own nature. We believe that the aim of all directive effort in education should be, first, so to train all the child's powers by the exercise of his self-activity that he shall both comprehend his material and social environment and be able to live his life effectively in it; and, second, to develop in him a purpose to use these powers so gained for the good of society.

Resolved, That we recognize the great value of the report presented by the Committee of Fifteen, as setting standards, defining educational values, and furnishing broad grounds for intelligent deliberation and discussion in the future, and that the committee be and hereby are authorized to put the report and such dissenting opinions as they may see fit to use, into form satisfactory to themselves, and to print the same; and that the committee having performed this duty be discharged.

Resolved, That in the opinion of this body of superintendents the importance of public education in this country demands its recognition as a distinct and co-ordinate department of the executive branch of the government, and we urge a systematic movement on the part of all educators and educational bodies in the land to the end that the Commissioner of Education be made a cabinet officer.

Resolved, That we express our sincere appreciation of the generous hospitality shown us by the citizens of this beautiful city of Cleveland, and that we congratulate them upon having successfully solved one of the great problems of school administration. We thank especially Director Sargent, Superintendent Jones, and their colaborers in the public schools, and the presidents and officers of Adelbert College and the Case School of Applied Science, for their untiring efforts to make our stay here pleasant and profitable. We extend to the different railroads leading to Cleveland our thanks for their various courtesies. We especially express our appreciation of the dignified, impartial, and felicitous manner in which our esteemed President has conducted and controlled the various meetings of this body, and of the efficiency and courtesy shown by the Secretary and Treasurer in the performance of their arduous and too often thankless tasks.

President-elect Jones, being called to the chair, spoke as follows:

President Maxwell:

In assuming the presidency, I accept this symbol of authority from your hands, sir, with the greatest diffidence, since you have handled it in this hall for three days with such rare courtesy and consideration. You, sir, by the quiet grace and noble dignity with which you have presided over the deliberations of this body, have set a standard that will be difficult for me to maintain.

Ladies and Gentlemen; Members of the Department:

I desire to return in this public manner my heartfelt thanks for the high honor which you this day have conferred upon me, and to express the hope, with fears mingled with the hope, that I may rise to your expectations when I meet you a year from this time in the land of flowers.

By the authority vested in me, I now declare this department adjourned, to meet one year from this time in Jacksonville, Fla., the exact date to be named hereafter.

W. H. MAXWELL,
President.

J. M. CARLISLE,
Secretary.

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PAPERS AND DISCUSSIONS.

HOW TO TEST THE QUALITY OF A TEACHER'S WORK.

BY W. C. WARFIELD, SUPERINTENDENT OF SCHOOLS, COVINGTON, KY.

The power to influence the formation of the character of a child is the best quality that a teacher can manifest; therefore, we must test this quality if we would properly estimate the teacher's work.

Arithmetical rules and mathematical problems may assist in making a child think, and thus assist in his mental development, but can do but little in making him a man. When a child has mastered the elements of algebra, he owns an instrument with which he can penetrate into the depths of numerical reasoning and calculative secrets. The teacher may drill a class in reading until each pupil can readily call off the words and sentences; she may subject the pupil to a cross-examination in geography to her own satisfaction, or may succeed in getting them to properly "fill the blanks" in the language lesson, but may be working with no end in view save that of promoting a large class. I sometimes think what a blessing it would be if we could really get the teacher to put out of her mind all ideas pertaining to promotions. Then, perhaps, we could get her to think more about the child's growth and less about markings and examinations.

Character-building is the foundation stone upon which all other blocks of marble should be laid by the teacher; upon it should be erected the castle of existence. Within this castle should be garnered the fundamental knowledge acquired by the child.

Good scholarship, a certain amount of tact, kindness of heart, intermingled with love and devotion to duty, and supplemented with a considerable amount of training, ought to be possessed by every prospective teacher. Add to this a few years of experience in teaching, and almost invariably the result will be a good teacher.

When a supervisor enters a teacher's room and finds her parading the aisles with flushed cheeks and a ferule ready for instant use, he is tempted to believe that but little quality is to be found in such a teacher's work. Are such teachers successful? I have not found them so. Love should be the ruling spirit of the schoolroom. It is

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love that incites interest; it is love that commands respect. But sometimes this love may assume a ridiculous phase. I once knew a teacher who was so much beloved by her pupils that I feared they would love her to death. Such a catastrophe was averted by her elopement with an alderman's son, who was looked upon as the dullest pupil in the class. If a teacher can get her pupils to love their work, she will be able to keep them busy. Busy pupils govern themselves. Anarchy and riot flee before honest labor's onward march. Disorder and idleness cannot live in an atmosphere of love. Sometimes the teacher who is apparently the best-liked by young pupils becomes thoroughly despised by these very pupils after they leave her class. She only reached half way into their hearts; she failed to touch the inmost chords of the soul.

Two teachers may be of equal scholarship, similar training, and be teaching in the same school. They may even be teaching the same grade of work, but different classes. The pupils may be of equal ability and with similar home surroundings. Yet the supervisor may find one a successful and the other an unsuccessful teacher.

In one room the pupils are students of nature. To them every bird sings a song of joy, every breeze comes freighted with perfume, and every stream bears upon its bosom a ship loaded with treasures. They are ever on the alert for new discoveries. New words must be found and conquered. To them the flowers in field and garden tell their sweet story. They learn that the rocks encircle the earth in mysterious layers, each forming a chapter in the world's history before man came to record it in prose and song. To them the reading lesson is simply the door which is about to open and give them an unobstructed entrance into the highway of the world's literature, along which they may stroll in pleasant companionship with the silent masters—fellow-travelers who will never quarrel with them, who can be dismissed and recalled at pleasure. To them the study of language is the guide-book to correct expression, enabling them to tell their thoughts to others in a way that will be easily understood; not in high-stilted sentences, filled with expletive adjectives, but with child-like simplicity and charming grace. To them the study of geography is the revelation of nature's household treasures—the exposition of God's manifest greatness. They view the earth as one grand picture. They make fancied journeys through mysterious caverns. They revel in oriental breezes to-day and watch the sunset in the occident to-morrow. They penetrate the innermost parts of the earth in quest of wealth, and climb to the top of Mount Ætna to study climate, or ascend the slope of Mount Washington in search of healthful resting-places. To them mathematics serve as a conveyance to the broad plane of exact reasoning. History teaches

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them how the men of the world have lived, pointing out their mistakes and their achievements. They are led to admire the good and to condemn the bad. The physical welfare of the child is considered, and the children are taught to employ a correct carriage of the body. The ethical part of their education is not neglected, and they look upon a trickster as a traitor to the school. To them, home, school, and native land are possessions around which their loyal hearts are united in one common brotherhood. In the school of this teacher we find the whole child developed.

In the school of the second teacher we find the pupils trying to "call off" the multiplication table, because they will be "kept" if they do not know it. They plod through the reading lesson because it is in the reading book, and they are trying "to get through the book." To them the patch-work found in the ordinary reader is wholly meaningless. The simplest English classic or the choicest fairy tale given in complete form would be equally unintelligible to them. They are made to work because they come to school, and they must be put through the evolutions of her daily program. She does not concern herself about results, unless it be to send a large delegation to the teacher of the next higher grade when promotion time comes. Promotions and averages are the platform and scale-beam, respectively, upon which, and by which, she weighs one and all of them. She has a well-warranted dread of the supervisor's visits, and ceases everything else when he enters the room in order to deliver her regulation apology for her manifest defects as a teacher. To these pupils there appears no rift in the clouds. The major portion of them are chiefly occupied in endeavoring to do the things that the teacher is constantly telling them not to do. There is a studied mechanism that is plainly obvious. The high-pitched tones grate harshly as they give forth the oft-repeated reprimands. She may, perhaps, keep an orderly register, and her class record book is probably free from blots, but they are the indices to volumes of misery. Culture flew out of the window when this unqualified schoolmistress entered the room.

How may we obtain information concerning the work being done by a teacher? Close supervision is apparently the best means that can be employed. I would include with this frequent cabinet conferences between the supervisor and the teacher. More information can be obtained in such a conference, lasting only ten minutes, than can be obtained in a dozen grade meetings or a score of Saturday normal classes. Grade meetings and normal classes may assist the teachers by giving them some inspiration, but a thoughtful supervisor hardly cares to recommend the retaining or discharging of any teacher on the evidences presented by her at such a meeting. When a teacher presents herself as an applicant for a position, I would give

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more for one hour's talk with her than I would for an examination lasting three days. No superintendent or supervisor can make a correct estimate of the work being done by the teacher until he has had the opportunity of conferring with her and ascertaining what conception she has of the function of a teacher.

That teacher who shows her will under control; who subordinates everything else to her school duties; who conscientiously and promptly carries out certain specific plans that she may have laid down; who knows when to speak and when to keep silent; who applies herself thoroughly to the discharge of duty; who expects obedience and secures it; who is of a refined, cultured nature—is prepared to meet the test the supervisor may apply.

It is by observing the development of pupils that we can test the quality of the work being done by the teacher. If the latent faculties of a certain pupil are being properly aroused or the active faculties being properly directed we can rest assured that the pupil is in safe hands. That teacher who is striving to make a manly man out of an indifferent boy; who is inculcating in his mind true ideas of life; who is carefully guiding him along the pathway of knowledge; who is persuading him to acquire the power of doing things—is fulfilling the requirements. The teacher who insists upon doing the pupil's work, and fails to perceive what her own work properly is, can draw no veil around such methods that will secrete such manifest defects.

An inner view of teachers' thoughts must give evidence of what they can do. If their ideals be high, their achievements must be great. If they demonstrate that they know how to do we need have no fear of results. A teacher with a well-defined plan has the task half done.

There are hundreds of teachers in this broad land of ours who believe that—

> To live for common ends is to be common.
> The highest faith makes still the highest man;
> For we grow like things our souls believe,
> And rise or sink as we aim high or low.

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HOW TO TEST THE QUALITY OF A TEACHER'S WORK.

BY AARON GOVE, SUPERINTENDENT OF SCHOOLS, DENVER, COLO.

[ABSTRACT BY THE AUTHOR.]

The quality of a teacher's work cannot be tested by immediate results; such a measurement is impossible.

The task of the artisan, when executed, presents a product the imperfections of which are apparent to the competent instructor. He works only with the material.

With him whose line of effort is along that of training the mind; whose art includes all the divine relations and attributes of the human soul; who deals only with the immaterial—no testing is possible, no human judgment is competent.

As there are approximate truths, so are there approximate judgments. I understand it to be within the province of this discussion to consider the quality of effort, not contemplating accurate decisions. A part of truth is more helpful than is absolute error.

A long-established and dangerously crystallized custom of school supervisors has been to make, on the printed page, assignments to teachers, and pretend later to calculate the value of the accomplishment of the task by a formal inspection and examination. To so rigid and ridiculous a practice has this method been carried that school boards have been known who required the measure and rank of teachers to be recorded in figures by the supervisors.

A product of mental effort or training that can be examined by the senses can be ranked, and measured, and tested.

The reply to a properly framed question is before the teacher for accurate judgment; a topic assigned to a student for general treatment elicits such a return as can be only approximately measured.

The lawyer before the court presents his work to the bench for judgment; judgment is rendered; but neither judge nor client believes the quality of the attorney's work to have been tested. The decision may be but an approximate truth.

Notwithstanding these considerations, an estimate by the supervisor of the teacher's work must be made. He has prepared himself as an expert. He knows much or little of the science and art of teaching. The making of this estimate is a part of his duty—only a part; essential, but of minor importance when the whole field of duty is in view.

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One of the objects of the elaboration of this subject will have been reached, if we can relate how the supervisor estimates the quality of the teacher's work.

The most nearly accurate conclusion is reached by him who has, at some time in his life, had that work to do which is now being done by another under his supervision. His exact knowledge of what is meant by "Put yourself in his place," is of service, provided, that, in the theory of the art of teaching, he is abreast of the profession.

It is too late to belittle the effusions of theorists. There is no practice without theory. The educational world would stagnate and die without theory. True, in these latter days, it requires much strength, more patience, and most charity to withstand and combat the propositions daily before us for bettering educational processes. Shouting "Impracticable schemes of theorists!" is no adequate reply.

Actual experience as a teacher in the country school and in the grades, helpful as it is, can alone never make a competent judge of professional work. Some of the most eminent members of this department have never taught an elementary school.

An indication of the merit of a teacher is found in his physical condition: A body healthy and erect, surmounted by a comely and properly placed head; a countenance fair to look upon, without blemish, either natural or acquired; hands and feet natural and well formed; and the man clothed withal, decently and in order.

A knowledge of his disposition is surely a necessary element for testing his work, and disposition includes digestion as well as personal habits.

The commonly accepted method of testing the quality of the teacher's work is inspection while on duty. Unquestionably this is the most important factor in calculating the product.

To define and portray what the inspector does, how he does it, and to give the detailed reasons for his conclusions, would be to cover the ground which fifty authors have attempted to cover, in as many essays printed within ten years, so many of which the members of this department have tried to read, and so many of which are valueless to the superintendent.

Should I undertake the task the outcome would be quite as useless to you.

The individuality of the man is quite as emphatically indicated in superintending schools as it is in any other directive position. His ultimate judgment is fairly reliable. How he reaches it, is as difficult to detail as it is for one teacher to give to another the spirit of the methods she uses; the mechanics of methods only can be communicated.

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Herbart, back among us, could at best but reiterate his principles. The application thereof depends upon the individual. The most ample knowledge of pedagogical philosophy will cause variable demonstrations, modified by conditions and temperaments. An inspection of five minutes or five hours of a given schoolroom returns to one a somewhat definite notion of the teacher. That alone is, in the light of my preface, not conclusive. An intimate association with the teacher, a definite knowledge of that teacher's head, and heart, and scholarship is essential. A beautiful, orderly, and attractive school may be a misrepresentation; it may not be good teaching. A group of riotous, clamoring, bustling youngsters with their teacher; occasionally, even in such a place, true character training is in progress.

Instances and illustrations of the testing of the work of the teacher are abundant, but not especially helpful.

A group of children playing school dramatize their daily work and the style of the teacher with painful exaggeration; the casually pronounced opinion of pupils constantly for several months is a pointer to a trail worthy honorable following.

But in the end, the only possible, intelligent measure of the quality of a teacher's work is the deliberate judgment of an intelligent adult pronounced twenty years after leaving school. The adult man of America, well bred, educated, and cultured, is he alone whose opinion of his childhood's teacher is competent authority. Because that is not material to us now in the harness, detracts not from its truth.

We are set apart to test and measure associates in supervision who are bigger, heavier, than we, in power, in energy, and in teaching strength. In our criticism, often, we are not satisfied unless we find weaknesses which we hug to our own souls, and then give them utterance. I do not know how to test the quality of a teacher's work; you don't. If we could do this, we would make our schools efficient as they should be.

DISCUSSION.

[Reported by A. S. Downing of New York.]

Charles W. Cole, Superintendent of City Schools, Albany, N. Y.—The topic before us has been so fully covered by the two able papers to which we have listened that there is not much left for discussion. If I were to criticise anything it would be the form of the question itself, "How to test the quality of a teacher's work?" It might be answered by giving any one of the thousand different ways in which to make such a test. I presume the intention was to try to ascertain the

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best possible way in which to test the quality of a teacher's work. I shall not undertake to show the best way. Each one will have to work out that problem for himself. In order to make the best possible test, it would be necessary to wait until twenty years after the pupils had gone out from under the influence of the teacher and then to try to ascertain what kind of men and women they had become. And, in order that this test should be an infallible one, it would be necessary to suppose that the pupils had been under the influence of a single teacher for a long period of time. In such a case, the character-result might well be accepted as a satisfactory test of the quality of a teacher's work. But this test cannot be applied in a graded school system. The very fact that one teacher has charge of a particular set of pupils for so short a time—seldom more than a year, and often not more than a half-year—precludes our drawing the conclusion that any one teacher can be made wholly responsible for the make-up of the character of any one set of pupils; and where character is built up by so many builders, we may expect a sort of stratified result—layers of good building, and, perhaps too often, other layers of weak and imperfect construction.

It is all very well to say that a Mark Hopkins on one end of a log and a Garfield on the other is the best kind of a university, but we know that Hopkinses and Garfields are not met with every day in our schoolrooms. And then, again, we must not forget that character is not entirely formed in the schoolroom; that the environments of home, the street, and the church also have large influence in the formative work. For these reasons (although I must not be understood as undervaluing the evidence to be derived from the characters developed in the pupils), a superintendent of a graded system is precluded from making this the only test of the quality of his teachers' work. Again, before we endeavor to ascertain the quality sought after, it is necessary to understand what we mean by that quality. It seems to me that we should look for two kinds of quality—the intellectual and the quality of his teachers' work. Again, before we endeavor to ascertain the done in giving the pupils power; that is, power to think and power to do. This side can be judged in many ways too familiar to you to need rehearsal. The same is true as to the moral quality of the work; as to whether it shows that the teacher has put conscience into her efforts and has succeeded in developing sincerity in the work of the pupils.

I cannot suggest any touchstone that will immediately determine the quality of a teacher's work. The one that seems to me the nearest is the impression that will be made on one's mind immediately on entering a schoolroom by the very atmosphere of the room, which shows to an experienced observer what the mental and moral attitude of both pupils and teachers is towards each other and towards their work. With 300 teachers, I cannot devote many hours to each; nor do I think that necessary. The supervisory principals overlook the work of the more experienced teachers. I devote the time of my visits of inspection to testing the young and inexperienced teachers, to giving them counsel and advice.

SUPT. FRANK D. COOPER, Des Moines, Iowa.—In early manhood I listened to a lecture upon "The Problem of Life." The speaker summed it all up by saying that every man solves this problem for himself. So in the solution of this question. Every superintendent must solve it for himself. There is so much in a teacher's work which does not take body and form, and therefore cannot be tested by any fixed rules. It depends much upon who is testing and upon who is tested. Just as in a laboratory, the test depends upon the eye, and also upon what is to be seen. Much depends upon the spirit and purpose with which the superintendent comes to the test. He should lay aside all his personality and bring to the work the right professional spirit. He can determine much by seeing, hearing, and feeling quali-

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ties which cannot be measured or expressed in words. There are causes which are certain ultimately to produce definite effects. By observing these causes he may know positively what the quality of the work of the teacher is from the results which must evidently follow. We have been looking too much upon the material causes; hence, measuring material results.

W. W. CHALMERS, City Superintendent, Grand Rapids, Mich.—In my remarks to-day I shall have in mind schools giving employment to 300 or more teachers. I agree with Superintendent Warfield, that the object of the public school is character building and the development of power in children; that, therefore, ability to accomplish this is the best qualification of a good teacher. But I claim that talk of that kind is of no practical importance to us here to-day. We can make no application of such suggestions. We have not the time, and it is a physical impossibility for a superintendent to keep in touch with the work of 300 or 400 teachers and watch the development in character in from 15,000 to 25,000 pupils. It seems to me that our work in this direction lies in being able to read the character of the applicant for a position. We must be experts in reading human nature. Of the 1,000 hours of school in the year, we must be able to judge of the 999 by seeing the one. We must be able to order by sample. As a physician receives the report of his patient from the nurse, takes his temperature, diagnoses the case, and writes a prescription, so we must be able to get a report about the teacher from the principal, spend a half-hour in a schoolroom and prescribe for the ailment. If we are able to judge a man by his dress and conversation, by spending fifteen to thirty minutes in a schoolroom and observing the atmosphere of the room, the condition of the floor, the desks, the blackboards, the walls, the occupation of every pupil present, the neatness of the teacher, and the kind of instruction the class is getting at that time, we ought to be able to carry with us a fairly well outlined mental picture of the teacher in charge. Our knowledge of a teacher's work must come through these hasty visits and from our talks with the school principals.

It seems to me that it is more to the point to advise superintendents to study the character and strength of their principals. Associate with you a corps of able, industrious, honest, reliable principals, and see your teachers through them. Study your principals and study them carefully. Your corps of principals is your cabinet, your personal staff and advisers. See to it that no traitor gets into camp.

I differ from Superintendent Gove when he says that we are not as heavy as some of those we are trying to weigh; that we are not capable of supervising and criticising some of our teachers, because we are not as good teachers as they. I cannot preach as well as Dr. Gunsaulus of Chicago, nor as well as John Smith of Podunk, but were I on a committee to select a pastor, I would have no trouble in choosing between them. I cannot give as good primary language, number, or kindergarten lessons as some of the teachers of Grand Rapids, but there is no one in Grand Rapids who is as good a judge of such work, according to the standards of the management of the schools, as I am.

In conclusion, I desire to call your attention to a mechanical device that I make use of to assist me in keeping in touch with the work of my schools. It is a system of monthly reports; I call it a record of work, or history of work, for the month. Don't say that it is useless, and a great consumer of time and energy of the teacher that might better be expended in other directions. It is neither. It takes only fifteen to twenty minutes of time each month on the part of the teacher, and about the same time of the superintendent; and it gives him a complete view of the work of his schools for the entire month. These blanks are given to the teachers of all departments, and they are asked to fill them out and send to the office the Monday following the close of each school month. My clerk reads them

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carefully, and compares them, subject by subject, with the course of study, general outlines, and instructions for each subject. She notes all irregularities and special recommendations, makes a typewritten copy of the notes, and hands it to me. It takes me but a few minutes to read these notes, and then I have in mind every irregularity in detail that has occurred in the schools for the past month. I get this report about the middle of the first week after the close of each school month. I then write letters to principals and teachers, suggesting changes that I deem wise.

J. M. GREENWOOD, City Superintendent, Kansas City, Mo.—Often the superintendent can test the quality of the teacher's work by the senses of smell and feeling. To illustrate what I mean: A young medical student, having completed his course of instruction, began to practice in the town where he attended lectures. He was called to see a patient whose ailment from the books and from his instructors' lectures he was unable to make out. So he hastened to his most trusted medical adviser for help. After describing the case, the experienced physician was unable to determine the disease. Together they visited the patient. No sooner was the door of the sick room opened than the old practitioner gave the young doctor a nudge, and whispered, "Smallpox!" The novice asked, "How could you so quickly, without seeing the patient, tell that it was smallpox?" The physician answered, "By the smell and the feeling which this disease always creates in me." So the skilled superintendent, often by merely entering the room, can judge from a compound sensation of the disease at work among the inmates.

This power to test cannot be transferred from one to another in technical terms and directions; but it comes only as an experience to those who study closely the maladies of the schoolroom from the two sides of theory and practice.

The feeling may also be illustrated by the story of a seven-year-old boy who was asked by his mother, at the close of the first day in school, how he liked his teacher. He said, "I think I shall like her very much." "Why?" asked the mother. "Because she is such a restful teacher." "What do you mean by that?" asked the mother. "Why, she didn't make me feel any time to-day like I wanted to fight." As a superintendent, I have known teachers who are restful, helpful, and active; but others who, as soon as I entered their rooms, put me into the fighting feeling.

JOHN BURKE, City Superintendent, Newport, Ky.—The only practical method of testing the quality of a teacher's work is to observe the work while it is in progress. My method of doing this is:

First—I observe the manner of government; whether there is systematic arrangement of pupils, order at the seats and in recitation; whether the teacher's desk is in order and the blackboards show systematic arrangement of work. I do not like, as a rule, to see bare blackboards, even though they may be clean. If the boards are covered with neat work, and show that a number of pupils have been demonstrating their knowledge on them, this is a good sign.

Second—The teacher must look pleasant and the pupils eager and happy. The presence of the superintendent must not cast a chill upon the teacher and the school. The teacher should feel that she is in the presence of a friend and sympathizer, as well as of an expert and a critic. I commend more frequently than I criticise. The way to get people to do their best is to encourage them and praise their work. Everybody likes praise and commendation, even the members of this intelligent and dignified body.

Third—I observe the manner of the teacher. She must be calm and going about her work in the usual way. The fussy, nervous, excitable teacher cannot be a good teacher.

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Fourth—I observe the clearness with which a teacher presents her work. A teacher should teach so as to excite thought in the minds of her pupils. Teaching that arouses thought can never be drudgery either to teacher or pupils.

By such signs as these, and many others known to superintendents, I can readily ascertain what kind of work the teacher is doing.

MISS CROPSEY of Indianapolis, Ind.—I believe with Thoreau, that "whatever a man does he merely reports himself." The quality of our work is apparent to those who have the power of seeing. We reveal ourselves in every act—of speech, of voice, of gesture. In the voices and faces of the children we see ourselves reflected. In the very external arrangement of the room we show our sense of proportion and the ability or inability to appreciate the influence of this manifestation of reason upon the minds of children.

In order to judge anything justly we must approach it from the standpoint of appreciation. We must not judge by mere negative acts and deeds. Only a pure, a sensitive spirit can judge rightly of the quality of a teacher's work. A lower kind of intelligence may perhaps measure the quantity.

Too much stress has been laid upon the external or mechanical side of teaching. This has a relative importance. The fundamental test of the quality of a teacher's work must be found at last in the ability to furnish conditions for the real miracle of growth in the child—that all lower forms of activity may prepare for the expression of higher powers. Reading, arithmetic, and geography are not ends in themselves. By means of these, and by all experiences which the school should give, we are to strive to make human life all-sided, powerful, efficient, happy.

MISS SARAH L. ARNOLD, Supervisor of Primary Schools, Minneapolis, Minn.—As I had not anticipated being called upon to join in this discussion, I have prepared no argument, but I would like to answer a criticism which we must often meet in our work.

Protracted visits are not always necessary to determine the superintendent's judgment of the teacher's power and skill. Many little incidents, seemingly trifling, will show us the trend of the teacher's work, if we are well qualified for our positions and observe with a sympathetic spirit and the insight which comes of experience.

Our experience and study enable us to judge truly from seeming trifles, and from such judgment we may justly formulate a general estimate of the strength or weakness of the teacher's habitual work.

SUPERINTENDENT TREUDLEY of Youngstown, Ohio, spoke eloquently, paying tribute to the influence which his former teachers had exerted over him, not by their methods of instruction but the presence of a power which was indefinable and not capable of analysis.

DR. E. A. SHELDON, Principal of the State Normal and Training School, Oswego, N. Y.—I fully agree with my friend from Youngstown, that the most valuable products of the teacher's work are not to be tested by any formal examination questions, whether oral or written. They are spiritual, and can only be spiritually discerned. The atmosphere of a good school is not to be ascertained by written examinations. One may feel it. You see the children growing in spiritual perception and power, and realize that it is the atmosphere in which they live and move that conduces to this growth, and that it is the teacher who creates this atmosphere. As there are conditions in air that can only be tested by breathing it, so there are conditions in the schoolroom that go to build up true nobility of character that can only be recognized by one whose soul is sensitive to such spiritual

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conditions. I remember nearly thirty years ago to have been on a visit to some of the schools of New England (a trip I often take to keep myself in touch with the best educational work), and on my return, as we were passing through Westfield, Mass., some one remarked that there was a state normal school located in this town. I resolved to stop off a train and see it. I shall never forget the impression made upon me by the atmosphere of this school. I took an opportunity to go again and spend some days. There was the presence of noble souls. There was genuine spiritual and intellectual growth. No written examinations could have revealed this inestimable product. The source of this power was in the teachers, and I would have been glad to transport them to Oswego without examination; and tried to do so, but failed.

I remember to have seen in one of my own primary schools the children reaching out their fingers to touch the gown of the teacher as she passed up and down the aisles. It almost seemed that virtue entered into the little ones as they touched the hem of her garments. To me this was far better testimony than any amount of formal examinations could furnish as to the value of the product of this teacher's work.

It is astonishing with what tenacity school officers sometimes hold to the idea that the only possible way to find out what is in a person is by questioning it out of him. Such persons are very likely to think that no questions but those of their own framing can by any possibility accomplish this object. I had a daughter who had graduated from the classical department of our normal school; had taught the Latin and Greek in the same school for four years; had spent nearly two years in special study at Cornell University; had subsequently studied three years at Oxford University, England, making a specialty of English literature, and had received a first-class certificate in an honor course in that subject; had taught in the high school at Omaha, Neb., for one year, to the entire satisfaction of everybody, and held the state certificate of Nebraska, when an ignorant ward politician in the board of education discovered that she had not been examined by *their* board, and nothing would do but she must leave her work in the school and take *their* examination. She had to be examined in reading, spelling, arithmetic, geography, grammar, and other studies which usually pertain to such examinations—subjects to which she had given no direct attention for at least ten or twelve years, and which had no direct bearing on her teaching work in the high school. All this took several days. In the meantime her work in the high school stopped, as did her compensation, and there was no equivalent realized either by the school or the board. The only satisfaction gotten out of all this fret and worry, loss of time and instruction, was that which came to the board that she had been examined.

I hardly need say in the presence of this highly intelligent body of educational men that very little value is to be attached to such kind of examinations. They may test the ability of the persons examined to remember certains things, but not that which is of far greater importance—their power to think, to reason, to express, and to do. I remember about thirty-five years ago, when we were introducing the objective methods into the public schools of Oswego, a member of the board of education of Cincinnati, a very intelligent German, came and spent several days among the schools for the purpose of satisfying himself as to whether there was any superior merit in these methods. I suggested to him that he go into the schools and question the children on subjects entirely foreign to those that were being pursued in the regular course of instruction. In this way he would test them, not on the things they remembered of what they had been taught—a product that might be the result of the most objectionable kind of teaching—but he would find out how they had been trained to think, to reason, and to express their ideas.

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I said, "They may not be able to answer your questions, but you will thus test an intellectual product of far greater value than mere knowledge." I may add, that he tried the experiment and found it entirely satisfactory. I confidently look for a time near at hand when we shall employ more sensible means of testing educational values than those so widely prevalent at the present time.

DR. CHARLES A. MCMURRY of Normal, Ill., quoted Mr. Gove's statement that the quality of a teacher's work could be best judged by an intelligent adult twenty years after leaving his school. "It is now more than twenty years since I left Mr. Gove's school, and I have the time qualification for pronouncing a final judgment on Mr. Gove's work as a teacher. While there are many things which go to make up the general effect of a teacher's work, it might be appropriate to call attention to at least one point which stands out, after twenty years, in memory. To a boy coming in from the work of the garden and farm, Mr. Gove's school was a happy place. It was a place of sunshine and comfort. The feeling remains strong, now, as it was then, that the school was the happiest place in which to be; the spirit that pervaded it then was a joyous one, and the memory of it is now equally so. Other things in Mr. Gove's teaching remain, but this is paramount. Now, it is the mature verdict of many older schoolmasters that one of the most desirable and useful qualities in a teacher, after all, is the ability to live harmoniously, and sympathetically with children—to make their surroundings pleasing and inspiring."

IRWIN SHEPARD, President State Normal School, Winona, Minn.—It would doubtless be both interesting and profitable to superintendents if they could sometimes know just what judgments the supervised teachers pass upon the work, methods, and ability of the supervisors.

I have been in a position to know something of this side of the question through teachers whom I have trained and sent into the field, and who, returning, have freely spoken of the faults and virtues of their superintendents. I only hope that superintendents are generally as fair, not to say charitable, in judging their subordinates as are the subordinates in judging their superiors.

It is quite as important for a superintendent to be able and ready to discern and recognize a teacher's strongest points as her weakest. That supervision accomplishes most which so guides all the forces of school administration that teachers are always working at their best. That superintendent must inevitably fail to secure the best results who sees only, or concerns himself too largely with the weakest points in his teaching force. The superintendent should establish such a relation as a trusted counselor and friend to his teachers that they feel no embarrassment in doing their work in his presence.

Superintendents are everywhere encouraging their teachers to make careful, kindly, sympathetic study of each child, that they may know best how to guide the child to his best in living and working. Has not the superintendent an equally important duty and opportunity to study each teacher with kindly purpose and tactful sympathy, to find the "lines of least resistance" and the elements of greatest individual power? When this is done, most of the other problems of supervision are easily solved.

EDWARD P. SEAVER, Superintendent of Schools, Boston, Mass.—Sympathy with teachers in their work is the first requisite in a superintendent. Unless he can go into his work in this attitude of sympathy he had better not got into it at all. A book of marks may be a convenience as a memorandum book, but it should be only a memorandum book. If the teacher feels that the main purpose of a superintendent's visit is to assign marks whereby the teacher's standing or continuance in office is to be decided, the effect is sure to be depressing on a sensitive teacher—

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and the best teachers are very apt to be sensitive. The only use of marks is to aid the memory of the superintendent; they should never be reported to a board of education as a basis for action.

Now, a word about examinations. These are, in my judgment, a necessary part of the measures to be taken for the determination of the fitness of candidates for appointment as teachers. Five minutes' conversation with a candidate will show what his spirit is; and the impression a superintendent gets from a personal interview of this sort may properly go far to determine the question of a candidate's fitness. But this is not enough. Here comes a young man and proposes to teach Latin, French, or mathematics. He has been a popular teacher in the schools where he has taught already, and he makes a good personal impression; seems to be of excellent spirit, and all that. I say, that, in justice to him and in justice to those who may select him from among others for appointment, he should be given ample opportunity to make written records of his knowledge of Latin, or French, or mathematics. If his spirit be not all right he is not wanted at all. But besides the right spirit—enthusiasm, earnestness, and all that—there must be competent knowledge of the subjects to be taught and ability to impart that knowledge. All these we must have; and we cannot make sure that we have them unless we apply the proper tests; and among these tests good fair-and-square written examinations are indispensable. They protect both the appointers and the appointees in the case of well-fitted candidates, and they discourage the approach and prevent the appointment of unfit persons to teachers' positions. This must be so, at least, in all large cities, where appointments must be guarded against certain untoward influences.

DR. E. E. WHITE of Columbus, Ohio, said that the last speaker's reference to the secret book induced him to say a word condemnatory of the practice of keeping a secret per cent record of the standing of teachers. He gave his experience in visiting the schools of a large city, where the estimates made by persons acting as inspectors of the teachers' work were recorded in a secret book kept by the superintendent. A teacher whose work in geography he had much admired had been marked so low for several years as to raise the question of her re-employment! He questioned the ability of anyone to mark the worth of a teacher on a per cent scale on a brief visit to his school. Five minutes in a school may be sufficient to note marked excellencies or serious defects, but work not thus characterized is not so easily judged. It is not possible on seeing a school under favorable conditions to determine what would be true under average conditions—much less under unfavorable conditions. It often happens that the visitor finds a teacher teaching, not only a favorite branch but an exceptional lesson; and it also may happen that the teacher is at his worst. It is true that several visits at different hours may enable the inspector to make an average estimate. But there are many teachers who can never do their best in the presence of a memorandum book and lead-pencil, or even in the presence of a visitor who is known to be present to mark their work. Formal school inspection is not as infallible as the inspectors imagine. In his judgment, there was not a little pedantry in the assumptions of school supervisors respecting their ability to pass judgment on the work of teachers at sight.

SUPT. AARON GOVE, in closing the discussion, said: "In the discussion of this subject I have confined myself to a literal rendering of the subject assigned, namely, How to test the quality of a teacher's work. I understand that the testing is an approximately exact measurement of the effort. I regret the wide range which has followed the presentation. I conclude, that, while none of us consider ourselves equal to the testing of the quality of a teacher's work, each of us feels competent, in a measure, to judge, and that the method of arriving at that judgment is as varied as are the characters, temperaments, dispositions, training, and antecedents of those who undertake to make the estimate."

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REPORT OF THE COMMITTEE OF FIFTEEN.

To the Department of Superintendence of the National Educational Association:

The undersigned, chairman of the Committee of Fifteen, appointed at the meeting of the Department of Superintendence held in Boston, Mass., in February, 1893, would respectfully report:

On Feb. 22, 1893, the following resolution was adopted by the Department of Superintendence, on motion of Superintendent Maxwell of Brooklyn, N. Y.:

Resolved, That a committee of ten be appointed by the committee on nominations, to investigate the organization of school systems, the co-ordination of studies in primary and grammar schools, and the training of teachers, with power to organize sub-conferences on such subdivisions of these subjects as may seem appropriate, and to report the results of their investigations and deliberations at the next meeting of the Department of Superintendence.

Resolved, That the officers of the Department of Superintendence be, and hereby are, directed to make application to the board of directors of the National Educational Association for an appropriation of $2,500 to defray the expenses of the committee of ten and of the conferences which that committee is empowered to appoint.

On February 23d the committee on nominations appointed the following committee of ten:

Supt. William H. Maxwell of Brooklyn, N. Y., chairman; Dr. William T. Harris, United States Commissioner of Education; Supt. T. M. Balliet of Springfield, Mass.; Supt. N. C. Dougherty of Peoria, Ill.; Supt. W. B. Powell of Washington, D. C.; Supt. H. S. Tarbell of Providence, R. I.; Supt. L. H. Jones of Indianapolis, Ind.; Supt. J. M. Greenwood of Kansas City, Mo.; State Supt. A. B. Poland of New Jersey; Supt. Edward Brooks of Philadelphia.

On motion of Superintendent Maxwell, the members of the committee on nominations were added to the committee of ten, so that the committee became one of fifteen. The names thus added to the committee were the following: President Andrew S. Draper of the University of Illinois; Supt. E. P. Seaver of Boston, Mass.; Supt. A. G. Lane of Chicago, Ill.; Supt. Charles B. Gilbert of St. Paul, Minn.; Supt. Oscar H. Cooper of Galveston, Tex.

The application for an appropriation to defray the necessary expenses of the committee was presented to the board of directors of the National Educational Association, but no action was taken by that body until July, 1894, during the meeting at Asbury Park, N. J., when the sum of $1,000 was set apart for the purpose.

In the meantime, however, the committee had not been idle Individual members had been collecting information and exchanging views by correspondence. During the meeting of the Department of Superintendence held in Richmond, Va., in February, 1894, the committee held two protracted sessions. At these sessions the plan of work for the ensuing year was discussed and determined. The chairman was authorized to divide the members of the committee into three sub-committees—one on the training of teachers, one on the correlation of studies in elementary education, and one on the organization of city school systems.

The sub-committees were appointed as follows:

The Training of Teachers.—Horace S. Tarbell (chairman), Edwards Brooks, Thomas M. Balliet, Newton C. Dougherty, and Oscar H. Cooper.

The Correlation of Studies in Elementary Education.—William T. Harris (chairman), James M. Greenwood, Charles B. Gilbert, Lewis H. Jones, and William H. Maxwell.

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The Organization of City School Systems.—Andrew S. Draper (chairman), Edwin P. Seaver, Albert G. Lane, Addison B. Poland, and W. B. Powell.

The committee next adopted the following lists of questions, which the members were directed to submit to all persons throughout the country whose opinions might be considered as of value:

TRAINING OF TEACHERS.

1. What should be the lowest age at which a person should be permitted to undertake a course of professional work?

2. What should be the requirements for scholarship to enter on such a course?

(a) English—Grammar, historical grammar, rhetoric, literature.
(b) Mathematics—Arithmetic, algebra, geometry.
(c) Botany and zoology.
(d) Drawing.
(e) Music.
(f) History.
(g) Geography.
(h) Physics.
(i) Chemistry.
(j) Foreign languages—French, German, Latin, Greek.
(k) Physiology and hygiene.
(l) Mineralogy.

3. Should scholarships be determined by an examination, or should a high school diploma be accepted as evidence? If the latter, should a four years' course be required?

4. What should be the duration of the training-school course?

5. What proportion of this time should be devoted to studying principles and methods of education? What proportion to the practice of teaching?

6. To what extent should psychology be studied, and in what way?

7. Along what lines should the observation of children be pursued?

8. What measurements of children should be made, and what apparatus should be required for the purpose?

9. In what way should principles of education be derived from psychology and allied sciences?

10. How far and in what way should the history of education be studied? In what way may the history of education be made of practical use to teachers?

11. In what way should the training in teaching the various subjects of the common school curriculum be pursued?

(a) By writing outlines of lessons?
(b) By giving lessons to fellow pupil teachers?
(c) By the study of books or periodicals devoted to methods of teaching?
(d) By lectures?

12. In a model school, should there be a model-teacher placed over each class? Or, should there be a model-teacher placed over every two classes? Or, should the pupil-teachers be held responsible for the teaching of all classes, under the direction of a critic-teacher?

13. What is the most fruitful plan of observing the work of model-teachers?

14. What is the most fruitful plan of criticising the practice-work of pupil-teachers?

15. Should the criticism be made by the teachers of methodology, or by critic-teachers appointed specially for the purpose, or by the model-teachers?

16. Should the imparting of knowledge, other than psychology, principles, methods, and history of education, form any part of the work of a normal or training school?

17. How should a pupil-teacher's efficiency be tested in a training school?

18. On what grounds should the diploma of a training school be issued?

CORRELATION OF STUDIES.

1. Should the elementary course be eight years and the secondary course four years, as at present? Or, should the elementary course be six years and the secondary course six years?

2. Has each of the grammar school studies—language (including reading, spelling, grammar, composition), mathematics (arithmetic, algebra, plane geometry), geography, history, natural science (botany, zoology, mineralogy), penmanship, drawing, etc., a distinct pedagogical value? If so, what is it?

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3. Should other subjects than those enumerated in the second question, such as manual training (including sloyd, sewing, and cooking), physical culture, physics, music, physiology (including the effects of stimulants and narcotics), Latin, or a modern language, be taught in the elementary school course? If so, why?

4. Should the sequence of topics be determined by the logical development of the subject, or by the child's power to appereeive new ideas? Or, to any extent by the evolutionary steps manifested by the race? If so, by the evolution of the race to which the child belongs, or that of the human race?

5. What should be the purpose of attempting a close correlation of studies?

(a) To prevent duplication, eliminate non-essentials, and save time and effort?

(b) To develop the apperceiving power of the mind?

(c) To develop character—a purely ethical purpose?

6. Is it possible on any basis to correlate or unify all the studies of the elementary school?

7. If not, may they be divided into two or more groups, those of each group being correlated?

8. Is there any way of correlating the results of work in all the groups?

9. What should be the length of recitation periods in each year of the elementary school course? What considerations should determine the length?

10. In what year of the course should each of the subjects mentioned in questions 2 and 3 be introduced, if introduced at all?

11. In making a program, should time be assigned for each subject, or only for the groups of subjects suggested in question 7?

12. How many hours a week for how many years should be devoted to each subject, or each group of subjects?

13. What topics may be covered in each subject, or each group of subjects?

14. Should any subject, or group of subjects, be treated differently for pupils who leave school at twelve, thirteen, or fourteen years of age, and for those who are going to a high school?

15. Can any description be given of the best method of teaching each subject, or group of subjects, throughout the school course?

16. What considerations should determine the point at which the specialization of the work of teachers should begin?

17. On what principle should the promotion of pupils from grade to grade be determined? Who should make the determination?

CITY SCHOOL SYSTEMS.

1. Should there be a board of education, or a commissioner with an advisory council?

2. If a commissioner, should he be elected by the people, or appointed by the mayor, or selected in some other way?

3. What should be his powers and duties?

4. If a board of education, of how many members should it consist?

5. Should the members be elected or appointed? From the city at large or to represent districts?

6. Should the members be elected in equal numbers from the two great political parties, or can any other device be suggested to eliminate politics from school administration?

7. By what authority should the superintendent of schools be elected or appointed? and for what term?

8. What should be the qualifications of a city superintendent of schools?

9. Should the city superintendent owe his appointment directly or indirectly to the state educational authorities, and be responsible to them rather than to the local authorities?

10. In whom should be vested the authority to license teachers? To cancel licenses for cause?

11. In whom should be vested the power to appoint teachers? In whom the power to discharge teachers?

12. Supposing teachers appointed to a school, who should have the power to assign them to grades or classes?

13. Should the principle of competitive examination be introduced in determining promotions to positions of greater responsibility or emolument?

14. How should the duties of superintendents on the one hand and of principals on the other, in the supervision of methods and of teaching, be defined?

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15. By whom should the course of study be made?
16. By whom should text-books be selected?
17. By whom should promotions be made?
18. By whom should disputes between parents and the teaching force be settled?
19. By whom should a compulsory education law be enforced?

It was further decided that all papers written in answer to these lists of questions were to be placed in the hands of the chairmen of the sub-committees not later than Nov. 1, 1894, and that the chairmen should prepare reports to be submitted to the full committee at a meeting to be held in December of that year.

The next meeting of the committee was held on July 9, 1894, at Asbury Park, N. J., during the session of the National Educational Association at that place. It was there determined that each of the sub-committee chairmen should present the report of his sub-committee to the Department of Superintendence at the meeting to be held in Cleveland, Ohio, in February, 1895. Other details were arranged, and progress was reported in the matter of obtaining opinions from the experts invited to answer the questions formulated by the committee.

On the 10th of December, 1894, the committee met in Washington, D. C. It continued in session four days, holding three sessions each day. During a small fraction of this time the sub-committees met separately; but for the most part the subject-matter of each report was discussed by the full committee. All the members were present except Superintendent Powell, who was unfortunately absent through severe illness.

President Draper presented a preliminary report on the organization of city school systems, and Superintendent Tarbell one on the training of teachers. Superintendent Tarbell's report was adopted by the full committee without a dissenting voice. President Draper's report also received the unanimous approval of the committee, except in so far as it recommended the establishment of the office of school director. Seven votes were recorded in favor of that recommendation. No votes were recorded against it, though several members refrained from voting. Subsequently, when the report was submitted in its final shape, eleven members signified their approval of the entire report, and signed it.

With regard to the correlation of studies, important differences of opinion were developed in the consideration of the various propositions submitted by Dr. Harris and by other members of the committee. About two-thirds of the time the committee was in session was devoted to the discussion of these propositions. While an adequate conception of the intensity of this discussion cannot now be conveyed to anyone who was not present, a brief resume of the leading proposition presented will give some idea of its scope.

The following propositions were unanimously adopted by the full committee:

The civilization of the age—the environment into which the child is born—should determine the selection of the objects of study, to the end that the child may gain an insight into the world in which he lives and a command over its resources such as is obtained by a helpful co-operation with his fellows.

Psychology should determine the selection and arrangment of the topics within each branch, so as to afford the best exercise of the faculties of the mind, and to secure the unfolding of those faculties in their natural order.

Language, as a subject of study, has a distinct and definite relation to the introduction of the child into the civilization of his time, and has, therefore, a distinct pedagogical value, forming the true basis of correlating the elementary studies.

In correlating geography and history, the former should be subordinate to the latter.

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Instruction in the elements of physics and chemistry, in so far as they are to be taught at all in the elementary school, should not be limited to the higher grades, but should be given in all grades in connection with topics in physiology and physical geography.

Elementary geography should not be taught as a special study, but the topics usually included under this caption in the course of study should be incorporated into the course of form and nature study.

The use of good English, including the correct use of technical terms, should be required in all studies; all use of bad English, caused by, or significant of, confusion of thought, should be corrected by securing the elucidation of the thought: the child's best efforts in speech should be required in all recitations, oral or written; but solecisms should for the most part be corrected in the regular language lessons.

The study of English grammar should be made subordinate and auxiliary to the study of English literature.

Writing, as a special branch, should be taught only through the sixth year of the course.

Manual training in wood and metals should be made a part of the course for boys during the seventh and eighth years; and sewing and cooking should be taught to girls—the former in the fourth, fifth, and sixth years, the latter in the seventh and eighth years.

Music should be taught throughout the elementary course, and the sight-reading of music should have a prominent place in the study.

With regard to the following propositions, serious differences of opinion arose:

Algebra should take the place of arithmetic in the eighth year of the elementary course. Rejected.

Algebra (not to the exclusion of arithmetic) should be taught during one-half of the last year of the course. Adopted by a majority.

Latin should be studied during the eighth year instead of English grammar; and English grammar should be studied during the sixth and seventh years. Adopted by a majority.

In the eighth year, an option should be given between Latin and a modern language. Rejected.

United States history should be taken up during the eighth year, and should be studied only up to the date of the adoption of the Constitution. Rejected.

United States history should be studied for one and a half years. Adopted by a majority.

The Constitution of the United States should be studied for ten weeks during the last year of the course. Adopted by a majority.

If the community is at one on the course of study, all pupils should take the same branches of study, without any omission. Adopted by a majority.

The course of study for elementary schools should admit optional studies on educational grounds for the good of the pupil. Rejected.

Reading should be both silent and oral. There should be at least four lines of connected reading, embracing literature, history, geography, and nature studies. Furthermore, prose and poetry, of an appropriate character, should be read to the classes throughout the grades in which pupils are too young to read such literature themselves. Adopted by a majority.

Concrete geometry should be taught under the head of drawing, and also under the head of mensuration in arithmetic. Rejected.

During an eight-year course (beginning with the sixth year of age) the following subjects should be required from all pupils: English, mathematics, United

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States history and Constitution, drawing, and music. Not more than one of the following subjects should be pursued in addition to those enumerated above: Latin, a modern language, natural science, manual training, or concrete geometry. Rejected.

Not more than sixty minutes of outside study should be required of any elementary school pupil. Adopted by a majority.

The propositions stated above were discussed at great length; and Dr. Harris was requested, in drawing up his report, to give expression to the views of the majority of the committee as gathered from these discussions, to discuss educational values, to elucidate various phases of correlation, and to arrange a tabular view of the elementary course of study showing the location of each subject and the time to be devoted to it.

The final meeting of the committee was held in Cleveland, Ohio, on Feb. 18, 1895, when the reports of the sub-committees were adopted by the Committee of Fifteen.

With regard to the presentation of the reports to the Department of Superintendence, and with regard to its publication, the committee—having no publication fund at its disposal, and wishing to spread the report before the public at once—at its Washington meeting adopted the following:

Resolved, That the reports of the three sub-committees be read by their respective chairmen before the Department of Superintendence at Cleveland, in February, 1895, and published in the "Educational Review" for March, 1895; *provided*, that the publishers of the "Review" agree to furnish to each member of the Committee of Fifteen, and also to each person appointed to discuss the report before the Cleveland meeting, a printed copy of the report; and immediately after the meeting to send to each educational journal desiring it such printed copy, with the request that it be published in as nearly complete a form as possible.

The terms of this resolution were conveyed to the editor and publishers of the "Educational Review," and were accepted by them. The reports were read by the three chairmen of sub-committees before the Department of Superintendence at Cleveland on Feb. 19, 20, and 21, 1895. The reports were printed in the March issue of the "Educational Review." Printed copies were furnished to the members of the Committee of Fifteen and to the gentlemen appointed to discuss the report. A copy was sent to every educational journal desiring it, and also to every member of the department who responded to the public invitation to furnish his name and address for the purpose.

As soon as the reports were presented to the department, they became the property of the National Educational Association.

The following resolution was adopted by the Department of Superintendence on February 21st:

Resolved, That we recognize the great value of the report of the Committee of Fifteen in setting forth standards, defining educational values, and furnishing broad grounds for intelligent deliberation and discussion in the future; and that the committee be, and hereby are, authorized to put the report and such dissenting opinions as they may see fit to use into form satisfactory to themselves, and to print the same; and that the committee having performed this duty be discharged.

Upon the same subject the Committee of Fifteen, at its meeting in Washington, on Dec. 11, 1894, adopted the following resolution:

Resolved, That the chairmen of the sub-committees, acting in conjunction with the chairman of the Committee of Fifteen, are hereby authorized to publish such papers as are deemed necessary, as appendices to the general report of the Committee of Fifteen.

WILLIAM H. MAXWELL,
Chairman.

BROOKLYN, N. Y., March 23, 1895.

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REPORT OF THE SUB-COMMITTEE ON THE TRAINING OF TEACHERS.

BY H. S. TARBELL, CHAIRMAN.

This report treats of the training of elementary and secondary teachers, considering first that training which should precede teaching in elementary schools. By elementary schools are meant the primary and grammar departments of graded schools, and ungraded or rural schools.

That teachers are "born, not made," has been so fully the world's thought until the present century that a study of subjects without any study of principles or methods of teaching has been deemed quite sufficient. Modern educational thought and modern practice, in all sections where excellent schools are found, confirm the belief that there is a profound philosophy on which educational methods are based, and that careful study of this philosophy and its application under expert guidance are essential to making fit the man born to teach.

CONDITIONS FOR PROFESSIONAL TRAINING—AGE AND ATTAINMENTS.

It is a widely prevalent doctrine, to which the customs of our best schools conform, that teachers of elementary schools should have a secondary or high school education, and that teachers of high schools should have a collegiate education. Your committee believe that these are the minimum acquirements that can generally be accepted; that the scholarship, culture, and power gained by four years of study in advance of the pupils are not too much to be rightfully demanded, and that as a rule no one ought to become a teacher who has not the age and attainments presupposed in the possessor of a high school diploma. There are differences in high schools, it is true, and a high school diploma is not a fixed standard of attainment; but in these United States it is one of the most definite and uniform standards that we possess, and varies less than college degrees vary or than elementary schools and local standards of culture vary.

It is, of course, implied in the foregoing remarks, that the high school from which the candidate comes is known to be a reputable school, and that its diploma is proof of the completion of a good four-years' course in a creditable manner. If these conditions do not exist, careful examination is the only recourse.

If this condition, high school graduation or proof by examination of equivalent scholarship, be accepted, the questions of the age

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and attainment to be reached before entering upon professional study and training are already settled. But if a more definite statement be desired, then it may be said that the candidate for admission to a normal or training school should be eighteen years of age and should have studied English, mathematics, and science to the extent usually pursued in high schools, should be able to write readily, correctly, and methodically upon topics within the teacher's necessary range of thought and conversation, and should have studied, for two or more years, at least one language beside English. Skill in music and drawing is desirable, particularly ability to sketch readily and effectively.

TRAINING SCHOOLS.

The training of teachers may be done in normal schools, normal classes in academies and high schools, and in city training schools. To all these the general term "training schools" will be applied. Those instructed in these schools will be called pupils while engaged in professional study, and pupil-teachers or teachers-in-training while in practice-teaching preparatory to graduation. Teachers whose work is to be observed by pupil-teachers will be called model-teachers; teachers in charge of pupil-teachers during their practice work will be called critic-teachers. In some institutions model-teachers and critic-teachers are the same persons. The studies usually pursued in academies and high schools will be termed academic, and those post-academic studies to be pursued before or during practice-teaching as a preparation therefor will be termed professional.

ACADEMIC STUDIES.

Whether academic studies have any legitimate place in a normal or training school is a question much debated. It cannot be supposed that your committee can settle in a paragraph a question upon which many essays have been written, many speeches delivered, and over which much controversy has been waged.

If training schools are to be distinguished from other secondary schools they must do a work not done in other schools. So far as they teach common branches of study they are doing what other schools are doing, and have small excuse for existence; but it may be granted that methods can practically be taught only as to subjects—that the study done in professional schools may so treat of the subjects of study, not as objects to be acquired but as objects to be presented, that their treatment shall be wholly professional.

One who is to teach a subject needs to know it as a whole made up of related and subordinate parts, and hence must study it by a method that will give this knowledge. It is not necessary to press the argument that many pupils enter normal and training schools

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with such slight preparation as to require instruction in academic subjects. The college with a preparatory department is, as a rule, an institution of distinctly lower grade than one without such a department. Academic work in normal schools that is of the nature of preparation for professional work lowers the standard and perhaps the usefulness of such a school; but academic work done as a means of illustrating or enforcing professional truth has its place in a professional school as in effect a part of the professional work. Professional study differs widely from academic study. In the one, a science is studied in its relation to the studying mind; in the other, in reference to its principles and applications. The aim of one kind of study is power to apply; of the other, power to present. The tendency of the one is to bring the learner into sympathy with the natural world; of the other, with the child world. How much broader becomes the teacher who takes both the academic and the professional view! He who learns that he may know and he who learns that he may teach are standing in quite different mental attitudes. One works for knowledge of subject-matter; the other that his knowledge may have due organization—that he may bring to consciousness the apperceiving ideas by means of which matter and method may be suitably conjoined.

How to study is knowledge indispensable to knowing how to teach. The method of teaching can best be illustrated by teaching. The attitude of a pupil in a training school must be that of a learner whose mental stores are expanding, who faces the great world of knowledge with the purpose to survey a portion of it. If we insist upon a sufficient preparation for admission, the question of what studies to pursue and especially the controversy between professional and academic work will be mainly settled.

PROFESSIONAL WORK.

Professional training comprises two parts: (a) The science of teaching, and (b) the art of teaching.

In the *science of teaching* are included: (1) Psychology as a basis for principles and methods; (2) methodology as a guide to instruction; (3) school economy, which adjusts the conditions of work; and (4) history of education, which gives breadth of view.

The *art of teaching* is best gained: (1) By observation of good teaching; (2) by practice-teaching under criticism.

RELATIVE TIME.

The existence and importance of each of these elements in the training of teachers are generally acknowledged. Their order and proportionate treatment give rise to differences of opinion. Some would omit the practice-work entirely, launching the young teacher

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upon independent work directly from her pupilage in theory. Others, and much the greater number, advise some preparation in the form of guided experience before the training be considered complete. These vary greatly in their estimate of the proportionate time to be given to practice during training. The answers to the question, "What proportion?" which your committee has received, range from one-sixteenth to two-thirds as the proportion of time to be given to practice. The greater number, however, advocate a division of time about equal between theory and practice.

The normal schools incline to the smallest proportion for practice-teaching, the city training schools to the largest. It should be borne in mind, however, that city training schools are a close continuation, usually, of high schools, and that the high school courses give a more uniform and probably a more adequate preparation than the students entering normal schools have usually had. Their facilities for practice-teaching are much greater than normal schools can secure, and for this reason also practice is made relatively more important. As to the relative merits of city training schools and normal schools, your committee does not desire to express an opinion; the conditions of education demand the existence of both, and both are necessities of educational advancement. It is important to add, however, that, in the judgment of your committee, not less than half of the time spent under training by the apprentice-teacher should be given to observation and practice, and that this practice in its conditions should be as similar as possible to the work she will later be required to do independently.

SCIENCE OF TEACHING—PSYCHOLOGY.

The laws of apperception teach that one is ready to apprehend new truth most readily when he has already established a considerable and well-arranged body of ideas thereon.

Suggestion, observation, and reflection are each most fruitful when a foundation of antecedent knowledge has been provided. Hence, your committee recommends, that, early in their course of study, teachers-in-training assume as true the well-known facts of psychology and the essential principles of education, and make their later study and practice in the light of these principles. These principles thus become the norm of educational thought, and their truth is continually demonstrated by subsequent experience. From this time theory and practice should proceed together in mutual aid and support.

Most fundamental and important of the professional studies which ought to be pursued by one intending to teach is psychology. This study should be pursued at two periods of the training school course,

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the beginning and the end, and its principles should be appealed to daily when not formally studied. The method of study should be both deductive and inductive. The terminology should be early learned from a suitable text-book, and significance given to the terms by introspection, observation, and analysis. Power of introspection should be gained, guidance in observation should be given, and confirmation of psychological principles should be sought on every hand. The habit of thinking analytically and psychologically should be formed by every teacher. At the close of the course a more profound and more completely inductive study of physiological psychology should be made. In this way, a tendency to investigate should be encouraged or created.

STUDY OF CHILDREN.

Modern educational thought emphasizes the opinion that the child, not the subject of study, is the guide to the teacher's efforts. To know the child is of paramount importance. How to know the child must be an important item of instruction to the teacher-in-training. The child must be studied as to his physical, mental, and moral condition. Is he in good health? Are his senses of sight and hearing normal, or in what degree abnormal? What is his temperament? Which of his faculties seem weak or dormant? Is he eye-minded or ear-minded? What are his powers of attention? What are his likes and dislikes? How far is his moral nature developed, and what are its tendencies? By what tests can the degree of difference between bright and dull children be estimated?

To study effectively and observingly these and similar questions respecting children is a high art. No common-sense power of discerning human nature is sufficient; though common sense and sympathy go a long way in such study. Weighing, measuring, elaborate investigation requiring apparatus and laboratory methods, are for experts, not teachers-in-training. Above all, it must ever be remembered that the child is to be studied as a personality and not as an object to be weighed or analyzed.

METHODOLOGY.

A part of the work under this head must be a study of the mental and moral effects of different methods of teaching and examination, the relative value of individual and class instruction at different periods of school-life and in the study of different branches. The art of questioning is to be studied in its foundation principles and by the illustration of the best examples. Some review of the branches which are to be taught may be made, making the teacher's knowledge of them ready and distinct as to the relations of the several parts of

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the subject to one another and of the whole to kindred subjects. These and many such subjects should be discussed in the class in pedagogy, investigation should be begun, and the lines on which it can be followed should be distinctly laid down.

The laws of psychology, or the capability and methods of mind-activity, are themselves the fundamental laws of teaching, which is the act of exciting normal and profitable mind-action. Beyond these fundamental laws, the principles of education are to be derived inductively. These inductions when brought to test will be found to be rational inferences from psychological laws, and thus founded upon and explained by them.

SCHOOL ECONOMY.

School economy, though a factor of great importance in the teacher's training, can be best studied by the teacher of some maturity and experience, and is of more value in the equipment of secondary than of elementary teachers. Only its outlines and fundamental principles should be studied in the ordinary training school.

HISTORY OF EDUCATION.

Breadth of mind consists in the power to view facts and opinions from the standpoints of others. It is this truth which makes the study of history in a full, appreciative way so influential in giving mental breadth. This general advantage the history of education has in still larger degree, because our interest in the views and experiences of those engaged like us in training the young enables us to enter more fully into their thoughts and purposes than we could into those of the warrior or ruler. From the efforts of the man we imagine his surroundings, which we contrast with our own. To the abstract element of theoretical truth is added the warm human interest we feel in the hero, the generous partisan of truth. The history of education is particularly full of examples of noble purpose, advanced thought, and moral heroism. It is inspiring to fill our minds with these human ideals. We read in the success of the unpractical Pestalozzi the award made to self-sacrifice, sympathy, and enthusiasm expended in giving application to a vital truth.

But with enthusiasm for ideals history gives us caution, warns us against the moving of the pendulum, and gives us points of departure from which to measure progress. It gives us courage to attack difficult problems. It shows which the abiding problems are—those that can be solved only by waiting, and not tossed aside by a supreme effort. It shows us the progress of the race, the changing ideals of the perfect man, and the means by which men have sought to realize these ideals. We can from its study better answer the

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question, What is education, what may it accomplish, and how may its ideals be realized? It gives the evolution of the present and explains anomalies in our work. And yet the history of education is not a subject to be treated extensively in a training school. All but the outlines may better be reserved for later professional reading.

TRAINING IN TEACHING.

Training to teach requires (1) schools for observation, and (2) schools for practice.

Of necessity, these schools must be separate in purpose and in organization. A practice school cannot be a model school. The pupil-teachers should have the opportunity to observe the best models of the teaching art; and the manner, methods, and devices of the model-teacher should be noted, discussed, and referred to the foundation principles on which they rest. Allowable modifications of this observed work may be suggested by the pupil-teacher and approved by the teacher in charge.

There should be selected certain of the best teachers in regular school work whom the pupil-teachers may be sent to observe. The pupil-teachers should take no part in the school work nor cause any change therein. They should, however, be told in advance by the teacher what purpose she seeks to accomplish. This excites expectation and brings into consciousness the apperceiving ideas by which the suggestions of the exercise, as they develop, may be seized and assimilated.

At first these visits should be made in company with their teacher of methods, and the work of a single class in one subject should be first observed. After such visits the teacher of methods in the given subject should discuss with the pupil-teachers the work observed. The pupil-teachers should first describe the work they have seen and specify the excellences noted, and tell why these things are commendable and upon what laws of teaching they are based. Next the pupil-teachers should question the teacher of methods as to the cause, purpose, or influence of things noted, and matters of doubtful propriety—if there be such—should be considered. Then the teacher in turn should question her pupil-teachers as to matters that seem to have escaped their notice, as to the motive of the model-teacher, as to the reason for the order of treatment, or form of question, wherein lay the merit of her method, the secret of her power. When pupil-teachers have made such observations several times, with several teachers and in several subjects, the broader investigation may be made as to the organization of one of the model rooms, its daily program of recitations and of study, the methods of discipline, the relations between pupils and teacher, the "school spirit," the school movements, and class progress. This work should be done before teaching

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groups or classes of pupils is attempted, and should form an occasional exercise during the period of practice-teaching as a matter of relief and inspiration. If an artist requires the suggestive help of a good example that stirs his own originality, why should not a teacher?

THE PRACTICE SCHOOL.

During the course in methodology certain steps closely preparatory to practice-teaching may be taken. 1. The pupil-teacher may analyze the topic to be taught, noting essentials and incidentals, seeking the connections of the subject with the mental possessions of the pupils to be considered and the sequences from these points of contact to the knowledge to be gained under instruction. 2. Next, plans of lessons may be prepared and series of questions for teaching the given subject. 3. Giving lessons to fellow pupil-teachers leads to familiarity with the mechanism of class-work, such as calling, directing, and dismissing classes, gives the beginner ease and self-confidence, leads to careful preparation of lessons, gives skill in asking questions and in the use of apparatus.

The practice-teaching should be in another school, preferably in a different building, and should commence with group-teaching in a recitation room apart from the schoolroom. Actual teaching of small groups of children gives opportunity for the study of the child-mind in its efforts at reception and assimilation of new ideas, and shows the modifications in lesson plans that must be made to adapt the subject-matter to the child's tastes and activities. But the independent charge for a considerable time of a schoolroom with a full quota of pupils, the pupil-teacher and the children being much of the time the sole occupants of the room—in short, the realization of ordinary school conditions, with the opportunity to go for advice to a friendly critic, is the most valuable practice; and no practice short of this can be considered of great value except as preparation for this chief form of preparatory practice. All this work should have its due proportion only, or evil may result. For example, lesson plans tend to formalism, to self-conceit, to work in few and narrow lines, to study of subjects rather than of pupils; lessons to fellow-pupils make one self-conscious, hinder the growth of enthusiasm in work, and are entirely barren if carried beyond a very few exercises; teaching groups of children for considerable time unfits the teacher for the double burden of discipline and instruction, to bear both of which simultaneously and easily is the teacher's greatest difficulty and most essential power.

A critic-teacher should be appointed to the oversight of two such pupil-teachers, each in charge of a schoolroom. The critic may also

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supervise one or more teachers practicing for brief periods daily with groups of children.

The pupil-teachers are now to emphasize practice rather than theory, to work under the direction of one who regards the interests of the children quite as much as those of the teacher-in-training. The critic must admit the principles of education and general methods taught by the teacher of methodology, but she may have her own devices and even special methods that need not be those of the teacher of methodology. No harm will come to the teachers-in-training if they learn that principles must be assented to by all, but that methods may bear the stamp of the personality of the teacher; that all things must be considered from the point of view of their effect upon the pupils; the critic maintaining the claims of the children, the teacher of methods conforming to the laws of mind and the science of the subjects taught. The critics must teach for their pupil-teachers and show in action the justness of their suggestions. In this sense they are model-teachers as well as critics.

The critic should at the close of school meet her pupil-teachers for a report of their experiences through the day: What they have attempted, how they have tried to do it, why they did so, and what success they gained. Advice as to overcoming difficulties, encouragement under trial, caution if need be, help for the work of to-morrow, occupy the hour. Above all, the critic should be a true friend, a womanly and cultivated woman, and an inspiring companion, whose presence is helpful to work and improving to personality.

LENGTH OF TRAINING-SCHOOL COURSE.

There are three elements which determine the time to be spent in a training-school—the time given to academic studies, the time given to professional studies, and the time given to practice. The sum of these periods will be the time required for the training course. Taking these in the inverse order, let us consider how much time is required for practice work with pupils. The time given to lesson outlines and practice with fellow pupil-teachers may be considered a part of the professional study rather than of practice-teaching. The period of practice with pupils must not be too short, whether we consider the interests of the pupils or of the teachers-in-training. An effort is usually made to counteract the effect upon the children of a succession of crude efforts of teachers beginning practice by strengthening the teaching and supervision through the employment of a considerable number of model and supervisory teachers, and by dividing the pupils into small groups so that much individual work can be done. These arrangements, while useful for their purpose, destroy to a considerable degree the usual conditions under which

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school work is to be done and tend to render the teachers-in-training formal and imitative.

The practice room should be, as far as may be, the ordinary school, with the difficulties and responsibilities that will be met later. The responsibility for order, discipline, progress, records, reports, communications with parents and school authorities, must fall fully upon the young teacher, who has a friendly assistant to whom she can go for advice in the person of a wise and experienced critic, not constantly at hand, but constantly within reach.

Between the critic and the teacher-in-training there should exist the most cordial and familiar relations. These relations are based, on the one hand, upon an appreciation of wisdom and kindness; on the other, upon an appreciation of sincerity and effort. The growth of such relations, and the fruitage which follows their growth, require time. A half-year is not too long to be allotted for them. During this half-year experience, self-confidence and growth in power have been gained; but the pupil-teacher is still not ready to be set aside to work out her own destiny. At this point she is just ready for marked advance, which should be helped and guided. To remain longer with her critic friend may cause imitation rather than independence, may lead to contentment and cessation of growth. She should now be transferred to the care of a second critic, of a different personality but of equal merit. The new critic is bound by her duty and her ambition to see that the first half-year's advancement is maintained in the second. The pupil-teacher finds that excellence is not all upon one model. The value of individuality impresses her. She gains a view of solid principles wrapped in diverse characteristics. Her own individuality rises to new importance, and the elements of a growth not at once to be checked start up within her. For the care of the second critic a second half-year must be allowed, which extends the practice work with pupils through an entire school year. For the theoretical work a year is by general experience proven sufficient. The ideal training course is, then, one of two years' length.

Provision for the extended practice which is here recommended can be made only by city training schools and by normal schools having connection with the schools of a city. To set apart a building of several rooms as a school of practice will answer the purpose only when there are very few teachers in training. In order to give each pupil-teacher a year of practice the number of practice rooms must equal the number of teachers to be graduated annually from the training school, be the number ten, or fifty, or five hundred. In any considerable city a school for practice will not suffice; many schools for practice must be secured. This can be done by selecting one ex-

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cellent teacher in each of a sufficient number of school buildings, and making her a critic-teacher, giving her charge of two school-rooms, in each of which is placed a pupil-teacher for training.

This insures that the teaching shall be done as nearly as may be under ordinary conditions, brings the pupil-teachers at once into the general body of teachers, makes the corps of critics a leaven of zeal and good teaching scattered among the schools. This body of critics will uplift the schools. More capable in the beginning than the average teacher, led to professional study, ambitious for the best things, they make greater progress than they otherwise would do, and are sufficient in themselves to inspire the general body of teachers. For the sake of the pupil-teachers, and the children, too, this plan is best. Its economy also will readily be apparent. This plan has been tried for several years in the schools of Providence, with results fully equal to those herein claimed.

TESTS OF SUCCESS.

The tests of success in practice-teaching are, in the main, those to be applied to all teaching. Do her pupils grow more honest, industrious, polite? Do they admire their teacher? Does she secure obedience and industry only while demanding it, or has she influence that reaches beyond her presence? Do her pupils think well and talk well? As to the teacher herself: Has she sympathy and tact, self-reliance and originality, breadth and intensity? Is she systematic, direct, and business-like? Is she courteous, neat in person and in work? Has she discernment of character and a just standard of requirement and attainment?

These are some of the questions one must answer before he pronounces any teacher a success or a failure.

Admission to a training school assumes that the pupil has good health, good scholarship, good sense, good ability, and devotion to the work of teaching. If all these continue to be exhibited in satisfactory degree and the pupil goes through the prescribed course of study and practice, the diploma of the school should naturally mark the completion of this work. If it appears, on acquaintance, that a serious mistake has been made in estimating any of these elements, then, so soon as the mistake is fairly apparent and is probably a permanent condition, the pupil should be requested to withdraw from the work. This is not a case where the wheat and the tares should grow together until the harvest at graduation day or the examination preceding it. With such a foundation continually maintained, it is the duty of the school to conquer success for each pupil.

Teaching does not require genius. Indeed, genius, in the sense of erratic ability, is out of place in the teacher's chair. Most good

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teachers at this close of the nineteenth century are made, not born; made from good material well fashioned. There is, however, a possibility that some idiosyncrasy of character, not readily discovered until the test is made, may rise between the prospective teacher and her pupils, making her influence over them small or harmful. Such a defect, if it exist, will appear during the practice-teaching, and the critic will discover it. This defect, on its first discovery, should be plainly pointed out to the teacher-in-training and her efforts should be joined with those of the critic in its removal.

If this effort be a failure and the defect be one likely to harm the pupils hereafter to be taught, then the teacher-in-training should be informed and requested to withdraw from the school. There should be no test at the close of the school course to determine fitness for graduation. Graduation should find the teacher serious in view of her responsibilities, hopeful because she has learned how success is to be attained, inspired with the belief that growth in herself and in her pupils is the great demand and the great reward.

TRAINING OF TEACHERS FOR SECONDARY SCHOOLS.

Perhaps one-sixth of the great body of public school teachers in the United States are engaged in secondary work and in supervision. These are the leading teachers. They give educational tone to communities, as well as inspiration to the body of teachers.

It is of great importance that they be imbued with the professional spirit springing from sound professional culture. The very difficult and responsible positions that they fill demand ripe scholarship, more than ordinary ability, and an intimate knowledge of the period of adolescence, which Rousseau so aptly styles the second birth.

The elementary schools provide for the education of the masses. Our secondary schools educate our social and business leaders. The careers of our college graduates who mainly fill the important places in professional and political life are determined largely by the years of secondary training. The college or university gives expansion and finish, the secondary school gives character and direction.

It should not be forgotten that the superintendents of public schools are largely taken from the ranks of secondary teachers, and that the scholarship, qualities, and training required for the one class are nearly equivalent to that demanded for the other.

Our high schools, too, are the source of supply for teachers in elementary schools. Hence the pedagogic influences exerted in the high school should lead to excellence in elementary teaching.

The superintendent who with long foresight looks to the improvement of his schools will labor earnestly to improve and especially to

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professionalize the teaching in his high school. The management which makes the high school an independent portion of the school system, merely attached and loftily superior, which limits the supervision and influence of the superintendent to the primary and grammar grades, is short-sighted and destructive.

There ought also to be a place and a plan for the training of teachers for normal schools. The great body of normal and training schools in the United States are secondary schools. Those who are to teach in these schools need broad scholarship, thorough understanding of educational problems, and trained experience. To put into these schools teachers whose scholarship is that of the secondary school and whose training is that of the elementary is to narrow and depress rather than broaden and elevate.

If college graduates are put directly into teaching without special study and training, they will teach as they have been taught. The methods of college professors are not in all cases the best, and, if they were, high school pupils are not to be taught nor disciplined as college students are. High school teaching and discipline can be that neither of the grammar school nor of the college, but is *sui generis*. To recognize this truth and the special differences is vital to success. This recognition comes only from much experience at great loss and partial failure, or by happy intuition not usually to be expected, or by definite instruction and directed practice. Success in teaching depends upon conformity to principles, and these principles are not a part of the mental equipment of every educated person.

These considerations and others are the occasion of a growing conviction, widespread in this land, that secondary teachers should be trained for their work even more carefully than elementary teachers are trained. This conviction is manifested in the efforts to secure normal schools adapted to training teachers for secondary schools, notably in Massachusetts and New York, and in the numerous professorships of pedagogy established in rapidly increasing numbers in our colleges and universities.

The training of teachers for secondary schools is in several essential respects the same as that for teachers of elementary schools. Both demand scholarship, theory, and practice. The degree of scholarship required for secondary teachers is by common consent fixed at a collegiate education. No one—with rare exceptions—should be employed to teach in a high school who has not this fundamental preparation.

It is not necessary to enter in detail into the work of theoretical instruction for secondary teachers. The able men at the head of institutions and departments designed for such work neither need nor desire advice upon this matter. And yet for the purposes of this

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report it may be allowable to point out a plan for the organization of a secondary training school.

Let it be supposed that two essentials have been found in one locality, (1) a college or university having a department of pedagogy and a department of post-graduate work; (2) a high school, academy, or preparatory school whose managers are willing to employ and pay a number of graduate students to teach under direction for a portion of each day. These two conditions being met, we will suppose that pedagogy is offered as an elective to the college seniors.

Two years of instruction in the science and art of teaching are to be provided; one, mostly theory with some practice, elective during the senior year; the other, mostly practice with some theory, elective for one year as post-graduate work.

During the senior year is to be studied:

THE SCIENCE OF TEACHING.

The elements of this science are:

1. Psychology in its physiological, apperceptive, and experimental features. The period of adolescence here assumes the prominence that childhood has in the psychological study preparatory to teaching in lower schools. This is the period of beginnings, the beginning of a more ambitious and generous life, a life having the future wrapped up in it; a transition period, of mental storm and stress, in which egoism gives way to altruism, romance has charm, and the social, moral, and religious feelings bud and bloom. To guide youth at this formative stage, in which an active fermentation occurs that may give wine or vinegar according to conditions, requires a deep and sympathetic nature, and that knowledge of the changing life which supplies guidance wise and adequate.

2. Methodology: a discussion of the principles of education and of the methods of teaching the studies of the secondary schools.

3. School economy should be studied in a much wider and more thorough way than is required for elementary teachers. The school systems of Germany, France, England, and the leading systems of the United States should also be studied.

4. History of education, the tracing of modern doctrine back to its sources; those streams of influence now flowing and those that have disappeared in the sands of the centuries.

5. The philosophy of education as a division of an all-involving philosophy of life and thought in which unity is found.

THE ART OF TEACHING.

This includes observation and practice. The observation should include the work of different grades and of different localities, with minute and searching comparison and reports upon special topics.

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How does excellent primary work differ from excellent grammar-grade work? How do the standards of excellence differ between grammar grades and high school grades? between high school and college work? What are the arguments for and against co-education in secondary schools as determined by experience? What are the upper and lower limits of secondary education as determined by the nature of the pupil's effort?

In the college class in pedagogy much more than in the elementary normal school can the class itself be made to afford a means of practice to its members. Quizzes may be conducted by students upon the chapters of the books read or the lectures of the professors. These exercises may have for their object review, or improved statement, or enlarged inference and application, and they afford an ample opportunity to cultivate the art of questioning, skill in which is the teacher's most essential accomplishment.

The head of the department of pedagogy will, of course, present the essential methods of teaching, and the heads of other departments may lecture on methods pertaining to their subject of study; or secondary teachers of known success may still better present the methods now approved in the several departments of secondary work.

POST-GRADUATE YEAR.

To those graduates who have elected pedagogy in their senior year may be offered the opportunity of further study in this department, with such other post-graduate work as taste and opportunity permit. From those selecting advanced work in pedagogy the board in charge of the affiliated secondary school should elect as many teachers for its school as are needed, employing them for two-thirds time at one-half the usual pay for teachers without experience. Under the professor of pedagogy of the college, the principal, and the heads of departments of the school, these student-teachers should do their work, receiving advice, criticism, and illustration as occasion requires. The time for which they are employed would provide for two hours of class-work and about one hour of clerical work or study while in charge of a schoolroom. These student-teachers should be given abundant opportunity for the charge of pupils while reciting or studying, at recess and dismissals, and should have all the responsibilities of members of the faculty of this school. Their work should be inspected as frequently as may be by the heads of the departments in which they teach, by the principal of the school, and by the professor of pedagogy. These appointments would be virtually fellowships with an opportunity for most profitable experience.

In the afternoon of each day these students should attend to college work and especially to instruction from the professor in peda-

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gogy, who could meet them occasionally with the heads of the departments under whose direction they are working.

On Saturdays a seminary of two hours' duration might be held, conducted by the professor of pedagogy and attended by the student-teachers and the more ambitious teachers of experience in the vicinity. These seminaries would doubtless be of great profit to both classes of participants and the greater to each because of the other.

It will not be needful to specify further the advantages to the student-teachers. The arrangement likewise affords advantage to the affiliated school, especially in the breadth of view this work would afford to the heads of departments, the intense desire it would beget in them for professional skill, the number of perplexing problems which it would force them to attempt the solution of.

The visits of the professor of pedagogy, and the constant comparison he would make between actual and ideal conditions, would lead him to seek the improvement not only of the students in practice but of the school as a whole.

When several earnest and capable people unite in a mutual effort to improve themselves and their work all the essential conditions of progress are present.

Committee:

HORACE S. TARBELL, *Chairman*,
Superintendent of Schools, Providence, R. I.
EDWARD BROOKS,
Superintendent of Schools, Philadelphia, Pa.
THOMAS M. BALLIET,
Superintendent of Schools, Springfield, Mass.
NEWTON C. DOUGHERTY,
Superintendent of Schools, Peoria, Ill.
OSCAR H. COOPER,
Superintendent of Schools, Galveston, Tex.

DISCUSSION.

[REPORTED BY C. B. GILBERT OF ST. PAUL, MINN.]

A. B. BLODGETT, City Superintendent, Syracuse, N. Y.—I shall not attempt to present a philosophical discussion of the report submitted on the topic now before us. I am satisfied that too many technicalities, too much psychology, and too much pedagogy are talked to and at young, immature persons who are preparing to become teachers.

I do not believe in the born teacher. The truly born teacher must receive a second birth, either through professional training or an extended uphill experience.

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I believe a thorough normal training to be a necessity. The report very wisely omits a discussion of the relative merits of city training schools and normal schools, and I agree with the committee that "each is a necessity."

For myself, in this discussion, however (and I speak from the standpoint of our own work in this line), I must give the preference to the city training school. It must be acknowledged that many teachers-in-training are not qualified for the work before them, because their academic education and general culture are too meager. They are not qualified to master the problems which they must meet in pedagogical study.

There is a vast difference as to fitness between the students who enter these respective training schools. In many cases, the requirements for entrance to a normal school do not measure up to the requirements for entrance to a good city high school; while the candidates for the city training-class must be graduates of said high school. This gives to the city class greater maturity of mind and body,—being older,—and a broader and clearer comprehension of the professional work to follow.

There is great danger, in the professional training of immature minds, that the work presented shall be too technical in its nature; that terms too scientific shall be used.

[Here Mr. Blodgett read from a pamphlet, prepared by a normal school principal, some "assumed principles" in the training of teachers. The extracts read were absurd, ultra-metaphysical statements, and their reception by the association should not be considered as representing the position of the speaker or of the association on this question. Mr. Blodgett closed the reading of these statements by saying: "From all such elements and factors in the proper training of teachers, may the good Lord deliver us—or me, at least,"]

In further discussion, Mr. Blodgett remarked, that in normal schools, the pupil classes, eight to twelve each, were too small to secure the best practical results to the trainer; and going out from such training many a young teacher has found herself overwhelmed by the numbers she has been compelled to face, and failure has resulted. They should also be trained in every feature and detail of school work. At some part of their training they should be given the management, and should be held responsible for the discipline of the room, the playground, and all the details of actual school life. They should receive and dismiss pupils, make out reports, etc.

In my own city (Syracuse), the course covers one and one-half years after graduation from the high school, and no one is admitted to the training-class without this excellent preparation. The first half-year is devoted to a review of subject-matter studies. The second half-year is given to the study of methods, psychology, school economy, history of education, etc. The third half-year is devoted to practice in a school, covering eight years of work, from the lowest primary to the highest grammar grades. The work of the first year is in the hands of an excellent male graduate of the Oswego Normal School. The practice work of the last half-year, frequently covering an entire year, is presided over by a graduate of the Cook County Normal, who received her last and best training after she had proven herself an excellent teacher of some years' experience. In herself, she illustrates my position, that of the necessity of maturity before professional training is taken on.

My contention is, first, that professional training should be preceded by a definite, well-rounded high school course of study, or its full equivalent. This is the rule in city training classes, but not the rule in normal schools. Second, that the training should be in the hands of those who dwell upon the spirit of the normal work and not so much upon the letter. And, further, that the mechanics

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of method and the technical, professional terms should not stand in the mind of the normal student of any school for the real essence and truth that training is intended to give.

SUPERINTENDENT SCHAEFFER of Pennsylvania asked whether Mr. Blodgett considered the extract read as typical of New York normal schools, and was answered "No."

PRESIDENT JOHN W. COOK of Illinois State Normal University.—Is it typical of any state excepting a state bordering on insanity?

PRESIDENT WILLIAM J. MILNE of the State Normal College at Albany, N. Y., commended the report of the committee for its clearness, its philosophical basis, and its eminently practical suggestions. He called the attention of the association to the fact, that, whenever a body of school superintendents, or men engaged in similar work, attempted to discuss the training of teachers, they invariably found it necessary to cast some slur upon normal schools, and that the body assembled at Cleveland was no exception to the rule. He implied that one of the reasons why such a condition of affairs existed was, that very few of the superintendents had themselves had any previous professional training, and that they could not tell good training from poor when they saw it; and, further, that probably very many of them (and those were the ones who were most given to denouncing normal schools) had never in their lives visited such an institution. He thought that it was no criticism on normal schools at all that the principal of one of them, somewhere in the United States, had prepared a pamphlet on the training of teachers which expressed the principles underlying the work in a form that was unnecessarily involved, and perhaps absurdly metaphysical. Moreover, he defended the statements on the ground of their being accurate and very likely true; that there must be principles underlying all instruction in pedagogy, on which the work is based, and that it is not unlikely that scholarly thought and investigation will sometime fix them absolutely in some form which may be metaphysical and yet within the comprehension of people who ought to discuss and apply those principles.

PROFESSOR NICHOLSON.—The young men and women who come forward to be teachers are as far away from childhood as possible. They have forgotten childish feelings and experiences. The first thing necessary is to create in them an interest in children. The way to do this is to begin with the scientific study of childhood. This will lead to the sympathetic study.

PRESIDENT JOHN W. COOK of Normal University, Illinois, said that the department should not be so ready to pass judgment upon the extract read by Mr. Blodgett. It is a just criticism upon it, perhaps, that its language is so formal and technical; but because the writer has chosen to present his thought in a phraseology with which we may not be familiar, we should not conclude that he is necessarily foolish. It is not always wise for us to make ourselves the measure of the wisdom of what others may say. We should remember that our great philosophical seer formerly used terms in these gatherings which not all of us were able to understand.

As to the relation of city training schools and normal schools, Mr. Cook insisted that there was no such thing as conflict. In this country the normal school came first and the city training school was an outgrowth from it. It is true, that, in some of the states, like New York, the order may be said to have been reversed. Clearly, indeed, each has its function. The method of the city training school cannot become universal. It has very manifest advantages over the normal school on one hand, while it has serious drawbacks on the other. It furnishes a greater

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opportunity for practice work in actual teaching, but a smaller opportunity usually for theoretical work. The normal school is usually limited in its practice department; the city training school in its theoretical department. The great peril of the city training school is the tendency toward inbreeding. Its pupils are usually graduates of the local high school, and have come up through several grades of the system. When they leave the training school and return to the city schools as teachers, they have not had that experience with different systems which is necessary for the best preparation.

The motive in establishing city training school systems has sometimes been rather low. It has been claimed by their promoters that they could thereby diminish the expenses of the management of the system by using the pupil-teachers to fill vacancies occasioned by sick-leaves, and also to supply the lower grades with teachers without expense to the city.

But the city training school, since it is always local in its purposes, can never supply the teachers for the rural schools. The normal school is their only opportunity. It is true, that, with the large classes, they cannot all be in charge of schoolrooms while in training, but they can do much teaching and can receive very great assistance.

Mr. Cook thought that the danger with regard to the self-sufficiency of the young teacher who comes from the normal school was very greatly exaggerated. He had not been a witness of this unfortunate condition of things, and rarely heard complaint in his own state. It is probable that there is ground for it, because the young teacher goes from the normal school with a technique which is but partially assimilated, perhaps. Yet this stage, in which the technique assumes the formal aspect, is one through which we must all go before we attain any high degree of skill.

SUPERVISOR GEO. H. MARTIN of Boston dissented from Mr. Blodgett's opinion in regard to the intelligence of students coming from normal schools as compared with those coming from city training schools. Most of the students in the state normal schools come from country homes where there is considerable culture. They bring with them some inherited taste for scholarly pursuits, and have selected teaching as a vocation to gratify this taste. They have a breadth, and insight, and sympathy with what is best which stands them in stead of the more showy attainments of the city girls.

Many of the students in the city training schools have come from homes lacking the refinements of hereditary culture. Sometimes they are but a single generation removed from absolute illiteracy. These seek to enter the teaching ranks through the training school for social advancement. Having graduated, they secure schools because their fathers pay taxes and have influence. The graduates of the state normal schools can urge no such claim on any particular town or city, and are forced to win their way upon their merits.

MISS ELLEN G. REVELEY of Cleveland.—In this discussion we have lost sight of the end, which is the child. Pupils who come to normal schools have been students of books. It is essential to put them in touch with the world around—with the thought of the day. It is very essential that every student be acquainted with himself and with his relation to the child; then will he make a strong teacher.

DR. D. L. KIEHLE, State University of Minnesota, spoke to the second part of the report, and emphasized the need of training for teachers of secondary schools and of superintendents and principals. The graduate of a normal school, who comes with a feeble possession of her new theories and ideas, often finds super-

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visors who have had a higher education of the college but no professional training, and who have little sympathy with primary education and do not strengthen and encourage the young graduate in the attainment of her ideals received in the normal school, but rather make light of it all. He hailed with the greatest satisfaction that portion of the report which favors pedagogical training in colleges and universities, and desired to emphasize the importance of instructing these young people in the study of children. Dr. Kiehle related, that, in his classes, he had found little sympathy with elementary teaching; but he had sent them out to visit kindergartens, and that they had returned regenerated. When superintendents and principals have sympathy with scientific pedagogy, then the young teacher will grow.

DR. WALTER B. HERVEY, New York Teachers' Training College, also emphasized the importance of the second part of the report. The first necessity in training college graduates is regeneration. The college graduate has grown away from the possibilities of second birth between the time of his own graduation and the time when he has children of his own to care for He has lost sympathy with childhood. In order to develop this he must have contact with all grades; then he may approach the study of the period of adolescence with sympathy and intelligence. Dr. Hervey praised the practical suggestions for the training of secondary teachers outlined in the report—that the committee had not waited for more training colleges, but had devised a plan for existing institutions. He spoke of a visit he had paid to a school in Germany in which five young men with the degree of Ph. D. devoted two years without pay to teaching under instruction.

SUPT. EDWARD P. SEAVER, Boston, Mass.—Why have city training schools become necessary? In my opinion, it is because the state normal schools, as usually organized and managed heretofore, have been unable to bring their pupils into immediate and vital contact with the minds of children. Their work has been far too exclusively theoretical. When you can run a medical school without a hospital for observation; when you can run a law school without moot courts; when you can run a theological school without giving the young theologians opportunities to preach to sinners—then, perhaps, you can run a normal school without practice-classes. Mr. Blodgett called our attention to some things they teach in the normal schools under very high-sounding names. There was mentioned some sort of a process called making a person's potential energy kinetic. Well, there is no difficulty in understanding what that means. The boys would call it "getting a move on." Now, that is just what the pupils in the normal school want. As long as they are taught only theory they are at a standstill, not knowing how to move. But put them into contact with real live children, and they must "get a move on" or fail. Therefore, let there be schools of practice connected with every normal school in the land.

STATE SUPT. E. B. PRETTYMAN of Baltimore.—The real question raised by this discussion is, whether teaching is, or ever will be, a profession. We know how men become professional lawyers; we know how they become professional physicians. It is by study in special schools, where they are trained in the principles of their profession. Where are we to obtain professional teachers except in normal schools and colleges for special training in the science of education, the art of teaching, and the mode of governing schools? Is a mere medical student allowed to become a practitioner without professional training and examination by experts, and imperil the lives of people by his ignorance and want of skill? Do we turn over our cases to a tyro of a lawyer? No. Then we should not intrust our children to a teacher who is a tyro. It would be just as sensible for a medical convention or an assembly of lawyers to decry medical colleges or law schools as for this department

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to condemn or sneer at normal school and colleges. Teaching becomes a profession just in proportion to the number of teachers who have been professionally instructed, trained, and approved by educational experts. If we cannot now fill all positions with professionally educated teachers, let us nevertheless aim at the gradual elevation of teaching until finally it shall become, and be recognized as, one of the learned professions.

DR. JAMES M. MILNE, State Normal School, Oneonta, N. Y.—Wouldn't it be a good idea for those who criticise the normal schools to know the normal schools of to-day, and not base all their criticisms on their knowledge of the normals of twenty-five years ago? There has been a great advancement all along the line, and the normal schools have been in the van of the movement. Child study is no new thing in the normal schools. Science work in lower grades is no longer a novelty with us. The enrichment of the courses of the grammar grades was initiated long ago.

Now, with reference to the city training schools. They come into competition in no sense with the normal schools. City training schools are bred in local influences, and the particular needs of each city determine their work. Their motto is, to do just as the teachers are now doing in the city systems, only more so. Normal schools, however, have a wider, a more general outlook, and have to satisfy a more general demand. The assertion that the students in a city training school are more mature than those in a normal school is not at all warranted by facts.

All that have taken part in this discussion have presented their ideas from their own system of schools, and have assumed that the general likeness is complete. We all know how far this stops short of the truth in reference to either training schools or normal schools. Of course, we all regret the good superintendent's ignorance of psychology; but we cannot charge it to his strength, but rather to his weakness. Things that we do not know are not of necessity worthless or untrue. Let fairness prevail and let this good experience meeting go on.

DR GORDY, Athens, Ohio.—Of all the work in the world the most difficult and delicate is that of training children. Hence, the training of those who are to do this is the most important thing in the world. The work of the city training and normal schools is distinct. The office of this body is, not to take an attitude of opposition to either but rather that every man be convinced that both are necessary. When Horace Mann was pouring out his life for the common schools, he received no sympathy from the colleges. This illustrates the attitude of people of culture to-day towards the normal schools.

DR. E. E. WHITE of Cincinnati objected to that portion of the report which related to the study of adolescence. He thought that physiologists had pushed this matter too far. That the less our young teachers and would-be teachers had to say about this subject the better.

DR. E. A. SHELDON of Oswego stated that he had had experience in both city training schools and normal schools, and thought it well that their faults be brought out in this discussion. The normal school men have been too ambitious to have large schools. The most essential condition in training teachers is that they teach. A training teacher cannot work properly with more than twenty pupils. The pupil-teachers should take all the responsibility of the management of a school. This they cannot do if the school is large. There should be in the normal school more careful study of children—more extended preparation in scholarship. The pupil-teacher must have a school in which to practice. The office of

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the critic is to build up, and not pull down. Pupil-teachers must be left more to themselves to work out their own results in their own way.

PRESIDENT MAXWELL emphasized that portion of the report which demanded a higher scholarship for those who are to be teachers.

SUPT. H. S. TARBELL, chairman of the committee, in closing the discussion, referred briefly to Dr. White's criticism, and said that Dr. White had not caught the meaning of the report. That the study of adolescence was not recommended for the elementary normal schools, but only in the colleges; for teachers, not pupils.

Second, that in regard to the relative merits of city training schools and normal schools, the committee had expressed no opinion, believing that both have valuable functions.

Mr. Tarbell thought that normal school men were too sensitive with regard to criticism upon the normal schools. He believed that superintendents and teachers should be recognized as knowing something which differentiates them from other educated persons. It should be understood that scholarship plus experience does not necessarily make teachers.

The normal school men have gained the ground so far as elementary schools are concerned. When educators have established in the mind of the public the same conviction in reference to higher schools, then we may expect a more satisfactory education in all.

CHANGES—WISE AND UNWISE—IN GRAMMAR AND HIGH SCHOOLS.

BY ORVILLE T. BRIGHT, SUPERINTENDENT OF SCHOOLS, COOK COUNTY, ILLINOIS.

It is surely impossible to speak with definiteness of the beginnings of the great changes which occur in our institutions. Especially is this true of religious and educational institutions, founded, as they are, so largely upon traditions, and possibly on that very account the most sacred to the hearts of the people. In these matters even formal changes are not lightly to be entertained, while attempts at changes fundamental are naturally received with profound distrust and often with determined opposition.

Generally, however, the opposition of the people to changes proposed in matters of study has not been active, but their sympathy has been withheld from the progressive teacher, and this lack of sympathy is sure to affect the relations of the children to the school. Often the press, notably in Chicago, has tried to damn the best work of teachers by crying "Fad!" and indulging in rank personal abuse. But there has been many a long step forward, and rarely has one to be retraced, notwithstanding. There have also been, during the last ten years, many battles-royal among educational men and

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women; and, thank God, they are still on. The issues involved are tremendous, and fortunately time cuts no figure as to the result. It is safe to say that the years from 1880 to the present time have been more charged with changes for the betterment of the public schools than were the fifty preceding years; aye, the one hundred. To note all the changes in grammar and high schools that have come about or have been well launched within the years mentioned would make little more than a catalogue of a forty-minute paper. I shall note only a few of the most important.

From an artistic, convenient, and sanitary point of view, the schoolhouse has become a subject of serious study for architects only within the past ten or fifteen years. Improvements have been most marked in matters of ventilation and lighting, and in these respects the best modern schoolhouses leave little to be desired. A fan is now considered as necessary a part of the Chicago schoolhouse as is a chimney; and the same is true in many other cities. Natural forces, also, have been utilized with great skill in thousands of smaller places, and excellent ventilation secured—second only to mechanical.

While the tendency in the respect referred to is all in the right direction, the issues involved are so vitally important, as affecting the health and even costing the lives of children, that the splendid improvement of the past ten years seems all too slow. It must be confessed, that, in the great majority of schoolrooms throughout the country, the children are still suffering from lack of pure air and proper lighting. There is quite as often too much of the latter as too little; and while it is rare to find cases in which the children are obliged constantly to face the light, it is just as rare to find cases in which the teacher is not obliged to do that very thing. There is no shifting the responsibility for the unsanitary condition of the older schoolhouses. It is almost wholly the fault of school superintendents and teachers. The elements of this fault are apathy, laziness, and lack of intelligence. Thorough study of the subject and the interest and vigorous action sure to follow on our part will produce results for the next decade which will discount those of the last.

Another change well under way, and one which is sure to sweep the country, relates to school furniture. Compared to the slab seats which some of us used years ago, with no backs, and over which our legs flopped from one side to the other as we studied or recited, the modern school desk is a luxury and a thing of beauty. Compared to what it should be, considering the health and comfort of the child, and what it might be with very little additional cost, it is sadly defective. Think of fitting a desk for a child from the reader he is in

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or from his years of age! Almost without exception in our city and village schools the desks in any given room are of exactly the same size and of exactly the same height. You might as well fit a suit of clothes to our honored president on the strength of his being superintendent of schools in Brooklyn, and another of exactly the same size to Superintendent Jones of Cleveland because he happens to belong to the same class.

The children in any grade will vary from six to twelve inches in height, or even more; and while the smallest in a class sit with legs dangling in the air, the largest crowd themselves most uncomfortably into the desk space. And it follows that either of the extremes must sit in great discomfort and in exceedingly unhealthful positions during school hours. It is astonishing, indeed, that superintendents, principals, and school officers seem to think little or nothing about this matter. I recall an instance of a magnificent schoolhouse, built at a cost of $100,000, in which my rule showed the variation of the height of the desk above the chair used by the under-sized six-year-old in first grade and that used by the overgrown eighth-grader to be exactly two inches. The difference between the first and the fifth grade desk was one inch. The schoolhouse in which this barbarism occurred was built within ten years. To my indignant protest, the principal said blandly, "I declare, I hadn't thought anything about that."

We cannot excuse ourselves for this sort of thing. Is anybody so deaf, dumb, and blind that he cannot see the absolute necessity of adjustable desks and chairs in every schoolroom? The chair should in no case be a part of the other fellow's desk. And if it could be made to turn a little, to assist the occupant to attain the upright, so much the better. The trouble is not altogether in the seat being too high or too low from the floor. The desk, in its effect upon the arms, chest, shoulders, and spine, is just as deleterious to the health as is the seat in its effect upon the lower members.

Have you ever carefully examined the children in your schools, having in mind well-developed chest and erect position as to spine and shoulders? If not, make a careful trial—if possible in company with a sympathetic physician. Make notes of results in any one schoolroom, and then study causes. I do not intend to say that all of the malformation found is the result of school-sittings. The simple question for us to determine is, whether the school furniture tends to increase or diminish these deformities, and there can be but one answer to this question. The struggle for a better class of school furniture, one that can be fitted to the size of the child instead of the class he belongs in, is well begun, and adjustable desks have already come into use in many towns within the last two or three years.

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Within a few days I have seen five different patterns of adjustable desks. The next ten years will probably produce fifty of them; and thousands of children will be comfortably and healthfully seated in school where now there are tens or hundreds.

After comfort and healthfulness, schoolrooms should be attractive—attractive in the same sense that a comfortable home is. Nothing is more charming to note than the positive movement in this direction, although it is by no means general. In an eloquent lecture delivered by Prof. Albion Small the other evening, occurred this sentence, "The enjoyment of beauty is nature's first and purest tonic for tired mind and exhausted body." If this sentiment is a true one, and it surely is, and if children become tired during the school sessions, as they surely do, then the silent instructor referred to should find place in every schoolroom.

The enjoyment of beauty which comes from a cultivation of taste is something that has very little entered into our teaching in the public schools of America. In proof of this, one needs but to call attention to the utter lack of utilization of color in the furnishing of schoolrooms. Almost invariably there is a zone of grained wainscoting, a zone of blackboard, a zone of blank white wall, and a dead-white ceiling,—until softened by dust and grime,—hardly the purest tonic for tired mind and exhausted body, both of which are apt to seek tonics of a nature to disturb the school serenity. Tinted walls and tasteful application of color in painting certainly would be no additional expense. Tastefully papered walls would cost but very little. A few pictures or casts, which may be both artistic and inexpensive, prettily draped windows, growing plants and flowers, and, above all, a case of well-selected books—all these things constantly appealing to the children, would be wonderfully effective teachers; not only instructing but controlling children. Many such rooms may now be found in almost any system of schools in this country, with a gratifying increase each year. In short, they are living-rooms, arranged under the impression that the children are living while at school—not merely getting ready to live; that, indeed, school-life ought to be the richest part of the whole span, be it longer or shorter. I know full well the difficulties surrounding the accomplishment of what is here indicated, and I know just as well that those difficulties may be overcome.

One would be a stupid observer, indeed, who has not noted with pleasure the vast difference which the last few years have brought about as regards the sympathy existing between teacher and pupils. The study of the children has brought consciously to the knowledge of the average school-teacher the fact, that the controlling motive in school must be interest; that the love for learning cannot be secured

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by means of the rod or the ruler; that the great need of the children is patience, and not punishment; that their pranks (which are soon forgotten) are but a part of their development and are not designed for the misery of the teacher; that whispering in school is not an unpardonable sin—certainly not to be compared to the sin of the teacher who requires self-reporting at the close of school when children are tired and want to go home; in short, that, considering surroundings, temptations, state of development, and human nature, the inclinations of children are generally toward the good.

As these notions have gained ground, corporal punishment in school has had to give way. The fact of the matter is, whatever pretenses to the contrary may be set up, that immediately preceding whipping, in school or at home, in nine cases out of ten the actuating motive is anger and a wish to "get even" on personal grounds. After the chastisement there is a change in sentiment. A feeling of gratified revenge comes to the whipper, and one of anger to the whipped, coupled with the notion that, give him an even chance and he would like to try it again. Later on, humiliation and repentance have come to many a whipper. If anybody is to punish a child, my impression is that it should be the person who has the most sympathy with him. And it may be remarked here, that, if there is any period for whipping, it soon passes. Hence, I think the matter may be well relegated to the mother, who will try, at least, to convince the offender of the necessity before the infliction, and whose tears will be very apt to mingle with those of the child. This is perhaps a little tough on the mother, but it is pretty safe. Corporal punishment in schools is vastly less general than it was, and this through the action of the teachers; but it is still altogether too common.

It is well within a decade that I read in a report of a noble-hearted superintendent of a certain city a plea for the children as against the barbarity of corporal punishment. He stated that in that city there were about 15,000 boys who were eligible to this means for the elimination of manhood; and, also, that there were 15,000 cases of corporal punishment in one year—an average of one apiece. I asked by letter two or three years afterwards how the matter was getting on, but could get no reply. I would not tell if I were engaged in that kind of business. It flourishes much more in the East than in the West.

The fact of the matter is, that school flogging is an outgrowth of the total-depravity and physical-torture-to-all-eternity theory in theology, with the addition of mental starvation on the three R's. As a means of saving grace, both are terrible failures. Just so far as a teacher controls through physical fear, just so far he or she makes humiliating confession of weakness, concedes the lack of true man-

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hood or womanhood, and just so far will the training of girls and boys be a failure. I once heard a great teacher and keen observer, after carefully visiting every room of a school of 1,200 pupils, say to the principal: "I have not seen a child in this school do a mean or underhand thing. I have seen them whisper and move about, but they have done it all in a natural way and without specially disturbing anybody. How does it come about?" "Oh, I don't know," was the answer. "I have little to do in discipline; hardly ever think of it. Public sentiment seems to control the school." Mighty influences were at work in that school, but so subtle and quiet that to speak of them caused surprise. This is the tendency of these later years—a tendency that develops manhood and womanhood, good impulse and self-control. Would to God that the close of this century might see the end of control in school through the old regime of physical pain; that the rod might be forever banished from the schoolrooms of America, and that solely through the efforts of the teachers!

Next after the teacher, which topic I must pass, the most important topic connected with any school is the subject-matter to be taught. This subject is so great and the changes which have been brought about or which have been suggested, discussed, and tried since the year 1880 are so many, that one hesitates to touch upon it where reference must be so brief. Until within a very few years the grammar school subjects for study were universally the same, and in this order of importance: Arithmetic, geography, and grammar, with the lesser lights, reading, writing, and spelling. The first innovation was United States history; but it obtained only a secondary place, and that with the older pupils, along with the grammar. It was a relief, however, as there was in some degree a stimulus for the imagination and its tendency was towards reading.

A fair understanding of the changes that have taken place or are being urged in courses of study calls for a consideration of these studies separately. That they were entirely separate, and still are in most schools, goes without saying. Not only this, but the different topics of the different studies were almost as separate as the different studies. The Jupiter-supreme of the group is arithmetic. The reasons for this—in American schools, I think—are several. 1. In the old three-R days, arithmetic was the only subject calling for much study, and its supremacy was inevitable. 2. On the part of parents there is a prevalent notion that the knowing well how to figure will, in some mysterious way, figure the learner into business and into a fortune. The text-books are all constructed to enhance this notion, nine-tenths of the problems being about dollars; and, strange to say, almost all have to do with the getting of dollars. It

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sounds so fine to say, "I send my agent," "I draw my check," etc. Every farmer's boy comes to imagine himself a banker or capitalist. 3. The teacher, of course, knows that arithmetic is practical in its application to affairs of life, and she has heard and takes for granted that the study is most excellent discipline.

Let us look this subject squarely in the face, see what we will do with it, and bring a little common sense to bear on our consideration. Almost without exception the children in the graded schools of this country are kept eight years upon arithmetic. Every day has one or two arithmetic recitations, so that the recitations per week range from five to ten. No other recitation in school has so large a period devoted to it each day, and no other is so constant a trespasser on the periods set apart for the other recitations. Bear in mind that this sort of thing continues for eight years, and frequently the arithmetic is carried a half year or a year in the high school. Is it possible that any one subject, with American teachers and with American children, needs such an inordinate proportion of school-time? Will anybody pretend to say that the results secured are at all commensurate to the time consumed? If there is any one complaint from high school teachers which is constant and never varies, it is that the children know little about arithmetic when they enter high school. Oh, dear, what can the matter be? for matter there must be, and it is high time that we were looking after it.

I am well aware that any man or set of men who recommend cutting down and enriching this study take their lives in their hands. There has probably been more railing at the committee of ten for their report in regard to mathematics than for any other one thing. Whether their adjustment is altogether wise or not may be questioned, but that cuts no figure in the case. Their main contention is, that the subject should be cut down and enriched, and in this they are absolutely right; and I insist that the higher regard one has for arithmetic as a science the stronger will he insist that it no longer be cluttered up with obsolete or unrelated topics. My regard for the value of this study is profound; but it is for arithmetic as it should be, not as it has been. I protest, first, that the number of years which the subject is studied is too many; and, second, that the time given to it in the daily program is too great. So far as the years are concerned, one certainly should be cut off each end; and I am inclined to think, that, in the primary school, during the first two years, with the exception of the numbering consequent upon other studies, very little should be done in arithmetic as a separate study. In other words, that five years, as a special study, ought to finish this subject, and do it vastly better than it is done now. As to the day's relation to arithmetic, I do not propose to be an unreasonable crank, and advocate that grammar school children out of

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school should do no work preparatory to the work which goes on in the school session. This is unreasonable and ridiculous. A grammar school without home study is an absurdity—no school at all. But the work which the child should prepare at home should not be arithmetic. I insist upon this, both in the interest of health and morality. A tussle with problems as a preparation for sleep needs no comments. The tossing and restlessness of nervous children during the night hours, as produced by this sort of thing, I need not bring to the minds of parents.

From the moral side, the consumption of the father's time in getting the lessons for his children, and the irritation consequent upon the difficulty with which he accomplishes the task or his inability to do so, sends him to bed in a frame of mind conducive to anything but tranquility or godliness. And what is worse in this connection, the pretense of the child that the lesson presented the next day is the result of his own effort, and the acceptance of the same as such on the part of the teacher, are training in the line of utter dishonesty. In this respect I am not talking at random, as every superintendent very well knows.

A shrewd business man came to me recently with the following problem, which he and his twelve-year-old daughter had worked over the entire preceding evening. With several other problems, it was to be solved in the evening for recitation in a public school the next morning:

A, B, and C start at the same point in the circumference of a circular island, and travel around it in the same direction. A makes $\frac{3}{4}$ of a revolution in a day, B $\frac{4}{17}$, and C $\frac{8}{31}$. In how many days will they be together at the point of starting?

The man was very angry; possibly because he could not solve the problem. Nobody but a schoolmaster can. When he declared that to give such sums to sixth-grade girls was a d—d outrage, he relieved my feelings as well as his own. It is time we stopped driving girls out of the public schools with arithmetic. In this connection it would perhaps be profitable to find out in any given community how many of the really cultivated women had ever been "good in arithmetic." I read the other day that Mrs. Charlotte Emerson Brown wrote and spoke French fluently at ten years of age, and the question came to me, Are the public schools making Mrs. Charlotte Emerson Browns?

In an address given in Brooklyn, Oct. 6, 1892, President Eliot of Harvard has this to say of this study: "From one-sixth to one-fourth, or even one-third, of the whole school time of American children is given to the subject of arithmetic—a subject which does not train a single one of the four faculties that it should be the fundamental object of education to develop. It has nothing to do with observing

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correctly, or with recording accurately the results of observation, or with collating facts and drawing just inferences therefrom, or with expressing clearly and forcibly logical thought."

Again, the entire subject known as arithmetic is so cut up into separate subjects, so separately taught, that it is no wonder the average child is utterly befuddled when he gets through. After reading a vigorous protest against the recommendations of the committee, and not only against the recommendations of the committee but against the spirit of those recommendations, I recently picked up a modern arithmetic (the first that came to my hand on a shelf full of them) to note how the subjects differed from those in my own school arithmetic. The book was not Smiley's "Federal Calculator," 1825, but was launched upon the schools of the country since the year 1880, and its author occupies an honorable place among teachers. Any topic to which I here refer is fully set forth in the book, and, it may be assumed, is taught by most teachers who use that special text-book.

Any process in arithmetic which is the result of mechanical rather than thought development certainly has very little disciplinary value. Children spend time in learning a mechanical process for finding the greatest common divisor, which they never afterwards use in arithmetic until the review. They are taught a mechanical process for finding the least common multiple, and when they have it well in hand, the constant aim of the teacher is, and should be, to prevent its use. It stands constantly as a bar to mental effort on the part of the child in his handling of fractions, and he would be vastly better off without it. Interminable compound fractions are set up, whose only purpose is to afford an opportunity for knocking down through mechanical work in cancellation. These are followed by complex fractions, varying from three to eight stories in height, simplified (if simplified at all) through purely mechanical means. In the book referred to, I find forty odd pages devoted to compound numbers. With the single exception of linear measure used in transference of land, I doubt if any person in this room has ever seen or had occasion to use a compound number, unless, possibly, in paying an English hotel bill.

Then follows what is still worse—fractional compound numbers. What are they for, anyway? Later comes a kind of discount never heard of in business; courses of exchange and arbitration of exchange that would knock out any banker in Cleveland; partial payment problems, the solution of which would cover a blackboard ten feet square, and they never come out right. And then, to complicate matters, five different rules for the performance of these problems. Compound proportion! Would you, who have forgotten all

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about it, like to know what it is like? for there is nothing else like it under the sun! Listen to a quotation:

If 16 men can dig a ditch 40 rods long, 3 feet wide, 2½ feet deep and of 7 degrees of hardness, in 10 days of 12 hours each, in how many days of 10 hours each can a ditch 60 rods long, 3½ feet wide, 3 feet deep, and of 10 degrees of hardness, be dug by 20 men, if 8 of them work till but ¾ of the work is done?

Then we have equation of payments, something utterly unheard of by 1,000 out of every 1,001 business men. Alligation—to suggest the mixing of sand and sugar, but nothing else that ever occurs in this world. Cube root! In spite of all that anybody may say on the subject, children of thirteen or fourteen years of age learn how to find cube root only as a mechanical process. Of course, I speak of the average child, and I know what I am talking about. Progressions, arithmetical, and geometrical; annuities, circulating decimals; and, right here, in this modern arithmetic, duo-decimals. And then, for fear something might get away, are brought in building associations.

In almost all of the arithmetics first come the definitions, then the rules, then a problem with full explanation, then the problems for the children to work according to rule, and like the sample given. And this is called discipline! God save the mark!

What would I do? Clean out the rubbish from the arithmetics. Simplify the subject. Enrich each of the topics left by giving plenty of work adapted to the children. Train them thoroughly in principles and to accuracy in execution; rapidity in calculation will take care of itself. Vivify the subject as much as natural, by relating it to other subjects studied in the school, and make the work three-fourths mental arithmetic to the end of the course. This is the line of change in the best schools; and the change thus far has not been slight, by any means.

The substitution of algebra for arithmetic in the eighth grade works admirably. There is but one verdict on this subject, after a trial in hundreds and hundreds of schools during the last two or three years. Some have had it much longer and have no thought of changing. In many schools elementary geometry takes one part of the year and algebra the other. I have been greatly pleased with the vigor and apparent delight with which children take hold of the subjects. Of the many wise suggestions of the committee of ten, in my opinion none was better than this, and the substitution has largely come about directly from the recommendations of the committee.

I believe there is no subject of instruction in the grammar schools in which there is so great a determination for change as in that of geography, and there is none in which an intelligent change is more difficult. Every thoughtful teacher is utterly sick of the dreary committing to memory of thousands of facts relating to boundaries and

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location, which, in the nature of things, have no possible interest to the child. Geography ought to be a most inspiring subject. It ought to present the richest material in thought-content, and this is the tendency of the change going on. The new geography is becoming a combination of certain, possibly all, of the elementary sciences, with a knowledge of the present surface of the earth. Children are being taught that the variations in the surface of the earth, which make it so beautiful, have a significance. And this significance will keep the mind of the child constantly on the alert and will keep him thinking.

I have no doubt that Miss Arnold will speak of the delightful work now going on in the best primary schools—work closely related to the teaching of geography. It is geography, in that it deals with the relation of the child to the world about him and its phenomena. From the first year of school he observes, learns something of cause and effect, and states the results of his observations orally and in writing. With this sort of training he will come to his text-book in geography with strength and vigor.

What shall the text-book be, and who shall make it? The making cannot be done in a hurry, although the demand for the new geography is something tremendous, and this demand comes from every part of the country. Mr. Frye, in his new primary geography, which is the result of years of labor, has taken a long step in the right direction. The sale of this book is unprecedented, and it points to the truth of what I have said as to the demand of the teachers. We must have carefully prepared text-books on this subject for the grammar grades, otherwise teachers will be floundering around in a helter-skelter fashion; and while the instruction will be in any case far more valuable than that which you and I received, it will in nowise be what it ought to be. We must have a text-book which shall constantly build upon the observation which the children have had, which shall inspire further and better observation, and which shall combine in the proper degree the elements of other sciences with that of geography.

One of the two most important disturbers of the educational peace during the past ten or fifteen years is English, and the disturbance has reached from the kindergarten to the college. Prior to that time there was in the use of English little or no training of any kind in the primary schools. The grammar school study consisted of definitions, rules, and tables from the grammar book, with interminable parsing, analyzing, and diagraming. The high schools studied the history of authors in the English literature and the rhetoric book. The colleges were so occupied with Greek and Latin that they never thought anything about English, not even of the deficiencies of students at entrance. But there was an awakening all

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along the line, and teachers were forced to take an account of stock. Fierce attacks were made on the sort of grammar study in vogue, and its defenders had a sorry time of it.

Of course, the routine travesty called parsing and diagraming is not teaching English grammar, but grammar study is essentially analytic. The great need was a training in the use of English—a training which was constructive. The language lessons came in and the book-makers had a harvest. In most cases these books were primary grammars with language lessons interspersed. So the grammar definitions and rules in primary language came even into primary schools. Other schools declared grammar a snare and a delusion and bundled it out altogether, depending on oral instruction entirely. Others still made composition a prominent aim throughout the entire primary and grammar school, made correct expression a part of every recitation, and, eliminating the rubbish from English grammar, made it the closest and most disciplinary of studies. In general, the results of language lessons fell far short of the absurd claims of over-zealous advocates. Unskilled teachers, many of whom did not even use good English, were called upon to plan and give lessons in English to little children. The book lessons referred to were committed to memory, the grammar part getting the lion's share of course, as that was in line with the teacher's experience. Most grotesque work naturally followed, and specimen recitations of this sort have been reported and sent over the country as samples of what the reformers advocated. One rarely gets through a meeting of this kind without hearing sneering reference to language lessons, coupled with prophecy that we are going back to the old-fashioned grammar. Are we, indeed?

Whatever else we may be, let us not be ridiculous.

The efforts to secure better instruction in English have not resulted in failure. The best advocates of this instruction urged from the first the relation of language-teaching to other branches of study; that subjects studied in the grammar schools should furnish material for composition; and, recognizing that the use of good English would be most powerfully influenced by the reading of good English, they urged the training of the children to the love of books and the furnishing of books for them to read. Further, they strongly condemned the then universal custom of giving children but a single reading-book in any one grade and keeping them at this book until it was committed to memory from cover to cover. In this contention, the battle was lively, because the interests of book-makers were concerned. In this respect, the following instance shows the *general* condition of ten years ago and a *common* condition of to-day.

A noted teacher visited a second-grade room, in which the children read suspiciously well. After getting permission to talk to

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the class, he had the books closed and gave at random single sentences in different parts of the book. In every case the children caught the connection and continued in concert until stopped—books closed, mind you. The teacher came to him in tears, and said: "My children are not half through the grade, and that reader is all they will have until the end of the year. What shall I do?" "Go sell all thou hast and buy books." She went, and hundreds of other earnest teachers went, using their scant store of money. And the result: To-day every grammar school in Chicago has from three to six sets of supplementary readers or other books for each grade. In 1880 only one school in the city had so much as a pretense of supplementary reading. Now every grammar school in Chicago has a well-selected library and a splendid outfit of reference books. Then there were but two school libraries in the city, given by men whose names were on the schools, and but one dictionary and a pronouncing gazetteer for each school. I know this to be a common experience in cities and villages the country over. This is not failure.

The average fifth-grader to-day, as a result of language-teaching in primary grades, writes as correctly as did the average eighth-grader ten years ago, and the thousands of children who leave school at the third or fourth grade go out capable of fairly correct expression.

Children in the higher grammar grades in the best schools are studying and appreciating literature which formerly was found only in high schools. Miss Emily Rice, the accomplished teacher of history and literature in the Cook County Normal School, said to me last week, with face aglow, "The eighth grade (fifty pupils) have just finished 'Merchant of Venice,' and have enjoyed it more intensely than anything else they have ever read."

Another eighth grade of forty pupils read two or three books of the "Odyssey" with great interest and profit. "Hiawatha" has proved a veritable literary treasure-house. We were surprised when children of fifth grade liked it intensely, then fourth grade, then third, and now it is doing duty in second grade in many of our best schools. The study of children and their needs has made a vast difference in our estimate of their appropriate mental food. The demand for good reading-books for little children, instead of the meaningless, mawkish stuff formerly put into children's books, because suited to their capacity, has become intense and general. Right here I cannot help mentioning Miss Cyr's exquisite second reader, a literary gem.

Fables and fairy stories, myths and legends of Greece, Rome, and Norseland, and the far East have been drawn upon, as well as the rich field of our own Indian lore, and charming books have been the result when literary geniuses wielded the pen. Nature myths, as part of our nature study, lead naturally to love for poems of

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nature, among the choicest in our literature; and stories of the gods and heroes of the Old World lead naturally to love for stories of the heroes of discovery, exploration, and settlement of our own country. So, with active imagination and mind full of material for expression, composition is a necessity and a pleasure to the child. With nothing seeking expression, composition was for you and me a positive cruelty, and how little of it could by any means be forced out of us.

It is safe to say, that, considering stimulus to the imagination, thought-content, genuine literary merit, and in consequence of all these, healthy interest, more good books have been written for children in the last ten years than in all the years before. Many teachers believe, and rightly, that, in learning how to read, a child should learn to love to read; that the material given him from the start should have an inherent interest, and there should be abundance of it.

As a result, when they come to the grammar school, the children will be habitual readers of good books. The first crop is scarcely in yet, but tens of thousands are on the way. I am here as a historian, not as a seer; but I venture this prophecy, that, ten years from now, students will enter high school with a better, because a more sympathetic, knowledge of English literature than they have now on entering college.

School readers above the third are disappearing in the best schools. In their place are used books relating to subjects of study for reading and discussion, and for literary training enough of the writings of one author at a time to make a distinct literary impression. This is wise economy of time and effort, and develops an aim vastly different from mere practice in oral reading.

One other change, as a result of language-training agitation, Mr. Chairman, I wish to note in passing, and I would do so with reverence and tenderness. One of the sacred institutions of American schools, and one that has held tenaciously a place in the heart of the American schoolmaster ever since

> Zaccheus he
> Did climb a tree,
> His Lord and Master
> For to see,

is the spelling-book. I say in the heart of the schoolmaster, for if he had brought his head to bear upon it, it would have gone long ago. The experiences of the past few years have made a great many thousands of teachers believe that learning to spell should be the learning of words which are coming into the child's vocabulary day by day as he goes on in his school work, and that the spelling lessons should invariably have relation to the subjects under study, instead

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of words which have been selected by some far-away genius and laid away in blocks in a spelling-book whose orthography is to be learned for future use. No plan of work could be more illogical, wasteful of time, and inadequate in results. Hence, we are obliged to chronicle as one of the changes of the closing years of this century the "passing" of the spelling-book.

The change of attitude on the part of high schools toward composition and English literature, or more properly literature in English, is very significant. This has doubtless been the result to a certain degree of changes in requirements for college entrance. Grammar rules and definitions, parsing, analyzing, and diagraming will not pass muster at the college door. Ability to write a good composition, fair as to thought and correct as to expression, is the demand. The high schools demand, and rightfully, that correctness of expression be secured in the grammar schools, in order that their work may be devoted to the thought element of composition and elegance of style. In line with this desire, and in furtherance of it, the high school study of literature is coming to have a new meaning; not studying the lives of authors and what somebody else has said about their writings but the studying of the writings themselves in wholes, and many of them. In a word, it is the study of literature and not about literature.

As already indicated, the other great disturber of the educational peace during late years has been science. It would be hard to tell where the disturbance began, or when, but it would be a dull place indeed to which it has not reached within the past ten years. Looking at it from the college standpoint, the text-book and lecture-room were found utterly inadequate to the proper teaching of science, whether physical or biological. The working laboratory for students was added, and each man had in a degree to work out his own experiments and researches. The awkwardness of students in handling apparatus and their inability in matters of observation made painfully apparent the defects of the high school preparation. Something different was demanded by colleges, and their demands have been more than met by the high schools. In fact, it may have been the high schools which took the lead. This matters not. The changes which the past ten years have wrought in science teaching are wonderful indeed. Ten years ago there were probably not a dozen high schools in the country in which laboratory work in science was done by students. Now there are hundreds of them. In 1889 Chicago acquired its first high school laboratory by annexation. To-day every one of its twelve high schools has one, two, or even three laboratories. The Hyde Park High School, recently completed, has an outfit for science-teaching superior to that of half the colleges in the United States. Every projector of a high school building, even in

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small villages, considers the laboratory essential. At the same time, the demands of geology and of botany for field study have been just as imperative and the results correspondingly intelligent. These are certainly magnificent changes, and they are working wonders in the cause of science.

But what of the primary and grammar schools? That natural history ought to be introduced into the primary schools at the very beginning and continue through the grammar schools is generally conceded by intelligent teachers. That simple experiments in natural philosophy and chemistry are just as suitable for these same schools, is also true, and, therewith, the study of natural phenomena and their causes; and this contention is, not only because of the tremendous advantage to the pupils who continue in high school but because nature study is the best possible study for the children, the richest in thought-content, and, consequently, the most developing. It is their birthright, and how shall you and I excuse ourselves if we keep them from it?

There may be one excuse for us—that is, our ignorance. Here is nature all around us, with its phenomena, plant life and animal life on every hand; earth-history carved in every gully and every hillock, piled in every sand-heap and strewn on every shore. We see it not; know it not; read it not. How can we teach it? It is ignorance of subject-matter that stands in the way of elementary science-teaching to-day, and that alone. The text-book study has left us so helpless. The attitude of the teachers is splendid, even in Chicago —fool-talk of the newspapers to the contrary notwithstanding; and almost everywhere an honest effort is pushing forward. Nature study is well established in thousands of primary schools, and is gaining ground every day as teachers are finding out something to teach. In the grammar schools, the movement is slower, and there is a break between the primary and high schools. An adjustment is at hand, or will be with the new geography. God speed the day!

Prior to 1880 the basis of promotion in public schools was almost universally a test or final examination in which the dead line between success and failure was a fixed per cent. Seventy-four, with a good record, meant failure; seventy-five, with no better record, meant success. In fact, the record had nothing to do with it. I think it was in 1881 that George Howland announced to Chicago principals that pupils would thereafter be admitted to high school on their recommendation, and that alone. After regaining their breath, the principals prophesied various disasters to the schools, and went off to think it over. Within two years it was evident that Mr. Howland had executed a master-stroke. It was the greatest official act of his long and successful superintendency. So far as I know, it was the first of its kind in any large city. Examinations for grade pro-

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motions were gradually abolished in all of the best schools. How generally Mr. Howland's action has been adopted by other cities I cannot say, but I know that it has by many. I believe the examination test has been modified where it has not entirely given place to more rational means for determining promotion. The question involved is a very serious one, but I cannot take your time to discuss it fully. It seems plain, however, to me, that the person best qualified to judge of a child's ability to go on is his teacher. If the teacher is in doubt, the principal, who should know individually every child in school, may aid in the decision. To say that any other test is necessary is a travesty on common sense.

Cramming for examinations is the most vicious of all school practices. It impairs the health and depraves the mind. The anxiety of the few weeks preceding "the final" is terrible on the highly-strung nervous temperaments; and all the more so the farther removed the examining power. Suppose a case: A city has some grammar schools and a high school. It has an excellent corps of teachers. Each school has a competent principal. The city has an able superintendent, with possibly an assistant or two. The eighth-grade pupils are nearly ready for high school. The eighth-grade teachers are the best in the city, but they cannot determine who shall go to high school. The principals cannot. The superintendent cannot. All together cannot pass children from their own grammar schools to their own high schools. Somewhere, far away from this city, there is an examining board to determine this vital question. Its members are wise men, but they know nothing of the children they are to examine. Days and weeks are spent in special preparation for the great board examination. No effort is made to finish subjects broadly, grandly, or to make the closing recitations inspiring and memorable in showing relations, making deductions, and generalizations not before noticed. Oh, no! The aim is to teach what will probably be asked for, and the possibility of this question, that, or the other, with the answer that would suit the examiners, is kept constantly before the children. As a last finishing-touch the teachers are directed to take sets of old questions already given by the board and teach them. This is done, reaching back for years, on the theory that history must repeat itself and that history includes examiners. The examination is taken, and later the pupils of a school are assembled to hear results read from a platform, to the glorification of the winners and to the utter humiliation of the poor children who fail to pass. Need I say what I think of this sort of thing? Is it good sense, good pedagogy, justice to childhood, or common humanity? What is the ideal thus set up as the end and aim of school life and school study? To pass the examination, to be sure; and that any practices that will insure this success are justifiable—a most degrad-

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ing sentiment for American teachers. "May the Lord have mercy on the souls of children committed to the tender mercies of a percentage factory." The tendency is against this sort of thing, but it clings tenaciously in many otherwise intelligent communities.

One of the most pleasing and valuable of all of the changes that have come about in the last ten years is the more cordial relation between sections of our school system. The primary and grammar schools as one, the high school as another, and the college as another, have stood isolated and unsympathetic. There was little of communication or relation between them, except when the colleges berated the high schools for lack of preparation, and the high schools berated the grammar schools. All this is changing. In looking for lack of preparation, college-men look beyond the high schools to the grammar, and even to the primary schools. And this is sound and logical; but it is not with the same old fault-finding spirit. There goes with it a desire for helpfulness and sympathy utterly unknown a few years ago. At a recent meeting of the Illinois State Teachers' Association there were present from the state university ten or fifteen of its professors, including the president, taking part in all of the discussions, whether primary, grammar school, high school, or college. There were also present five other college or university presidents and how many professors I do not know; but I believe it safe to say that there was a greater per cent of college-men, as compared to the whole number in the state, than of any other class of teachers. Such an element at a state meeting ten years ago, or even five years ago, was unknown in the country.

The pioneer in this magnificent change, the man who has done most to bring about an intelligent feeling of sympathy between the colleges and the lower schools, both by his manly criticism of those schools and by his splendid suggestions in the way of improvement, is that prince among college-men, President Eliot of Harvard College. His meetings with the grammar and high school men of New England and their sharp discussions have been read the country over. President Eliot was in a position to command a hearing, and fortunately he has had much to say about the public schools, and he has said it magnificently. How he has argued and plead for the enrichment of the primary and grammar school courses, and how terrible the need! President Eliot's views have not been generally adopted by any means by the grammar school men of the country, but there are very few of them whose views have not been modified by what President Eliot has advocated. He has done that best of all things, either in the matter of education or any other institution. He has set men to the defense of their practices, and in this defense comes careful, earnest thought, and it is rare, indeed, that it is

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not followed by some reconstruction. For this we have to thank President Eliot.

Another most significant change which is slowly moving forward is that of making teachers accountable to the superintendent or to the principal. Every business of large magnitude in the country recognizes the importance of placing the responsibility for any particular part of that business in the hands of one man or one woman. A railroad or bank in which each member of the board of directors was more or less a superintendent would be laughed to scorn, and its management would have but one outcome—utter failure. The same is true in schools. For the school system of any village or any city, so far as the instruction and the work of the teachers is concerned, one man or one woman should be responsible. Take any body of teachers who are now responsible to Tom, Dick, and Harry on the board of education, who are exercising what is called a "pull" to keep their places, in whose appointment relationship, friendship, or politics cut a large figure; remove all these unsavory influences, make this body of teachers directly responsible to an efficient superintendent, let them know that their continuance in the schools depends solely upon the efficiency of their work as judged by this superintendent, and the effectiveness of the schools in which they work will be more than doubled in one year. This is universal experience, and I am glad, indeed, to say that the placing of this responsibility in the hands of superintendents is on the increase even in the Eastern States. A New England school board usually has a realizing sense of where to find a summation of earthly wisdom up to the date of its appointment, but the Boston school board has, within the past year, and for the first time, concluded that its members should be something besides a pack of official busybodies, constantly meddling with and effectually preventing any effective work of their superintendent; and we congratulate the Boston schools. All are watching with intense interest the reform movement in New York City, as it shall affect the schools, and the fate of the proposed law to make the superintendent the center of power and responsibility. The action taken by this splendid city of Cleveland some years ago stands as an object-lesson to the other cities of America, and your schools to-day are the strongest possible justification of the action. The whole law in a nutshell should be: Every teacher responsible to the superintendent alone; the superintendent, and he alone, responsible for the schools.

Politics in every form—hands off!

The newcomers that have fought their way into our education since 1880 are the kindergarten and manual training, and a right royal fight they have had of it. The opposition in these cases has come from teachers, keen and strong, but blind to the truth—and

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often willfully blind. The kindergarten entailed an entirely new philosophy of primary teaching which has to be understood by each teacher; hence, study. The old primary teaching entailed no philosophy—it traveled on tradition; hence, no study. The kindergarten children were so hard to govern; they wouldn't sit still when they came to primary schools: kindergartens hadn't taught them anything, etc.—all because the poor teachers couldn't understand this new institution which had been studying childish needs as shown in childish activities. But the opposition was less vicious than that shown to manual training. Here sarcasm and ridicule were brought to bear when argument failed. But manual training marched steadily on, and it has marched gloriously in. As Dr. Butler well says, "The time is surely past when the brain can say to the hand, 'I have no need of thee.'" Both manual training and the kindergarten are here to stay. Many of us, in the nature of things, cannot live to see both fully adjusted in our schools, as teachers in these departments, fortunately, must be trained for their work; but adjusted they will be as integral parts of every public school system in this country.

And the new education! What has become of it? Nobody ever hears of it now.. The term never appears in educational papers. Its reputed advocates of the years past still seem very much in evidence. Nobody tries to laugh them out of court now. Ten years ago even their tremendous earnestness could not secure a respectful hearing in some very respectable educational gatherings. But they plead only for the kindergarten for little children; manual training for older children; greater inspiration and fewer per cents in recitation; more teaching and less examination; greater sympathy and patience with little children, and less of cast-iron order; more of things and less of form in subject-matter; more observation and less definition and rule; more of good literature for little children; supplementary reading, and a great deal of it, and less of grammar books; elementary science for children and laboratory science for older pupils, together with the proper relation of studies; and all the time, and more than all the rest, the proper training of young men and young women for the great work of teaching. Is it not true that these things formed the burden of the contention of the cranks ten years ago? It seems impossible, but it is true. Have the cranks changed, or have we changed?

I have been able, very inadequately, to set forth the changes in school work of the past few years. They have been mighty, indeed; but it seems to me that we are even now in the sweep of the greatest educational movements the world has ever known, and it seems, also, that the lessons of the past years tell us that we may be living, active parts of these movements or they will roll over us, leaving but the wrecks of might-have-beens.

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RECENT IMPROVEMENTS IN PRIMARY SCHOOL WORK.

BY SARAH L. ARNOLD, SUPERVISOR OF PRIMARY SCHOOLS, MINNEAPOLIS, MINN.

I have been asked to outline the recent improvements in primary school work. The topic, happily, includes improvements only, and does not reach out to take in many changes which have been attempted and the experiments which have been made in our eager desire to enrich and strengthen the school's curriculum. The present period is emphatically a period of question, experiment, and change. It is a time when the new is eagerly seized because it is new, and the old is ruthlessly swept from the field because it is old. Originality bears the palm in the popular mind. Truths lose favor when they have attained their majority.

Naturally, then, this topic demands an expression of personal conviction. Amidst so many new methods, plans, and devices, who shall judge which improve upon the work of a generation ago? We can only select such steps as seem to have been taken in accordance with the principles which are in harmony with recognized and eternal law. If any changes have been made which enable us without question to lead the child to clearer and fuller knowledge and to wider and happier development, these changes we must pronounce good.

In speaking of this topic, I shall draw from the record of the experience of the best primary schools of to-day as I have personally known them or as I have read of their development. I shall not assume that the progress which I shall describe has been universal. We may feel encouraged, indeed, if we can heartily believe that our best schools are more clearly than ever before recognizing the true ideal of teaching, and are growing towards this ideal in their every-day experience. Sooner or later, the rank and file will follow the leading of the pioneers. My references to improvement in primary work, then, apply to the growth in the best schools of to-day. In considering this growth, I shall note the introduction of new subjects, the advance in methods, and the impelling cause.

It is not many years since the common practice in primary schools everywhere expressed the conviction that children were sent to school simply to learn to read, write, and cipher. The chief end of the school was to teach the three R's, and teachers commonly so fixed their eyes upon this immediate result of their labors that they forgot, if they had ever known, the higher end beyond. To read from the primer, first or second reader; to spell a column of words

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from the spelling-book; to write the arbitrary copy; to add, subtract, multiply, and divide—these were the duties of the child in the primary school, and the drill necessary to fix these forms in his mind entirely occupied the teacher. In my own experience as a child in the primary school, I can find nothing to point beyond this; no evidence that the teacher recognized a higher aim in her work. Often, in the crowded school which I attended, an older pupil was set to teach me the appointed task. I remember that I was taught to write by a larger girl, who feebly and crudely outlined the letters upon my slate for me. Nor can I forget the delight with which the class of little ones sat under a pine tree out of doors, while an older pupil pronounced the words of the spelling lesson, which we dutifully spelled when our attention was called back from the waving boughs and the blue sky, seen through the branches of the tree above our heads. Between the school walls, I wrote, read, spelled, and "did my examples." Occasional rote songs varied the exercises. I have no memory of anything else. Yet the school was a fair example of the primary schools of a growing town.

Added to this program of the old days, we find in the modern schoolrooms periods for nature study, literature or history stories, and language lessons. Music is definitely taught as a study instead of being confined to the rote songs, and drawing is included in every day's program. We find periods allotted, also, to physical exercises and to industrial work. The more recent of these innovations are the nature studies and the literature and history lessons. The language, music, drawing, and physical exercises have for a longer period held a place in the primary program.

What is indicated by the presence of these new subjects? Why have we added to the work of the primary teacher subjects seemingly so wide and so profound, and why do we find the pages of our primary journals teeming with devices as to nature study and story-telling, to the frequent exclusion of the so-called essentials—the three R's?

The answer to this question indicates the line of growth in our primary work. The three R's are no longer considered the essentials. Necessary, vital, we concede them to be; but their conquest is no longer the chief end sought. The presence of the new subjects acknowledges the recognition of a deeper and higher aim in teaching. We know, now, that the end of school-life is more than to learn to read, and write, and spell, and cipher. We demand that the school shall strengthen and develop in right lines all the powers which God has given to the child. We recognize that childhood is the period for obtaining materials for the fuller and deeper knowledge of after-life—for fixing habits and determining the taste which shall

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guide the growth of the future. The child's business is, not simply to learn to use books but to learn to live. Books are of no advantage to him except as they enable him to interpret life and to determine his own action in accordance with right principles. His own experience must always lie underneath the knowledge which he gains from books. To this experience everything in books must be referred. We are assured that he must learn how to live; first, by learning to read the lessons written for him in the world of nature; and, second, by drawing from the experience of those who have lived worthily and have given to the world thoughts worthy to endure. The child must learn to interpret the life which lies at his own door before he can reach out to understand other lives. From his own seeing, imagining, and thinking he must get materials which will help him to interpret the lives of others as expressed in literature and history. This belief has led us to place underneath and before the lessons in reading and writing other lessons through which the child shall gain the ideas which must underlie the reading and writing—without which books can give him but empty words. The presence of nature study, literature and history stories in our primary programs indicates the attempt to attain to realities instead of working with forms and to recognize the place of the form as determined by the thought which it exists to express. No word is real to the child until it stands as the sign of its own idea; no thought can be apprehended except it express something akin to his own experience. What folly, then, for us to use symbols which are dead to the child! Our first work is to bring him into the fuller experience which of itself demands these modes of expression. Through nature study, the child widens his experience in the world of nature and gains new ideas, which find expression in his own language and enable him more readily to apprehend the messages written for him in books. Bryant's "Fringed Gentian" sings its clearest note for him whose eyes have seen the "blossom wet with heaven's own dew"—whose heart has been gladdened by the beauty of the autumn visitor. Tennyson's "Song of the Brook" is not for him whose feet have never wandered by the brook-side—whose eyes have never rejoiced in the fern-shaded, rippling waters. The lessons written for us in literature and history likewise demand of us an experience of our own. "The Village Blacksmith," who swings his heavy sledge and looks the whole world in the face, is a reality to the child who has eagerly peered in at the open door of her own village blacksmith shop. A little six-year-old in M——— ran eagerly to a blacksmith whom she knew. "I've learned some poetry in school, and it's about you," she cried. "Let's hear it," he replied; and, leaning

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on his anvil, he listened while the child recited the poem. "Yes, you've hit it," he said; "that's me." The familiar companionship with noble thoughts and noble deeds, rehearsed in poem and story in the early days of childhood and associated with childhood experiences—with little acts of self-denial, of courage, of patience—furnish the links between the child's feeling and thought and the mighty lessons which have been written for him in other lives. Better: This world of poem and story in which his childish imagination travels is the threshold of that world of real and noble action upon which his boyhood must enter and in which his manhood must reign.

I have spoken thus of the subjects which to-day assume prominence in our primary schools. If we inquire with thoughtful minds, we shall recognize the change, not only in the subjects introduced but also in the manner in which these subjects are presented. The most vital changes, to my mind, are seen in the method of presenting reading, language, and nature study. The language lesson no longer deals primarily with the form of expression. We are recognizing the truth that the thought determines the expression, and are making thought-getting the business of our primary language teaching. Instead of dwelling upon words spelled alike but having different meanings, rules for the use of capital letters, the place of the apostrophe and terms by which the mature grammatical thought can be whittled down to the comprehension of the child, we have come to recognize that the great thing which determines expression is the possession of a thought which demands to be spoken. We have set out by providing such exercises for language as will lead the child to observe, to imagine, to think, and so to come to the real knowledge which clamors for expression. Again, we are subordinating the form to the spirit, and are working to obtain the thing first, knowing that its symbol will be surely associated with it. Hence, in our language classes, instead of the formal mechanical exercise which has been predominant, we find the description of a flower, or a tree, or an animal which the children have observed, or the reproduction of a story in which they have been heartily interested. The teacher's wise guidance sets the pattern right if the children err in formal expression. They are given something to say and the desire to say it. This being true, the form is easily adjusted and fixed.

In the reading lesson, also, we recognize the subordination of form to thought—of the letter to the spirit. Hugh Miller, in his "Schools and Schoolmasters," tells us how laboriously and painfully he toiled in memorizing letters, sounds, and syllables; and, later, the words which his faithful teacher taught him in order. How the catechism and proverbs followed, equally meaningless to the child;

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and how, at last, there fell into his hands the story of Joseph, with his little coat of many colors, and with it the sudden assurance that all his meaningless toil had been intended as a preparation for this great end—that he might know how to read stories like this. He set himself down with his new treasure, and read it again and again. His mind was illumined by the recognition of the goal toward which he had been blindly tending.

What joy would have inspired the drudgery of letter and sound had this goal been in view from the beginning! In the primary reading of to-day this truth is recognized. Reading is considered as thought-getting, and the child is set from the beginning to read his own thoughts which have been expressed in writing for him. He recognizes at once the need of this wonderful hieroglyph. Here is a means of telling somebody something which he desires to impart and of getting something which he is interested to learn. Reading and writing at once become to him vehicles of getting and for giving the thought which he is desirous to get and to give. No word is taught except as the means of embodying an idea which is his own. All dead and meaningless drill upon words vanishes with the recognition of this principle. Words exist for the expression of his thought, and for that alone.

In nature study we find this same emphasis of the reality—the same expression of the child's own experience. It is the animal which he has seen with his own eyes which he describes, and not the one about which his teacher reads to him. The dove which becomes the schoolroom pet is fed and watered; its movements, its habits, and its needs are observed by the child himself. The tree which grows in the school-yard; which unfolds its marvelous buds in the spring; blossoms with its wealth of beauty; bears fruit and sheds its leaves within the cycle of the child's own experience—this is the tree which is observed, and described, and made to stand as a type of the other trees which other children know in other lands. Children and teacher walk into the fields together, and study and enjoy brook and field, flower and tree, fish and bird; sharing in one another's experiences, finding for themselves the lesson which every form of life brings home to them. The record of their voyage of discovery is real to them, and prepares the way for understanding the travels of earlier explorers. Their own fields, and brooks, and woods open the way to the selvas of the Amazon, the broad plains of the Mississippi, or the historic banks of the Nile. We have been learning to lead the child to open his eyes upon the marvels that lie close by him, and through these to help him to interpret the great world beyond. The form of others' experience is of no use to him until his own little experiences have given him power to understand and interpret the distant and unknown.

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Reading, language, nature study, literature, and history, as taught in our best primary schools to-day, indicate a more general comprehension of the principle that growth proceeds from within through the activity of the child himself, that the child's thought is the mighty factor which determines his expression, and that his own experience gives life to the symbols and forms which otherwise are dead. By a thousand illustrations I might prove to you, that, even in our poorer schoolrooms, at the hands of the teachers least qualified for their work, this principle is gaining ground. We are seeking first the real experience of the child, knowing that the form will be added.

The enumeration of the new work which has been admitted and the new methods which have been applied would be incomplete without mention of the growing recognition of the need of unity in school work. This subordination of the form to the thought, of the symbol to the thing signified, indicates an apprehension of the true principle of correlation, which is being so ardently discussed in these days. The child observes a bird; thus enlarging his field of knowledge, getting new thought through his experience of new life. He turns to reading to add to the knowledge which is so sadly limited if he depends upon himself alone. Books can tell him what he desires to learn about birds, and his reading lesson is immediately associated with his seeing. Now he desires to tell what he has learned, and his language lesson is a letter imparting his new knowledge. The words which he learns to spell are the words which his writing necessitates. His word-picture is explained by the drawing of the characteristics which he has noted. The story or poem suggested by his study leads his imagination to the higher thought of the poet or historian. His work becomes, not a learning of many things but the many ways of gaining and expressing knowledge about this one thing. The recognition of this one purpose of thought-getting and of thought-giving groups the studies about the dominant thought, and brings unity out of the isolated fragments which would remain upon our program without such recognition. However the theory of concentration may be exaggerated and misapplied, it contains within itself a life-germ which must survive—the truth that all things work together for good; that all things are the expression of eternal law.

In any work of reformation or reconstruction, the pendulum tends to swing to extremes. With the introduction of new subjects and the apprehension of truer methods, we find, also, a general tendency to withdraw the necessary emphasis from subjects and methods which have before been taught. I would not have this paper tend in that direction, or the three R's taught less carefully than before.

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Rather let me declare, what I have found to be absolutely true, that the recognition of the principles of which I have been speaking leads to better work in the detail of reading, writing, spelling, and arithmetic. Children acquire power in these subjects more easily, more rapidly, and more gladly because they are conscious that every lesson helps them towards the goal which they desire to reach. They delight in the word study which helps them to master the story which is dear to their hearts or to write the letter which tells of the experiences in which they are interested. In my observation I have found that teachers present the three R's more intelligently and with better results in proportion as they apprehend more clearly the fundamental principles which we have been discussing. Is it not always true that our work is distorted and weak when we see only the immediate and present instead of looking at the farther and future results to which the present must contribute?

I should be unfair to our schools should I fail to mark what seems to me the greatest sign of growth—were I to leave unnoted the change in the spirit of our teaching. This change is well-nigh universal. The harsh tone, the arbitrary dictation, the authoritative manner have almost entirely disappeared from our schoolrooms. Teachers enter in fullest sympathy into the lives of the children; work for them; live with them; share their interests; study to understand their needs. Whatever may be the faults of our method and technique, the spirit of our primary school rooms deserves our heartiest commendation. In itself it may encourage us to believe that the other elements to intellectual experience which we desire so earnestly may be added to our work since this great factor has been obtained. Greater than any other advance in our school work is this full entrance into the lives and experiences of the children, and this expression of loving desire to help them towards their highest development.

If we look for the cause of the improvement which I have indicated, we shall find that all may be referred to this recognition of the development of character as the highest aim of education. We have come to believe that the school must take hold of hands with the church, with the state, and with the home in helping the child to fit himself for a life worth living. One outcome of this belief has been the more general study of child-life. This is not confined to the careful philosophic researches of the leaders in our profession, but it is evidenced by the sympathetic painstaking study of the individual child by the teacher, who labors week after week and month after month for his highest good. The development of the kindergarten and the general study of its principles have helped in a great measure to further this result. We cannot claim that our

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ideals are new or that our principles are new. We know that the truths for which we contend most stoutly to-day were spoken by clarion voices centuries ago; but our work remains to apply these truths to the conditions and the children of to-day. While the truths, in themselves, are old, their application must ever be new. It is true, that, to-day, we find a more general apprehension of these principles than at any other time in the history of education. It is not alone the philosopher who studies to throw light upon our work; the humblest teacher in a country schoolroom shares with him his consecration, and in her measure is growing towards the apprehension of the principles which should guide her work. We strive, and pant, and yearn for the same goal.

As we look back upon the history of education, we find that the greatest advance has come through the recognition of some mighty truth, and not through the discussion of the closer and immediate details. The growth of education after the Reformation is an evidence of this. "The child must be taught to read," the reformers argued, "that he might get the knowledge necessary for his soul's salvation." What efforts were at once made to present truth in a newer and better way to the child. We have been told, that, if we seek first the kingdom of God and his righteousness, all other things shall be added unto us. We may be assured, however we may halt and falter in our efforts to climb, that the recognition of our noble aim will, in the end, lead us to an apprehension of every detail that can help us toward this end. But the growth in the detail of teaching will not come unless we hitch our wagon to a star. If our mind is fixed on the truth, the intellect will grow. Method and knowledge of subject and the detail of school management and instruction will shape themselves in accordance with the dominating purpose of our life-work; and I confidently assert that the most hopeful sign to be read in our primary work is this general lifting of the ideal. We may well wait with an infinite patience for the lesser growth to be added unto us.

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REPORT OF THE SUB-COMMITTEE ON THE CORRELATION OF STUDIES IN ELEMENTARY EDUCATION.

BY WM. T. HARRIS, CHAIRMAN.

The undersigned committee agrees upon the following report, each member reserving for himself the expression of his individual divergence from the opinion of the majority, by a statement appended to his signature, enumerating the points to which exception is taken and the grounds for them.

I.—CORRELATION OF STUDIES.

Your committee understands by correlation of study:

1. *Logical Order of Topics and Branches.*—First, the arrangement of topics in proper sequence in the course of study, in such a manner that each branch develops in an order suited to the natural and easy progress of the child, and so that each step is taken at the proper time to help his advance to the next step in the same branch, or to the next steps in other related branches of the course of study.

2. *Symmetrical Whole of Studies in the World of Human Learning.*—Second, the adjustment of the branches of study in such a manner that the whole course at any given time represents all the great divisions of human learning, as far as is possible at the stage of maturity at which the pupil has arrived, and that each allied group of studies is represented by some one of its branches best adapted for the epoch in question; it being implied that there is an equivalence of studies to a greater or less degree within each group, and that each branch of human learning should be represented by some equivalent study; so that, while no great division is left unrepresented, no group shall have superfluous representatives and thereby debar other groups from a proper representation.

3. *Psychological Symmetry—The Whole Mind.*—Third, the selection and arrangement of the branches and topics within each branch considered psychologically with a view to afford the best exercise of the faculties of the mind, and to secure the unfolding of those faculties in their natural order, so that no one faculty is so overcultivated or so neglected as to produce abnormal or one-sided mental development.

4. *Correlation of the Pupil's Course of Study with the World in Which He Lives—His Spiritual and Natural Environment.*—Fourth, and chiefly, your committee understands by correlation of studies the selection and arrangement in orderly sequence of such objects of

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study as shall give the child an insight into the world that he lives in, and a command over its resources such as is obtained by a helpful co-operation with one's fellows. In a word, the chief consideration to which all others are to be subordinated, in the opinion of your committee, is this requirement of the civilization into which the child is born, as determining, not only what he shall study in school but what habits and customs he shall be taught in the family before the school age arrives; as well as that he shall acquire a skilled acquaintance with some one of a definite series of trades, professions, or vocations in the years that follow school; and, furthermore, that this question of the relation of the pupil to his civilization determines what political duties he shall assume and what religious faith or spiritual aspirations shall be adopted for the conduct of his life.

To make more clear their reasons for the preference here expressed for the objective and practical basis of selection of topics for the course of study, rather than the subjective basis so long favored by educational writers, your committee would describe the psychological basis, already mentioned, as being merely formal in its character, relating only to the exercise of the so-called mental faculties.

It would furnish a training of spiritual powers analogous to the gymnastic training of the muscles of the body. Gymnastics may develop strength and agility without leading to any skill in trades or useful employment. So an abstract psychological training may develop the will, the intellect, the imagination, or the memory, but without leading to an exercise of acquired power in the interests of civilization. The game of chess would furnish a good course of study for the discipline of the powers of attention and calculation of abstract combinations, but it would give its possessor little or no knowledge of man or nature. The psychological ideal which has prevailed to a large extent in education has, in the old phrenology and in the recent studies in physiological psychology, sometimes given place to a biological ideal. Instead of the view of mind as made up of faculties, like will, intellect, imagination, and emotion, conceived to be all necessary to the soul if developed in harmony with one another, the concept of nerves or brain-tracts is used as the ultimate regulative principle to determine the selection and arrangement of studies. Each part of the brain is supposed to have its claim on the attention of the educator, and that study is thought to be the most valuable which employs normally the largest number of brain-tracts. This view reaches an extreme in the direction of formal as opposed to objective or practical grounds for selecting a course of study. While the old psychology with its mental faculties concentrated its attention on the mental processes and neg-

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lected the world of existing objects and relations upon which those processes were directed, physiological psychology tends to confine its attention to the physical part of the process—the organic changes in the brain cells and their functions.

Your committee is of the opinion that psychology of both kinds, physiological and introspective, can hold only a subordinate place in the settlement of questions relating to the correlation of studies. The branches to be studied, and the extent to which they are studied, will be determined mainly by the demands of one's civilization. These will prescribe what is most useful to make the individual acquainted with physical nature and with human nature, so as to fit him as an individual to perform his duties in the several institutions—family, civil society, the state, and the church. But next after this, psychology will furnish important considerations that will largely determine the methods of instruction, the order of taking up the several topics so as to adapt the school work to the growth of the pupil's capacity, and the amount of work so as not to overtax his powers by too much or arrest the development of strength by too little. A vast number of subordinate details belonging to the pathology of education, such as the hygienic features of school architecture and furniture, programs, the length of study hours and of class exercises, recreation, and bodily reactions against mental effort, will be finally settled by scientific experiment in the department of physiological psychology.

Inasmuch as your committee is limited to the consideration of the correlation of studies in the elementary school, it has considered the question of the course of study in general only in so far as this has been found necessary in discussing the grounds for the selection of studies for the period of school education occupying the eight years from six to fourteen years, or the school period between the kindergarten on the one hand and the secondary school on the other. It has not been possible to avoid some inquiry into the true distinction between secondary and elementary studies, since one of the most important questions forced upon the attention of your committee is that of the abridgment of the elementary course of study from eight or more years to seven or even six years, and the corresponding increase of the time devoted to studies usually assigned to the high school and supposed to belong to the secondary course of study for some intrinsic reason.

II.—THE COURSE OF STUDY—EDUCATIONAL VALUES.

Your committee would report, that it has discussed in detail the several branches of study that have found a place in the curriculum of the elementary school, with a view to discover their edu-

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cational value for developing and training the faculties of the mind, and more especially for correlating the pupil with his spiritual and natural environment in the world in which he lives.

1. *Language Studies.* — There is first to be noted the prominent place of language study that takes the form of reading, penmanship, and grammar in the first eight years' work of the school. It is claimed for the partiality shown to these studies, that it is justified by the fact that language is the instrument that makes possible human social organization. It enables each person to communicate his individual experience to his fellows, and thus permits each to profit by the experience of all. The written and printed forms of speech preserve human knowledge and make progress in civilization possible. The conclusion is reached that learning to read and write should be the leading study of the pupil in his first four years of school. Reading and writing are not so much ends in themselves as means for the acquirement of all other human learning. This consideration alone would be sufficient to justify their actual place in the work of the elementary school. But these branches require of the learner a difficult process of analysis. The pupil must identify the separate words in the sentence he uses, and in the next place must recognize the separate sounds in each word. It requires a considerable effort for the child or the savage to analyze his sentence into its constituent words, and a still greater effort to discriminate its elementary sounds. Reading, writing, and spelling in their most elementary form, therefore, constitute a severe training in mental analysis for the child of six to ten years of age. We are fact that the word has a twofold character—addressed to external of observation of differences among material things, because of the fact that the word has a twofold character—addressed to external sense as spoken sound to the ear, or as written and printed words to the eye, but containing a meaning or sense addressed to the understanding and only to be seized by introspection. The pupil must call up the corresponding idea by thought, memory, and imagination, or else the word will cease to be a word and remain only a sound or character.

On the other hand, observation of things and movements does not necessarily involve this twofold act of analysis, introspective and objective, but only the latter—the objective analysis. It is granted that we all have frequent occasion to condemn poor methods of instruction as teaching words rather than things. But we admit that we mean empty sounds or characters rather than true words. Our suggestions for the correct method of teaching amount in this case simply to laying stress on the meaning of the word, and to setting the teaching process on the road of analysis of con-

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tent rather than form. In the case of words used to store up external observation the teacher is told to repeat and make alive again the act of observation by which the word obtained its original meaning. In the case of a word expressing a relation between facts or events, the pupil is to be taken step by step through the process of reflection by which the idea was built up. Since the word, spoken and written, is the sole instrument by which reason can fix, preserve, and communicate both the data of sense and the relations discovered between them by reflection, no new method in education has been able to supplant in the school the branches, reading and penmanship. But the real improvements in method have led teachers to lay greater and greater stress on the internal factor of the word, on its meaning, and have in manifold ways shown how to repeat the original experiences that gave the meaning to concrete words, and the original comparisons and logical deductions by which the ideas of relations and causal processes arose in the mind and acquired abstract words to preserve and communicate them.

It has been claimed that it would be better to have first a basis of knowledge of things, and secondarily and subsequently a knowledge of words. But it has been replied to this, that the progress of the child in learning to talk indicates his ascent out of mere impressions into the possession of true knowledge. For he names objects only after he has made some synthesis of his impressions and has formed general ideas. He recognizes the same object under different circumstances of time and place, and also recognizes other objects belonging to the same class by and with names. Hence the use of the word indicates a higher degree of self-activity —the stage of mere impressions without words or signs being a comparatively passive state of mind. What we mean by things first and words afterward, is, therefore, not the apprehension of objects by passive impressions so much as the active investigation and experimenting which come after words are used and the higher forms of analysis are called into being by that invention of reason known as language, which, as before said, is a synthesis of thing and thought, of outward sign and inward signification.

Rational investigation cannot precede the invention of language any more than blacksmithing can precede the invention of hammers, anvils, and pincers. For language is the necessary tool of thought used in the conduct of the analysis and synthesis of investigation.

Your committee would sum up these considerations by saying that language rightfully forms the center of instruction in the elementary school, but that progress in methods of teaching is to be made, as hitherto, chiefly by laying more stress on the internal side

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of the word, its meaning; using better graded steps to build up the chain of experience or the train of thought that the word expresses.

The first three years' work of the child is occupied mainly with the mastery of the printed and written forms of the words of his colloquial vocabulary; words that he is already familiar enough with as sounds addressed to the ear. He has to become familiar with the new forms addressed to the eye, and it would be an unwise method to require him to learn many new words at the same time that he is learning to recognize his old words in their new shape. But as soon as he has acquired some facility in reading what is printed in the colloquial style, he may go on to selections from standard authors. The literary selections should be graded, and are graded in almost all series of readers used in our elementary schools, in such a way as to bring those containing the fewest words outside of the colloquial vocabulary into the lower books of the series, and increasing the difficulties step by step as the pupil grows in maturity. The selections are literary works of art possessing the required organic unity and a proper reflection of this unity in the details, as good works of art must do. But they portray situations of the soul, or scenes of life, or elaborated reflections, of which the child can obtain some grasp through his capacity to feel and think, although in scope and compass they far surpass his range. They are adapted therefore to lead him out of and beyond himself, as spiritual guides.

Literary style employs, besides words common to the colloquial vocabulary, words used in a semi-technical sense expressive of fine shades of thought and emotion. The literary work of art furnishes a happy expression for some situation of the soul, or some train of reflection hitherto unutterable in an adequate manner. If the pupil learns this literary production, he finds himself powerfully helped to understand both himself and his fellow-men. The most practical knowledge of all, it will be admitted, is a knowledge of human nature—a knowledge that enables one to combine with his fellow-men and to share with them the physical and spiritual wealth of the race. Of this high character as humanizing or civilizing are the favorite works of literature found in the school readers, about 150 English and American writers being drawn upon for the material. Such as Shakespeare's speeches of Brutus and Mark Antony, Hamlet's and Macbeth's soliloquies, Milton's "L'Allegro" and "Il Penseroso," Gray's "Elegy," Tennyson's "Charge of the Light Brigade" and "Ode on the Death of the Duke of Wellington," Byron's "Waterloo," Irving's "Rip Van Winkle," Webster's "Reply to Hayne," "The Trial of Knapp," and "Bunker Hill Oration," Scott's "Lochinvar," "Marmion," and "Roderick Dhu," Bryant's "Thana-

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topis," Longfellow's "Psalm of Life," "Paul Revere," and "The Bridge," O'Hara's "Bivouac of the Dead," Campbell's "Hohenlinden," Collins' "How Sleep the Brave," Wolfe's "Burial of Sir John Moore," and other fine prose and poetry from Addison, Emerson, Franklin, the Bible, Hawthorne, Walter Scott, Goldsmith, Wordsworth, Swift, Milton, Cooper, Whittier, Lowell, and the rest. The reading and study of fine selections in prose and verse furnish the chief æsthetic training of the elementary school. But this should be re-enforced by some study of photographic or other reproductions of the world's great masterpieces of architecture, sculpture, and painting. The frequent sight of these reproductions is good; the attempt to copy or sketch them with the pencil is better; best of all is an æsthetic lesson on their composition, attempting to describe in words the idea of the whole that gives the work its organic unity, and the devices adopted by the artist to reflect this idea in the details and re-enforce its strength. The æsthetic taste of teacher and pupil can be cultivated by such exercises, and once set on the road of development this taste may improve through life.

A third phase of language study in the elementary school is formal grammar. The works of literary art in the readers, re-enforced as they ought to be by supplementary reading at home of the whole works from which the selections for the school readers are made, will educate the child in the use of a higher and better English style. Technical grammar never can do this. Only familiarity with fine English works will insure one a good and correct style. But grammar is the science of language, and as the first of the seven liberal arts it has long held sway in school as the disciplinary study *par excellence*. A survey of its educational value, subjective and objective, usually produces the conviction that it is to retain the first place in the future. Its chief objective advantage is, that it shows the structure of language and the logical forms of subject, predicate, and modifier, thus revealing the essential nature of thought itself—the most important of all objects because it is self-object. On the subjective or psychological side, grammar demonstrates its title to the first place by its use as a discipline in subtle analysis, in logical division and classification, in the art of questioning, and in the mental accomplishment of making exact definitions. Nor is this an empty, formal discipline; for its subject-matter, language, is a product of the reason of a people, not as individuals but as a social whole, and the vocabulary holds in its store of words the generalized experience of that people, including sensuous observation and reflection, feeling and emotion, instinct and volition.

No formal labor on a great objective field is ever lost wholly, since, at the very least, it has the merit of familiarizing the pupil

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with the contents of some one extensive province that borders on his life and with which he must come into correlation; but it is easy for any special formal discipline, when continued too long, to paralyze or arrest growth at that stage. The over-cultivation of the verbal memory tends to arrest the growth of critical attention and reflection. Memory of accessory details, too, so much prized in the school, is also cultivated often at the expense of an insight into the organizing principle of the whole and the causal nexus that binds the parts. So, too, the study of quantity, if carried to excess, may warp the mind into a habit of neglecting quality in its observation and reflection. As there is no subsumption in the quantitative judgment but only dead equality or inequality (A is equal to or greater or less than B), there is a tendency to atrophy in the faculty of concrete syllogistic reasoning on the part of the person devoted exclusively to mathematics. For the normal syllogism use judgments wherein the subject is subsumed under the predicate (This is a rose—the individual rose is subsumed under the class rose; Socrates is a man, etc.). Such reasoning concerns individuals in two aspects; first, as concrete wholes; and, secondly, as members of higher totalities or classes—species and genera. Thus, too, grammar, rich as it is in its contents, is only a formal discipline as respects the scientific, historic, or literary contents of language, and is indifferent to them. A training for four or five years in parsing and grammatical analysis, practiced on literary works of art (Milton, Shakespeare, Tennyson, Scott), is a training of the pupil into habits of indifference toward and neglect of the genius displayed in the literary work of art and into habits of impertinent and trifling attention to elements employed as material or texture, and a corresponding neglect of the structural form which alone is the work of the artist. A parallel to this would be the mason's habit of noticing only the brick and mortar, or the stone and cement, in his inspection of the architecture—say, of Sir Christopher Wren. A child overtrained to analyze and classify shades of color (examples of this one finds occasionally in a primary school whose specialty is "objective teaching") might in later life visit an art gallery and make an inventory of colors without getting even a glimpse of a painting as a work of art. Such overstudy and misuse of grammar as one finds in the elementary school, it is feared, exists to some extent in secondary schools and even in colleges, in the work of mastering the classic authors.

Your committee is unanimous in the conviction that formal grammar should not be allowed to usurp the place of a study of the literary work of art in accordance with literary method. The child can be gradually trained to see the technical "motives" of a poem or prose work of art and to enjoy the æsthetic inventions of the artist.

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The analysis of a work of art should discover the idea that gives it organic unity; the collision and the complication resulting; the solution and *denouement*. Of course, these things must be reached in the elementary school without even a mention of their technical terms. The subject of the piece is brought out; its reflection in the conditions of the time and place to heighten interest by showing its importance; its second and stronger reflection in the several details of its conflict and struggle; its reflection in the *denouement*, wherein its struggle ends in victory or defeat and the ethical or rational interests are vindicated,—and the results move outward, returning to the environment again in ever-widening circles. Something resembling this is to be found in every work of art, and there are salient features which can be briefly but profitably made subject of comment in familiar language with even the youngest pupils. There is an ethical and an æsthetical content to each work of art. It is profitable to point out both of these in the interest of the child's growing insight into human nature. The ethical should, however, be kept in subordination to the æsthetical, but for the sake of the supreme interests of the ethical itself. Otherwise the study of a work of art degenerates into a goody-goody performance, and its effects on the child are to cause a reaction against the moral. The child protects his inner individuality against effacement through external authority by taking an attitude of rebellion against stories with an appended moral. Herein the superiority of the æsthetical in literary art is to be seen. For the ethical motive is concealed by the poet, and the hero is painted with all his brittle individualism and self-seeking. His passions and his selfishness, gilded by fine traits of bravery and noble manners, interest the youth—interest us all. The established social and moral order seems to the ambitious hero to be an obstacle to the unfolding of the charms of individuality. The deed of violence gets done, and the Nemesis is aroused. Now his deed comes back on the individual doer, and our sympathy turns against him and we rejoice in his fall. Thus, the æsthetical unity contains within it the ethical unity. The lesson of the great poet or novelist is taken to heart, whereas the ethical announcement by itself might have failed, especially with the most self-active and aspiring of the pupils. Aristotle pointed out in his "Poetics" this advantage of the æsthetic unity, which Plato in his "Republic" seems to have missed. Tragedy purges us of our passions (to use Aristotle's expression) because we identify our own wrong inclinations with those of the hero, and by sympathy we suffer with him and see our intended deed returned upon us with tragic effect, and are thereby cured.

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Your committee has dwelt upon the æsthetic side of literature in this explicit manner because they believe that the general tendency in elementary schools is to neglect the literary art for the literary formalities which concern the mechanical material rather than the spiritual form. Those formal studies should not be discontinued, but subordinated to the higher study of literature.

Your committee reserves the subject of language lessons, composition writing, and what relates to the child's expression of ideas in writing, for consideration under part 3 of this report, treating of program.

2. *Arithmetic.*—Side by side with language study is the study of mathematics in the schools, claiming the second place in importance of all studies. It has been pointed out that mathematics concerns the laws of time and space,—their structural form, so to speak,—and hence that it formulates the logical conditions of all matter both in rest and in motion. Be this as it may, the high position of mathematics as the science of all quantity is universally acknowledged. The elementary branch of mathematics is arithmetic, and this is studied in the primary and grammar schools from six to eight years, or even longer. The relation of arithmetic to the whole field of mathematics has been stated (by Comte, Howison, and others) to be that of a final step in a process of calculation in which results are stated numerically. There are branches that develop or derive quantitative functions: say, geometry for spatial forms, and mechanics for movement and rest and the forces producing them. Other branches transform these quantitative functions into such forms as may be calculated in actual numbers; namely, algebra in its common or lower form, and in its higher form as the differential and integral calculus, and the calculus of variations. Arithmetic evaluates or finds the numerical value for the functions thus deduced and transformed. The educational value of arithmetic is thus indicated, both as concerns its psychological side and its objective practical uses, in correlating man with the world of nature. In this latter respect, as furnishing the key to the outer world in so far as the objects of the latter are a matter of direct enumeration,—capable of being counted,—it is the first great step in the conquest of nature. It is the first tool of thought that man invents in the work of emancipating himself from thraldom to external forces. For, by the command of number, he learns to divide and conquer. He can proportion one force to another, and concentrate against an obstacle precisely what is needed to overcome it. Number also makes possible all the other sciences of nature which depend on exact measurement and exact record of phenomena as to the following items: Order of succession, date, duration, locality, environment, extent of sphere of in-

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fluence, number of manifestations, number of cases of intermittence. All these can be defined accurately only by means of number. The educational value of a branch of study that furnishes the indispensable first step toward all science of nature is obvious. But, psychologically, its importance further appears in this, that it begins with an important step in analysis, namely, the detachment of the idea of quantity from the concrete whole which includes quality as well as quantity. To count, one drops the qualitative and considers only the quantitative aspect. So long as the individual differences (which are qualitative in so far as they distinguish one object from another) are considered, the objects cannot be counted together. When counted, the distinctions are dropped out of sight as indifferent. As counting is the fundamental operation of arithmetic, and all other arithmetical operations are simply devices for speed by using remembered countings instead of going through the detailed work again each time, the hint is furnished the teacher for the first lessons in arithmetic. This hint has been generally followed out and the child set at work at first upon the counting of objects so much alike that the qualitative difference is not suggested to him. He constructs gradually his tables of addition, subtraction, and multiplication, and fixes them in his memory. Then he takes his next higher step, namely, the apprehension of the fraction. This is an expressed ratio of two numbers, and therefore a much more complex thought than he has met with in dealing with the simple numbers. In thinking five-sixths he first thinks five and then six, and holding these two in mind thinks the result of the first modified by the second. Here are three steps instead of one, and the result is not a simple number but an inference resting on an unperformed operation. This psychological analysis shows the reason for the embarrassment of the child on his entrance upon the study of fractions and the other operations that imply ratio. The teacher finds all his resources in the way of method drawn upon to invent steps and half steps, to aid the pupil to make continuous progress here. All these devices of method consist in steps by which the pupil descends to the simple number and returns to the complex. He turns one of the terms into a qualitative unit and thus is enabled to use the other as a simple number. The pupil takes the denominator, for example, and makes clear his conception of one-sixth as his qualitative unit; then five-sixths is as clear to him as five oxen. But he has to repeat this return from ratio to simple numbers in each of the elementary operations—addition, subtraction, multiplication, and division, and in the reduction of fractions—and finds the road long and tedious at best. In the case of decimal fractions the psychological process is more complex still; for the pupil has given him one of the terms, the numerator,

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from which he must mentally deduce the denominator from the position of the decimal point. This doubles the work of reading and recognizing the fractional number. But it makes addition and subtraction of fractions nearly as easy as that of simple numbers, and assists also in multiplication of fractions. But division of decimals is a much more complex operation than that of common fractions.

The want of a psychological analysis of these processes has led many good teachers to attempt decimal fractions with their pupils before taking up common fractions. In the end they have been forced to make introductory steps to aid the pupil, and in these steps to introduce the theory of the common fraction. They have by this refuted their own theory.

Besides (a) simple numbers and the four operations with them, (b) fractions, common and decimal, there is (c) a third step in number, namely, the theory of powers and roots. It is a further step in ratio, namely, the relation of a simple number to itself as power and root. The mass of material which fills the arithmetic used in the elementary school consists of two kinds of examples, first, those wherein there is a direct application of single numbers, fractions, and powers; and, secondly, the class of examples involving operations in reaching numerical solutions through indirect data and consequently involving more or less transformation of functions. Of this character is most of the so-called higher arithmetic and such problems in the text-book used in the elementary schools as have, not inappropriately, been called (by Gen. Francis A. Walker, in his criticism on common-school arithmetic) numerical "conundrums." Their difficulty is not found in the strictly arithmetical part of the process of the solution (the third phase above described), but rather in the transformation of the quantitative function given into the function that can readily be calculated numerically. The transformation of functions belongs strictly to algebra. Teachers who love arithmetic, and who have themselves success in working out the so-called numerical conundrums, defend with much earnestness the current practice which uses so much time for arithmetic. They see in it a valuable training for ingenuity and logical analysis, and believe that the industry which discovers arithmetical ways of transforming the functions given in such problems into plain numerical operations of adding, subtracting, multiplying, or dividing is well bestowed. On the other hand, the critics of this practice contend that there should be no merely formal drill in school for its own sake, and that there should be, always, a substantial content to be gained. They contend that the work of the pupil in transforming quantitative functions by arithmetical methods is wasted, because the pupil needs a more adequate expression than number for this purpose; that this

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has been discovered in algebra, which enables him to perform with ease such quantitative transformations as puzzle the pupil in arithmetic. They hold, therefore, that arithmetic pure and simple should be abridged and elementary algebra introduced after the numerical operations in powers, fractions, and simple numbers have been mastered, together with their applications to the tables of weights and measures and to percentage and interest. In the seventh year of the elementary course there would be taught equations of the first degree and the solution of arithmetical problems that fall under proportion or the so-called "rule of three," together with other problems containing complicated conditions—those in partnership, for example. In the eighth year quadratic equations could be learned, and other problems of higher arithmetic solved in a more satisfactory manner than by numerical methods. It is contended that this earlier introduction of algebra, with a sparing use of letters for known quantities, would secure far more mathematical progress than is obtained at present on the part of all pupils, and that it would enable many pupils to go on into secondary and higher education who are now kept back on the plea of lack of preparation in arithmetic; the real difficulty in many cases being a lack of ability to solve algebraic problems by an inferior method.

Your committee would report that the practice of teaching two lessons daily in arithmetic, one styled "mental" or "intellectual" and the other "written" arithmetic (because its exercises are written out with pencil or pen) is still continued in many schools. By this device the pupil is made to give twice as much time to arithmetic as to any other branch. It is contended by the opponents of this practice, with some show of reason, that two lessons a day in the study of quantity have a tendency to give the mind a bent or set in the direction of thinking quantitatively, with a corresponding neglect of the power to observe and to reflect upon qualitative and causal aspects; for mathematics does not take account of causes, but only of equality and difference in magnitude. It is further objected, that the attempt to secure what is called thoroughness in the branches taught in the elementary schools is often carried too far; in fact, to such an extent as to produce arrested development (a sort of mental paralysis) in the mechanical and formal stages of growth. The mind in that case loses its appetite for higher methods and wider generalizations. The law of apperception, we are told, proves that temporary methods of solving problems should not be so thoroughly mastered as to be used involuntarily or as a matter of unconscious habit, for the reason that a higher and a more adequate method of solution will then be found more difficult to acquire. The more thoroughly a method is learned, the more it becomes part of the mind and the

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greater the repugnance of the mind toward a new method. For this reason parents and teachers discourage young children from the practice of counting on the fingers, believing that it will cause much trouble later to root out this vicious habit and replace it by purely mental processes. Teachers should be careful, especially with precocious children, not to continue too long in the use of a process that is becoming mechanical; for it is already growing into a second nature and becoming a part of the unconscious apperceptive process by which the mind reacts against the environment, recognizes its presence, and explains it to itself. The child that has been overtrained in arithmetic reacts apperceptively against his environment chiefly by noticing its numerical relations—he counts and adds; his other apperceptive reactions being feeble, he neglects qualities and causal relations. Another child who has been drilled in recognizing colors apperceives the shades of color to the neglect of all else. A third child, excessively trained in form studies by the constant use of geometric solids and much practice in looking for the fundamental geometric forms lying at the basis of the multifarious objects that exist in the world, will, as a matter of course, apperceive geometric forms, ignoring the other phases of objects.

It is, certainly, an advance on immediate sense-perception to be able to separate or analyze the concrete, whole impression, and consider the quantity apart by itself. But if arrested mental growth takes place here the result is deplorable. That such arrest may be caused by too exclusive training in recognizing numerical relations is beyond a doubt.

Your committee believes that, with the right methods and a wise use of time in preparing the arithmetic lesson in and out of school, five years are sufficient for the study of mere arithmetic—the five years beginning with the second school year and ending with the close of the sixth year; and that the seventh and eighth years should be given to the algebraic method of dealing with those problems that involve difficulties in the transformation of quantitative indirect functions into numerical or direct quantitative data.

Your committee, however, does not wish to be understood as recommending the transfer of algebra, as it is understood and taught in most secondary schools, to the seventh year or even to the eighth year of the elementary school. The algebra course in the secondary school, as taught to pupils in their fifteenth year of age, very properly begins with severe exercises, with a view to discipline the pupil in analyzing complex literate expressions at sight and to make him able to recognize at once the factors that are contained in such combinations of quantities. The proposed seventh-grade algebra must use letters for the unknown quantities and retain the numerical form

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of the known quantities, using letters for these very rarely, except to exhibit the general form of solution, or what, if stated in words, becomes a so-called "rule" in arithmetic. This species of algebra has the character of an introduction or transitional step to algebra proper. The latter should be taught thoroughly in the secondary school. Formerly it was a common practice to teach elementary algebra of this sort in the preparatory schools and reserve for the college a study of algebra proper. But in this case there was often a neglect of sufficient practice in factoring literate quantities, and as a consequence the pupil suffered embarrassment in his more advanced mathematics—for example, in analytical geometry, the differential calculus, and mechanics. The proposition of your committee is intended to remedy the two evils already named; first, to aid the pupils in the elementary school to solve, by a higher method, the more difficult problems that now find place in advanced arithmetic; and, secondly, to prepare the pupil for a thorough course in pure algebra in the secondary school.

Your committee is of the opinion that the so-called mental arithmetic should be made to alternate with written arithmetic for two years and that there should not be two daily lessons in this subject.

3. *Geography.*—The leading branch of the seven liberal arts was grammar, being the first of the *Trivium* (grammar, rhetoric, and logic). Arithmetic, however, led the second division, the *Quadrivium* (arithmetic, geometry, music, and astronomy). We have glanced at the reasons for the place of grammar as leading the humane studies as well as for the place of arithmetic as leading the nature studies. Following arithmetic as the second study in importance among the branches that correlate man to nature is geography. It is interesting to note that the old *quadrivium* of the Middle Ages included geography, under the title of geometry, as the branch following arithmetic in the enumeration; the subject-matter of their so-called "geometry" being chiefly an abridgment of Pliny's geography, to which were added a few definitions of geometric forms, something like the primary course in geometric solids in our elementary schools. So long as there has been elementary education there has been something of geography included. The Greek education laid stress on teaching the second book of Homer, containing the "Catalogue of the Ships" and a brief mention of the geography and history of all the Greek tribes that took part in the Trojan War. History remains unseparated from geography and geometry in the Middle Ages. Geography has preserved this comprehensiveness of meaning as a branch of the study in the elementary schools down to the present day. After arithmetic, which treats of the abstract or general conditions of material existence, comes geography with a practical study

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of man's material *habitat* and its relations to him. It is not a simple science by itself, like botany, or geology, or astronomy, but a collection of sciences levied upon to describe the earth as the dwelling-place of man and to explain something of its more prominent features. About one-fourth of the material relates strictly to the geography; about one-half to the inhabitants, their manners, customs, institutions, industries, productions; and the remaining one-fourth to items drawn from the sciences of mineralogy, meteorology, botany, zoology, and astronomy. This predominance of the human feature, in a study ostensibly relating to physical nature, your committee considers necessary and entirely justifiable. The child commences with what is nearest to his interests, and proceeds gradually toward what is remote and to be studied for its own sake. It is, therefore, a mistake to suppose that the first phase of geography presented to the child should be the process of continent formation. He must begin with the natural differences of climate and lands and waters and obstacles that separate peoples, and study the methods by which man strives to equalize or overcome these differences by industry and commerce, to unite all places and all people, and make it possible for each to share in the productions of all. The industrial and commercial idea is therefore the first central idea in the study of geography in the elementary schools. It leads directly to the natural elements of difference in climate, soil, and productions, and, also, to those in race, religion, political status, and occupations of the inhabitants, with a view to explain the grounds and reasons for this counter-process of civilization which struggles to overcome the differences. Next comes the deeper inquiry into the process of continent formation, the physical struggle between the process of upheaving or up-building of continents and that of their obliteration by air and water; the explanation of the mountains, valleys, and plains, the islands, volcanic action, the winds, the rain-distribution. But the study of cities, their location, the purposes they serve as collecting, manufacturing, and distributing centers, leads most directly to the immediate purpose of geography in the elementary school. From this beginning, and holding to it as a permanent interest, the inquiry into causes and conditions proceeds concentrically to the sources of the raw materials, the methods of their production, and the climatic, geologic, and other reasons that explain their location and their growth.

In recent years, especially through the scientific study of physical geography, the processes that go to the formation of climate, soil, and general configuration of land-masses have been accurately determined, and the methods of teaching so simplified that it is possible to lead out from the central idea mentioned to the physical explana-

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tions of the elements of geographical difference quite early in the course of study. Setting out from the idea of the use made of the earth by civilization, the pupil in the fifth and sixth years of his schooling (at the age of eleven or twelve) may extend his inquiries quite profitably as far as the physical explanations of land-shapes and climates. In the seventh and eighth year of school much more may be done in this direction. But it is believed that the distinctly human interest connected with geography in the first years of its study should not yield to the purely scientific one of physical processes until the pupil has taken up the study of history.

The educational value of geography, as it is and has been in elementary schools, is obviously very great. It makes possible something like accuracy in the picturing of distant places and events, and removes a large tract of mere superstition from the mind. In the days of newspaper-reading one's stock of geographical information is in constant requisition. A war on the opposite side of the globe is followed with more interest in this year than a war near our own borders before the era of the telegraph. The general knowledge of the locations and boundaries of nations, of their status in civilization and their natural advantages for contributing to the world-market, is of great use to the citizen in forming correct ideas from his daily reading.

The educational value of geography is even more apparent if we admit the claims of those who argue that the present epoch is the beginning of an era in which public opinion is organized into a ruling force by the agency of periodicals and books. Certainly, neither the newspaper nor the book can influence an illiterate people; they can do little to form opinions where the readers have no knowledge of geography.

As to the psychological value of geography, little need be said. It exercises in manifold ways the memory of forms and the imagination; it brings into exercise the thinking power in tracing back toward unity the various series of causes. What educative value there is in geology, meteorology, zoology, ethnology, economics, history, and politics is to be found in the more profound study of geography, and, to a proportionate extent, in the study of its merest elements.

Your committee is of the opinion that there has been a vast improvement in the methods of instruction in this branch in recent years, due in large measure to the geographical societies of this and other countries. At first there prevailed what might be named sailor geography. The pupil was compelled to memorize all the capes and headlands, bays and harbors, mouths of rivers, islands, sounds, and straits around the world. He enlivened this to some ex-

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tent by brief mention of the curiosities and oddities in the way of cataracts, water-gaps, caves, strange animals, public buildings, picturesque costumes, national exaggerations, and such matters as would furnish good themes for sailors' yarns. Little or nothing was taught to give unity to the isolated details furnished in endless number. It was an improvement on this when the method of memorizing capital cities and political boundaries succeeded. With this came the era of map-drawing. The study of watersheds and commercial routes, of industrial productions and centers of manufacture and commerce has been adopted in the better class of schools. Instruction is geography is growing better by the constant introduction of new devices to make plain and intelligible the determining influence of physical causes in producing the elements of difference and the counter-process of industry and commerce by which each difference is rendered of use to the whole world and each locality made a participator in the productions of all.

4. *History.*—The next study, ranked in order of value, for the elementary school is history. But, as will be seen, the value of history, both practically and psychologically, is less in the beginning and greater at the end than geography. For it relates to the institutions of men, and especially to the political state and its evolution. While biography narrates the career of the individual, civil history records the careers of nations. The nation has been compared to the individual by persons interested in the educational value of history. Man has two selves, they say, the individual self, and the collective self of the organized state or nation. The study of history is, then, the study of this larger, corporate, social, and civil self. The importance of this idea is thus brought out more clearly in its educational significance; for, to learn this civil self is to learn the substantial condition which makes possible the existence of civilized man in all his other social combinations—the family, the church, and the manifold associated activities of civil society. For the state protects these combinations from destruction by violence. It defines the limits of individual and associated effort, within which each endeavor re-enforces the endeavors of all, and it uses the strength of the whole nation to prevent such actions as pass beyond these safe limits and tend to collision with the normal action of the other individuals and social units. Hobbes called the state a Leviathan, to emphasize its stupendous individuality and organized self-activity. Without this, he said, man lives in a state of "constant war, fear, poverty, filth, ignorance, and wretchedness; within the state dwell peace, security, riches, science, and happiness." The state is the collective man who "makes possible the rational development of the individual man, like a mortal god, subduing his caprice and passion

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and compelling obedience to law, developing the ideas of justice, virtue, and religion, creating property and ownership, nurture and education." The education of the child into a knowledge of this higher self begins early within the nurture of the family. The child sees a policeman or some town officer, some public building—a court-house or a jail; he sees or hears of an act of violence—a case of robbery or murder followed by arrest of the guilty. The omnipresent higher self, which has been invisible hitherto, now becomes visible to him in its symbols and still more in its acts.

History in school, it is contended, should be the special branch for education in the duties of citizenship. There is ground for this claim. History gives a sense of belonging to a higher social unity which possesses the right of absolute control over person and property in the interest of the safety of the whole. This, of course, is the basis of citizenship; the individual must feel this or see this solidarity of the state and recognize its supreme authority. But history shows the collisions of nations, and the victory of one political ideal accompanied by the defeat of another. History reveals an evolution of forms of government that are better and better adapted to permit individual freedom, and the participation of all citizens in the administration of the government itself.

People who make their own government have a special interest in the spectacle of political evolution as exhibited in history. But it must be admitted that this evolution has not been well presented by popular historians. Take, for instance, the familiar example of old-time pedagogy, wherein the Roman republic was conceived as a freer government than the Roman empire that followed it by persons apparently misled by the ideas of representative self-government associated with the word republic. It was the beginning of a new epoch when this illusion was dispelled, and the college student became aware of the true Roman meaning of republic, namely, the supremacy of an oligarchy on the Tiber that ruled distant provinces in Spain, Gaul, Asia Minor, Germany, and Africa for its selfish ends and with an ever-increasing arrogance. The people at home in Rome, not having a share in the campaigns on the borderland, did not appreciate the qualities of the great leaders who, like Cæsar, subdued the nations by forbearance, magnanimity, trust, and the recognition of a sphere of freedom secured to the conquered by the Roman civil laws, which were rigidly enforced by the conqueror, as much as by the violence of arms. The change from republic to empire meant the final subordination of this tyrannical Roman oligarchy and the recognition of the rights of the provinces to Roman freedom. This illustration shows how easily a poor teaching of history may pervert its good influence or purpose into a bad one.

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For the Roman monarchy under the empire secured a degree of freedom never before attained under the republic, in spite of the election of such tyrants as Nero and Caligula to the imperial purple. The civil service went on as usual administering the affairs of distant countries, educating them in Roman jurisprudence, and cultivating a love for accumulating private property. Those countries had before lived communistically after the style of the tribe or at best of the village community. Roman private property in land gave an impulse to the development of free individuality such as had always been impossible under the social stage of development known as the village community.

To teach history properly is to dispel this shallow illusion which flatters individualism, and to open the eyes of the pupil to the true nature of freedom, namely, the freedom through obedience to just laws enforced by a strong government.

Your committee has made this apparent digression for the sake of a more explicit statement of its conviction of the importance of teaching history in a different spirit from that of abstract freedom, which sometimes means anarchy, although they admit the possibility of an opposite extreme, the danger of too little stress on the progressive element in the growth of nations and its manifestation in new and better political devices for representing all citizens without weakening the central power.

That the history of one's own nation is to be taught in the elementary school seems fixed by common consent. United States history includes, first, a sketch of the epoch of discoveries and next of the epoch of colonization. This fortunately suits the pedagogic requirements; for the child loves to approach the stern realities of a firmly-established civilization through its stages of growth by means of individual enterprise. Here is the use of biography as introduction to history. It treats of exceptional individuals, whose lives bring them in one way or another into national or even world-historical relations. They throw light on the nature and necessity of governments, and are in turn illuminated by the light thrown back on them by the institutions which they promote or hinder. The era of semi-private adventure with which American history begins is admirably adapted for study by the pupil in the elementary stage of his education. So, too, the next epoch—that of colonization. The pioneer is a degree nearer to civilization than is the explorer and discoverer. In the colonial history, the pupil interests himself in the enterprise of aspiring individualities; in their conquest over obstacles of climate and soil; their conflicts with the aboriginal population; their choice of land for settlement; the growth of their cities; above all, their several attempts and final success in forming a con-

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stitution securing local self-government. An epoch of growing interrelation of the colonies succeeds, a tendency to union on a large scale due to the effect of European wars, which involved England, France, and other countries, and affected the relations of their colonies in America. This epoch, too, abounds in heroic personalities, like Wolfe, Montcalm, and Washington, and perilous adventures, especially in the Indian warfare.

The fourth epoch is the Revolution, by which the colonies through joint effort secured their independence and afterward their union in a nation. The subject grows rapidly more complex, and tasks severely the powers of the pupils in the eighth year of the elementary school. The formation of the Constitution, and a brief study of the salient features of the Constitution itself, conclude the study of the portion of the history of the United States that is sufficiently remote to be treated after the manner of an educational classic. Everything up to this point stands out in strong individual outlines and is admirably fitted for that elementary course of study. Beyond this point, the War of 1812 and the War of the Rebellion, together with the political events that led to it, are matters of memory with the present generation of parents and grandparents, and are consequently not so well fitted for intensive study in school as the already classic period of our history. But these later and latest epochs may be and will be read at home, not only in the text-book on history used in the schools but also in the numerous sketches that appear in newspapers, magazines, and in more pretentious shapes. In the intensive study which should be undertaken of the classic period of our history, the pupil may be taught the method appropriate to historical investigation, the many points of view from which each event ought to be considered. He should learn to discriminate between the theatrical show of events and the solid influences that move underneath as ethical causes. Although he is too immature for very far-reaching reflections, he must be helped to see the causal processes of history. Armed with this discipline in historic methods, the pupil will do all of his miscellaneous reading and thinking in this province with more adequate intellectual reaction than was possible before the intensive study carried on in school.

The study of the outlines of the Constitution, for ten or fifteen weeks in the final year of the elementary school, has been found of great educational value. Properly taught, it fixes the idea of the essential threefoldness of the constitution of a free government and the necessary independence of each constituent power, whether legislative, judicial, or executive. This, and some idea of the manner and mode of filling the official places in these three departments, and

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of the character of the duties with which each department is charged, lay foundations for an intelligent citizenship.

Besides this intensive study of the history of the United States in the seventh and eighth years, your committee would recommend oral lessons on the salient points of general history, taking a full hour of sixty minutes weekly,—and preferably all at one time,—for the sake of the more systematic treatment of the subject of the lesson and the deeper impression made on the mind of the pupil.

5. *Other Branches.*—Your committee has reviewed the staple branches of the elementary course of study in the light of their educational scope and significance. Grammar, literature, arithmetic, geography, and history are the five branches upon which the disciplinary work of the elementary school is concentrated. Inasmuch as reading is the first of the scholastic arts, it is interesting to note that the whole elementary course may be described as an extension of the process of learning the art of reading. First comes the mastering of the colloquial vocabulary in printed and script forms. Next come five incursions into the special vocabularies required: (a) In literature, to express the fine shades of emotion and the more subtle distinctions of thought, (b) the technique of arithmetic, (c) of geography, (d) of grammar, (e) of history.

In the serious work of mastering these several technical vocabularies the pupil is assigned daily tasks that he must prepare by independent study. The class exercise or recitation is taken up with examining and criticising the pupil's oral statements of what he has learned, especial care being taken to secure the pupil's explanation of it in his own words. This requires paraphrases and definitions of the new words and phrases used in technical and literary senses, with a view to insure the addition to the mind of the new ideas corresponding to the new words. The misunderstandings are corrected and the pupil set on the way to use more critical alertness in the preparation of his succeeding lessons. The pupil learns as much by the recitations of his fellow-pupils as he learns from the teacher, but not the same things. He sees in the imperfect statements of his classmates that they apprehended the lesson with different presuppositions and consequently have seen some phases of the subject that escaped his observation, while they in turn have missed points which he had noticed quite readily. These different points of view become more or less his own, and he may be said to grow by adding to his own mind the minds of others.

It is clear that there are other branches of instruction that may lay claim to a place in the course of study of the elementary school; for example, the various branches of natural science, vocal music, manual training, physical culture, drawing, etc.

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Here the question of another method of instruction is suggested. There are lessons that require previous preparation by the pupil himself—there are also lessons that may be taken up without such preparation and conducted by the teacher, who leads the exercise and furnishes a large part of the information to be learned, enlisting the aid of members of the class for the purpose of bringing home the new material to their actual experience. Besides these there are mechanical exercises for purposes of training, such as drawing, penmanship, and calisthenics.

In the first place, there is industrial and æsthetic drawing, which should have a place in all elementary school work. By it is secured the training of the hand and eye. Then, too, drawing helps in all the other branches that require illustration. Moreover, if used in the study of the great works of art in the way hereinbefore mentioned, it helps to cultivate the taste and prepares the future workman for a more useful and lucrative career, inasmuch as superior taste commands higher wages in the finishing of all goods.

Natural science claims a place in the elementary school, not so much as a disciplinary study, side by side with grammar, arithmetic, and history, as a training in the habits of observation and in the use of the technique by which such sciences are expounded. With a knowledge of the technical terms and some training in the methods of original investigation employed in the sciences, the pupil broadens his views of the world and greatly increases his capacity to acquire new knowledge. For the pupil who is unacquainted with the technique of science has to pass without mental profit the numerous scientific allusions and items of information which more and more abound in all our literature, whether of an ephemeral or a permanent character. In an age whose proudest boast is the progress of science in all domains, there should be in the elementary school, from the first, a course in the elements of the sciences. And this is quite possible; for each science possesses some phases that lie very near to the child's life. These familiar topics furnish the doors through which the child enters the various special departments. Science, it is claimed, is nothing if not systematic. Indeed, science itself may be defined as the interpretation of each fact through all other facts of a kindred nature. Admitting that this is so, it is no less true that pedagogic method begins with the fragmentary knowledge possessed by the pupil and proceeds to organize it and build it out systematically in all directions. Hence any science may be taken up best on the side nearest the experience of the pupil and the investigation continued until the other parts are reached. Thus, the pedagogical order is not always the logical or scientific order. In this respect it agrees with the order of discovery, which is usually

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something quite different from the logical order, for that is the last thing discovered. The natural sciences have two general divisions —one relating to inorganic matter, as physics and chemistry, and one relating to organic, as botany and zoology. There should be a spiral course in natural science, commencing each branch with the most interesting phases to the child. A first course should be given in botany, zoology, and physics, so as to treat of the structure and uses of familiar plants and animals, and the explanation of physical phenomena as seen in the child's playthings, domestic machines, etc. A second course covering the same subjects, but laying more stress on classification and functions, will build on to the knowledge already acquired from the former lessons and from his recently acquired experience. A third course of weekly lessons, conducted by the teacher as before in a conversational style, with experiments and with a comparison of the facts of observation already in the possession of the children, will go far to helping them to an acquisition of the results of natural science. Those of the children specially gifted for observation in some or more departments of nature will be stimulated and encouraged to make the most of their gifts.

In the opinion of your committee there should be set apart a full hour each week for drawing and the same amount for oral lessons in natural science.

The oral lessons in history have already been mentioned. The spiral course, found useful in natural science because of the rapid change in capacity of comprehension by the pupil from his sixth to his fourteenth year, will also be best for the history course, which will begin with biographical adventures of interest to the child and possessing an important historical bearing. These will proceed from the native land first to England, the parent country, and then to the classic civilizations (Greece and Rome being, so to speak, the grandparent countries of the American colonies). These successive courses of oral lessons, adapted respectively to the child's capacity, will do much to make the child well informed on this topic. Oral lessons should never be mere lectures, but more like Socratic dialogues, building up a systematic knowledge partly from what is already known, partly by the new investigations, and partly by comparison of authorities.

The best argument in favor of weekly oral lessons in natural science and general history is the actual experiences of teachers who have for some time used the plan. It has been found that the lessons in botany, zoology, and physics give the pupil much aid in learning his geography and other lessons relating to nature, while the

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history lessons assist very much his comprehension of literature and add interest to geography.

It is understood by your committee that the lessons in physiology and hygiene (with special reference to the effects of stimulants and narcotics) required by state laws should be included in this oral course in natural science. Manual training, so far as the theory and use of the tools for working in wood and iron are concerned, has just claims on the elementary school for a reason similar to that which admits natural science. From science have proceeded useful inventions for the aid of all manner of manufactures and transportation. The child of to-day lives in a world where machinery is constantly at his hand. A course of training in wood- and iron-work, together with experimental knowledge of physics or natural philosophy, makes it easy for him to learn the management of such machines. Sewing and cookery have not the same but stronger claims for a place in school. One-half day in each week for one-half a year each in the seventh and eighth grades will suffice for manual training, the sewing and cookery being studied by the girls and the wood- and iron-work by the boys. It should be mentioned, however, that the advocates of manual training in iron- and wood-work recommend these branches for secondary schools, because of the greater maturity of body and the less likelihood to acquire wrong habits of manipulation in the third period of four years of school.

Vocal music has long since obtained a well-established place in all elementary schools. The labors of two generations of special teachers have reduced the steps of instruction to such simplicity that whole classes may make as regular progress in reading music as in reading literature.

In regard to physical culture, your committee is agreed that there should be some form of special daily exercises, amounting in the aggregate to one hour each week, the same to include the main features of calisthenics and German, Swedish, or American systems of physical training, but not to be regarded as a substitute for the old-fashioned recess established to permit the free exercise of the pupils in the open air. Systematic physical training has for its object rather the will-training than recreation, and this must not be forgotten. To go from a hard lesson to a series of calisthenic exercises is to go from one kind of will-training to another. Exhaustion of the will should be followed by the caprice and wild freedom of the recess. But systematic physical exercise has its sufficient reason in its aid to a graceful use of the limbs, its development of muscles that are left unused or rudimentary unless called forth by special training, and for the help it gives to the teacher in the way of school discipline.

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Your committee would mention in this connection instruction in morals and manners, which ought to be given in a brief series of lessons each year, with a view to build up in the mind a theory of the conventionalities of polite and pure-minded society. If these lessons are made too long or too numerous, they are apt to become offensive to the child's mind. It is, of course, understood by your committee that the substantial moral training of the school is performed by the discipline rather than by the instruction in ethical theory. The child is trained to be regular and punctual, and to restrain his desire to talk and whisper—in these things gaining self-control day by day. The essence of moral behavior is self-control. The school teaches good behavior. The intercourse of a pupil with his fellows without evil words or violent actions is insisted on and secured. The higher moral qualities of truth-telling and sincerity are taught in every class exercise that lays stress on accuracy of statement.

Your committee has already discussed the importance of teaching something of algebraic processes in the seventh and eighth grades, with the view to obtaining better methods of solving problems in advanced arithmetic. A majority of your committee are of the opinion that formal English grammar should be discontinued in the eighth year, and the study of some foreign language, preferably that of Latin, substituted. The educational effect on an English-speaking pupil of taking up a language which, like Latin, uses inflections instead of prepositions, and which further differs from English by the order in which its words are arranged in the sentence, is quite marked, and a year of Latin places a pupil by a wide interval out of the range of the pupil who has continued English grammar without taking up Latin. But the effect of the year's study of Latin increases the youth's power of apperception in very many directions, by reason of the fact that so much of the English vocabulary used in technical vocabularies, like those of geography, grammar, history, and literature, is from a Latin source; and, besides, there are so many traces in the form and substance of human learning of the hundreds of years when Latin was the only tongue in which observation and reflection could be expressed.

Your committee refers to the program given later in this report for the details of co-ordinating these several branches already recommended.

6. *The Difference Between Elementary and Secondary Studies.*— In recommending the introduction of algebraic processes in the seventh and eighth years—as well as in the recomendation just now made to introduce Latin in the eighth year of the elementary course —your committee has come face to face with the question of the intrinsic difference between elementary and secondary studies.

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Custom has placed algebra, geometry, the history of English literature, and Latin in the rank of secondary studies; also, general history, physical geography, and the elements of physics and chemistry. In a secondary course of four years, trigonometry may be added to the mathematics; some of the sciences whose elements are used in physical geography may be taken up separately in special treatises, as geology, botany, and physiology. There may be also a study of whole works of English authors, as Shakespeare, Milton, and Scott. Greek is also begun in the second or third year of the secondary course. This is the custom in most public high schools. But in private secondary schools Latin is begun earlier, and so, too, Greek, algebra, and geometry. Sometimes geometry is taken up before algebra, as is the custom in German schools. These arrangements are based partly on tradition, partly on the requirements of higher institutions for admission, and partly on the ground that the intrinsic difficulties in these studies have fixed their places in the course of study. Of those who claim that there is an intrinsic reason for the selection and order of these studies, some base their conclusions on experience in conducting pupils through them, others on psychological grounds. The latter contend, for example, that algebra deals with general forms of calculation, while arithmetic deals with the particular instances of calculation. Whatever deals with the particular instance is relatively elementary; whatever deals with the general form is relatively secondary. In the expression $a + b = c$, algebra indicates the form of all addition. This arithmetic cannot do, except in the form of a verbal rule describing the steps of the operation; its examples are all special instances falling under the general form given in algebra. If, therefore, arithmetic is an elementary branch, algebra is relatively to it a secondary branch. So, too, geometry, though not directly based on arithmetic, has to presuppose an acquaintance with it when it reduces spatial functions into numerical forms; as, for example, in the measurement of surfaces and solids, and in ascertaining the ratio of the circumference to the radius and of the hypotenuse to the two other sides of the right-angled triangle. Geometry, moreover, deals with necessary relations. Its demonstrations reach universal and necessary conclusions, holding good, not merely in such material shapes as we have met with in actual experience but with all examples possible—past, present, or future. Such knowledge transcending experience is intrinsically secondary as compared with the first acquaintance with geometric shapes in concrete examples.

In the case of geometry, it is claimed by some that what is called "inventional geometry" may be properly introduced into the elementary grades. By this some mean the practice with blocks in the

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shape of geometric solids and the construction of different figures from the same; others mean the rediscovery by the pupil for himself of the necessary relations demonstrated by Euclid. The former—exercises of construction with blocks—are well enough in the kindergarten, where they assist in learning number, as well as in the analysis of material forms. But its educational value is small for pupils advanced in the use of books. The original discovery of Euclid's demonstrations, on the other hand, belongs more properly to higher education than to elementary. In the geometrical textbooks recently introduced into secondary schools there is so much of original demonstration required that the teacher is greatly embarrassed on account of the differences in native capacity for mathematics that develop among the pupils of the same class in solving the problems of invention. A few gifted pupils delight in the inventions, and develop rapidly in power, while the majority of the class use too much time over them, and thus rob the other branches of the course of study, or else fall into the bad practice of getting help from others in the preparation of their lessons. A few in every class fall hopelessly behind and are discouraged. The result is an attempt on the part of the teacher to correct the evil by requiring a more thorough training in the mathematical studies preceding, and the consequent delay of secondary pupils in the lower grades of the course in order to bring up their "inventional geometry." Many, discouraged, fail to go on; many more fail to reach higher studies because unable to get over the barrier unnecessarily placed before them by teachers who desire that no pupils except natural geometricians shall enter into higher studies.

Physical geography in its scientific form is very properly made a part of the secondary course of study. The pupil in his ninth year of work can profitably acquire the scientific technique of geology, botany, zoology, meteorology, and ethnology, and in the following years take up those sciences separately and push them further, using the method of actual investigation. The subject-matter of physical geography is of very high interest to the pupil who has studied geography in the elementary grades after an approved method. It takes up the proximate grounds and causes for the elements of difference on the earth's surface, already become familiar to him through his elementary studies, and pushes them back into deeper, simpler, and more satisfactory principles. This study performs the work also of correlating the sciences that relate to organic nature by showing their respective uses to man. From the glimpses which the pupil gets of mineralogy, geology, botany, zoology, ethnology, and meteorology in their necessary connection as geographic conditions he sees the scope and grand significance of those separate

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inquiries. A thirst is aroused in him to pursue his researches into their domains. He sees, too, the borderlands in which new discoveries may be made by the enterprising explorer.

Physics, including what was called until recently "natural philosophy," after Newton's "Principia" ("*Philosophiæ Naturalis Principia Mathematica*"), implies more knowledge of mathematics for its thorough discussion than the secondary pupil is likely to possess. In fact, the study of this branch in college thirty years ago was crippled by the same cause. It should follow the completion of analytical geometry. Notwithstanding this, a very profitable study of this subject may be made in the second year of the high school or preparatory school, although the formulas can then be understood in so far as they imply elementary algebra only. The pupil does not get the most exact notions of the quantitative laws that rule matter in its states of motion and equilibrium, but he does see the action of forces as qualitative elements of phenomena and understand quite well the mechanical inventions by which men subdue them for his use and safety. Even in the elementary grades the pupil can seize very many of these qualitative aspects and learn the explanation of the mechanical phenomena of nature and other applications of the same principles in invention; as, for example, gravitation in falling bodies; its measurement by the scales; the part it plays in the pump, the barometer, the pendulum; cohesion in mud, clay, glue, paste, mortar, cement, etc.; capillary attraction in lamp-wicks, sponges, sugar, the sap in plants; the applications of lifting by the lever, pulley, inclined plane, wedge, and screw; heat in the sun, combustion, friction, steam, thermometer, conduction, clothing, cooking, etc.; the phenomena of light, electricity, magnetism, and the explanation of such mechanical devices as spectacles, telescopes, microscopes, prisms, photographic cameras, electric tension in bodies, lightning, mariner's compass, horseshoe magnet, the telegraph, the dynamo. This partially qualitative study of forces and mechanical inventions has the educational effect of enlightening the pupil and emancipating him from the network of superstition that surrounds him in the child-world, partly of necessity and partly by reason of the illiterate adults that he sometimes meets with in the persons of nurses, servants, and tradespeople, whose occupations have more attraction for him than those of cultured people. The fairy world is a world of magic, of immediate interventions of supernatural spiritual beings, and while this is proper enough for the child up to the time of the school, and in a lessening degree for some time after, it is only negative and harmful in adult manhood and womanhood. It produces arrested development of powers of observation and reflection in reference to phenomena, and stops the growth of the

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soul at the infantine stage of development. Neither is this infantine stage of wonder and magic more religious than the stage of disillusion through the study of mathematics and physics. It is the arrest of religious development, also, at the stage of fetichism. The highest religion, that of pure Christianity, sees in the world infinite mediations, all for the purpose of developing independent individuality; the perfection of human souls not only in one kind of piety—namely, that of the heart—but in the piety of the intellect that beholds truth, the piety of the will that does good deeds wisely, the piety of the senses that sees the beautiful and realizes it in works of art. This is the Christian idea of Divine Providence as contrasted with the heathen idea of that Providence, and the study of natural philosophy is an essential educational requisite in its attainment, although a negative means. Of course, there is danger of replacing the spiritual idea of the divine by the dynamical or mechanical idea, and thus arresting the mind at the stage of pantheism instead of fetichism. But this danger can be avoided by further education through secondary into higher education, whose entire spirit and method are comparative and philosophical in the best sense of the term; for higher education seems to have as its province the correlation of the several branches of human learning in the unity of the spiritual view furnished by religion to our civilization. By it one learns to see each branch—each science, or art, or discipline—in the light of all the others. This higher or comparative view is essential to any completeness of education, for it alone prevents the one-sidedness of hobbies, or "fads," as they are called in the slang of the day. It prevents, also, the bad effects that flow from the influence of what are termed "self-educated men," who, for the most part, carry up with them elementary methods of study—or, at best, secondary methods—which accentuate the facts and relations of natural and spiritual phenomena but do not deal with their higher correlations. The comparative method cannot, in fact, be well introduced until the student is somewhat advanced, and has already completed his elementary course of study dealing with the immediate aspects of the world and his secondary course dealing with the separate formal and dynamical aspects that lie next in order behind the facts of first observation. Higher education in a measure unifies these separate formal and dynamic aspects, corrects their one-sidedness, and prevents the danger of what is so often noted in the self-educated men who unduly exaggerate some one of the subordinate aspects of the world and make it a sort of first principle.

Here your committee finds in its way the question of the use of the full scientific method in the teaching of science in the elementary school. The true method has been called the method of investiga-

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tion; but that method as used by the child is only a sad caricature of the method used by the mature scientific man, who has long since passed through the fragmentary observation and reflection that prevail in the period of childhood, as well as the tendencies to exaggeration of the importance of one or another branch of knowledge at the expense of the higher unity that correlates all—an exaggeration that manifests itself in the possession and use of a hobby. The ideal scientific man has freed himself from obstacles of this kind, whether psychological or objective. What astronomical observers call the subjective coefficient must be ascertained and eliminated from the record that shows beginnings, endings, and rates. There is a possibility of perfect specialization in a scientific observer only after the elementary and secondary attitudes of mind have been outgrown. An attempt to force the child into the full scientific method by specialization would cause an arrest of his development in the other branches of human learning outside of his specialty. He could not properly inventory the data of his own special sphere unless he knew how to recognize the defining limits or boundaries that separate his province from its neighbors. The early days of science abounded in examples of confusion of provinces in the inventories of their data. It is difficult, even now, to decide where physics and chemistry leave off and biology begins.

Your committee does not attempt to state the exact proportion in which the child, at his various degrees of advancement, may be able to dispense with the guiding influence of teacher and text-book in his investigations, but they protest strongly against the illusion under which certain zealous advocates of the early introduction of scientific method seem to labor. They ignore in their zeal the deduction that is to be made for the guiding hand of the teacher, who silently furnishes to the child the experience that he lacks, and quietly directs his special attention to this or that phase, and prevents him from hasty or false generalization as well as from undue exaggeration of single facts or principles. Here the teacher adds the needed scientific outlook which the child lacks, but which the mature scientist possesses for himself.

It is contended by some that the scientific frame of mind is adapted only to science, but not to art, literature, and religion, which have something essential that science does not reach; not because of the incompleteness of the sciences themselves, but because of the attitude of the mind assumed in the observation of nature. In analytic investigation there is isolation of parts one from another, with a view to find the sources of the influences which produce the phenomena shown in the object. The mind brings everything to

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the test of this idea. Every phenomenon that exists comes from beyond itself, and analysis will be able to trace the source.

Now, this frame of mind, which insists on a foreign origin of all that goes to constitute an object, debars itself in advance from the province of religion, art, and literature, as well as of philosophy. For self-determination, personal activity, is the first principle assumed by religion, and it is tacitly assumed by art and literature, classic and Christian. The very definition of philosophy implies this, for it is the attempt to explain the world by the assumption of a first principle, and to show that all classes of objects imply that principle as ultimate presupposition. According to this view it is important not to attempt to hasten the use of a strictly scientific method on the part of the child. In his first years he is acquiring the results of civilization rather as an outfit of habits, usages, and traditions than as a scientific discovery. He cannot be expected to stand over against the culture of his time, and challenge one and all of its conventionalities to justify themselves before his reason. His reason is too weak. He is rather in the imitation stage of mind than in that of criticism. He will not reach the comparative or critical method until the era of higher education.

However this may be, it is clear that the educational value of science and its method is a very important question, and that on it depends the settlement of the question where specialization may begin. To commence the use of the real scientific method would imply a radical change also in methods from the beginning. This may be realized by considering the hold which even the kindergarten retains upon symbolism and upon art and literature. But in the opinion of a majority of your committee natural science itself should be approached, in the earliest years of the elementary school, rather in the form of results with glimpses into the methods by which these results were reached. In the last two years (the seventh and eighth) there may be some strictness of scientific form and an exhibition of the method of discovery. The pupil, too, may to some extent put this method in practice himself. In the secondary school there should be some laboratory work. But the pupil cannot be expected to acquire for himself fully the scientific method of dealing with nature until the second part of higher education—its post-graduate work. Nevertheless this good should be kept in view from the first year of the elementary school, and there should be a gradual and continual approach to it.

In the study of general history appears another branch of the secondary course. History of the native land is assumed to be an elementary study. History of the world is certainly a step further away from the experience of the child. It is held by some teachers

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to be in accordance with proper method to begin with the foreign relations of one's native land and to work outward to the world-history. The European relations involved in the discovery and colonization of America furnish the only explanation to a multitude of questions that the pupil has started in the elementary school. He should move outward from what he has already learned, by the study of a new concentric circle of grounds and reasons, according to this view. This, however, is not the usual course taken. On beginning secondary history the pupil is set back face to face with the period of tradition, just when historic traces first make their appearance. He is by this arrangement broken off from the part of history that he has become acquainted with and made to grapple with that period which has no relation to his previous investigations. It is to be said, however, that general history lays stress on the religious thread of connection, though less now than formerly. The world history is a conception of the great Christian thinker, St. Augustine, who held that the world and its history is a sort of antiphonic hymn, in which God reads his counsels and the earth and man read the responses. He induced Orosius, his pupil, to sketch a general history in the spirit of his view. It was natural that the Old Testament histories, and especially the chapters of Genesis, should furnish the most striking part of its contents. This general history was connected with religion and brought closer to the experience of the individual than the history of his own people. To commence history with the Garden of Eden, the Fall of Man, and the Noachian Deluge was to begin with what was most familiar to all minds, and most instructive, because it concerned most nearly the conduct of life. Thus, religion furnished the apperceptive material by which the early portions of history were recognized, classified, and made a part of experience.

Now that studies in archæology, especially those in the Nile and Euphrates valleys, are changing the chronologies and the records of early times and adding new records of the past, bringing to light national movements and collisions of peoples, together with data by which to determine the status of their industrial civilization, their religious ideas, and the form of their literature and art, the concentric arrangement of all this material around the history of the chosen people as a nucleus is no longer possible. The question has arisen, therefore, whether general history should not be rearranged for the secondary school, and made to connect with American history for apperceptive material rather than with Old Testament history. To this it has been replied with force that the idea of a world history, as St. Augustine conceived it, is the noblest educative ideal ever connected with the subject of history. Future

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versions of general history will not desert this standpoint, we are told, even if they take as their basis that of ethnology and anthropology, for these, too, will exhibit a plan in human history—an educative principle that leads nations toward freedom and science, because the Creator of nature has made it, in its fundamental constitution, an evolution or progressive development of individuality. Thus, the idea of Divine Providence is retained, though made more comprehensive by bringing the whole content of natural laws within his will as his method of work.

These considerations, we are reminded by the partisans of humanity studies, point back to the educative value of history as corrective of the one-sidedness of the method of science. Science seeks explanation in the mechanical conditions of, and impulses received from, the environment, while history keeps its gaze fixed on human purposes, and studies the genesis of national actions through the previous stages of feelings, convictions, and conscious ideas. In history the pupil has for his object self-activity, reaction against environment, instead of mechanism, or activity through another.

The history of English literature is another study of the secondary school. It is very properly placed beyond the elementary school, for as taught it consists largely of the biographies of men of letters. The pupils who have not yet learned any great work of literature should not be pestered with literary biography, for at that stage the greatness of the men of letters cannot be seen. Plutarch makes great biographies because he shows heroic struggles and great deeds. The heroism of artists and poets consists in sacrificing all for the sake of their creations. The majority of them come off sadly at the hands of the biographer, for the reason that the very sides of their lives are described which they had slighted and neglected for the sake of the Muses. The prophets of Israel did not live in city palaces, but in caves; they did not wear fine raiment, nor feed sumptuously, nor conform to the codes of polite society. They were no courtiers when they approached the king. They neglected all the other institutions—family, productive industry, and state—for the sake of one, the church, and even that not the established ceremonial of the people, but a higher and more direct communing with Jehovah. So with artists and men of letters it is more or less the case that the institutional side of their lives is neglected or unsymmetrical; or, if this is not the case, it will be found prosaic and uneventful, throwing no light on their matchless productions.

For these reasons should not the present use of literary biography, as it exists in secondary schools and is gradually making its way into elementary schools, be discouraged, and the time now

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given to it devoted to the study of literary works of art? It will be admitted that the exposure of the foibles of artists has an immoral tendency on youth: for example, one affects to be a poet, and justifies laxity and self-indulgence through the example of Byron. Those who support this view hold that we should not dignify the immoral and defective side of life by making it a branch of study in school.

7. *Correlation by Synthesis of Studies.*—Your committee would mention another sense in which the expression correlation of studies is sometimes used. It is held by advocates of an artificial center of the course of study. They use, for example, De Foe's "Robinson Crusoe" for a reading exercise, and connect with it the lessons in geography and arithmetic. It has been pointed out by critics of this method that there is always danger of covering up the literary features of the reading matter under accessories of mathematics and natural science. If the material for other branches is to be sought for in connection with the literary exercise, it will distract the attention from the poetic unity. On the other hand, arithmetic and geography cannot be unfolded freely and comprehensively if they are to wait on the opportunities afforded in a poem or novel for their development. A correlation of this kind, instead of being a deeper correlation such as is found in all parts of human learning by the studies of the college and university, is rather a shallow and uninteresting kind of correlation that reminds one of the system of mnemonics, or artificial memory, which neglects the association of facts and events with their causes and the history of their evolution, and looks for unessential quips, puns, or accidental suggestions with a view to strengthening the memory. The effect of this is to weaken the power of systematic thinking which deals with essential relations and substitute for it a chaotic memory that ties together things through false and seeming relations; not of the things and events but of the words that denote them.

The correlation of geography and arithmetic and history in and through the unity of a work of fiction is, at best, an artificial correlation, which will stand in the way of the true objective correlation. It is a temporary scaffolding made for school purposes. Instruction should avoid such temporary structures as much as possible, and when used they should be only used for the day, and not for the year, because of the danger of building up an apperceptive center in the child's mind that will not harmonize with the true apperceptive center required by the civilization. The story of Robinson Crusoe has intense interest to the child as a lesson in sociology, showing him the helplessness of isolated man and the re-enforcement that comes to him through society. It shows the importance

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of the division of labor. All children should read this book in the later years of the elementary course, and a few profitable discussions may be had in school regarding its significance. But De Foe painted in it only the side of adventure that he found in his countrymen in his epoch, England after the defeat of the Armada having taken up a career of conquest on the seas, ending by colonization and a world-commerce. The liking for adventure continues to this day among all Anglo-Saxon peoples, and beyond other nationalities there is in English-speaking populations a delight in building up civilization from the very foundation. This is only, however, one phase of the Anglo-Saxon mind. Consequently the history of Crusoe is not a proper center for a year's study in school. It omits cities, governments, the world-commerce, the international process, the church, the newspaper and book from view, and they are not even reflected in it.

Your committee would call attention in this connection to the importance of the pedagogical principle of analysis and isolation as preceding synthesis and correlation. There should be rigid isolation of the elements of each branch for the purpose of getting a clear conception of what is individual and peculiar in a special province of learning. Otherwise one will not gain from each its special contribution to the whole. That there is some danger from the kind of correlation that essays to teach all branches in each will be apparent from this point of view.

III.—THE SCHOOL PROGRAM.

In order to find a place in the elementary school for the several branches recommended in this report, it will be necessary to use economically the time allotted for the school term, which is about 200 days, exclusive of vacations and holidays. Five days per week and five hours of actual school work or a little less per day, after excluding recesses for recreation, give about twenty-five hours per week. There should be, as far as possible, alternation of study-hours and recitations (the word recitation being used in the United States for class exercise or lesson conducted by the teacher and requiring the critical attention of the entire class). Those studies requiring the clearest thought should be taken up, as a usual thing, in the morning session; say, arithmetic the second half-hour of the morning and grammar the half-hour next succeeding the morning recess for recreation in the open air. By some who are anxious to prevent study at home—or, at least, to control its amount—it is thought advisable to place the arithmetic lesson after the grammar lesson, so that the study learned at home will be grammar instead of arithmetic. It is found by experience, that, if mathematical problems

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are taken home for solution, two bad habits arise, namely, in one case, the pupil gets assistance from his parents or others, and thereby loses to some extent his own power of overcoming difficulties by brave and persistent attacks unaided by others; the other evil is a habit of consuming long hours in the preparation of a lesson that should be prepared in thirty minutes, if all the powers of mind are fresh and at command. An average child may spend three hours in the preparation of an arithmetic lesson. Indeed, in repeated efforts to solve one of the so-called "conundrums," a whole family may spend the entire evening. One of the unpleasant results of the next day is that the teacher who conducts the lesson never knows the exact capacity and rate of progress of his pupils; in the recitation he probes the knowledge and preparation of the pupil, plus an unknown amount of preparatory work borrowed from parents and others. He even increases the length of the lessons, and requires more work at home, when the amount already exceeds the unaided capacity of the pupil.

The lessons should be arranged so as to bring in such exercises as furnish relief from intellectual tension between others that make large demands on the thinking powers. Such exercises as singing and calisthenics, writing and drawing, also reading, are of the nature of a relief from those recitations that tax the memory, critical alertness, and introspection, like arithmetic, grammar, and history.

Your committee has not been able to agree on the question whether pupils who leave school early should have a course of study different from the course of those who are to continue on into secondary and higher work. It is contended, on the one hand, that those who leave early should have a more practical course, and that they should dispense with those studies that seem to be in the nature of preparatory work for secondary and higher education. Such studies as algebra and Latin, for example, should not be taken up unless the pupil expects to pursue the same for a sufficient time to complete the secondary course. It is replied, on the other hand, that it is best to have one course for all, because any school education is, at best, but an initiation for the pupil into the art of learning, and that, wherever he leaves off in his school course, he should continue, by the aid of the public library and home study, in the work of mastering science and literature. It is further contended that a brief course in higher studies, like Latin and algebra, instead of being useless, is of more value than any elementary studies that might replace them. The first ten lessons in algebra give the pupil the fundamental idea of the general expression of arithmetical solutions by means of letters and other symbols. Six months' study of it gives him the power to use the method in stating the manifold

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conditions of a problem in partnership, or in ascertaining a value that depends on several transformations of the data given. It is claimed, indeed, that the first few lessons in any branch are relatively of more educational value than an equal number of subsequent lessons, because the fundamental ideas and principles of the new study are placed at the beginning. In Latin, for instance, the pupil learns in his first week's study the, to him, strange phenomenon of a language that performs by inflections what his own language performs by the use of prepositions and auxiliaries. He is still more surprised to find that the order of words in a sentence is altogether different in Roman usage from that to which he is accustomed. He further begins to recognize in the Latin words many roots or stems which are employed to denote immediate sensuous objects, while they have been adopted into his English tongue to signify fine shades of distinction in thought or feeling. By these three things his powers of observation in matters of language are armed, as it were, with new faculties. Nothing that he has hitherto learned in grammar is so radical and far-reaching as what he learns in his first week's study of Latin. The Latin arrangement of words in a sentence indicates a different order of mental arrangement in the process of apprehension and expression of thought. This arrangement is rendered possible by declensions. This amounts to attaching prepositions to the ends of the words, which they thus convert into adjectival or adverbial modifiers; whereas the separate prepositions of the English must indicate by their position in the sentence their grammatical relation. These observations, and the new insight into the etymology of English words having a Latin derivation, are of the nature of mental seeds which will grow and bear fruit throughout life in the better command of one's native tongue. All this will come from a very brief time devoted to Latin in school.

Amount of Time for Each Branch. — Your committee recommends that an hour of sixty minutes each week be assigned in the program for each of the following subjects throughout the eight years: Physical culture, vocal music, or oral lessons in natural science (hygiene to be included among the topics under this head), oral lessons in biography and general history, and that the same amount of time each week shall be devoted to drawing from the second year to the eighth inclusive; to manual training during the seventh and eighth years, so as to include sewing and cookery for the girls and work in wood and iron for the boys.

Your committee recommends that reading be given at least one lesson each day for the entire eight years; it being understood, however, that there shall be two or more lessons each day in reading

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in the first and second years, in which the recitation is necessarily very short, because of the inability of the pupil to give continued close attention, and because he has little power of applying himself to the work of preparing lessons by himself. In the first three years the reading should be limited to pieces in the colloquial style, but selections from the classics of the language in prose and in poetry shall be read to the pupil from time to time, and discussions made of such features of the selections read as may interest the pupils. After the third year your committee believes that the reading lesson should be given to selections from classic authors of English and that the work of the recitation should be divided between (a) the elocution, (b) the grammatical peculiarities of the language, including spelling, definitions, syntactical construction, punctuation, and figures of prosody, and (c) the literary contents, including the main and accessory ideas, the emotions painted, the deeds described, the devices of style to produce a strong impression on the reader. Your committee wishes to lay emphasis on the importance of the last item,—that of literary study,—which should consume more and more of the time of the recitation from grade to grade in the period from the fourth to the eighth year. In the fourth year and previously the first item—that of elocution, to secure distinct enunciation and correct pronunciation—should be most prominent. In the fifth and sixth years the second item—that of spelling, defining, and punctuation—should predominate slightly over the other two items. In the years from the fifth to the eighth there should be some reading of entire stories, such as "Gulliver's Travels," "Robinson Crusoe," "Rip Van Winkle," "The Lady of the Lake," "Hiawatha," and similar stories, adapted in style and subject-matter to the capacity of the pupils. An hour should be devoted each week to conversations on the salient points of the story, its literary and ethical bearings.

Your committee agrees in the opinion, that, in teaching language, care should be taken that the pupil practices much in writing exercises and original compositions. At first the pupil will use only his colloquial vocabulary, but as he gains command of the technical vocabularies of geography, arithmetic, and history, and learns the higher literary vocabulary of his language, he will extend his use of words accordingly. Daily, from the first year, the child will prepare some lesson or portion of a lesson in writing. Your committee has included under the head of oral grammar (from the first to the middle of the fifth year) one phase of this written work devoted to the study of the literary form and the technicalities of composition in such exercises as letter writing, written reviews of the several branches studied, reports of the oral lessons in natural

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science and history, paraphrases of the poems and prose literature of the readers, and finally compositions or written essays on suitable themes assigned by the teacher, but selected from the fields of knowledge studied in school. Care should be taken to criticise all paraphrases of poetry in respect to the good or bad taste shown in the choice of words; parodies should never be permitted.

It is thought by your committee that the old style of composition writing was too formal. It was kept too far away from the other work of the pupil. Instead of giving a written account of what he had learned in arithmetic, geography, grammar, history, and natural science, the pupil attempted artificial descriptions and reflections on such subjects as "Spring," "Happiness," "Perseverance," "Friendship," or something else outside of the line of his school studies.

Your committee has already expressed its opinion that a good English style is not to be acquired by the study of grammar so much as by familiarity with great masterpieces of literature. We especially recommend that pupils who have taken up the fourth and fifth readers, containing the selections from great authors, should often be required to make written paraphrases of prose or poetic models of style, using their own vocabulary to express the thoughts so far as possible, and borrowing the *recherché* words and phrases of the author where their own resources fail them. In this way the pupil learns to see what the great author has done to enrich the language and to furnish adequate means of expression for what could not be presented in words before, or at least not in so happy a manner.

Your committee believes that every recitation is, in one aspect of it, an attempt to express the thoughts and information of the lesson in the pupil's own words, and thus an initial exercise in composition. The regular weekly written review of the important topics in the several branches studied is a more elaborate exercise in composition, the pupil endeavoring to collect what he knows and to state it systematically and in proper language. The punctuation, spelling, syntax, penmanship, choice of words, and style should not, it is true, be made a matter of criticism in connection with the other lessons, but only in the language lesson proper. But the pupil will learn language, all the same, by the written and oral recitations. The oral grammar lessons from the first year to the middle of the fifth year should deal chiefly with the use of language, gradually introducing the grammatical technique as it is needed to describe accurately the correct forms and the usages violated.

Your committee believes that there is some danger of wasting the time of the pupil in these oral and written language lessons in the first four years by confining the work of the pupil to the expression of ordinary commonplace ideas not related to the subjects

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of his other lessons, especially when the expression is confined to the colloquial vocabulary. Such training has been severely and justly condemned as teaching what is called prating or gabbling, rather than a noble use of English speech. It is clear that the pupil should have a dignified and worthy subject of composition, and what is so good for his purpose as the themes he has tried to master in his regular lessons? The reading lessons will give matter for literary style, the geography for scientific style, and the arithmetic for a business style; for all styles should be learned.

Your committee recommends that selected lists of words difficult to spell be made from the reading lessons and mastered by frequent writing and oral spelling during the fourth, fifth, and sixth years.

Your committee recommends that the use of a text-book in grammar begin with the second half of the fifth year, and continue until the beginning of the study of Latin in the eighth grade, and that one daily lesson of twenty-five or thirty minutes be devoted to it.

For Latin we recommend one daily lesson of thirty minutes for the eighth year. For arithmetic we recommend number work from the first year to the eighth, one lesson each day; but the use of the text-book in number should not, in our opinion, begin until the first quarter of the third year. We recommend that the applications of elementary algebra to arithmetic, as hereinbefore explained, be substituted for pure arithmetic in the seventh and eighth years, a daily lesson being given.

Your committee recommends that penmanship as a separate branch be taught in the first six years at least three lessons per week.

Geography, in the opinion of your committee, should begin with oral lessons in the second year, and with a text-book in the third quarter of the third year, and be continued to the close of the sixth year with one lesson each day, and in the seventh and eighth years with three lessons per week.

History of the United States with the use of a text-book, your committee recommends for the seventh and the first half of the eighth year, one lesson each day; the Constitution of the United States for the third quarter of the eighth year.

The following schedule will show the number of lessons per week for each quarter of each year:

Reading.—Eight years, with daily lessons.

Penmanship.—Six years, ten lessons per week for first two years, five for third and fourth, and three for fifth and sixth.

Spelling Lists.—Fourth, fifth, and sixth years, four lessons per week.

Grammar.—Oral, with composition or dictation, first year to middle of fifth year, text-book from middle of fifth year to close of seventh year, five lessons per week. (Composition writing should be included under this head. But the written examinations on the several branches should be counted under the head of composition work.)

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Latin, French, or German.—Eighth year, five lessons per week.

Arithmetic.—Oral first and second year, text-book third to sixth year, five lessons per week.

Algebra.—Seventh and eighth years, five lessons per week.

Geography.—Oral lessons second year to middle of third year, text-book from middle of third year, five lessons weekly to seventh year, and three lessons to close of eighth.

Natural Science and Hygiene.—Sixty minutes per week, eight years.

History of United States.—Five hours per week, seventh year and first half of eighth year.

Constitution of United States.—Third quarter in the eighth year.

General History and Biography.—Oral lessons, sixty minutes a week, eight years.

Physical Culture.—Sixty minutes a week, eight years.

Vocal Music.—Sixty minutes a week, eight years.

Drawing.—Sixty minutes a week, eight years.

Manual Training, Sewing, and Cooking.—One-half day each week in seventh and eighth years.

Your committee recommends recitations of fifteen minutes in length in the first and second years, of twenty minutes in length in the third and fourth years, of twenty-five minutes in the fifth and sixth years, and of thirty minutes in the seventh and eighth.

The results of this program show for the first and second years twenty lessons a week of fifteen minutes each, besides seven other exercises occupying an average of twelve minutes apiece each day; the total amount of time occupied in the continuous attention of the recitation or class exercises being twelve hours, or an average of two hours and twenty-four minutes per day.

For the third year twenty lessons a week of twenty minutes each, and five general exercises taking up five hours a week, or an average of one hour per day; giving an average time per day of two hours and twenty minutes for class recitations or exercises.

In the fourth year the recitations increase to twenty-four (by reason of four extra lessons in spelling) and the time occupied in recitations and exercises to thirteen hours, or an average per day of two hours and thirty-six minutes.

In the fifth and sixth years the number of recitations increases to twenty-seven per week, owing to the addition of formal grammar, and the total number of hours required for all is sixteen and one-fourth per week, or an average of three and one-fourth per day.

In the seventh and eighth years the number of lessons decreases to twenty-three, history being added, penmanship and special lessons in spelling discontinued, the time devoted to geography reduced to three lessons a week. But the recitation is increased to thirty minutes in length. Manual training occupies a half-day, or two and a half hours, each week. The total is nineteen hours per week or three and three-fourths per day.

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The following tabular exhibit shows all of these particulars:

BRANCHES.	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.	Sixth Year.	Seventh Year.	Eighth Year.
Reading	10 lessons a week.		5 lessons a week.					
Writing	10 lessons a week.		5 lessons a week.		3 lessons a week.			
Spelling lists				4 lessons a week.				
English Grammar	Oral, with composition lessons.				*5 lessons a week with text book.			
Latin								5 lessons a week.
Arithmetic	Oral 60 minutes a week.		5 lessons a week with text-book.					
Algebra							5 lessons a week.	
Geography	Oral, 60 minutes a week.		*5 lessons a week with text-book.				3 lessons a week.	
Natural Science + Hygiene	60 minutes a week.							
U. S. History							5 lessons a week.	
U. S. Constitution.								*5 les.
General History	Oral, 60 minutes a week.							
Physical Culture	60 minutes a week.							
Vocal Music	60 minutes a week, divided into 4 lessons.							
Drawing	60 minutes a week.							
Manual Training or Sewing + Cookery							One-half day each week.	
No. of Lessons	20 + 7 daily exercises	20 + 7 daily exercises.	20 + 5 daily exercises.	24 + 5 daily exercises.	27 + 5 daily exercises	27 + 5 daily exercises.	23 + 6 daily exercises.	23 + 6 daily exercises.
Total Hours of Recitations	12	12	11⅔	13	16¼	16¼	17½	17½
Length of Recitations	15 min.	15 min.	20 min.	20 min.	25 min.	25 min.	30 min.	30 min.

* Begins in second half year.

IV.—METHODS AND ORGANIZATION.

Your committee is agreed that the time devoted to the elementary school work should not be reduced from eight years, but they have recommended, as hereinbefore stated, that in the seventh and eighth years a modified form of algebra be introduced in place of advanced

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arithmetic, and that in the eighth year English grammar yield place to Latin. This makes, in their opinion, a proper transition to the studies of the secondary school and is calculated to assist the pupil materially in his preparation for that work. Hitherto, the change from the work of the elementary school has been too abrupt, the pupil beginning three formal studies at once, namely, algebra, physical geography, and Latin.

Your committee has found it necessary to discuss the question of methods of teaching in numerous instances, while considering the question of educational values and programs, because the value and time of beginning of the several branches depend so largely on the method of teaching.

The following recommendations, however, remain for this part of their report:

They would recommend that the specialization of teachers' work should not be attempted before the seventh or eighth year of the elementary school and in not more than one or two studies then. In the secondary school it is expected that a teacher will teach one, or, at most, two branches. In the elementary school, for at least six years, it is better, on the whole, to have each teacher instruct his pupils in all the branches that they study, for the reason that only in this way can he hold an even pressure on the requirements of work, correlating it in such a manner that no one study absorbs undue attention. In this way the pupils prepare all their lessons under the direct supervision of the same teacher, and by their recitations show what defects of methods of study there have been in the preparation.

The ethical training is much more successful under this plan, because the personal influence of a teacher is much greater when he or she knows minutely the entire scope of the school work. In the case of the special teacher, the responsibility is divided and the opportunities of special acquaintance with character and habits diminished.

With one teacher, who supervises the study and hears all the recitations, there is a much better opportunity to cultivate the two kinds of attention. The teacher divides his pupils into two classes, and hears one recite while the other class prepares for the next lesson. The pupils reciting are required to pay strict attention to the one of their number who is explaining the point assigned him by the teacher; they are to be on the alert to notice any mistakes of statement or omissions of important data, and they are, at the same time, to pay close attention to the remarks of the teacher. This is one kind of attention, which may be called associated critical attention. The pupils engaged in the preparation of the next lesson are busy, each one by himself, studying the book and mastering its facts and ideas, and

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comparing them one with another, and making the effort to become oblivious of their fellow-pupils, the recitation going on, and the teacher. This is another kind of attention, which is not associated but an individual effort to master for one's self without aid a prescribed task and to resist all distracting influences. These two disciplines in attention are the best formal training that the school affords.

Your committee has already mentioned a species of faulty correlation wherein the attempt is made to study all branches in each, misapplying Jacotot's maxim, "all in all" (*tout est dans tout*).

A frequent error of this kind is the practice of making every recitation a language lesson, and interrupting the arithmetic, geography, history, literature, or whatever it may be, by calling the pupil's attention abruptly to something in his forms of expression, his pronunciation, or to some faulty use of English; thus turning the entire system of school work into a series of grammar exercises and weakening the power of continuous thought on the objective contents of the several branches by creating a pernicious habit of self-consciousness in the matter of verbal expression. While your committee would not venture to say that there should not be some degree of attention to the verbal expression in all lessons, it is of the opinion that it should be limited to criticism of the recitation for its want of technical accuracy. The technical words in each branch should be discussed until the pupil is familiar with their full force. The faulty English should be criticised as showing confusion of thought or memory, and should be corrected in this sense. But solecisms of speech should be silently noted by the teacher for discussion in the regular language lesson.

The question of promotion of pupils has occupied, from time to time, very much attention. Your committee believes, that, in many systems of elementary schools, there is injury done by too much formality in ascertaining whether the pupils of a given class have completed the work up to a given arbitrarily fixed point and are ready to take up the next apportionment of the work. In the early days of city school systems, when the office of superintendent was first created, it was thought necessary to divide up the graded course of study into years of work, and to hold stated annual examinations to ascertain how many pupils could be promoted to the next grade or year's work. All that failed at this examination were set back at the beginning of the year's work to spend another year in reviewing it. This was to meet the convenience of the superintendent, who, it was said, could not hold examinations to suit the wants of individuals or particular classes. From this arrangement there naturally resulted a great deal of what is called "marking time." Pupils who had nearly

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completed the work of the year were placed with pupils who had been, till now, a year's interval below them. Discouragement and demoralization at the thought of taking up again a course of lessons learned once before caused many pupils to leave school prematurely.

This evil has been remedied in nearly one-half of the cities by promoting pupils whenever they have completed the work of a grade. The constant tendency of classification to become imperfect by reason of the difference in rates of advancement of the several pupils, owing to disparity in ages, degree of maturity, temperament, and health, makes frequent reclassification necessary. This is easily accomplished by promoting the few pupils who distance the majority of their classmates into the next class above, separated as it is, or ought to be, by an interval of less than half a year. The bright pupils thus promoted have to struggle to make up the ground covered in the interval between the two classes, but they are nearly always able to accomplish this, and generally will in two years' time need another promotion from class to class.

The procrustean character of the old city systems has been removed by this device.

There remain for mention some other evils besides bad systems of promotion, due to defects of organization. The school buildings are often with superstitious care kept apart exclusively for particular grades of pupils. The central building erected for high school purposes, though only half filled, is not made to relieve the neighboring grammar school, crowded to such a degree that it cannot receive the classes which ought to be promoted from the primary schools. It has happened in such cases that this superstition prevailed so far that the pupils in the primary school building were kept at work on studies already finished because they could not be transferred to the grammar school.

In all good school systems the pupils take up new work when they have completed the old, and the bright pupils are transferred to higher classes when they have so far distanced their fellows that the amount of work fixed for the average ability of the class does not give them enough to do.

In conclusion, your committee would state, by way of explanation, that it has been led into many digressions in illustrating the details of its recommendations in this report, through its desire to make clear the grounds on which it has based its conclusions, and through the hope that such details will call out a still more thorough-going discussion of the educational values of branches proposed for elementary schools and of the methods by which those branches may be successfully taught.

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With a view to increase the interest in this subject, your committee recommends the publication of selected passages from the papers sent in by invited auxiliary committees and by volunteers, many of these containing valuable suggestions not mentioned in this report.

WILLIAM T. HARRIS, *Chairman*,
United States Commissioner of Education, Washington, D. C.

I dissent from the majority report of the committee in regard to the following points:

ARITHMETIC.

1. *As to Fractions.*— In teaching arithmetic there does not exist any greater difficulty in getting small children to grasp the nature of the fraction as such than in getting them to grasp the idea of the simpler whole numbers. It is true that the fractions ½, ⅓, ¼, etc., as symbols, are a little more complex than are the single digits; but as to the real meaning, when once the fractional idea has been properly developed by the teacher and the significance of the idea apprehended by the pupil, it is as easily understood as any other simple truth. Children get the idea of half, third, or quarter of many things long before they enter school, and they will as readily learn to add, subtract, multiply, and divide fractions as they will whole numbers. In using fractions they will draw diagrams and pictures representing the processes of work as quickly and easily as they illustrate similar work with integers. It is, of course, assumed that the teacher knows how to teach arthmetic to children; or, rather, how to teach the children how to teach themselves. There is really no valid argument why children in the second, third, and fourth years in school should not master the fundamental operations in fractions. Not only this,— they will put the more common fractions into the technique of percentage, and do this as well in the second and third grades as at any other time in their future progress. There is only one new idea involved in this operation, and that consists in giving an additional term—per cent—to the fractional symbol. When one number is a part of another, it may be regarded as a fractional part or as such a per cent of it. A great deal of percentage is thus learned by the pupils early in the course. Children are not hurt by learning. Standing still and lost motion kill.

Every recitation should reach the full swing of the learner's mind, including all his acquisitions on any given topic. But if the teaching of fractions be deferred, as it usually is in most schools, the time may

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be materially shortened by teaching addition and subtraction of fractions together. This is simple enough if different fractions having common denominators are used at first, such as $\frac{6}{7}+\frac{5}{7}=?$ and $\frac{6}{7}-\frac{5}{7}=?$ Then the next step, after sufficient drill on this case, is to take two fractions (simple) of different units of value, as $\frac{1}{2}+\frac{1}{3}=?$ and $\frac{1}{2}-\frac{1}{3}=?$ Multiplication and division may be treated similarly.

In decimals, the pupil is really confronted by a simpler form of fractions than the varied forms of common fractions.

Devices and illustrations of a material kind are necessary to build up in the pupil's mind at the beginning a clear concept of a tenth, etc., and then to show that one-tenth written as a decimal is only a shorthand way of writing $\frac{1}{10}$ as a common fraction, and so on. He sees very soon that the decimal is only a shorthand common fraction, and this notion he must hold to. This is the vital point in decimals. The idea that they can be changed into common fractions and the reverse at will, establishes the fact in the pupil's mind that they are common fractions and not uncommon ones. Fixing the decimal point will, in a short time, take care of itself.

In teaching arithmetic the steps are: (1) Developing the subject till each pupil gets a clear conception of it; (2) necessary drill to fix the process; (3) connecting the subject with all that has preceded it; (4) its applications; (5) the pupil's ability to sum up clearly and concisely what he has learned.

2. *As to Abridgment.*—Under this head, I hold that a course in arithmetic, including simple numbers, fractions, tables of weights and measures, percentage and interest, and numerical operations in powers, does not fit a pupil to begin the study of algebra. That while he may carry the book under his arm to the schoolroom, he is too poorly equipped to make headway on this subject; and, instead of finishing up algebra in a reasonable length of time, he is kept too long at it, with a strong probability of his becoming disgusted with it.

There are subjects, however, in the common school arithmetic that may be dropped out with great advantage, to wit, all but the simplest exercises in compound interest, foreign exchange, all foreign moneys (except reference tables of values), annuities, alligation, progression; and the entire subjects of percentage and interest should be condensed into about twenty pages.

Cancellation, factoring, proportion, evolution, and involution should be retained. Cancellation and factoring should be strongly emphasized, owing to their immense value in shortening work in arithmetic, algebra, and in more advanced subjects. Some drill in the metric system should not be omitted.

3. *As to Mental Arithmetic.*—Till the end of the fourth year the pupil does not need a text-book of mental arithmetic. So far his

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work in arithmetic should be about equally divided between written and mental. At the beginning of the fifth year, in addition to his written arithmetic, he should begin a mental arithmetic and continue it three years, reciting at least four mental arithmetic lessons each week. The length of the recitation should be twenty minutes. A pupil well drilled in mental arithmetic, at the end of the seventh year—if the school age begins at six—is far better prepared to study algebra than the one who has not had such a drill. There are a few problems in arithmetic that can be solved more easily by algebra than by the ordinary processes of arithmetic, but there are many numerical problems in equations of the first degree that can be more easily handled by mental arithmetic than by algebra. To attack arithmetical problems by algebra is very much like using a tremendous lever to lift a feather. Those who have found a great stumbling-block in arithmetical "conundrums," have, if the inside facts were known, been looking in the wrong direction. A deficiency of "number-brain-cells" will afford an adequate explanation.

4. *Rearrangement of Subjects.*—There should be a rearranging of the topics in arithmetic, so that one subject naturally leads up to the next. As an illustration, it is easily seen that whole numbers and fractions can be treated together, and that, with United States money, when the dime is reached is the proper time to begin decimals, and that, when a "square" in surface measure first comes up, the next step is the square of a number as well as its square root, and that solid measure logically lands the learner among cubes and cube-roots. When he learns that 1728 cubic inches make one cubic foot he is prepared to find the edge of the cube. What is meant here is pointing the way to the next above. All depends upon the teacher's ability to lead the pupil to see conditions and relations. My contention is, that truth, so far as one is capable of taking hold of it when it is properly presented, is always a simple affair.

5. *As to Algebra.*—If algebra be commenced at the middle of the seventh year, let the pupil go at it in earnest, and keep at it till he has mastered it. Here the best opportunities will be afforded him to connect his algebraic knowledge to his arithmetical knowledge. He builds the one on top of the other. The skillful teacher always insists that the learner shall establish and maintain this relationship between the two subjects. To switch around the other way appears to me to be the same as to omit certain exercises in the common algebra because they are more briefly and elegantly treated in the calculus. It is admitted that a higher branch of mathematics often throws much light on the lower branches; but these side-lights should be employed for the purpose of leading the learner onward to broader generalizations. Unless one sees the lower clearly, the

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higher is obscure. Build solidly the foundation on arithmetic,—written and mental,—and the higher branches will be more easily mastered and time saved.

HISTORY OF THE UNITED STATES.

In teaching this branch in the public schools, there does not appear, so far as I can see, any substantial reason why the pupils should not study and recite the history of the Rebellion in the same manner that they do the Revolutionary War. The pupils discuss the late war and the causes that led to it with an impartiality of feeling that speaks more for their good sense and clear judgment than any other way by which their knowledge can be tested. They may not get hold of all the causes involved in that conflict, but they get enough to understand the motives which caused the armies to fight so heroically, and why the people, both North and South, staked everything on the issue. Just as the men who faced each other for four years and met so often in a death grapple will sit down now and quietly talk over their trials, sufferings, and conflicts, so do their children talk over these same stirring scenes. They, too, so far as my experience extends, are singularly free from bitterness and prejudice. It is certainly a period of history that they should study.

THE SPELLING-BOOK.

In addition to the "spelling-lists," I would supplement with a good spelling-book. So far, no "word-list," however well selected, has supplied the place of a spelling-book. All those schools that threw out the spelling-book and undertook to teach spelling incidentally or by word-lists failed, and for the same reason that grammar, arithmetic, geography, and other branches cannot be taught incidentally as the pupil or the class reads "Robinson Crusoe," or any other similar work. It is an independent study, and as such should be pursued.

JAMES M. GREENWOOD,
Superintendent of Schools, Kansas City, Mo.

While affixing my signature to the report of this committee, as expressing substantial agreement with most of its leading propositions, I beg leave also to indicate my dissent from certain of its recommendations, and to suggest certain additions which, in my judgment, the report requires.

1. There are other forms of true correlation which should be included with the four mentioned in the first part of the report, and which should be as clearly and fully treated as are these four.

The first is that form of correlation which is popularly understood by the name, and which is also called by some writers, concentration.

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co-ordination, unification, and alludes in general to a division of studies into content and form; by content, meaning that upon which it is fitting that the mind of the child should dwell, and by form, the means or modes of expression by which thoughts are communicated. Or, it may be thus expressed: The true content of education is (1) philosophy—or the knowledge of man as to his motives and hidden springs of action indicated in history and literature, and (2) science—the knowledge of nature and its manifestations and laws. Its form is art, which is the deliberate, purposeful, and effective expression to others of that which has been produced within man by contact with other men and with nature, and is commonly referred to as divided into various arts, such as reading, writing, drawing, making, and modeling. The relation of content and form is that of principal and subordinate, the latter receiving its chief value from the former. In a true education they are so presented to the mind of the child that he instinctively and unconsciously grasps this relation, and is thereby lifted into a higher plane of thinking and living than if the various arts are taught, as they too commonly are, without reference to a noble content. This relation of form to content is vaguely referred to in the report, but nowhere definitely treated. It seems to me that it is a true form of correlation, and, as such, deserves special and definite treatment. Moreover, it is at present much in the minds of the teachers of this country, often in forms that are misleading and harmful. The fact that it adds the important element of interest to the dry details of common school life makes it especially attractive to progressive and earnest teachers, and this committee should recognize its importance and make such an utterance upon it as will guide the average teacher to a clear comprehension of its meaning and to a wise use of it in the schoolroom.

Second, there is a still higher form of correlation, which is definitely referred to later in the report as that "of the several branches of human learning in the unity of the spiritual view furnished by religion to our civilization." This, in the report, is assigned absolutely to the province of higher education. While I do not wish to dissent wholly from this view, since it is doubtless true that this higher unity cannot be comprehensively stated for the use of a child, yet a wise teacher can so present subjects to even a young child that a sense of the unity of all knowledge will, to a certain degree, be unconsciously developed in his mind. In regard to certain of the great divisions of human knowledge, this relation is so evident that they cannot be properly presented at all unless the relation be made clear. Such studies are history and geography.

2. The recommendations upon the subject of language should be broadened to cover the production of good English by the child him-

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self, with the suggestion of suitable topics and proper methods. This report confines itself to the absorptive side of education, and ignores that development of power over nature, man, and self which comes from free exercise of faculties and free expression of thought. The study of language, as something for the child to use himself—the great means by which he is to assert his place in civilization and exert his influence for good—is nowhere referred to except in the vaguest way. This statement in regard to language applies almost equally well to drawing; and here is made evident the importance of the form of correlation to which I have just referred. The proper material for the training of the child in expression is that which is furnished by the study of man and nature. His mind being filled with high themes, he asserts his individuality, expresses himself in regard to them, and thereby gains at once both a closer and clearer comprehension of what he has studied, and also the power by which he may become a factor in his generation.

3. I would wish to omit the word "weekly," where it occurs in the discussion of the subjects of general history and science, unless it be understood to mean that an amount of time in the school year equivalent to sixty minutes weekly be given to each of these subjects. It is often better to condense these studies into certain portions of the year, giving more time to them each week, and using them as the basis, to a certain degree, of language work. I believe, that, especially with young children, clearer concepts are produced by such connected study, pursued for fewer weeks, than by lessons seven days apart.

4. In my judgment manual training should not be limited to the seventh and eighth grades, but should begin in the kindergarten with the simple study of form from objects and the reproduction in paper of the objects presented, and should extend, in a series of carefully graded lessons, through all the grades; leaving, however, the heavier tools, such as the plane, for the seventh and eighth grades. By these means an interest is kept up in the various human industries, sympathy for all labor is created, and a certain degree of skill is developed; moreover, the interest of the pupils in their school is greatly enhanced. Manual training has often proved the magnet by which boys at the restless age have been kept in school instead of leaving for some gainful occupation.

5. I desire to suggest that geometry may be so taught as to be a better mathematical study than algebra to succeed or accompany arithmetic in the seventh and eighth grades. I do not refer particularly to inventional geometry, to which the committee accords a slighting attention; but to constructive geometry and the simplest propositions in demonstrative geometry, thus involving the compre-

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hension of the elementary geometric forms and their more obvious relations. This study may be made of especial interest in connection with manual training and drawing, while it presents fewer difficulties to the immature mind than the abstractions of algebra, since it connects more directly with the concrete, by which its presentation may often be aided.

6. While agreeing fully with the majority of the committee that the full scientific method should not be applied to the study of elementary science by young children, yet I am compelled to favor more of experimentation and observation by the child and less of telling by the teacher than the report would seem to favor.

7. I would go further than the majority of the committee, and insist that, except in rare cases, there should be no specialization of the teaching force below the high school, and, that, even in the first years of the high school, so far as possible, specialization should be subordinated to a general care of the child's welfare and oversight of his methods of study, which are impossible when a corps of teachers give instruction, each in one subject, and see the student only during the hour of recitation.

8. While in the main I agree with the bald statements under the head "Correlation by Synthesis of Studies," since reference is made to only a very artificial mode of synthesis not at all in vogue in this country, I must dissent emphatically from this portion of the report as by inference condemning a most important department of correlation, to which I have referred earlier. The doctrine of concentration is not necessarily artificial; rather, it refers to the higher unity, of which this committee has spoken in glowing terms as belonging to the province of higher education. It also includes the division of the school curriculum into content and form, which this committee inferentially adopts in its treatment of language. I do not believe, any more than do the majority of the committee, that the entire course of study can be literally and exactly centered about a single subject, nor do I believe in any artificial correlation; but there is a natural relation of all knowledges, which this committee admits in various places, and which is the basis of a proper synthesis of studies according to the psychological principle of apperception.

9. If, by the term "oral," as applied to lessons in biography and in natural science, the committee means, as the word would imply, that the instruction is to be given in the form of lectures by the teacher, I cannot in full agree with the committee's conclusions. As I have already stated, in natural science the work should be largely that of observation, and in history and biography, while in the very lowest grades the teachers should tell the children stories, as soon as it is possible the desired information should be obtained by the student through reading. To this end, the reading lesson in school

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should be properly correlated with his other studies, and he should be advised as to his home reading. The information thus obtained should be the subject of conversation in the class, and should furnish the material for much of the written language work of the children.

10. I must dissent emphatically and entirely from that portion of the report which recommends that a text-book in grammar be introduced into the fifth year of the child's school life. It is a question in my mind whether it would not be better if the text-book were not introduced into the grades below the high school at all. Certainly it should not appear before the seventh year. Such knowledge of grammar as will familiarize the child with the structure of the sentence, the basis of all language, and as will enable him to use correctly forms of speech which the necessities of expression require, should be given orally by the teacher in connection with the child's written work, when needed; but against the introduction of a text-book upon grammar, the most abstruse of all the subjects of the school curriculum, when the pupil is not more than ten years old, I must protest. Instead of that the child should devote much time, some every day, to writing upon proper themes in the best English he can command, furnishing occasion to the teacher to correct such errors as he may make and acquiring by use acquaintance with the correct forms of grammar. If, as will doubtless be the case in most cities, local conditions render the introduction of Latin into the eighth grade inadvisable, this study of grammar may be made in that grade somewhat more intensive.

11. If by a text-book in geography is meant that which is commonly understood by the term, and not simply geographical reading-matter, in my judgment, it should not be introduced earlier than the fifth year.

These suggestions and expressions of dissent, if approved by the committee, would necessitate some change in the program submitted, the most important of which would be the making room for the production of English in the grades. This could be provided in the first and second grades by taking some of the time devoted to penmanship and doing the work partly in connection with the reading classes. In the third and fourth grades it should take some of the time devoted to penmanship, and should be studied, also, in connection with geography and reading; and, in the fifth and sixth grades, it should take all of the time given to grammar.

I regret to be compelled to express dissent upon so many points, but as most of them appear to me vital, and as the differences appear to be not merely superficial but fundamental, affecting and affected by one's entire educational creed, I cannot do otherwise. To most of the report I most gladly give my assent and approval.

CHARLES B. GILBERT,
Superintendent of Schools, St. Paul, Minn.

I agree most heartily with the main features of the foregoing report of the sub-committee on correlation of studies. It is so admirable in its analysis of subjects and in its statement of comparative educational values, and so suggestive in its practical applications to teaching, that I regret to find myself appearing in any way to dissent from its conclusions. Indeed, my principal objection is, not against anything contained in the report (unless it be against a possible inference which might be drawn at one point) but it refers rather to what seems to me to be an omission.

In addition to all the forms of correlation recommended in the report, it seems to me possible to make a correlation of subjects in a program in such way that the selection of subject-matter may be to some extent from all fields of knowledge. These selections should be such as are related to one another so as to be mutually helpful in acquisition. They should be the main features of knowledge in the different departments.

These different departments from which the chosen subjects should be taken must be fundamental ones and must be sufficiently numerous to represent universal culture. The report itself indicates conclusively what these are.

Reference is made in the report to various attempts that have been made to correlate subjects of study.

A very just criticism is made upon that attempt at correlation by the use of the story of "Robinson Crusoe" as a center of correlation. It is distinctly pointed out in the report, that the experiences of Robinson Crusoe are lacking in many of the elements of universal culture and in many elements of education needed to adjust the individual properly to the civilization of our time and country. It is equally evident that the attempt to make this story the center of correlation leads directly to trivial exercises in other subjects in order to make them "correlate" with "Robinson Crusoe." It is also shown in the report that it naturally leads to fragmentary knowledge of many subjects very much inferior to that clear, logically-connected knowledge of a subject which may be had by pursuing it without reference to correlating it with all others.

It is at this point, that, in my judgment, a wrong inference is permitted by the report.

It does not, as it seems to me, follow, that, because correlation based on "Robinson Crusoe" is a failure, all correlations having the same general purpose will necessarily prove failures. For my own part, I do not believe that correlation needs any "center," outside the child and its natural activities. If, however, it seems wiser to give special prominence to any given field of acquisition, it should, in my judgment, be accorded to language and its closely related subjects—

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reading, spelling, writing, composing, study of literature, etc. Indeed, language as a mode of expression is organically related to thinking in all fields of knowledge, as form is related to content. A "system" or "program" of correlation on this basis would seek for fundamental ideas in all the leading branches and make them themes of thought and occasions of language exercises. The selections would omit all trivialities in all subjects, and would not attempt to correlate for the mere sake of correlation; but would seek to correlate wherever, by such correlation, kindred themes may be made to illuminate one another. To illustrate: Concrete problems in arithmetic would be sought that would clearly develop and illustrate mathematical ideas and their application; but, in a secondary way, these problems would be sought for in the various departments of concrete knowledge—geography, history, physics, chemistry, astronomy, meteorology, political, industrial, or domestic economy. But none of these themes would be so relied upon for problems as to compel one to choose unreasonable or trivial relations on which to base them. The problems themselves should represent true and important facts and relations of the other subjects as surely and rigidly as they should involve correct mathematical principles; and all such exercises should be rightly related to the child's education in language.

In like manner, when a child is engaged in nature study of any kind, some valuable problems in mathematics may be found rightly related both to the subject directly in hand and the child's natural progress in arithmetic. Also, many of the lessons in nature study are directly related to some of the finest literature ever produced, in which analogies of nature are made the means of expression for the finest and most delicate of the human experiences. When the child has mastered the physical facts on which the literary inspiration is based is the true time to give him the advantage of the study of such literature. These ideas are not only rightly related to one another but the mind itself. It is, so to speak, the nascent moment when the mind can easily and fully master what might else remain an impenetrable mystery; and all because subjects and occasion have come into happy conjunction.

This is not the place in which to attempt any elaboration of such a system of correlation; but I feel that its absence from the report may make many persons feel that the latter is so far incomplete.

L. H. JONES,
Superintendent of Schools, Cleveland, Ohio.

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With the main lines of thought in this report I find myself in agreement. With many of its details, however, I am not in accord. I regret to have to express my dissent from its conclusions in the following particulars:

1. The report makes too little of the uses of grammar as supplying canons of criticism which enable the pupil to correct his own English, and as furnishing a key (grammatical analysis) that gives him the power to see the meaning of obscure or involved sentences.

2. For the study of literature, complete works are to be preferred to the selections found in school-readers.

3. That species of language exercise known as paraphrasing I regard as harmful.

4. The study of number should not be omitted from the first year in school. Practice in the primary operations of arithmetic should not be omitted from the seventh and eighth years. The quadratic equation should be reserved for the high school.

5. The foreign language introduced into the elementary school course should be a modern language—French or German. Latin should be reserved for those who have time and opportunity to master its literature.

6. In the general program of studies, the school day is cut up into too many short periods. The tendency of such a program as that in the text would be to destroy repose of mind and render reflection almost an impossibility.

7. I desire to express my agreement with the opinions stated in sections 2, 3, 6, and 9 of Mr. Gilbert's dissenting opinion; and, in the main, with what Mr. Jones says on the correlation of studies.

WILLIAM H. MAXWELL,
Superintendent of Schools, Brooklyn, N. Y.

DISCUSSION.

[REPORTED BY S. T. DUTTON, SUPERINTENDENT OF SCHOOLS, BROOKLINE, MASS.]

FRANK M. MCMURRY, Principal of Franklin School, Buffalo, N. Y.—"The correlation of studies deals with the relation of ideas. The word concentration was brought to us from Germany, and treats with the relation of studies and parts of studies to one another. As a result, the children may study Egypt by learning about the Nile river and the art of Egypt; arithmetic by observing the triangular faces of the pyramids and the manners and customs of the people. All these ideas are brought into relation and help to interest." The speaker read from page 6 of the report, and answered the charge made by Dr. Harris, that "Robin-

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son Crusoe" is shallow, and, when used as a system of mnemonics, tends to weaken thinking. The opponents of the Herbartian system take this as a type, and, condemning the type, reject the whole. The speaker objected to the idea of isolation in studies, and said that the report overlooked the thought of culture studies, especially the sciences. "The committee forget that there is danger of specialization in the early years. They insist upon sequence, but do not do so as a matter of principle. In reading they overlook the idea of unity, and do not deal with literary thought as wholes. If they leave out what their report was intended to discuss, what do they find to present to us? The new education deals with child study, apperception, and interest. It is recognized that ideas must be active; they must be real and make a direct appeal to the child's interest. All this seems to have been overlooked in the report. The report makes much of the fact that psychology should be subordinate. This is all a mistake. They discard the value of richness of thought, and emphasize reading, writing, and arithmetic. I do not believe this is right."

COL. FRANCIS W. PARKER.—When, in Boston, two years ago, I moved that a committee be appointed to report on correlation, I had in mind a full and complete treatment of the subject. I had confidence in the ability of the committee. I supposed they would make a careful study of every phase of the subject; that they would make themselves familiar with Herbart, Ziller, Stoy, and Rein. They have ignored the very subject which they were intended to treat. The report is a grand restatement of facts long known to all of us. But it is like the play of "Hamlet" with Hamlet left out; or, as I might better say, with Hamlet kicked out. Too many teachers at the present time think that Herbartian doctrine seems to furnish a grand working hypothesis. The report assumes that the development of language cannot be related to the development of thought—that grammar must be studied by itself. In speaking of a course of study, it is dogmatically stated that there should be two lessons in reading every day for six years; after that one lesson a day. We are led to infer that children cannot reason. Prof. John Dewey, on the other hand, declares, that, after the disintegrating process has gone on in the adult mind for some years, he is the one who cannot reason, but the child does reason.

Shall not literature, including history, be made the subject of study from the beginning? The report leaves no margin for the research of the teacher. Can abstract philosophy direct her? Shall we not be directed by our experience? Just think of six years of regular books. Is there no relief? I shall accept this report respectfully; I shall take it home and study it prayerfully; but I move that a committee of fifteen be appointed to revise it.

PRESIDENT DE GARMO, Swarthmore College, Swarthmore, Pa.—"I labor under great embarrassment in attempting to speak at this time. It is like going to church and hearing nothing but the text, for Dr. Harris has read only a few theoretical propositions, leaving us quite in the dark as to what the report really says. This report should have been distributed so that every member of the department could have had one before the meeting." The speaker referred to several instances where the report treated of educational values only. "The entire report is a critique of educational values. It should be universally read. It treats of correlation of the pupil with his environment, and does show the relative value of studies. But it dismisses the very essence of their correlation as unworthy of treatment. The effect of the report will, I fear, be reactionary so far as correlation is concerned. People will assume one of the two positions which President Eliot says are the stages incident to progress; first, that no reform is needed; second, that we have it already. The report should be called a discourse on 'Edu-

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cational Values.' So far as the correlation of studies is concerned, it is like the text of the minister to whom I referred, who, at the outset, repeated it several times, because, as he said, he should have no occasion to refer to it again; for, though the sequence of topics and the mutual relations of studies are mentioned, they are nowhere developed. If this report were accepted we should have to regard education as a series of great tunnels running parallel with each other and crossed at regular distances by other tunnels. The student must first go forward in one a little way and then cross into another and make progress by a series of transitions, nowhere perceiving the natural interrelation existing among the studies. How much better is it to go out into the world under the sun and follow the great natural highways."

W. T. HARRIS, Commissioner of Education.—I must set myself right on Herbart. The report does not allude to Herbart anywhere except in respectful terms. The criticism of the use of "Robinson Crusoe" does not attribute its mistakes to the Herbartians. Perhaps they would not recognize it as a true statement of their method. To make Herbart of use in pedagogy we must to some extent ignore his philosophy. His usefulness in education is proportioned to his uselessness as a philosopher. What can we do with a philosopher who omits the will from the three departments of the mind and retains only intellect and feeling? Herbart was obliged to explain how man comes to act without the will. He explains that desire can be aroused by interest in such a way that action will follow. With this great defect, however, Herbart is valuable in education. His doctrine of apperception does not need any correction. His doctrine of interest, however, needs some limitation, because the idea of the will and the idea of duty are omitted from his system. He must make up by the idea of desire and the idea of interest. I am surprised that the claim is made here that the report does not treat the subject assigned to it. Correlation of studies is assumed to mean concentration of studies. There is no such definition to the word correlation in any dictionary; only four or five obscure books in the English language give the word correlation the meaning of concentration. I was told of this sense of the word correlation, but did not believe for a moment that it had been the intention of the Department of Superintendence, in appointing a committee on this subject, to have a report on the Herbartian idea of concentration. The resolution appointing this committee at Cambridge said "co-ordination of studies" and not "correlation" or "concentration."

DR. CHARLES A. MCMURRY remarked that this report is essentially an analysis and isolation of the branches of study. Dr. Harris had objected to the definition of correlation suggested by some of the speakers as not contained in any dictionary. Would Dr. Harris, on his side, find any dictionary definition of correlation which justified the title of correlation over a treatise devoted almost exclusively to an analysis and isolation of the different studies?

"I feared," he continued, "that Dr. Harris would take refuge in metaphysical distinction. He remarks that Herbart left the will out of his psychology, and, as a consequence, moral education can find no true place in his system of education. This is unfair, and misrepresents Herbart's whole position. As a matter of fact, all who are acquainted with Herbart know that he makes moral education the basis and corner-stone of his whole educational system. In Dr. Harris' report now before us, moral education stands forth with no such prominence as in Herbart's theory and practice of education."

Quoting from the report, the speaker said that the fact of a process being difficult, as the analysis of words and letters, was not proof of its pedagogical value at a certain age. "It is not the most difficult process," he said, "that is most appropriate in the early grades, any more than Latin is the best study for boys sim-

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ply because it is harder and dryer than anything they will study later. The chief objection to this report is, that it will be a tower of strength to those who still hold to the old formalism in education. The life-giving spirit of the new movement in education is in sharp contrast to the dead formalism which has been long imposed upon the schools. I fear that the report will be accepted as a defense of formal discipline and will arrest progress already begun."

DR. WALTER B. HERVEY.—My mind assents to nearly all that has been said this morning. I think we should try to harmonize the two ideas, the Hegelian and the Herbartian, which here seem to be at variance. The Hegelian must go out in the world empty himself and find a larger, fuller life. He must lose his life in order that he may find it. The Herbartian depends upon what he has acquired. He learns new truth by what he has already gained. We have here the Calvinistic theology set over against the Unitarian. The Herbartian brings to the front moral tests and sentiments. It appeals to the moral feelings. This is higher than Hegelianism or the Hegelian idea, but is not opposed to it. There is a certain degree of isolation in teaching. We do not always need to travel the dull road of analysis.

DR. B. A. HINSDALE.—I did not understand Dr. Harris to say what Dr. McMurry ascribes to him. He did not say that Herbart omitted moral training, but that he based it upon the feelings rather than upon the will. What *criteria* should guide us in studying this problem? I am led to seek for them in the human soul and in the study of environment. Neither of these sources can be omitted. Have we not all understood that the first steps in teaching involve isolation and analysis, but that there must also be grouping and co-ordination? There are two natural groups of subjects pursued in schools. First, the elementary school arts; as speech, reading, writing, drawing, and number. Second, real studies; those that give knowledge and culture. A claim is made that the child should be kept at real things, and that the school arts are to be learned along the way. Can this be done? I do not believe we can teach the whole round of human knowledge by means of teaching certain studies.

DR. E. E. WHITE of Columbus, Ohio.—I have some hesitation in responding to this call. I am only a learner concerning the Herbartian theory of concentration, and am trying to keep an open mind. I am, indeed, anxious to know just what my young friends mean, and, in time, I hope to get the proper correlation of their ideas.

As I now see it, there is no one essential process or method of education, whether Herbartian or other, and it seems to me somewhat doubtful to assume that we have at last found a complete system of pedagogy that is to supplant all that has been heretofore supposed to be fundamental in the art. The serious defects in the psychology of Herbart have led some of the thoughtful advocates of his system of pedagogy to claim, that an acceptance of his pedagogy does not involve an acceptance of his psychology; but the fact is Herbart's system of pedagogy is based on his psychology, and so a rejection of the latter removes the basis on which the former rests. Instead of his system of pedagogy, you have left only elements which may be utilized—fruitful suggestions; but the system as such is in fragments.

I recognize valuable principles of teaching in what is known as the Herbartian pedagogy, and one of these is the proper blending and unification of subjects of instruction. This is not exclusively Herbartian, but his system gives the principle a new emphasis. But the process is clearly most feasible in primary instruction, and even here it has its obvious limitations. I did not understand Miss Arnold last

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evening even to hint that the blendings, which she so admirably pointed out as desirable in primary instruction, are possible or feasible in higher grades. Even in the primary school, the method is in danger of leading to factitious and superficial blendings. It is evident that what may be feasible in this respect the first two or three years of school may not be desirable, even if practicable, in higher grades. The primary school, the grammar school, the high school, and the college have each their characteristic phase of instruction, and the same method cannot be used throughout the course. As we go up in the grades, there is an increasing differentiation of studies until only incidental blendings in closely allied subjects are possible in the same exercise; and, in the university with its special courses, differentiation reaches its maximum. This shows that the so-called concentration is, at best, only a phase of a true course of instruction and a diminishing phase. In all grades above the primary, correlation, not concentration, is the determining principle; and even in primary grades all subjects cannot wisely be united in the same exercises. Certainly there is no one method for all classes and grades of pupils.

Dr. Harris is clearly right, as it seems to me, in his views as to the proper meaning of the "correlation of studies." He uses the term, not only in its scientific but in its recognized pedagogic sense. Concentration is a different process, and should receive separate consideration. The attempt to use the terms co-ordination, correlation, and concentration interchangeably, as synonymous, introduces confusion into pedagogic discussion.

I desire to add that the principles recently presented under what is called concentration seem to me to lead to the one conclusion that every child must be taught as an individual, and so by himself, and hence all attempts at class instruction are futile and unscientific, and must be abandoned. Individual instruction can alone meet the conditions assumed to be essential by the Herbartian theory as explained by its advocates. What does this involve? What becomes of the school as such?

There have been many scholars since the flood—scholars who have honored learning and widened its domain. How were they produced? Not, certainly, by any one method, and surely not by "concentration." These hosts of scholars and thinkers cannot be accounted for on any such assumption, for they were produced under very unlike methods of elementary education. The history of school-training shows that we are not shut up to a diet of pedagogic hash on the one hand, or to one of baked beans on the other. The child has some power of appropriation and assimilation.

DR. NICHOLAS MURRAY BUTLER, Columbia College.—This is an interesting and exciting field of battle; it has not been a Bull Run, and it is manifestly not an Appomattox. But the contest should be fair, and we should not permit ourselves to be led away from the main question presented by this report. I shall devote no part of my limited time to eulogizing its author. My own intellectual debt to him is too great and of too long standing to make that necessary; but I am compelled to say that with this report I am greatly disappointed. Such a document as this, presented at this particular time in the history of our educational development and supposed to deal with the practical problem of the correlation of studies, is extremely unfortunate. This discussion has made it plain that there is among us a difference of opinion as to what the term "correlation of studies" means. This report interprets it to mean the correlation between the studies of the school curriculum and the intellectual environment of the pupil. Certainly that is not what the term is taken to mean in our current educational literature and in our current educational discussions. It has been claimed on this platform, that those who use the phrase "correlation of studies," in reference to the interdependence of

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school subjects one with another, are making a strained and improper use of the word. This criticism is not correct. The highest authority that we have, the "Century Dictionary," gives as a definition of correlation, "the act of bringing into orderly connection or reciprocal relation." It recites a passage from the great work of Grove, who first made this term familiar in English scientific literature, in illustration of the meaning of correlation. This is precisely the sense in which the word is used by Dr. McMurry and others, and it is precisely the sense in which I expected to find it used in this report. The questions sent out by the committee justified this expectation. Therefore I say, I am disappointed, and grievously disappointed, that we have in these pages only a passing reference to the real problem of correlation or concentration as it is before American teachers at the present moment.

I can find no fault with the use of the word selected by the committee, but I do complain that they have not treated the problem, whatever name they choose to give to it, that we asked them to solve. Instead of that, they have given us a splendid and learned discussion of educational values, an analysis of the history of the school curriculum, and an elaborate defense of the *status quo*. It is apparent to me, therefore, that this report faces backward and not forward. I say this, despite the fact that it suggests and argues for more than one important innovation in the curriculum.

For one hundred years, ever since the time of Pestalozzi, we have been trying to extract the curriculum from a philosophical discussion of this sort, but we have not succeeded in satisfying ourselves wholly. We have made great advance, and for that advance we in America are indebted more largely to Dr. Harris than to any other single person, living or dead. He has taught us to understand why certain specific branches of knowledge are selected for a place in the curriculum, and now we ask him to tell us how they are to be correlated, or co-ordinated, or concentrated, in practice, to meet the new demands that are made upon the school; and we get no answer in this report.

The curriculum that this report recommends to us and the methods that it outlines are arrived at by an analysis made from the adult point of view. Are we, then, to understand that child study is to be given no hearing? Are we shut up to formal analysis as the sole method in evolving a practical school plan? The newer education answers this question directly in the negative. It is putting the child in the place of honor, and asking him to tell us what his nature demands and in what order it demands it. Dr. White has said that the legitimate result of this newer movement is individualism in teaching. I agree with him absolutely. We hope that the time will come when the individuality of every child will be respected. We want to rescue each child from the thralldom to which the formalism of the schoolroom has subjected him. For the sake of system we are reducing fifty, sixty, or seventy individual children in a schoolroom to a common denominator. It is true that there is no universal educational method, and that the Herbartians are as little likely as the Hegelians to provide us with a rule that shall know no exception. But in the point of view that they take, based upon the doctrine of apperception and upon the doctrine of interest, they are absolutely right, and we did not expect that a committee of this kind would turn this entire movement out of court without a hearing. Personally I am a slavish adherent of no school of thought and wear the badge of none, but I do say that we should not be prevented from giving to this great Herbartian movement prolonged and sympathetic examination. Why is it that we find the question of the correlation or the concentration of studies forced upon us at all? Certainly the normal child sees the world about him as a correlated and a concentrated whole. It is the adults and the philosophers who

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have made the analysis that has resulted in separating what to the child is connected; so that, after all, the advocates of correlation are simply endeavoring to put the course of study back where they found it and to treat the curriculum from the child's point of view. The adult is able to distinguish a physical fact from a chemical fact, a geographical fact from an historical fact, an arithmetical fact from an algebraical fact; but the child is not. He views them all simply as *facts*, and originally they are all on the same plane with regard to his intelligence. We must, therefore, seek the real unity that underlies the curriculum, and not proceed by making first an artificial separation of studies and then a doubly artificial synthesis of them.

A preceding speaker has sharply criticised the psychology of Herbart. It is undoubtedly true that we cannot accept Herbart's psychology as a satisfactory explanation of mental life. But it is not necessary that we should do so in order to secure the benefit of the educational theory and the educational practice that bears Herbart's name.

SUPT. S. T. DUTTON, Brookline, Mass.—I shall only say a single word. About all has been said that needs to be said now. It seems to me that the question takes this form—the same God that made the child made the world about him.

The purpose of those who mean to work out something better is to find how the child should be taught. Some of my friends do not seem to recognize the value of this report. Dr. Harris said very distinctly that the course of study in point should include the whole round of human knowledge. Now, there are two things that have helped me in this matter, and my view is singularly different from Dr. White's. First, if correlation makes the kindergarten what it is, it seems to me that it should go on. If successful there, it is likely to be in the first year, in the second, and so on. Second, a cross-section of the course of study at any point brings in so many things that confusion follows unless the Herbartian plan is adopted. The only way out of the difficulty is the working out of these principles. If that is not done, we shall have reaction.

I am not afraid that the cause of correlation will be retarded because of this report. Every teacher ought to read this discussion of educational values, and it ought to help us—it will help us. If this report is not complete, it will be completed in the good work of teachers all over this country.

DR. W. T. HARRIS.—I wish to add one remark as to the meaning of correlation. I would call attention to its etymology, which makes it a bringing into relation of what is co-ordinate. In Murray's great English dictionary—see the words correlation, correlate, and correlative—no hint of concentration is given among the many meanings. I knew of the Herbartian idea of concentration of studies, but I was not familiar with the use of the word correlation in the same sense as concentration. Concentration implies subordination of several branches to one central one. I have given an example, in discussing the method of teaching geography, of the application of the deeper doctrine of concentration. I have shown that we should start with the child and proceed in two directions; one towards the elements of difference, in order to explain the obstacles which man has to overcome. On the other side, we should go towards the subjects of human industry, invention, and commerce, and learn the method by which man overcomes the "elements of difference." Geography for the child should begin in the center and move outward towards these extremes, including at every step a human side and a natural side. This is not a philosophical study of correlation, Hegelian or otherwise, although it has been called so in this debate, but a scientific study of the educational value of the branches of the course of study. I began it in 1870. Now, in a

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scientific study, one does not allow his feelings of attraction or repulsion to cloud his reason. He assumes an unprejudiced attitude towards the object that he studies. Child study, as it is pursued by Dr. Stanley Hall, is pursued with this true scientific spirit. But child study is not the only thing in education, nor can education be founded on child study alone. The child is here to be correlated with the world. The educator must study the world and study the child, and correlate the one to the other; that is to say, he must bring the child into a knowledge of the world and a mastery of its appliances. The report, of course, assumes the value of child study, and in all the numerous places where attention is called to the danger of producing arrested development the results of child study are drawn upon; but, on the other hand, if you have a knowledge of the child, and do not have a knowledge of the significance of the branches of study and the way in which they unlock the world of reality, you cannot correlate the child with the world.

POWERS AND DUTIES OF STATE SUPERINTENDENTS.

BY HON. N. C. SCHAEFFER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, HARRISBURG, PA.

Education is primarily the duty of the home. In the historical development of the race many of the functions which belonged originally to the head of the house have been made over to the church and the state. In every civilized country, with the possible exception of Iceland (where the long winter nights give the father ample time to teach his own children), the state has assured the task of universal education by establishing schools for the people and organizing systems of public instruction.

A system of public instruction cannot be efficient without officers charged with executive duties. The executive head of a school system is known by various names. In the fatherland, where church and state are united, he is known as the cultus minister. In the Queen's dominions he is known as the minister of education. In most of the states his official designation is superintendent of public instruction. In a few he is known as the commissioner of common schools. In Massachusetts he is the secretary of the state board of education.

Every public office has its specified and its implied duties. In the present instance a discussion of those only which are typical will be attempted. Such a discussion will serve to reveal wherein the functions and prerogatives of the state superintendent may with advantage be enlarged, and wherein his powers may be abridged without harm to the system. Since each commonwealth has its own pe-

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culiar conditions, regulations which work admirably in one state will not answer equally well in all other states. The endless variety in matters of detail forbids an attempt at more than the enumeration of the duties characteristic of the office in a majority of the states.

In all the states it is specified that the superintendent shall, at stated intervals of a year or two, make reports upon the condition of the school system. The points to be covered by each report are explicitly stated by legislative enactments in several states; in others, room is left for the exercise of good judgment. Inasmuch as new questions continually arise and statistics of every kind lose their interest and value after a time, it seems wise to give the state superintendent considerable discretion in the collection of statistics for his report. The only need for limitation arises in the case of the statistical fiend, who cannot see that the more time and energy teachers must waste upon figures and percentages the less they will have for their legitimate work as guides of the young.

There is no cheaper or more satisfactory method of distributing the state appropriation than by warrants upon the state treasurer drawn by the superintendent of public instruction and made payable to the treasurer of each school district.

The state superintendent is required to expound the school laws and to make decisions for the benefit of directors and others interested in the administration of the school system. In most states his decisions can be reversed by the courts. In New York the state superintendent is the final arbiter in all disputes concerning school matters. "However democratic in her political philosophy New York may be," says Dr. Sidney Sherwood, "the history of her common schools, as well as of her university, shows that she has imperialist instincts. The Empire State is not a mere fancy name." The supreme importance of deciding all school questions speedily and without expense causes me to give my unqualified approval to this extraordinary enlargement of his powers, and for this reason I quote more fully from the authority just cited: "Any person feeling himself aggrieved in consequence of any decision made by school district meetings, school commissioners, supervisors, district trustees, and other officers, in regard to any matter under the school laws, may appeal to the superintendent of public instruction. Thus, the very sanction of local self-government—the district meeting—is invaded by the central authority of the state. The superintendent, in this capacity, establishes rules of practice, issues injunctions, and makes all necessary orders. Councils are heard before him. The questions involved on their appeals touch all branches of the civil law, of the state constitutional law, real estate law, the law of contracts, the law of wills, and the like. Hence, there is conferred upon the superintendent an

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appellate judicial authority co-ordinate with that of the court of appeals in some respects; for the law declares that his decision shall be final and conclusive, and not subject to question or review in any place or court whatever." Not only is the state superintendent a court of final appeal, but he is vested with ample powers to enforce his decisions. He has, "first, the power to compel the assessment and collection of taxes in a school district to pay proper demands against the district; second, the power to remove from office any school trustee, or member of a board of education of a union free school district, or other school officer, for any willful violation or neglect of duty under the school statutes, or for willfully disobeying any decision, order, or regulation of the superintendent."

So far as I can learn, the universal testimony is that this extreme centralization in the system of primary instruction has worked well. Certainly it is superior to the Pennsylvania system, under which the same school question is decided in opposite ways by the different judges of the court of common pleas. For instance, before the passage of the act of June 25, 1885, it was allowable in one county for the directors to furnish free text-books, whilst immediately on the other side of the county line, under the jurisdiction of another judge, this was a violation of law involving dire consequences for the directors, although they were acting under precisely the same code of laws as their neighbors. Again and again it has been demonstrated that men learned in the law may not be sufficiently posted in school matters to interpret flexible statutes in accordance with the best interests of the children.

In many states the arrangements for the holding of institutes are in the hands of the state superintendent. In the Empire State there is an institute faculty under the direction of the central office, so that the quality and variety of talent is limited by its judgment and wishes. I am unreservedly in favor of giving the county or city superintendent the power and the means to procure the best talent at home and abroad. Feeling himself responsible for the success of the institute, he will stir up the interest of the general public, secure the best available instructors, and seek to carry into effect their suggestions and directions during his subsequent school visits. Without the enthusiasm created among all classes by a system of magnificent county institutes it would have been impossible in Pennsylvania to secure an appropriation of $5,500,000 for common schools and $875,000 in aid of normal schools and the training of teachers. Where the county superintendents or county school commissioners are elected by popular vote, so that the office is made a berth for the fellow who deserves party recognition and for whom there is no other place, resulting occasionally in the selection of men who do not know

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the meaning of all the words in an ordinary spelling list, it is well to put into the hands of the state superintendent, not only the arrangements for the annual institute but also the preparation of the questions for the examining and licensing of the teachers. But where the system of electing county superintendents brings into office a man equal to the average state superintendent, by all means place in his hands the preparation of the questions and the examination for all certificates not designed to be permanent. This will enable him to cut off many who have knowledge without teaching power, as well as to retain all who teach well in spite of limited scholastic attainments.

The other agencies for the training of teachers, such as the normal schools, the summer schools, the "State School Journal," may be left in the hands of the state superintendent, in so far as his other duties permit him to oversee their work and management. In any event, his coming should be hailed at every educational gathering and at every institution of learning as was the advent of a new teacher in ancient Athens; his platform utterances should be replete with words of wisdom and encouragement; his presence should be an inspiration to all with whom he comes in contact, and his scholarship and experience should enable him to guide his growing teachers in their study of the latest investigations and results in the department of pedagogy.

The duty of selecting text-books, prescribing courses of study, and making lists of books suitable for school libraries and from which purchases must be made, is sometimes imposed upon boards of education, of which the state superintendent is the most influential member. The purchase of books should be made the duty of the local authorities. The commissions of those charged with the duty of supervision should be issued by the state superintendent, who should have the power to withhold the commissions from persons lacking the necessary qualifications. He should also have power to remove any superintendent for neglect of duty, incompetency, or immorality. He can, of course, tell beforehand whether a supervisor can get things done, or is simply fit to visit for the purpose of ascertaining and reporting what is done in the schools. Only the former class of superintendents earn their salaries. If the commissions of the latter class could be revoked it would be a blessing to teachers and pupils.

In addition to the specified duties, there are certain implied duties which belong to the office by virtue of its place in a school system. First among these implied duties is the obligation to make himself a representative man. By taking up into himself the best elements of the nation and the age to which he belongs he may fit himself to become an educational leader. He should be familiar and in sym-

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pathy with every grade of school work, from the kindergarten to the university.

In the next place, he should inaugurate and carry into effect useful reforms, lopping off what has become dead and useless but engrafting what is new and full of promise. The world's life is constantly advancing; the schools should keep pace with the progress of the race. True historical development implies the preservation of the real essence of the present age whilst its defects are abolished and the life of humanity is elevated and enriched. In other words, he should be a conservative in the true sense of the word. The word conservative may be used to designate "a man who is at the top of the tree and knows it, and means never to come down, whatever it may cost him to keep his place there." In this sense "it means a man who upholds government, and society, and the existing state of things, not because it exists; not because it is good and desirable —because it is established; because it is a benefit to the population; because it is full of promise for the future—but rather because he himself is well off in consequence of it, and because to take care of number one is his main political principle." A conservative in this sense of the word a state superintendent should never be; but he should be a conservative in the sense of one who seeks to preserve existing institutions from unnecessary and hurtful changes.

Perhaps the most important of his implied duties is to guard his school system from harm. Here he must deal with quasi-reformers, ill-advised legislators, and agents of expensive charts and fancy apparatus. These last are the vampires whose blood-sucking propensities eclipse the ghosts of the medieval period, which were said to cause the death of the innocent by sucking the blood out of them while they slept. I trust and pray that some ingenious Yankee will concoct a recipe that will be as fatal to these vampires as paris green is to the potato-bug.

Reformers in education spring up like mushrooms. Now, some species of mushrooms are edible; an English botanist speaks of one kind as food fit for the gods. But many species are very poisonous, and typify the quasi-reformers, to whom they may be likened—fair in appearance but deadly within. The average reformer sees one thing vividly, and judges everything else from his narrow point of view. A member of the Pennsylvania legislature proposed to change the weekly school holiday from Saturday and Monday. On ferreting out his motive, a colleague discovered that the reason for the introduction of the bill was his wife's desire to have her daughters at home on washday, whereas she did not need their services on Saturday. Over against such ill-advised legislation, the function of the state superintendent resembles that of the ichneumon, noted for its

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habit of devouring crocodile eggs, which it scratches out of the sand. This animal was regarded as sacred among the ancient Egyptians, because every egg destroyed meant a future crocodile dispatched. Many of the bills introduced at every session of the legislature contain hidden eggs, which, if hatched, develop into crocodiles, fatal to the best interests of the children. It is the sacred duty of the state superintendent to search out and destroy all eggs of this kind before they are hatched.

Let us next consider the ways of selecting and creating an official vested with these ample powers and diverse functions. The plan adopted by most of the states is that of election by popular vote. This involves a nomination by the state convention of each political party. The names at the head of the ticket are the first selected. There is some probability that the fear of defeat will cause the nomination of the most capable men for governor, lieutenant governor, state treasurer, and the like; but by the time the office of state superintendent is reached, the wishes of the congressional districts which have no representation on the ticket must be consulted. Thus, often a third-rate candidate is selected because the best candidates happen to live in districts from which the other nominees have been taken. Thus, the schools are sacrificed to party success, which is the ruling motive at every political convention. Popular indignation may defeat an unworthy candidate at the head of the ticket. Never have I known the opposition to crystallize against a candidate whom the school people consider unfit for the office of state superintendent. The maxim, *Vox populi, vox Dei*, may hold when financial and agricultural interests are involved; but the *vox populi* often fails to voice the interests of innocent children and defenseless lady teachers, who cast no votes at popular elections. But one worse method can be conceived, viz., that of election by the general assembly or joint vote of the legislature. Here all the ills by which the people's wishes in the selection of United States senators may be defeated are liable to creep into the election, and well-nigh all the reasons which led to the adoption of the present method of electing senators are wanting to him who advocates the joint vote of both branches of the legislature as the best method of electing a state superintendent.

Let us next picture to ourselves the method of appointment by the governor, with the advice and consent of the senate. In the middle of his term the office of state superintendent becomes vacant, and, Diogenes-like, he lights his lantern in search of a man. Being himself possessed of scholarly instincts, he seeks a man of broad and thorough scholarship and of large and varied experience as an educator. He seeks an exemplary exponent of the home, a loyal citizen of the republic, and a consistent member of the church. His aim is

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to find a man who is in sympathy with the progressive movements of the age and who has taken up into himself the best elements of the people whose children are to be educated. Having heard the claim of St. Philip Neri, that, with a dozen really detached men, he could convert the world; and having read Newman's comments upon this remarkable claim, he concludes, that, in addition to the qualities already named, the appointee should be a detached man. Accordingly he seeks a man who will go about his work because it is his duty, "very much as soldiers are expected to go to battle, without a care for the consequences;" one who will do what he conceives to be right and for the best interests of childhood, "caring simply nothing what other people choose to say or think of him or do to him;" one who will account "credit, honor, name, easy circumstances, comfort, human affections, just nothing at all," when any school duty involves the sacrifice of them. The ideal which the governor is seeking to find realized is a man who is as "reckless of all these goods of life on occasions of great public duty as, under ordinary circumstances, we are lavish and wanton in our use of water, or as we make a present of our words without grudging to friend or stranger; one who will rid himself of those who would prostitute the school system for selfish ends as we get rid of wasps, or gnats, or flies which trouble us, without any sort of compunction, without hesitation before the act, and without a second thought after it."

When at last he finds his man, the answer he receives is: "Who is sufficient for these things? Suffer me to stick to my post at the head of the college." When the appointment is offered to a second man, he replies: "My Lord, suffer this cup to pass from me. I prefer to fill my place in the theological seminary." At length the man whom the good Lord has, by sore trials and long experience, prepared for the work, is found, appointed, and reappointed; but his career, though brilliant, ends in sadness, persecution, and premature death.

The picture which I have drawn has a basis in fact. Not for thirty years has a state superintendent been appointed in Pennsylvania as a reward for party services. The last two presidents have shown themselves able to rise above party in the appointment of a commissioner of education, and several governors have lately shown similar magnanimity in their choice of a state superintendent.

If it should be felt, that, in order to avoid the mishap of an appointment as a reward for political services, it is necessary to adopt a still better method, then the only plan which I can conceive of as superior to that of appointment by the governor is to vest the selection in some board removed from the influences of ordinary politics. The board of regents in New York, the board of education in Massachusetts, the supreme bench in Pennsylvania are sufficiently removed

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from the mishaps of politics to insure the selection of a suitable man. Where the method of selection by popular election or gubernatorial appointment prevails, a term of four years is better than a term of two years; but the experience of Massachusetts has shown that appointment by a state board for a term of one year is not incompatible with long tenure of office. Whatever be the method of selection adopted, the farther it is removed from the accidents and mishaps of politics and popular elections the better it will be for the school system and the children, for whose sole benefit schools are established and conducted.

DISCUSSION.

STATE SUPT. J. R. PRESTON, Jackson, Miss.—The duties and powers of a state superintendent naturally fall under three main divisions, corresponding with the main divisions of the subject of education.

First, the historic phase, which includes making a record and collating statistical reports of the actual condition and progress of the schools. These statistics should be systematically collected after a uniform plan, the items being the same for all the states. Otherwise they would be of little value as a basis of comparison with the systems existing in other states.

Second, the static phase. As the historic phase includes the actual condition of the school, so the static phase embraces the ideal system. This ideal system is derived from the study of contemporary systems of education, and should be set forth by the state superintendent in the narrative part of his educational reports.

The third is the dynamic phase, which includes methods and means by which the actual school system can be modified and brought up to the ideal. This imposes upon the state superintendent, as educational leader of the state, the duty of setting into operation all impulses which may tend to bring about the desired result. His means of doing this are numerous and varied, consisting chiefly of addresses and articles in the newspapers and educational journals, through which public interest is aroused and public sentiment molded. Under this head, also, may be mentioned what may be termed a pathological phase of education, which imposes upon the superintendent the duty of looking after and preventing harmful legislation and correcting such evils as may exist in the administration of the system. This requires him to keep in constant touch with the educational officers of the state and to have accurate information of the real condition of the schools throughout his commonwealth.

The power of the state superintendent will depend mainly upon his personal qualities as a leader. By virtue of his official position, he becomes an authority in educational matters throughout the state. A superintendent who administers the office wisely magnifies most this official authority. He does most when, forgetting all personal aims, he consults only for what is best for the cause he serves.

STATE SUPT. HENRY SABIN of Iowa.—The state superintendent of any state should be a man of the people, respected by all; a leader of the teachers and their earnest friend. He must have back of him the educational forces of the state, and,

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working with and through those forces, he must encourage educational meetings and mold public sentiment. The state superintendent must take the sting out of the harmful legislation—killing off bad measures. These, if taken in time, need not cause him trouble. Sometimes in one way and sometimes in another, and always quietly, he may protect the interests of the people. The name of the state superintendent should be a household word. He should be the friend and adviser of every teacher in the state.

STATE AGENT A. W. EDSON of Massachusetts.—In response to the assertion that there must necessarily be some politics in the election of a state superintendent of education, I have this to say, that one state, at least,—Massachusetts,—boasts of the fact that there is absolutely no politics whatever in the selection of the head of the educational department. The state board of education is composed of eight members, exclusive of the governor and lieutenant governor, members *ex-officio;* one appointed each year and confirmed by the council, to serve for a period of eight years. This board selects a secretary and six agents. The members of the board receive no compensation, are appointed without any reference to political preferences, and have a long tenure of office. As a result, for fifty-seven years, from 1837 to 1894, there have been but five secretaries—Mann, Sears, Boutwell, White, and Dickenson. The political faith of the secretary is not taken into consideration; in fact, I doubt if the board knows to which political party the present secretary, Hon. Frank A. Hill, belongs.

If the head of the educational department is elected by popular vote or by the legislature, he must, necessarily, be somewhat embarrassed at times in dealing with men and measures. It can't be otherwise. The less politics in connection with the schools the better for them. In the good time coming, teachers rather than politicians will select educational leaders, school boards, and heads of departments.

A. E. WINSHIP, Editor of "New England Journal of Education," Boston.—Two thoughts have been well emphasized, the duty and the responsibility of the state superintendent. Two others should certainly receive attention—his opportunity and his personality. There is no position in America aside from that of commissioner of education of the United States that affords such opportunity of educational usefulness as that of the state superintendent of schools. He is enabled to help those rural communities that are in no condition to help themselves in professional advancement.

It is the personality of the state superintendent, more than that of any other educational official, which makes him a power. The personality of Judge Draper, as head of the New York state school system, gave him boundless influence at home and an international reputation.

It is this quality that distinguishes the work in Iowa, Pennsylvania, and Massachusetts, as in many other states. Who can speak the influence for good upon the Keystone State of the personality of Wickersham and Burroughs, Higbee and Waller—names that make her educational history radiant? But never in sixty years has there been a more striking and effective personality than that of her state leader, Dr. Schaeffer, from whom we have heard to-day.

Regarding the political affiliations of the state systems, an important distinction has been omitted. No one expects or desires that the head of the educational department should not have positive political preferences; but it is little short of a crime for those preferences to affect him as an educational official. It is as much a man's duty not to be a politician educationally as it is to be a good citizen personally.

This department does well to speak in no uncertain tone regarding the choice and retention of state superintendents of schools on the strength of their personal-

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ity and their educational and administrative ability. All honor to New Jersey who in Republican hands has re-elected an eminent educator, despite the fact that he was previously elected as a Democrat, and to New York who has just elected one who has served as deputy superintendent under both parties. It ought to be possible for the educators of the country to so far affect public sentiment as to secure the retention regardless of political affiliation of every notably efficient state official.

STATE SUPT. E. B. PRETTYMAN of Maryland.—In Maryland the state board of education consists of two *ex-officio* members, viz., the governor and the state superintendent, and, in addition, of four persons who are appointed by the governor by and with the advice and consent of the senate. These four are selected from the county superintendents or the presidents of the county school boards. Thus, five out of the six members of the state board are actively engaged in school work, and constitute a professional board. It is the duty of this board to recommend legislation, and the general assembly usually enacts the laws and amendments so recommended. The public schools of the state are all under the jurisdiction of the state board of education, except those of Baltimore city, which are conducted under local laws.

STATE SUPT. R. E. EMERY of Wisconsin.—In most of the states many questions requiring judicial decisions come before the state superintendent. In my own state it has been enacted by the legislature that the decisions of the state superintendent should be subject to review at the hands of the supreme court. Within ten years, however, no appeal has been taken from his decisions.

SUPERINTENDENT SCHAEFFER, in closing the debate, said: "It has been implied in the debate that governors in appointing the state superintendents are influenced by political motives. The fact is that in my state, although the governor was a Democrat, he appointed a Republican, and it is an open secret that our present United States commissioner of education did not vote for Harrison from whom he obtained his appointment, and did not vote for Cleveland to whom he owes his re-appointment. The decisions of the state superintendent in the large states are not the decisions of one man, but of a number of men working together. And then, after the manner of the decisions of the supreme court, one man puts his name to the paper. Instead of the expensive methods and long time required under any other system, we have a way of settling these questions, and many questions there are which it is better to settle any way than to leave unsettled for a very long time. The decisions of the state superintendent should not be subject to a reversal by a fallible supreme court. If anyone can interpret data in the interests of the children, it is certainly the man who has made education a life-long study."

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HISTORY TEACHING IN SCHOOLS.

BY DR. B. A. HINSDALE, UNIVERSITY OF MICHIGAN.

The report of the conference on history, civil government, and political economy, made to the committee of ten, is a document of forty octavo pages, the foundation of which is composed of some thirty-five resolutions that were carefully elaborated by the distinguished scholars and teachers who composed the conference, while the superstructure is built up by a careful exposition of these relations and their enforcement by appropriate arguments, the whole constituting a solid and valuable body of pedagogical doctrine. Merely to summarize this report and to comment on its salient features would perhaps hardly meet the expectations of the hour. So I shall take up the subject *de novo*, making such references to the report as shall conduce to the stronger presentation of my own ideas. I shall begin with assigning to history its proper place in a full scheme of education.

That expansion or growth of the human mind which we call education originates in the contact of the mind itself with facts or objects of knowledge. We are not here concerned with the speculative aspects of the subject; but we must emphasize the fact that all mental activity—the whole train of cognition, feeling, and will—has its rise in the establishment of such points of contact. Potent as the mind is, it cannot act, and so cannot make increase, in vacuum. These facts or objects of knowledge are divisible into three classes:

1. *The Facts of Nature.*—Every natural object offers to the mind a point of contact, and, when such contact is fixed, sensation, perception, apperception, memory, thought, imagination, pleasure and pain, choice and volition, all follow in due course of time. All schools of philosophy hold that the psychic life originates in the senses.

2. *The Facts of Human Society.*—In their simplest forms, the human infant encounters these facts in the family, and thereby gets the discipline that fits him to grapple with the more complex forms that he afterwards encounters in general society and the state. As he learns what hardness and heat are by beating the floor with his heels and thrusting his hand into the flame, so he learns what command, obedience, rule, government, order, right, and duty are through contact with his nurse, parents, brothers and sisters, and playmates.

3. *Introspective Facts, or Facts of the Self-Conscious Mind.*—Progressively, the child becomes self-conscious. He learns the use of "I" and "me," learns that he is not what he sees, and that he is other than

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the things he touches. He communes with his own heart, and his spirit makes diligent search.

Such are the primordial agents or factors of human civilization, as seen both in individual history and in race history. In both spheres they antedate teachers, and schools, and education, as these terms are commonly understood. In attrition between mind and natural facts originates natural science; in attrition with social facts, social and moral science; and in attrition with mental facts, mental science. To define the relations of these several groups of factors and their comparative values is beside the present purpose; except to say, that, for the most part, they run side by side through the conscious life; that their interaction is constant and powerful, although not uniform in different persons or in different periods of the individual life; and that they are all essential in something like relative measure to a well-developed mind.

These primordial agents of human cultivation are powerfully reenforced by a secondary group. As the first men and women acquired experience through attrition with the worlds of nature, of society, and of the spirit, they imparted to one another what they had learned, and thus became teachers one of another. *Ex hypothesi*, up to this time all knowledge had come from original sources; henceforth second-hand, or derivative, knowledge, and so tradition and authority, play their part. It may be said with truth that there is no wide interval in point of time between the action of the primary agents and the secondary ones; but it is wide enough, to say nothing of the difference in character, to justify the classification of primary and secondary groups that has been given. So we are led to analyze the group of secondary factors.

1. First in time and in power, comes spoken language or oral tradition, the effect of which upon our minds and lives we are quite incapable of estimating.

2. Then follow material monuments of various kinds, ranging from the articles and utensils of common life to the Pantheon and the Simplon road.

3. Symbols follow, including the rude art of the savage, picture-writing, and the Parthenon freize.

4. Last of all is writing, and its corrolary, printing, which gives us the printed page, books, and libraries. This is, indeed, a kind of symbolism, but a symbolism of so distinct a kind that it well deserves a separate classification.

These last factors of cultivation are plainly derivative; they mean nothing, and serve no useful purpose save as they rest upon a previous culture. Their relations to one another and to the primary group do not here concern us, beyond the observation that there has

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been a strong tendency, and particularly since the invention of movable types, to exaggerate the fourth division of the secondary group. But avoiding the questions that are suggested by the words humanism, classicism, realism, and naturalism, let us fix the location of history in the chart of human culture.

The Father of History tells us that he wrote his immortal book that the actions of men might not be affected by time nor the wondrous deeds of the Greeks and the barbarians be forgotten. He has thus defined in a general way the field of history; it is the field of the action or deeds of men. But what action or deeds does it embrace? Shunning the various controversies that a detailed answer would perhaps excite, let us say that history is the story of man's more serious and valuable experience in the most important spheres of his activity—in politics, war, religion, art, industrial achievement, education, scientific discovery, and moral endeavor; and that its sources go back to every one of the secondary agents of education—tradition, monuments, symbolism, and the written page. Seizing first the actions of men that constitute the body of history, the student rests not until he has discovered the spiritual elements out of which these actions have sprung. History is, therefore, philosophy teaching by examples. Even Froude, who scorned both the science and the philosophy of history, and said history was but a drama, admitted that it does teach the difference between right and wrong. And when this much is said, what need be added to show its high educational value? History is one of the main channels through which the experience of the race is communicated to us; and to ask whether it is worth while to pay attention to what it conveys, is to ask whether it is worth while to defer to experience at all. If it is profitable to study the formation of crystals, the hatching of eggs, the germination and growth of seeds, and the surrounding social environment, *a fortiore* is it profitable to study the evolution of humanity from its lowest to its highest forms? As in the lower sphere of life man cannot reach his ends when cut off from association with men, so he cannot meet the ends of the higher sphere when cut off from the past.

Having thus assigned to history its place in the circle of educational agents, I do not think that it is necessary to insist, point by point, that it trains the memory, stimulates the imagination, furnishes guiding knowledge, and cultivates the faculties of reason. But I would observe, with Bishop Stubbs, that history is a great school of the judgment; and all the more valuable because it deals with moral or probable elements, or just such elements as the pupil now encounters in the home, the school, and the church, and just such elements as he will encounter in the town meeting, on 'change, in legislative halls, and administrative offices. How desirable it is, especially,

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that all persons in public life, that all educators in every sphere, should be trained in this great school! In any active political community the study of the history of a similar community is the study of real life; and it fits the student for practical affairs in as real a sense as work in a biological laboratory fits him for the study of animated nature.

The views presented are also conclusive on another point, viz., that the subject of history should receive more attention than at present in the schools. The only open question is, How much more? The conference on history declares, in resolution 1, that history and kindred subjects should be a substantial school study in each of eight years; in resolution 11, that this work should be consecutive; while the amounts of time recommended in resolutions 14, 16, and 17 to be set apart to the various divisions of the subject are not less than three forty-minute periods throughout the eight years, or a total of about 900 exercises in all. Moreover, the conference urges that this total shall be equally divided between the grammar school and the high school. The committee of ten, dealing with high schools only, fails to meet the views of the conference in both the main points. In its model classical course it puts four periods a week in the first year, three in the second year, none in the third year, and only offers three in the last year as an alternative for mathematics. In the Latin and scientific course the assignment is four periods the first year, none in the second, two in the third, and the same alternative the fourth as in the classical course. These requirements the modern language course merely duplicates. In the English course history fares better. Four periods are given it in the first year, three the second, four the third, and three the fourth. The minimum is a total of six periods, or about 240 exercises; the maximum fourteen periods, or about 560 exercises. We need not suppose that the failure of the committee to meet the views of the conference is a case of loving Cæsar less or Rome more, but a case of finding suitable room for all the studies that it felt bound to accommodate. The superintendent of schools, also, is quite certain to demand of the conference where he is to find time for 900 exercises in history. Into these questions of detail it is less important now to enter than it is to insist that more time shall be found for the subject, even at the cost of reducing somewhat the time accorded to other subjects. Asked to name what subjects, I should say,—in the grammar school, arithmetic and geography; in the high school, mathematics, language, physical science. This, be it observed, in case it is necessary.

At what stage of his school life should the pupil be introduced to history? The reply of the conference is, At the beginning of the fifth year. My own reply is, At the beginning of the first year. On

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this point the practice of the Herbartian pedagogists is, in the main, correct. I am not now particular to inquire whether or not "the material for the instruction that is to mold character should be sought in the development of the national culture, which is to be followed in its chief epochs;" or whether *Gesunnungs-Stoff* should control education in its early stages; or whether "history and literature naturally constitute the core of concentration;" or, indeed, whether, in the Herbartian sense, there is such a core. It answers my purpose to insist upon the introduction of history into the first year of the school, and upon its continuance to the end thereof. Perhaps it would be difficult to arrange for a German child a better introduction to the subject than Ziller's double historical series, irrespective of the theoretical views that lie back of it. This is the series:

First year, Grimm's "Fairy Tales;" second year, "Robinson Crusoe;" third year (1) Bible stories from the time of the patriarchs, (2) "Legends of Thuringia;" fourth year, (1) Bible stories from the time of the judges, then of the kings, (2) "Niebelungen Tales;" fifth year, Bible stories from the time of Christ, (2) History of Henry I., Otto I., Charlemagne; sixth year, (1) Bible stories from the time of Christ continued, (2) "Migration of the Nations," Roman Empire and the Popes, the Crusades, the Middle Ages, Rudolf von Hapsburg; seventh year, (1) the Original Congregations of Churches, and the Apostle Paul, (2) Discovery of America and its first settlement, history of the Reformation, the Thirty Years' War; eighth year, (1) Instruction in the Catechism, (2) Frederick the Great, the Napoleonic Wars for Independence, the Restoration of the German Empire.

Around this "core" all other instruction is grouped. One of Ziller's reasons for making such large use of the Bible is the fact that biblical history is everywhere taught in the German schools.

When the child comes to school at the age of six years, he is eager for stories; perhaps for the reason that their soul is activity, of which he is so very fond. Stories are congruous with his reading and language lessons, and with the books that he learns to read outside of school; while they may be so chosen that they shall convey valuable content. They are the very stuff that the child both wants and needs. Furthermore, what is the story but a simple form of history? Some etymological accident made "story" by knocking the rough breathing off from "history." Story and history are but earlier and later forms of tradition, and, at first, they differed only in the kind of language in which they were told. In time history assumed a more dignified form; but in Herodotus the differentiation is very observable, while it is still common to call the masters of historical narration great story-tellers. It is not a mere conceit to say, that there is a striking parallelism between the development of historical

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knowledge in the individual and the development of historical art. The child listening to nurse's tale or to old wife's fable, the child pouring over his book of stories full of incident and adventure and the child studying his book of formal history travels in a few years that long road, the three sections of which are marked in history by oral tradition, by such writings as those of Herodotus, Livy, and Froissart, and by the profound works of Thucydides, Tacitus, and Polybius. Now, it is more than probable that the members of the conference on history would agree to all that I am saying, with the proviso that they do not call tales history. But I should reply, that, pedagogically speaking, there is no qualitative difference between them, and that you can no more separate the three periods in the child's life sharply than you can separate them sharply in the history of the race. Still, I am not sure that the conference would meet my views, because it makes no mention of either mythology or biography until the beginning of the fifth school grade.

What shall be the range of the work attempted? What the subjects chosen? The conference answers with the following program:

Fifth and sixth grades, biography and mythology; seventh grade, American history and elements of civil government; eighth grade, Greek and Roman history, with their oriental connections; first year, in the high school, French history; second year, English history (each to be so taught as to elucidate the general movement of medieval and modern history); seventh year, American history; eighth year, a special period of history, studied in an intensive manner, and civil government.

Before commenting upon this scheme, I wish to present one that is followed in the elementary schools of Baden, Germany.

Third grade, historical tales related by the teacher and repeated by the pupils several times; fourth and fifth grades, historical tales continued, their number augmented, a brief outline of the history of the village or town and the country (the latter connected with the geography of the country), and short biographies of national heroes; sixth grade, a brief outline of Grecian and Roman history, several parts dealt with in a more detailed way, e. g., the Persian wars, Alexander the Great, the wars between the Romans and Germans, the invasion of the barbarians, historical compositions, embracing both biographies and tales and historical essays in the reading book; seventh grade, history of the Middle Ages in Germany, dealt with in the same way as the ancient history in the seventh grade, much stress being laid on the Crusades and the end of the Middle Ages, historical tales, biographies, and essays in the reading book; eighth grade, modern times, especially in Germany, history of the Thirty Years' War, the Seven Years' War, the wars against Napoleon, and the war

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of 1870-71, dealt with in a complete manner, history of France from 1648 to 1858 (chiefly the French Revolution), tales, biographies, essays continued, and longer than in previous grades. No text-book is used; only oral instruction by the teacher, and a few notes taken by the pupils.

This program suggests one important point of difference between German and American history. Germany has long lain directly in the main stream of the world-movement, while America, from the beginning, has lain outside of this stream. German history is primarily a part of general history, while American history is such only in a secondary degree. The German pupil establishes his historical connections with the world-movement directly, the American pupil only by the way of England. Then, historically, as well as geographically, the German is much nearer to Greece and Rome. To a great extent, the German's study of Italy or France is a study of Germany itself; but in the other case this is true only to a limited degree. The result is, that the German pupil makes the transition from natural history to general history far more easily than the American. This view of the subject is little likely to be questioned. It is here presented as a reason for questioning the wisdom of introducing Greek and Roman history, with their oriental connections, at least as a formal study, into the grammar school. It must be remembered that the typical pupil of fourteen years of age is not very mature in mind. Besides it may well be doubted, also, whether, if foreign history is to be introduced into the grammar school, it would not be better to introduce portions of English history. I cannot think the German example at this point is a safe one to follow. But, while I have serious doubts about the formal study of Greece and Rome at this stage of progress, I have none whatever about bringing in, not merely the fable, the myth, and the legend found in Homer and Virgil but also the biographies of the Grecian and Roman heroes and sages. Can we not rehabilitate Plutarch? and, if we can, would it not be worth more to the youth than such formal study of Grecian and Roman history as would be possible, no matter whether he goes to the high school or at once to active life?

It should be observed that the German program says nothing directly about the orient, and that the American program only mentions its connections with Greece and Rome. To be sure, nobody knows very definitely what their early connections were, but I assume that the conference would not go back of the great struggle between Persia and Greece. Everybody should have a general knowledge of the Hebrew Bible; but beyond this we should not, in general education, concern ourselves with Asia, until we reach the epochs across which are written in letters of light the names, Marathon, Ther-

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mopylæ, Salamis, Platea. For practical purposes, outside of religion, we may regard general history as beginning with Greece. Whatever one may think of some of Dr. Freeman's historical theories, he will hardly dissent from these words in respect to Greece:

> The Greeks, with their many small states, were the first people from whom we can learn any lessons in the art of politics, the art of ruling and persuading men according to law. The little commonwealths of Greece were the first states at once free and civilized which the world ever saw. They were the first states which gave birth to great statesmen, orators, and generals who did great deeds, and to great historians who set down those great deeds in writing. It was in the Greek commonwealths, in short, that the political and intellectual life of the world began.

Or from these words in respect to Rome:

> The nations which have stood out foremost among all have been the Greeks, the Romans, and the Teutons. And among these it is the Romans who formed the center of the whole story. Rome alone founded a universal empire in which all earlier history loses itself, and out of which all later history grew.

On one point that the conference has touched I wish to utter no uncertain sound. The "acquirement of a body of useful facts" is pronounced "the most difficult and the least important outcome of historical study." The principal end of history in the schools, as of all education, is declared to be training of the mind. To these expressions, properly understood, there can be no rational objection. Still, they seem to ring of the venerable dogma of formal discipline. They seem almost to suggest that profitable historical study can be carried on without the acquirement of a body of useful facts. While it is true that the acquisition of facts and real mental training are not necessarily measures each of the other, still they cannot be wholly separated, and in good teaching they cannot be separated at all. The mind cannot be disciplined upon nothing; it works only as it works upon something. For one, I stand much in fear that the facts taught in the schools will not be well chosen, and that they will not be well taught; but, waiving these two points, I have no fear that too many facts will be taught, unless, indeed, the subject is allowed to encroach upon other subjects. To suppose that too many facts will be taught, is to suppose that too much history will be taught. However, I have no good word to say for the old-fashioned memoriter method, and cheerfully grant that the facts are only a means to an end.

At this point I wish to read, with some comments of my own, a statement recently made by Prof. Morse Stephens, who came last year from Oxford to teach European history at Cornell University.*

* Prof. Morse Stephens, Cornell's new professor of European history from Oxford, has made some interesting comparisons between English and American college students. He concludes that the average American undergraduate takes a more comprehensive

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Competent judges are not likely to question the general accuracy of this interesting statement. The explanation of the facts stated is found mainly in the aims of English and American education, and in the methods of instruction that are employed, particularly in the secondary schools. First, English teachers lean more on lectures, or other oral instruction, and so on writing and note-books; American teachers, more on oral recitations and on general summaries. One result is that the English boy is trained to spell and write better, and to use more correct English, than the American boy. The one is methodical and correct in form, where the other is discursive and slipshod. But, secondly, the American pupil's peculiar discipline gives him comprehensive views of a subject, a better grasp of large facts, and a considerable mastery of generalizations, which have their unhappy compensation in a deficient knowledge of details, as well as a defective use of English. The American pupil is certainly not strong in names and places. The natural tendency of the recitation method is here reinforced by the very common disposition on the part of teachers to disparage details. "A mere fact; only a date!" is the contemptuous phrase with which the careless or ignorant teacher often dismisses one of those little things that constitute the very staple of history. In some quarters it has actually come to be a fashion to disparage the man of large information,—of full knowledge,—regarding him merely as a patient drudge. It is now common to berate the schools for teaching too many facts. Facts may possibly be badly taught in the schools, or they may be ill chosen; but it is not true that the pupils of American schools are strong in facts, but the contrary. In the third place, there can be no doubt that the typical English boy who comes up to the university has received a more regular, a more systematic, and a more thorough training than the typical American boy. Of its kind, he has been taught in a better school. Once more, it is an old saying that the English mind runs to details rather than to general views and philosophical principles. Such is the constant charge of the French and German critics. While there can be no doubt that the English mind handles an enormous amount of fact-material, it may still be doubted whether Englishmen are remarkable for a nice accuracy in their facts. There is much reason to think the contrary. The question whether the American student with his good essay and poor examination paper is better or worse than the English student with his good examination paper and poor essay, is a question that will not here be considered; the truth is, that measurable excellence should be obtained in both exercises.

It is not necessary to go with Dr. Freeman in declaring that the fields of politics and history are co-extensive, in order to find firm ground on which to rest the teaching of civil government in the schools. I quote with entire approval resolutions 28 and 29 adopted by the conference:

view of history, has a better grasp of its essential facts, and surpasses his English cousin of corresponding grade in power of generalization; but the American student is lamentably deficient in his knowledge of details and also writes very poor English. Professor Stephens thought the essays written by his undergraduate students at Cornell were, on the whole, better than similar essays written by English students at Cambridge, although he sharply criticised the spelling, grammar, and generally careless style of the Americans. When, however, he set his American students an examination of twenty questions concerning dates and places, he was overwhelmed by the lack of knowledge of facts displayed in the answers. More than half of the class failed to pass the examination, the average percentage being about forty, and as a rule the students who wrote the best essays handed in the poorest examination papers.

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That civil government in the grammar schools should be taught by oral lessons, with the use of collateral text-books, and in connection with United States history and local geography.

That civil government in the high schools should be taught by using a text-book as a basis, with collateral reading and topical work, and observation and instruction in the government of the city or town and state in which the pupils live, and with comparisons between American and foreign systems of government.

This direct observation of and instruction in the government of the city or town and state is equally important, and even more important, in the elementary schools. Foreign systems of government, for the most part, and certainly comparisons between them and our own system, should be deferred to the high school.

Perhaps no part of the report of the conference has provoked more criticism than the recommendation in respect to the intensive study of some period of history or other historical subject. It will have been observed that such study as this is found in the German schools. The recommendation seems to me a good one, provided time can be found to do the work, and provided the phrase "intensive study" be understood in a sense sufficiently limited or relative.

Worthy of all praise are the remarks that both the conference and the committee of ten have offered on the importance of saving time through the better co-ordination of subjects. Without entering upon the general merits of the doctrine of concentration, about which we are now hearing so much, I wish to say that instruction in history, in language and composition, in geography and civil government, can be so organized as at once to save time and to secure better results than at present. These subjects are as congruous and are as capable of close articulation as any subject found in the curriculum.

The report closes with the recommendation that only teachers who have had adequate special training shall be employed to teach history and the related subjects. To the obvious objection, that such teachers are not to be found in numbers sufficient to carry out the program in the schools of the country, the conference would probably reply that the teachers can be provided as soon as the schools can be put in shape to receive them.

The present subject, as well as several others on the program, has been immediately suggested by the discussion that has been going on the last three or four years relative to secondary education. In this discussion the central questions have been: What studies shall form the staple of such education? and, In what order and proportion shall they be combined? Upon only one phase of the subject do I wish to comment. Causes that are here wholly irrelevant imposed upon the nations of modern Europe a foreign culture conveyed in foreign tongues. The ancient classics became, not merely a department of study but practically the field of study. The fact was most anoma-

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lous. The Jews, who have certainly proved themselves a tough and enduring nation, knew no literature and no history outside of their incomparable Scriptures, which to them were a national literature in the best sense of the term, and not merely a book of religion. The Greeks, who were the ablest race intellectually that the world has ever seen, were nourished exclusively upon a national vernacular culture. Even the establishment of the Greek arts in Rome, following the conquest of Greece, fell far short of the establishment of the classical tradition in breadth and permanency of influence. In recent times the power of this tradition has been broken; it is no longer considered necessary that an educated man shall study Greek, or even Latin. Into the general merits of the classical question, I do not propose to go. It is unmistakable that there has been a strong drift towards modern studies. Has this drift reached its limit? I cannot think so. While the old humanities will never be banished from the schools, they can hardly continue to hold even the diminished place that they now occupy. Modern studies, and particularly vernacular studies, will encroach upon them still more. This fact has been very apparent in the discussions of the last three years. Moreover, it cannot be reasonably doubted, that, in the future, increased emphasis will be laid upon the national history and literature as a means of forming the national mind and character.

THE TEACHING OF POLITICAL ECONOMY IN SECONDARY SCHOOLS.

BY CHARLES F. THWING, PRESIDENT OF WESTERN RESERVE UNIVERSITY AND ADELBERT COLLEGE.

The agreement is widespread that political economy as a system should not be taught in secondary schools. It is too recondite, too technical; at present, too uncertain. The agreement is also general that certain truths of political economy should be taught in secondary schools. These truths are simple, vital, fixed. This brief paper, therefore, relates to what are the facts which should be taught and also what method of teaching should be used.

Prof. J. B. Clark writes me: "We should treat economic truth, not as a specialty but as a vast department of truth—fact and principle—about which all men must and do think. The difficulties of the science when taught as a system are largely due to what is essentially a cramming method. Much that is really scientific does not need to

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be difficult. I have actually taught things that figure in advanced economic courses to a boy ten years of age. It is easy to make a course so perfectly simple and elementary that a child can grasp it. It is too much to expect that this should be done in all the schools soon. It would require some trained teachers and some primers. In a school or two the method could be perfected, and it could later be extended."

Prof. Franklin H. Giddings writes: "I believe that certain important and elementary truths of political economy should be taught in the public schools, but I am not in favor of introducing there a system of political economy taught from a text-book."

Prof. Henry C. Adams writes me: "Instead, therefore, of political economy, it would seem to me more advantageous to introduce a carefully prepared study of industrial history. Several advantages would accrue in this. First, students would, through the study of industrial history, come to understand the modern industrial regime more perfectly than in any other way; and that, after all, is what we want. Men ought to be able to understand the conditions of economic life in which they live, rather than familiarize themselves with some other persons' theory with regard to those forces. Another advantage of industrial history would be, that students would come to appreciate the fact that the conditions under which they live are not permanent but are constantly changing. It would be worth a great deal, for example, if the great mass of men and women to-day, in considering the labor problem, were familiar with the way in which that problem came into existence. They would then regard any particular strike or labor controversy, not as an isolated factor but as a phase of a great social movement. In this way they would secure a perspective which it is impossible to obtain in any other manner."

Prof. Simon N. Patten, in a paper, "Economics in Elementary Schools," has stated what truths, in his opinion, should be taught, and has illustrated and enforced his teaching of these truths with much picturesqueness. Professor Patten states that the basis of political economy is found in the theory of utility. From this principle he derives the following truths, which he believes should be and may be taught in elementary schools: "Initial and final utility;" "In a group of pleasures and pains, the pains should precede the pleasures;" "A life of unalloyed pleasures;" "The basis of credit;" "The sacredness of unprotected property;" "The harmony of consumption;" "The ejection of discordant elements;" "Group pleasures should be given the preference above individual pleasures and the right of exclusion." These truths, which I thus take word for word from his paragraphs, are put into phrase most happy, and an exposition of them is made with rare facility and impressiveness. As I

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read the whole tract, which is composed of these expositions, I find myself moved to say, that the number of those fitted to teach these truths at all adequately in the elementary schools is small—exceedingly small. It is only one person in a thousand who can, in a formal lecture, explain and illustrate these truths so well as Professor Patten. It is only one teacher in ten thousand who could teach these truths in ways at all proper. American education is, in fact, in respect to the need of well qualified persons to teach political economy in secondary schools, in the same condition in which Charles Wordsworth was when he went for a second mastership to Winchester. He needed a good Greek grammar. He filled this need by making one himself. We need good teachers of political science in the schools. I see no way of filling the need except by making the teachers. For, it is evident that we must teach the great economic and social truths in the secondary schools if they are to be at all taught to the great body of the American people. And that these truths ought to be taught to the great body of the American people is as plain as that anything ought to be taught to them. For what subjects are, or can be, more important than the relations which men bear to each other? Teaching these subjects in the secondary school is more important than teaching them in college. The boy who goes to college is a very important qualitative part of the community, but he is not a very important quantitative part.

Any value which may attach to a brief paper upon this subject must consist largely upon its definiteness. I therefore shall beg your indulgence. In teaching the great truths of political economy or of political science I should begin with the subject of money. Money is the most important economic element with which the child has to do. Pennies fascinate him at an early age. He likes to play with them and to swallow them. Money has a meaning for at least two of his senses. As an object of attainment it is pretty constant to him up to and through all his schooldays. Therefore, in teaching this subject and beginning with money, I should first ask the question which Paul Dombey asked, What is money? and, in answering it, I should try to answer some of the most important questions of science and of economic life. Money, we say, is a standard of value and a medium of exchange. At once, in explaining this definition, I should put on the table a one dollar bank bill, a one dollar silver piece, a one dollar gold piece, a one dollar check, and a one dollar foreign draft. I should then ask, What will that one dollar buy? Manifold will be the answers I should get. One of the answers would be, twenty pounds of sugar. This answer and others would allow me to illustrate the difference between ordinary purchase and sale and barter, and would show the convenience of money as a means of ex-

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change. But money is also a standard of value. In explaining this phrase I should pick up the silver piece and ask where it came from, and point out the processes through which it has passed from the hour in which it was mined to the laying of the piece upon the desk. I should thus be able to convey an idea as to cost. With the money still before me I should pass on to the question of demand and sup ply. There is only one barrel of sugar in town, but people need the sugar. Mr A needs it; Mr. B needs it; Mr. C wants a barrel, also. But there is only one barrel for all. The demand of Mr. A plus the demand of Mr. B plus the demand of Mr. C will make Mr. X who owns the sugar put up the price to a point where perhaps Mr. B can not buy, or will buy a less quantity. But it is springtime and maple sugar is coming onto the market. The supply may lessen the price of sugar. Mr. B has had an addition to his income of a thousand dollars a year. Mr. C has likewise become well-to-do. With their increased wealth they can buy more things, both in groceries and furniture. Dealers in these articles increase their supplies. The demand has increased the supply and the supply equals the demand. Thus I illustrate the great law of demand and supply. I have on my table five kinds of what I may call money. With these kinds before me I can talk about a paper currency; I can talk about a convertible and inconvertible currency. With the gold and the silver I can talk about a double standard or a single. I have a check here, and I can talk about checks in facilitating business in doing away with the need of currency. With my foreign draft I can go somewhat into the difficult question of international exchanges. International exchanges may introduce the question of free trade or restricted, *i. e.*, protection. What is called paper money and gold and silver will allow me to talk all I can wish as to the perils of paper money and advantages. At this point in my little course I should take the class to a bank and have explained to them what a bank is; what functions it fulfills in the community; and, in particular, its relation to commercial crises. I could discuss the question of the relation of a bank to national finances, and the question of the relation of finance to the national government. A bank at once brings forth the question of capital, and in a bank in a building built for itself it would be easy to discriminate between capital fixed and capital circulating. This idea of money, too, suggests the idea of cost and price. Cost and price lead directly to the idea of labor. I might at once go underneath my money and say that the real cost of the table upon which my money is lying is the labor that has gone into making the table. Labor leads to the subject of division of labor, and also to the territorial division of labor and its products. Labor opens to us

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the question of expenditure, productive and unproductive. This question of wages, too, is simply a part of the question of money.

There are two departments in this subject extremely important which should be taught by example and illustration. First, the financial side of the government of the city or town in which the student lives; and, second, methods of transportation. For the first—the government of the city—let the class visit the offices of the city or town and become acquainted with all the methods of doing the municipal business. Let the student be shown the books of the city treasurer and the auditor. Let him know the cost of each department of the city's house-keeping. Let him examine every means for meeting this cost. For the question of transportation let him visit the railroad office. Let him have pointed out to him the significance of a railroad ticket, the significance of a freight bill, the significance of a railroad bond or a certificate of railroad stock. These are two departments with which he, as a child, has to do—with which he as a man will have to do. Let him learn them through observation. Let him learn their significance through having it pointed out to him by a wise teacher. If the method of visiting be insufficient, let copies of various municipal and railroad documents be made, sent to the schoolhouses, and seen by and explained to students.

I am not so blind nor so deaf as not to be aware how very simple all this seems to you. But do you know that I have touched upon most of the principles which John Stuart Mill touches upon in his great book? Is this method too recondite? As Professor Clark says, a child could understand it. Is this method too expensive in time? An hour a day for a dozen weeks would be ample. Is this method beyond the ability of teachers to use? If they have mastered a good book, and then have forgotten the book and can use the principles of the book, it will be very easy to a teacher. Is this method stupid to a child? Not stupid so long as a teacher can afford to invest in three dollars of currency and in blank bank checks. Is the result worth while? Certainly, for the result is an intellectual training—teaching one to think, to discriminate, to reason. Is the result worth while? Surely, for the result is a moral training of which the principle is that honesty lies at the basis of these methods. Is the result worth while? Assuredly, for the result is a most useful training, as it points out fallacies into which even lawmakers or law interpreters have fallen. Is the result worth while? Yes, it is worth while, for it aids every child in becoming a good citizen.

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REPORT OF THE SUB-COMMITTEE ON THE ORGANIZATION OF CITY SCHOOL SYSTEMS.

BY ANDREW S. DRAPER, CHAIRMAN.

It is understood that the committee is to treat of city school systems which are so large that persons chosen by the people to manage them and serving without pay cannot be expected to transact all the business of the system in person nor to have personal knowledge of all business transactions; and which are also so large that one person employed to supervise the instruction cannot be assumed to personally manage or direct all of the details thereof, but must, in each case, act under plans of organization and administration established by law and through assistants or representatives.

The end for which a school system exists is the instruction of the children, the word instruction being used with the meaning it attains in the mind of a well-educated person, if not in the mind of an educational expert.

To secure this end, no plan of organization alone will suffice. Nothing can take the place of a sincere desire for good schools, of a fair knowledge of what good schools are and of what will make them, of a public spirit and a moral sense on the part of the people which are spontaneous or which can be appealed to with confidence. Fortunately the interest which the people have in their own children is so large and the anxiety of the community for public order and security is so great that public sentiment may ordinarily be relied upon, or may be aroused to action, to choose proper representatives and take proper measures for the administration of the schools. If, in any case, this is not so, there is little hope of efficient schools. Wherever it is so, it alone will not suffice; but proper organization may become the instrument of public sentiment and develop schools that will be equal to the needs of all and become the safeguards of citizenship.

Efficient schools can be secured only by providing suitable buildings and appliances and by keeping them in proper order, on the one hand; and, on the other hand, by employing, organizing, aiding, and directing teachers so that the instruction shall have life and power to accomplish the great end for which schools are maintained.

The circumstances of the case naturally and quickly separate the duties of administration into two great departments: one which manages the business affairs, and the other which supervises the instruction. The business affairs of the school system may be trans-

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acted by any citizens of common honesty, correct purposes, and of good business experience and sagacity. The instruction will be ineffective and abnormally expensive unless put upon a scientific educational basis and supervised by competent educational experts.

There will be a waste of money and effort and a lack of results unless the authorities of these two departments are sympathetic with each other; that is, unless, on the one hand, the business management is sound, is appreciative of good teaching, looks upon it as a scientific and professional employment, and is alert to sustain it; and unless, on the other hand, the instructors are competent and self-respecting, know what good business management is, are glad to uphold it, and are able to respect those who are charged with responsibility for it.

To secure efficiency in these departments, there must be adequate authority and quick public accountability. The problem is not merely to secure some good schoolhouses, but good schoolhouses wherever needed, and to avoid the use of all houses which are not suitable; it is not to get some good teaching, but to prevent all bad teaching and to advance all the teaching to the highest possible point of special training, of professional spirit, and of life-giving power. All of the business matters must be intrusted to competent business hands and managed upon sound business principles; and all of the instruction must be put upon a professional basis. To insure this, there must be deliberation and wisdom in determining policy, and then the power to do what is determined upon must be present and capable of exercise, and the responsibility for the proper exercise of the power must, in each case, be individual and immediate.

It is imperative that we discriminate between the legislative and the executive action in organizing and administering the schools. The influences which enter into legislative action looking to the general organization and work of the schools must necessarily and fundamentally flow directly from the people and be widely spread. The greater the number of people, in proportion to the entire population, who can be led to take a positive interest and an active part in securing good schools the better will the schools be, provided the people can secure the complete execution of their purposes and plans. But experience has clearly shown that many causes intervene to prevent the complete execution of such plans; that all the natural enemies of sound administration scent plenty of plunder and are especially active here; that good school administration requires much strength of character, much business experience, much technical knowledge, and can be measurably satisfactory only when the responsibility is adequate and the penalties for maladministration are severe. Decentralization in making the plan and determining what

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shall be done, and centralization in executing the plan and in doing what is to be done, are perhaps equally important.

It should be remembered that the character of the school work of a city is not merely a matter of local interest, and that the maintenance of the schools does not rest merely or mainly upon local authority. The people of the municipality, acting—and ordinarily glad to act, but in any event being required to act—under and pursuant to the law which has been ordained by the sovereign authority of the state, establish and maintain schools. They must have the taxing power which the state alone possesses in order to enable them to proceed at all. They must regard the directions which the state sees fit to give as to the essential character of the schools, when it exercises in their behalf, or when it delegates to them, the power of taxation.

The plan should be flexible for good while inflexible for evil. After meeting essential requirements, the people of the municipality may and should be empowered to proceed as much farther as they will in elaborating a system of schools. The higher the plane of average intelligence, and the more generally and the more directly the people act in deciding what shall be done, and the greater the facility and completeness with which the intelligence of the city is able to secure the proper execution of its plans by officers appointed for that purpose, the more elaborate and the more efficient will be the schools.

It is idle to suggest that centering executive functions is unwisely taking power away from the people. The people cannot execute plans themselves. The authority to do so must necessarily be delegated. The question simply is: Shall it be given to a number of persons, and, if so, to how many? Or, to only one? This question is to be decided by experience, and it is, of course, true that experience has not been uniform. But it is doubtless true that the general experience of the communities of the country has shown, that, where purely executive functions are conferred upon a number of persons, jointly, they yield to antagonistic influences and shift the responsibility from one to another; and that centering the responsibility for the proper discharge of executive duties upon a single person, who gets the credit of good work and must bear the disgrace or penalty of bad work, and who can quickly be held accountable for misdeeds and inefficiency, has secured the fullest execution of public plans and the largest results. To call this "centralization," with the meaning which commonly attaches to the word, is inaccurate. Instead of removing the power from the people, it is keeping the power closer to the people and making it possible for the citizen in his individual capacity, and for organized bodies of citizens, to secure the execution of plans according to the purpose and intent with which those plans

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were made. Indeed, it is safe to say that experience has shown that it is the only way in which to prevent the frequent thwarting of the popular will and the defiance of individuals whose interests are ignored or whose rights are invaded.

So much, it seems to us, is strongly supported both by reason and by experience, and is clearly manifest.

But all the people of a city whose population is numbered by hundreds of thousands or millions cannot meet in a legislative assemblage to formulate plans for school government, any more than they can all meet to make plans for municipal government. They cannot even gather in mass meetings, and, if they could, mass meetings cannot deliberate. Even their legislative action must flow, not from a primary but from a representative assembly.

What shall such a representative legislative body be called? How shall it be chosen? Of how many members shall it be composed? And what shall be its powers? These and other similar questions are all-important and must be determined by the law-making power of the state. The sentiments of the city, as expressed through the local organizations and particularly through the newspapers, must, of course, have much weight with the legislature if there is anything like unanimity or any very strong preponderance of opinion in the city; for the plan for which a community expresses a preference will surely be likely to operate most effectually in that community. But the local sentiment is not conclusive. When divided, it is no guide at all. The legislature is to take all the circumstances into consideration, take the world's experience for its guide, and, acting under its responsibilities, it must exercise its high powers in ways that will build up a system of schools in the city likely to articulate with the state educational system and become the effective instrument of developing the intelligence and training the character of the children of the city up to the ideals of the state.

The name of the legislative branch of the school government is not material, and the one to which the people are accustomed may well continue to be employed. There is no name more appropriate than the "Board of Education."

The manner of selecting the members of this legislative body may turn somewhat upon the circumstances of the city. We are strongly of the opinion, that, in view of the well-known difficulty about securing the attendance of the most interested and intelligent electors at school elections, as well as because of the apparent impossibility of freeing school elections from political or municipal issues, the better manner of selection is by appointment.

If the members of the board are appointed, the mayor of the city is likely to be the official to whom the power of appointment may

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most safely be intrusted. The mayor is not suggested because his office should sustain any relations to the school system, but because of the fact that it does not and should not. The school system should be absolutely emancipated from partisan politics and completely dissociated from municipal business. But we think the appointments should be made by some one person rather than by a board. The mayor is representative of the whole city and all its interests. While not chosen with any reference to the interests of the schools, he may be assumed to have information as to the fitness of citizens for particular responsibilities and to be desirous of promoting the educational interests of the people. If he is given the power of appointment, he should be particularly enjoined, by law, to consider only the fitness of individuals and to pay no regard to party affiliations, unless it be particularly to see to it that no one political party has an overwhelming preponderance in the board. The mayor very commonly feels constrained, under the pressure of party expediency, to make so many questionable appointments that he is only too glad, and particularly so when enjoined by the law, to make very acceptable appointments of members of school boards, in order that he may gratify the better sentiment of the city. We are confident that the problem of getting a representative board of education is not so difficult as many think, if the board is not permitted to make patronage of work and of salaried positions at the disposal of the public school system. Under such circumstances, and more and more so as we have approached such circumstances, appointment in the way we suggest has produced the best school boards in the larger cities of the country.

Attempts to eliminate partisanship from school administration by arraying an equal number of partisans against each other in school boards do not at least aim at an ideal. At times such boards have worked well and at others have led to mischievous consequences. The true course is to insist that all who have any share in the management of the schools shall divest themselves of partisanship, whether political or religious, in such management, and give themselves wholly to the high interests intrusted to them. If it be said that this cannot be realized, it may be answered, without admitting it, that, even if that were so, it would be no reason why the friends of the schools should not assert the sound principle and secure its enforcement as far as possible. We must certainly give no countenance to makeshifts which experience has shown to be misleading and expensive. The right must prevail in the end, and the earlier and more strongly it is contended for the sooner it will prevail.

The members of schools boards should be representative of the whole population and of all their common educational interests, and

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should not be chosen to represent any ward or subdivision of the territory or any party or element in the political, religious, or social life thereof. Where this principle is not enforced, the members will feel bound to gain what advantage they can for the sub-district or special interests they represent; bitter contests will ensue, and the common interests will suffer.

The number of the members of a board of education should be small. In cities of less than 500,000 inhabitants it should not be more than nine, and preferably not more than five. In the very largest cities it may well be extended to fifteen.

The term for which members are appointed should be a long one, say five years.

We think it an excellent plan to provide for two branches and sets of powers in the board of education; the one to have the veto power, or at least to act as a check upon the acts of the other. This may be accomplished by creating the office of school director and charging the incumbent with executive duties on the business side of the administration, and by giving him the veto over the acts of the other branch of the board, which may be called the school council. Beyond the care and conservatism which are insured by two sets of powers acting against each other, this plan has the advantage of giving the chief executive officer of the system just as high and good a title as that of members of the board; it is likely to secure a more representative man, and gives him larger prerogatives in the discharge of his executive duties and better standing among the people, particularly among the employes and teachers associated with the public school system.

If this plan is adopted, the school director should be required to give his entire time to the duties of his position and be properly compensated therefor. He should be the custodian of all property and should appoint all assistants, janitors, and workmen authorized by the board for the care of this property. He should give bond with sufficient sureties and penalties for the faithful and proper discharge of all his duties. He should be authorized by law to expend funds, within a fixed limit, for repairs, appliances, and help, without the action of the board. All contracts should be made by him and should run in his name, and he should be charged with the responsibility of seeing that they are faithfully and completely executed. All contracts involving more than a limited and fixed sum of money should be let upon bids to be advertised for and opened in public. He should have a seat in the board of education; should not vote but should have the power to veto, either absolutely or conditionally, any of the acts of the board through a written communication. This officer and the school council should together constitute the board of education.

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The board of education should be vested only with legislative functions and should be required to act wholly through formal and recorded resolutions. It should determine and direct the general policy of the school system. Within reasonable limits as to amount, it should be given power, in its discretion, to levy whatever moneys may be needed for school purposes. It should control the expenditure of all moneys beyond a fixed and limited amount, which may safely and advantageously be left to the discretion of the chief executive business officer. It should authorize, by general resolutions, the appointment of necessary officers and employes in the business department, and of the superintendent, assistants, and teachers in the department of instruction, but it should be allowed to make no appointments other than its own clerk. With this necessary exception, single officers should be charged with responsibility for all appointments.

This plan, not in all particulars but in the essential ones, has been on trial in the city of Cleveland, Ohio, for nearly three years, and has worked with very general acceptability. If this plan is adopted, the chief executive officer of the system is already provided for and his duties have already been indicated. Otherwise it will be necessary for the board to appoint such an officer. In that event the law should declare him independent, confer upon him adequate authority for the performance of executive duties, and charge him with responsibility. But we know of no statutory language capable of making an officer appointed by a board and dependent upon the same board for supplies independent in fact of the personal wishes of the members of that board. And right here is where the troubles rush in to discredit and damage the school system.

We now come to the subject of paramount importance in making a plan for the school government in a great city, namely, the character of the teaching force and the quality of the instruction. A city school system may be able to withstand some abuses on the business side of its administration and continue to perform its function with measurable success, but wrongs against the instruction must, in a little time, prove fatal. The strongest language is none too strong here. The safety of the republic, the security of American citizenship, are at stake. Government by the people has no more dangerous pitfall in its road than this, that in the mighty cities of the land the comfortable and intelligent masses, who are discriminating more and more closely about the education of their children, shall become dissatisfied with the social status of the teachers and the quality of the teaching in the common schools. In that event, they will educate their children at their own expense, and the public schools will become only good enough for those who can afford no better. The only way to

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avert this is by maintaining the instruction upon a purely scientific and professional footing. This is entirely practicable, but it involves much care and expense in training teachers, the absolute elimination of favoritism from appointments, the security of the right to advancement, after appointment, on the basis of merit, and a general leadership which is kindly, helpful, and stimulating to individuals, which can secure harmonious co-operation from all the members, and which lends energy and inspiration to the whole body.

This cannot be secured if there is any lack of authority, and experience amply proves that it will not be secured if there is any division of responsibility. The whole matter of instruction must be placed in the hands of a superintendent of instruction, with independent powers and adequate authority, who is charged with full responsibility.

The danger of inconsiderate or improper action by one vested with such powers is, of course, possible, but it is remote. Regardless of the legal powers with which he may be individually vested, he is, in fact and in law, a part of a large system. He must act through others and in the presence of multitudes. There is a great publicity about all he does. When a single officer carries such responsibility he is at the focus of all eyes. There are the strongest incentives to right action. Without discovery, at least by many persons, he cannot act wrongfully. If he is required to act under and pursuant to a plan, the details of which have been announced, and of which we shall speak in a moment, a wrongful act will be known to the world and he must bear the responsibility of it, and the danger of maladministration is almost eliminated.

Moreover, we must consider the alternative. It is not in doubt. All who have had any contact with the subject are familiar with it. It is administration by boards or committees, the members of which are not competent to manage professional matters and develop an expert teaching-force. Yet they assume, and in most cases honestly, the knowledge of the most experienced. They override and degrade a superintendent, when they have the power to do so, until he becomes their mere factotum. For the sake of harmony and the continuance of his position he concedes, surrenders, and acquiesces in their acts, while the continually increasing teaching-force becomes weaker and weaker and the work poorer and poorer. If he refuses to do this, they precipitate an open rupture and turn him out of his position. Then they cloud the issues and shift the responsibility from one to another. There are exceptions, of course, but they do not change the rule.

It will be unprofitable to mince words about this all-important matter. If the course of study for the public schools of a great city is to be determined by laymen, it will not be suited to the needs of a

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community. If teachers are to be appointed by boards or committees, the members of which are particularly sensitive to the desires of people who have votes or influence, looseness of action is inevitable and unworthy considerations will frequently prevail. If the action of a board or committee be conditioned upon the recommendation of a superintendent, the plan will not suffice. No one person is stronger than the system of which he is a part. Such a plan results in contests between the board and the superintendent, and such contests are obviously unequal ones. There is little doubt of the outcome. In recommending the appointment of teachers, the personal wishes of members of the board, in particular cases, will have to be acquiesced in. If a teacher, no matter how unfit, cannot be dropped from the list without the approval of a board or committee after they have heard from her friends and sympathizers, she will remain indefinitely in the service. This means a low tone in the teaching force and desolation in the work of the schools. If the superintendent accepts the situation, he becomes less and less capable of developing a professional teaching service. If he refuses to accept it, he is very likely to meet humiliation; dismissal is inevitable unless he is strong enough to make himself secure by doing the right thing and going directly to the people and winning their approval.

The superintendent of instruction should be charged with no duty save the supervision of the instruction, but should be charged with the responsibility of making that professional and scientific, and should be given the position and authority to accomplish that end.

If the board of education is constituted upon the old plan, he must be chosen by the board. If it is constituted upon the Cleveland plan, he may be appointed by the school director with the approval of two-thirds or three-fourths of the council. The latter plan seems preferable, for it centralizes the main responsibility of this important appointment in a single individual. In either case, the law and the sentiment of the city should direct that the appointee shall be a person liberally educated, professionally trained, one who knows what good teaching is and is also experienced in administration, in touch with public affairs and in sympathy with popular feeling.

The term of the superintendent of instruction should be from five to ten years, and until a successor is appointed. In our judgment it should be determinate so that there may be a time of public examination, but it should be sufficiently long to enable one to lay foundations and show results without being carried under by the prejudices which always follow the first operation of efficient or drastic plans. The salary should be fixed by law and not subject to change in the middle of a term or except by law.

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For reasons already suggested, the superintendent, once appointed, should have power to appoint from an eligible list all assistants and teachers authorized by the board, and unlimited authority to assign them to their respective positions and reassign them or remove them from the force at his discretion.

To secure a position upon the eligible list from which appointments may be made, a candidate, if without experience, should be required to complete the full four years' course of the city high schools, or its equivalent, and in addition thereto pass the examination of the board of examiners, and complete at least a year's course of professional training in a city normal training school under the direction of the superintendent. If the candidate has had say three years of successful experience as a teacher, he should be eligible to appointment by passing an examination held by a general examining board. This board may be appointed by the board of education, but should examine none but graduates of the high school and training school unless specially requested so to do by the superintendent of instruction. The number admitted to the training schools should be limited, and the examinations should be gauged to the prospective needs of the elementary schools for new teachers. The supply of new teachers may well be largely, but should not be wholly, drawn from this local source. The force will gain fresh vitality by some appointments of good and experienced teachers from outside.

The work of putting a large teaching force upon a professional basis, of making the teaching scientific and capable of arousing minds to action, is so difficult that a layman can scarcely appreciate it. It has hardly been commenced—it has been made possible only—when the avenues of approach to the service have been closed against the unqualified and unworthy. After that, the supervision must be close and general as well as sympathetic and decisive. The superintendent must have expert assistants enough to learn the characteristics and measure the work of every member of the force. They must help and encourage, advise and direct, according to the circumstances of each case. The work must be reduced to a system and the workers brought into harmonious relations. Each room must show neatness and life, and the whole force must show ardor and enthusiasm. By directing the reading, by encouraging an interchange of visits, by organizing clubs for self-improvement, by frequent class, grade, and general meetings, the professional spirit must be aroused and the work energized. Those who show teaching power, versatility, amiability, reliability, steadiness, and growth, must be rewarded with the highest positions; those who lack fiber, who have no energy, who are incapable of enthusiasm, who will not work agreeably with their associates, must go upon the retired list. Directness and openness must be en-

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couraged. Attempts to invoke social, political, religious, or other outside influences to secure preferment must operate to close the door to advancement. In general and in particular, bad teaching must be prevented. In every room a firm and kindly management must prevail and good teaching must be apparent. All must work along common lines which will insure general and essential ends. Until a teacher can do this and can be relied upon to do it, she must be helped and directed; when it is manifest she cannot or will not do it, she must be dismissed; when she shows she can do it and wants to do it, she must be left to exercise her own judgment and originality and do it in her own way. In the schoolroom the teacher must be secure against interference. In all the affairs of the school her judgment must be trusted to the utmost limit of safety. Then judgment will strengthen and self-respect and public respect will grow. The qualities which develop in the teacher will develop in the school. To develop these qualities with any degree of uniformity in a large teaching force requires steady and uniform treatment through a long course of years under superintendence which is professional, strong, just, and courageous; which has ample assistance and authority; which is worthy of public confidence and knows how to marshal facts, present arguments and appeal to the intelligence and integrity of the community with success.

It is the business of the plan of organization to secure such superintendence. It cannot be secured through an ordinary board of education operating on the old plan. It is well known what the influences are that are everywhere prevalent and must inevitably prevent it. It may be secured in the law, and it must be secured there or it will not be secured at all.

In concluding this portion of the report, the committee indicates briefly the principles which must necessarily be observed in framing a plan of organization and government in a large city school system.

First—The affairs of the school should not be mixed up with partisan contests or municipal business.

Second—There should be a sharp distinction between legislative functions and executive duties.

Third—Legislative functions should be clearly fixed by statute and be exercised by a comparatively small board, each member of which is representative of the whole city. This board, within statutory limitations, should determine the policy of the system, levy taxes, and control the expenditures. It should make no appointments. Every act should be by a recorded resolution. It seems preferable that this board be created by appointment rather than election, and that it be constituted of two branches acting against each other.

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Fourth—Administration should be separated into two great independent departments, one of which manages the business interests and the other of which supervises the instruction. Each of these should be wholly directed by a single official who is vested with ample authority and charged with full responsibility for sound administration.

Fifth—The chief executive officer on the business side should be charged with the care of all property and with the duty of keeping it in suitable condition; he should provide all necessary furnishings and appliances; he should make all agreements and see that they are properly performed; he should appoint all assistants, janitors, and workmen. In a word, he should do all that the law contemplates and all that the board authorizes concerning the business affairs of the school system, and when anything goes wrong he should answer for it. He may be appointed by the board, but we think it preferable that he be chosen in the same way the members of the board are chosen, and be given a veto upon the acts of the board.

Sixth—The chief executive officer of the department of instruction should be given a long term and may be appointed by the board. If the board is constituted of two branches, he should be nominated by the business executive and confirmed by the legislative branch. Once appointed, he should be independent. He should appoint all authorized assistants and teachers from an eligible list to be constituted as provided by law. He should assign to duties and discontinue services for cause at his discretion. He should determine all matters relating to instruction. He should be charged with the responsibility of developing a professional and enthusiastic teaching force and of making all the teaching scientific and forceful. He must perfect the organization of his department and make and carry out plans to accomplish this. If he cannot do this in a reasonable time he should be superseded by one who can.

The government of a vast city school system comes to have an autonomy which is largely its own and almost independent of direction or restraint. The volume of business which this government transacts is represented only by millions of dollars; it calls not only for the highest sagacity and the ripest experience, but also for much special information relating to school property and school affairs. Even more important than this is the fact that this government controls and determines the educational policy of the city and carries on the instruction of tens or hundreds of thousands of children. This instruction is of little value, and perhaps vicious, unless it is professional and scientific. This government is representative. All citizens are compelled to support it, and all have large interests which it is bound to promote. Every parent has rights which it is the duty

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of this school government to protect and enforce. When government exacts our support of public education, when it comes into our homes and takes our children into its custody and instructs them according to its will, we acquire a right which is as exalted as any right of property, or of person, or of conscience can be; and that is the right to know that the environment is healthful, that the management is kindly and ennobling, and that the instruction is rational and scientific. It is needless to say to what extent these interests are impeded or blocked, or how commonly these rights of citizenship and of parentage are denied or defied, or how helpless the individual is who seeks their enforcement under the system of school government which has heretofore obtained in some of the great cities of the country. This is not surprising. It is only the logical result of the rapid growth of cities, of a marvelous advance in knowledge of what is needed in the schools, of the antagonism of selfish interests by which all public administration and particularly school administration is encompassed, and of the lack of plan and system, the confusion of powers, the absence of individual responsibility, in the government of a system of schools. By the census of 1890 there are seven cities in the United States, each with a population greater than any one of sixteen states. The aggregate population of twelve cities exceeds the aggregate population of twenty states. Government for education certainly requires as strong and responsible an organization as government for any other purpose. These great centers of population, with their vast and complex educational problems, have passed the stage when government by the time-honored commission will suffice. No popular government ever determined the policy and administered the affairs of such large bodies of people successfully, ever transacted such a vast volume of business satisfactorily, ever promoted high and beneficent ends, ever afforded protection to the rights of each individual of the great multitude, unless in its plan of organization there was an organic separation of executive, legislative, and judicial functions and powers. All the circumstances of the case and the uniform experience of the world forbid our expecting any substantial solution of the problem we are considering until it is well settled in the sentiments of the people that the school systems of the greatest cities are only a part of the school systems of the states of which these cities form a part, and are subject to the legislative authority thereof—until there is a plan of school government in each city which differentiates executive acts from legislative functions, which emancipates the legislative branch of that government from the influence of pelf-seekers; which fixes upon individuals the responsibility for executive acts, either performed or omitted; which gives to the intelligence of the community the power to influence legislation and exact perfect and complete ex-

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ecution; which affords to every citizen whose interests are ignored, or whose rights are invaded, a place for complaint and redress; and which puts the business interests upon a business footing, the teaching upon an expert basis, and gives to the instruction that protection and encouragement which is vital to the development of all professional and scientific work.

We have undertaken to indicate the general principles which we think should be observed in setting up the framework of government of a large city school system. While we have no thought that any precise form of organization which could be suggested would, in all details, be imperative, we are confident that the form or plan of organization is of supreme consequence, and that any which disregards the principles we have pointed out will work to disadvantage or lead to disaster.

ANDREW S. DRAPER,
President of the Illinois State University, Champaign, Ill.
W. B. POWELL,
Superintendent of Schools, Washington, D. C.
A. B. POLAND,
State Superintendent of Public Instruction, Trenton, N. J.

I find myself in general accord with the doctrines of the report. There is only one feature of it from which I feel obliged to dissent, and that is an important though not necessarily a vital one. I refer to the office of school director. I see no need of such an officer elected by the people, and I do see the danger of his becoming a part of the political organization for the dispensation of patronage.

All power and authority in school affairs should reside ultimately in the board of education, consisting of not more than eight persons appointed by the mayor of the city, to hold office four years, two members retiring annually and eligible for reappointment once and no more. This board should appoint as its chief officer a superintendent of instruction, whose tenure should be during good behavior and efficiency, and whose powers and duties should be to a large extent defined by statute law, and not wholly or chiefly by the regulations of the board of education. The superintendent of instruction should have a seat and voice but not a vote in the board of education. The board of education should also appoint a business agent, and define his powers and duties in relation to all matters of buildings, repairs, and supplies, substantially as set forth in the report in relation to the school director.

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All teachers should be appointed and annually reappointed or recommended by the superintendent of instruction, until after a sufficient probation they are appointed on a tenure during good behavior and efficiency.

All matters relating to courses of study, text-books, and examinations should be left to the superintendent and his assistants, constituting a body of professional experts who should be regarded as alone competent to deal with such matters, and should be held accountable therefor to the board of education only in a general way, and not in particular details.

EDWIN P. SEAVER,
Superintendent of Schools, Boston, Mass.

I concur in the recommendations of the sub-committee on the organization of city school systems as summarized in the concluding portion of the report, omitting in item 3 the words "And that it be constituted of two branches acting against each other." Omit in item 5, "but we think it preferable that he be chosen in the same way that members of the board are chosen and be given veto power upon the acts of the board." I recommend that the veto power be given to the president of the board.

ALBERT G. LANE,
Superintendent of Schools, Chicago, Ill.

DISCUSSION.

E. E. WHITE, Columbus, Ohio.—I consent to open the discussion with the distinct understanding that I am in no way passing judgment upon the organization of the schools of any particular city. The fact that I had official relations to the somewhat radical reform in school administration in Cincinnati, which prepared the way for the still more radical reform in Cleveland, enables me to appreciate the value of the service which this city is rendering the cause of education in the direction of needed reforms in school organization in cities. The auspicious inauguration of this radical reform in Cleveland is an assurance that other cities will soon profit by its example. This city is to be congratulated on its happy choice of a man for school director who has so wisely discharged the extraordinary duties of his office, especially in the choice of men to fill the important position of superintendent of instruction.

It is the purpose of the very able report to which we have just listened to present an ideal organization of the schools of large cities under normal conditions. It does not assume, as I take it, to indicate what school organization is best fitted to meet the emergencies of a revolution in school affairs. School systems, as a rule,

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have a history back of them; but it sometimes happens that a city wisely rebels against its past experience in school administration and sets up a new organization in order to cure evils no longer tolerable. It is evident that a school organization best fitted to meet such abnormal conditions may not be the best possible for cities under normal conditions.

What, then, is the best possible organization of the schools of a large city? The report clearly presents the facts and the principles which enter into the problem, and if I had the liberty to strike out a few sentences, I could approve heartily the organization recommended. The report presents two sound and fruitful principles of school organization, to wit:

1. The separation of the legislative and executive functions of school administration. This principle is the basis of any efficient legislation, and its embodiment, in some practical form, is the first step in the needed reform in school organization.

2. The separation of the executive function into two distinct departments,—the business and the pedagogic,—each in charge of an officer clothed by law with the authority and the responsibility requisite for the highest efficiency. This principle is scarcely less vital than the preceding one.

(1) The legislative function, including the general direction of the schools, should be vested by state law in a body composed of representatives of the people, and I know no better appellation for such a body than the "Board of Education." It is my belief that this board of education should have full authority and responsibility within its legitimate functions, and so I would omit the recommendation of the report that another body or person should have the power to veto its actions or otherwise share its necessary authority and responsibility. The board of education should represent and be responsible to the people in all school legislation.

The report is in accord with experience in the recommendation that the board of education should be a comparatively small body—to be composed of five to fifteen members. It certainly should not be composed of more than twenty members. Whether the members of the board shall be elected by the people directly, or be appointed by some officer as the mayor, depends much on the size of the city and other local conditions. The one fact to be remembered in all school legislation is, that we are living under a republican or representative form of government, in which all legislative power emanates from the people. It is not worth while to attempt to divorce the schools from their control. The problem is, how to give the people the fullest possible control, and the ward politicians the least possible opportunity to come between the people and their purpose to have good schools—their vital interest.

(2) The report is correct in recommending that there be a clear distinction made between the legitimate duties of the board of education and those executive duties which experience shows that no board can efficiently or wisely discharge. The executive duties involved in school administration should be intrusted to two independent officers,—a business manager or director and a superintendent of instruction,—and the duties of these officers should not only be properly co-ordinated, but the authority and general duties of each should be clearly defined by state law, not by the rules of the board of education. The duties of these two executive officers are well stated in the report, but I would add more specifically that the superintendent should not only have the appointment and assignment of teachers, and the supervision of instruction, but he should also be responsible for the course of study, and, to this end, should have the selection of books and other teaching appliances.

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How shall these officers be appointed and what shall be their tenure of office? I know no plan that promises, on the whole, better results than their appointment by the board of education. No one can realize more keenly than myself the force of the objections to this mode of appointing the superintendent, so strongly stated in the report; and yet, in my judgment, the most hopeful remedies for the evils and perils set forth lie in the direction (1) of a longer and more certain tenure of office, and (2) the full guaranty of requisite independence in authority and duty by state law.

There are obvious objections to the appointment or nomination of the superintendent by the business director, but the initial nomination might possibly be wisely intrusted to the president of the board. In the transition from the present system of school administration to the one proposed there will necessarily be some friction. Men who, as members of the school board, have been accustomed to exercise executive and even supervisory functions, will naturally feel the loss of power and influence when these duties are intrusted to the superintendent or business manager, and they may seek to retain them by personal demands upon these officers. As a result, the superintendent who has the inauguration of the new system may here and there be sacrificed; but this result is to be accepted as an incident in all radical reforms that involve a change in official power and responsibility. It may be wise for the first superintendent (and possibly business manager), if he proposes to discharge his duties with fidelity, to be ready to retire when those who covet lost power and influence have an opportunity to pass on the question of his continuance in office; but an appointment for even five years (the minimum term recommended in the report) will greatly lessen the liability of such an issue. In my judgment, the limited term of five to ten years recommended is better than a tenure for life; but I have not time to give reasons.

PROF. ALBERT BUSHNELL HART, Harvard College, Cambridge, Mass.—In a circular of suggestions for ethical instruction in schools are enumerated as proper subjects, "Providence, Honesty, and Thrift, and How All These Evils are Caused by Intemperance." The able report of the sub-committee on school organization proceeds on somewhat similar lines—"Authority, Economy, and Efficiency, and How These Evils Are Caused by Board Government."

To resist the logic and consecutiveness of the committee's argument is, however, impossible; for it strikes at evils of which we in New England are especially sensible. The separation of executive from legislative functions which it proposes will not only prevent the political, and sometimes corrupt, combinations which often demoralize the schools, but will prevent, also, that waste of expert time which goes on under the most honestly administered systems so long as committees and sub-committees rule. It would relieve some members of the Boston School Committee from six hours a day of harassing labor over the appointment of janitors and the patterns of ink-wells; and it would set free the superintendent and supervisors of that city—a city once so pre-eminent in education—from exhausting routine, and from the hampering effect of a body of laymen who continually settle the principles and details of professional questions.

Yet any student or observer of American politics, however convinced of the soundness of the general principles of this report, must recognize the difficulty of the changes which it advocates. At least four of the suggestions there made will rouse instant opposition in many communities, and especially in New England. Appointive councils are perhaps better than elective. Possibly I should be more inclined to think so were I not a member by election of one of the bodies to be reformed—on which I might not find a seat by appointment. But in introducing that system you must face the serious danger of diminishing the popular interest in the

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schools; which, at least in the smaller communities, is a steady force in favor of good education. A board of education must not degenerate into a board of intellectual public works. A second point for reflection is the suggestion of "two branches acting against each other." One of the things which I learned in the excellent high schools of this city, of which I am very proud to be a graduate, was, that "action is always equal to reaction, and in the opposite direction." A third difficulty which will be felt east of the Hudson is the conferring independent powers of taxation on boards of education; for it is contrary to the New England practice of two centuries and a half. The fourth, and, to my mind, the most vulnerable, point in the report is the tacit attempt to avoid the natural results of popular local government. The legislature is to be appealed to from time to time to draft educational charters in detail, and to fix them upon cities, willing or unwilling. Is that the road to good government? Are legislatures so pure and wise in state matters that you can trust them in city matters? Are members of legislatures more likely than the people of the city themselves to know their wants and to provide for them impartially? Are the people of Cleveland satisfied with the history and result of their soldiers' monument? Are you going, in the long run, to keep up popular interest in good schools by withdrawing from popular election, not only the executive but the legislative officers? The report calls for a system "flexible for good, while inflexible for evil." There is only one power in the universe to which that antithesis can apply, and that is the Almighty. Even upon his power there is a limitation pointed out by the little theologian of five, who was told that God was omnipotent. She objected that "He couldn't make a two-year-old mule in a minute." Doubtless the committee recognizes that the ideal system of school government must have behind it a certain time for development; that the traditions and conditions of a community must be consulted even in making good changes.

The truth is (and we must work within that truth if we are to reach any results), that the most promising devices for improving the public service are, after all, simply an appeal from Philip drunk to Philip sober; from the people confused, unorganized, misled—even wrong-headed—to that sober second-thought of the people which is the foundation of American government. By appointing superintendents, through the mayor or other executive officer, by giving them a suitable term, by putting into their hands the school executive power, you can prevent hasty action and secure responsibility; by separating the business from the professional management, you get expert skill on both sides. Yet the measure of the schools is the character of the people. They cannot always get as good a system as they desire, though organization helps them to reach it; but you cannot invent any machinery which will compel the people to maintain a better system than they desire.

While fully recognizing the power and fruitfulness of the committee's report, it is still possible to criticise it for some things which it does not say. It treats ably and exhaustively of school boards, directors, superintendents, supervision, and authority. Is that all there is in school education? Certainly not; there is also the enumeration of the materials for efficient schools. "Buildings"—good! "Appliances"—excellent! and Teachers!" How are the teachers to be used in this combination? On the same page we are informed that it is "by employing, organizing, aiding, and directing" them; but nowhere does it suggest *consulting* them. Is it unfair to say that the conception of the teacher's place in school organization as set forth by this report is that of a well-regulated service of letter carriers? "The first delivery will begin at 8:30. There will be two deliveries daily. Badly addressed children may be returned to the superintendent's office, or to the sender. Special delivery children must be hastened forward to their destination. Carriers are not

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to be appointed solely on political influence, and must pass suitable examinations. Children are valuable, and therefore carriers will take pains not to deface them in transit." Is that a system to apply to men and women who are handling and shaping the minds and souls of our children? Is there to be no suggestion and reaction back from teacher to master and superintendent? The whole scheme of carrying on schools entirely by an impulse from above downward reminds one of the report of a life-saving station to the government. "Last night a large brig came ashore on Smutty-Nose. We did all that was in human power to save the vessel by the use of the speaking-trumpet. Notwithstanding these efforts, she went to pieces at 3 a. m. and all hands were lost."

As a teacher myself, I plead for some system by which the teachers shall directly participate in school organization. I say *participate*, because I wish to avoid the slightest suggestion that they should control the schools. Systematic consultation on any definite and permanent plan is all that is asked for, and it will put the whole profession on a different footing.

Is a plea necessary for a system which is the simple common-sense, business-like method of dealing with large bodies of professional persons? To be sure, boss sewer builders ignore their diggers; but heads of hospitals do take counsel of their house-physicians, to the great benefit of suffering humanity. Why are not teachers consulted? The instinctive answer in many minds is, that they are consulted. That is true everywhere to some degree. Of course, a wise superintendent talks over with an individual teacher changes that he proposes to make in her room or building; and in a few cities the heads of school are organized, like the Principals' Round Table of Cleveland and the powerful and obstructive body of fifty-five principals in Boston. But where is there a superintendent who in any way systematically informs himself of the puplic opinion of the body of his teachers on any proposed reform? Where is the city in which there is any representative organization, capable of voicing that opinion? Individual teachers are consulted; but the teachers are not.

To any regular consultation with the whole staff of teachers in a city many objections may be suggested. The teachers are too young! We had one of these young teachers in Cambridge a few years ago; a young, fresh, vigorous, live teacher. She had taught fifty years in the same school. Was her opinion of no value? Teachers are too inexperienced! It is true that they begin at about the age and advancement of boys entering college, and the freshman is not absolutely wise; but even a freshman would learn wisdom if he had charge of fifty children, and at the same time had to satisfy fifty mothers and one superintendent. Teachers change rapidly! Sometimes superintendents change rapidly. Perhaps a better mutual understanding would prevent changes of both sorts. The teachers would use their organizations to form cabals! Are there no cabals or factions now? The real bottom reason for the small consideration paid to the opinion of teachers seems to be, that we think the main body of them—even in the best city systems; even in the high schools—to be too ignorant to give any valuable advice on school questions. Miss Arnold yesterday spoke of the tactless teacher, who cried out at the stupidity of her children in their presence. It seems to me that is what we are doing with our million teachers. If they have really nothing to contribute in council to school knowledge, let us shut up the buildings and spend the school money in fool's caps for the teachers and for ourselves who have selected them.

For the participation of teachers in school organization there are many positive reasons. In the first place, the community needs their expert advice. They are the largest body of educated men and women in this country. They are in a better position, even, than their supervisors, to discover at least the minor defects of

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school systems. They have a personal interest in making their time and thought go as far as possible. They have almost a mother's opportunity to study child life. They are a public-spirited and intelligent body of people, performing a great public service. Not to draw upon the results of their experience is to waste a part of the nation's resources. They have a profession, and the only profession to which women are admitted in large numbers.

In the second place, the teachers need the stimulus of debate and of formulating opinions which go on record. In the work of the committee of fifteen, both the report on the training of teachers and that on school organization lay great stress on the need of careful, professional, and expensive preparation for this arduous calling. What would more attract people to make that effort than a recognized professional status? What makes Yale University the vigorous, pushing, forceful institution that it is? The governors? In part; but chiefly the faculty—that is, the teachers.

In the third place, the superintendents will not be harmed by organized advice. No one fears a teachers' trade union demanding a four-hour day. The sub-committee's report is justly incisive on the right of experts to manage expert matters. "If the course of study for the public schools of a great city is to be determined by laymen" they say (page 106, line 18), "it will not be suited to the needs of a community." If it be determined by only a part of the experts, will it suit the community any better? In the school machinery the teachers should be a part of the upper mill-stone and not of the nether.

In the fourth place, the school boards need such direct relations with their teachers.

How can the co-operation of superintendents and teachers be brought about? I will not say the "correlation" of teachers and superintendents, because that is an explosive word. Something valuable would be gained if every superintendent made it a point never to enter on important changes in his schools without previously consulting a large number of leading teachers, and then following his best judgment. On the other hand, it would be a great advance in education if we could introduce into America the successful French system of educational councils. In France every important administrative official, from the minister down, has about him a council, including some teachers, whose advice he is bound to take but not to follow. He assumes the responsibility, but never without informing himself.

Probably that is too great a change for immediate introduction into this country, though the principle is one which ought to be introduced into many branches of the public service. I beg, therefore, to suggest a middle way, which has been proposed to the Cambridge school committee for that city, and is now pending. It is, that the teachers be requested to form a teachers' association, to which all teachers in service shall be eligible. Out of that association (which will number almost 300) there shall be chosen, by vote of the teachers, a teachers' council of about twenty members, including a representative from each of the nine grades, and also from the kindergarten teachers and from each of the high and special schools, the superintendent to be *ex-officio* chairman. To the council thus formed the superintendent, the school committee, or any sub-committee may, from time to time, submit questions for examinations and report. That is all.

It is all? If that proposition be carried out in Cambridge, the next step will be carefully to go over the three important reports which have been presented to this convention, and one after another to take up the suggestions as to curriculum, training, and the like, and to ask for the opinion of the council upon their applica-

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bility to the Cambridge schools. A further step will then be for the school committee, aided and informed by that opinion, to try to introduce some of these reforms into the Cambridge system. Consultation will increase the interest of the teachers and the dignity of their profession; it will be a safety-valve for misunderstandings and complaints, and it will make smooth the track of reform.

This specific system may or may not work well; but I appeal to you, superintendents, to consider the suggestion. The body of men seated in this hall have it in their power to carry into effect any reasonable plans of public school reform which do not cost too much money. The improvement of the schools means more work and responsibility for the teachers. They will accept it cheerfully if you give them a just hearing in the questions of their own profession.

SUPT. A. P. MARBLE, Omaha, Neb.—It is an easy road to fame to attack such an able report as that of Dr. Harris or Judge Draper. Hayne coupled his name with Webster's in this way. Unfortunately for such a purpose, I find myself in sympathy with the aim and purpose of this report, and with most of its details.

It seems to me that the last speaker has not discussed the report so much as something it does not contain; and the same is true of the discussions about the other two special reports. If anybody thinks the superintendent can conduct a system of schools without the co-operation of the teachers he is greatly mistaken. No sensible superintendent attempts it. I appeal to every one present, whether the assumption that we try to carry on the schools without his co-operation is not erroneous. The report does not discuss this question; it enters into no details.

The plan outlined does not create a one-man power. It merely locates definitely the responsibility; and every officer is directly accountable to the people, who are the source of all authority in this government. The plan of the report is, to avoid hasty action on the part of the public; but to make their verdict effective when it is pronounced. You cannot erect a pyramid and crown it with an autocrat, if you would; but the executive officer while in authority is the instrument by which the people enforce their will. He is the agent of the people, and not the creature or the tool of any clique or part of the people. In this way only can the popular will be executed. There have been school boards of 120 men. Think of all these, each with sisters and cousins and aunts all wishing to teach!

The report very properly separates the executive from the legislative authority, and secures the independence of the executive. It makes the business and the educational functions distinct. It leaves the course of study, the selection of books, and the appointment of teachers to experts used to these matters. All this is in the right direction.

I question the wisdom of the conclusions in two respects: First, about two boards acting opposite to each other. This, it seems to me, would lead to friction; and it is unnecessary. Second, the executive should be elected by the people of the city, as the mayor is, instead of being appointed by the mayor. He might be properly styled mayor *de futuris*—of the citizens about to be. If the aim is to separate the schools from politics, the appointment by the mayor would tend to the opposite. The appointment would degenerate into an ante-election bargain in a close election. The choice of a school director should not be made at the same time with the choice of other municipal officers; it might be at the time of the state election. In this way the whole people, who are less easily corrupted than a mayor might be, would be brought to a careful consideration of the school question every year by the election of one class of members of the board of education each year for a term of three years and by the election of the director once in two or four years for a term of that length.

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In the practical adoption of the plan outl ned in the report local conditions must be taken into account. The traditions of a place must be considered. We do not wish revolution generally, but evolution. Any local attachment, like the teachers' council spoken of by the last speaker, may be appended as you would attach the hemmer to a sewing-machine. But let it be remembered that no plan of organization will bring about the millennium in schools at once. This school director is a very interesting piece of political furniture for the politician to seize upon. He will grasp it unless the people are eternally vigilant. This vigilance is the price of the liberty to have good schools. But if the schools prosper and the public become indifferent, then the high places of our educational worship will be occupied by the money changers and those who sell doves. In that case, the worse the corruption the quicker it will be discovered and uprooted.

DR. B. A. HINSDALE, Ann Arbor, Mich.—In the first place, I do not understand Professor Hart's suggestion about the council of teachers to lie in the direction understood by Superintendent Marble. I understand that this organization is to bring to bear the teacher's influence upon the school authorities. I wish to give that suggestion an additional stroke of emphasis. It is certainly true that a great amount of educational force is represented by the teachers of the country as a whole, and that it does not have the influence that it should have upon affairs. The trouble does not so much lie through the superintendent's office as through the council hall of the board of education. Now, why cannot public schools receive that help from the teaching body which the universities receive from their teaching bodies? It is very well known, and nobody who has studied the universities in olden times can doubt it, that the university was carried on by the teachers and pupils, subject to the regulation of their organization and charters.

SUPERINTENDENT COGSWELL, Cambridge, Mass., explained and commended the work of Professor Hart in organizing the teachers' council in Cambridge.

SUPERINTENDENT SEAVER, Boston, Mass.—I want to say in the first place that I consider Professor Hart's suggestion concerning the council of teachers to be a good one. I think I heard him say that the body of Boston masters was a clog; this is not the case.

COLONEL PARKER, Chicago, Ill.—It is not so now, but the Boston schoolmaster stood in the way of education for fifty years, and it can be proved.

MR. R. C. METCALF, Boston, Mass.—I do not wish to make a speech, but I was one of those masters. The Boston masters' association is composed of fifty-five principals. I was a member of that association for eighteen years, and need no excuse for speaking a word in behalf of my associates.

It is true that they are not anxious to fall in with every new proposition that is made to them. The plan suggested by Professor Hart, by which the teachers of a city or town may be called into the councils of the school committee and superintendent, is a good one, and I can see in it the possibility of a way out of our difficulties in the East. The Boston masters have not been consulted as they should have been in regard to the conduct of their schools.

It is one thing for the superintendent of Cleveland to manage his schools, presided over by fifty-five women, and quite another thing for the superintendent of Boston to manage his schools, presided over by fifty-five men. I believe that some way should be planned by which these principals may be brought into hearty cooperation with the superintendent. Mr. Philbrick was a very wise man, and he enlisted, to a considerable extent, the influence of the principals in behalf of needed

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reforms; but for the past few years this policy has not so effectually been carried out.

I felt bound to say so much in behalf of the principals of the Boston schools. They are strong, able men, anxious to improve and glad to co-operate in any forward movement.

PRESIDENT DRAPER (called to close the discussion).—Take this Cambridge business. They have a suggestion which does not apply to a reformed school board, but to an unregenerate one. I may say that the suggestion about this advisory council was before the committee of fifteen and at the instance of Professor Hart. Now, there is an entire misapprehension. The business of the committee of fifteen was simply to build up the legal organization. No one who has been a superintendent will stop a moment to debate the importance of the opinions of the teaching corps. No superintendent succeeds who does not receive the suggestion of the teaching body. I should refrain a long time before I gave any such body any legal standing, because the result would be a combination among the teachers—politics of the poorest kind—to coerce the superintendent. There are fifty-five lady principals in this city who have shown just as much force and ability to manage schools as is shown by the fifty-five men in Boston.

The suggestion is made that our plan would sacrifice some superintendents. A superintendent who is not strong and decided enough to make the position secure is of small consequence to anybody. The school organization must be such as can resist all the evil-disposed persons and make for righteousness. There will always be opposition to reform, even among the principals and teachers. It has been so from the time of the opposition of the Boston masters to Horace Mann down to the fight that is now on in the city of Brooklyn.

Four or five men in the city of Cleveland who are men of affairs—not teachers but simply business men—came together to reform this city school system; and they did not have the proceedings of the National Educational Association, either, for a guide. They studied principles, and I think they succeeded pretty well.

The school systems of the greatest cities of this country are in trouble, and they must be helped in some way. The trouble is, that the evil elements are constant,—always present, always active, fighting for themselves,—and the elements that make for righteousness are inactive, and they may be defeated.

A single suggestion of Professor Hart's in opposition to state legislation in city affairs deserves attention. The fact is, that the school systems in this country are state systems for the very good reason that no local school officer can effect a result unless it is pursuant to the law of the state. If you are going to leave the school organizations of these great states to the result of local elections, as elections are controlled by the ward politicians, the Lord take care of the school system. It is true that the outlook is not any too bright in the state legislatures; but they will constitute a breakwater. There is a great movement that is going to prevail, and it is going to prevail in spite of the city superintendent. If my boy is sitting in an illy-ventilated room in Chicago, what is my right? The superintendent puts me off with his good intentions; I go to the superintendent of public buildings and he resents the imputation; I go to a member of the school board and he can do nothing. What is the remedy in the city of New York if instruction is not scientific? Talk about being near the people! There is not anything further from the people than these close organizations called city school boards.

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INDIVIDUALISM IN MASS EDUCATION.

BY P. W. SEARCH, CITY SUPERINTENDENT OF SCHOOLS, LOS ANGELES, CAL.

THE GRADED SCHOOL SYSTEM—ITS DEFECTS.

The so-called graded school system originated as a wise movement for the improvement of educational opportunity. Doubtless there is an advantage in grouping into certain rooms pupils of fairly equal working ability. There has also been a value in the definite course of study, because of need of continuity in plan, the correlation of elements, economy of time, and utilization of experience and superior mind in enrichment of opportunity. So far the graded school had its perfect justification; but when it proceeded, as is the case in general, through evolution, to become a thing of mechanical excellence, it brought upon itself the merited criticism that should lead to a reform in the interests of every principle of economy.

What are the weaknesses of the graded school system?

1. It brings to the door of every child, irrespective of all individuality, that curse of all endeavor—uniformity. The fact that minds of children differ more than do the leaves of the forest; that in working ability one possesses strength two or three times that of others; that, in the nature of circumstances, time possesses a different value to different children—these and other incontrovertible factors count but little in the making up of school plans. The bright boy, full of ambition and progressive zeal, must be held back because of mass or relative demands. No difference how faithfully he has worked, he must go from his recitation to his seat discouraged and ardorless because the lesson must be repeated from fault not his own; or, he must pass weeks in lifeless reviews in order that somebody else may be benefited. Some one has said, "The public schools are places where pebbles are polished but diamonds are dimmed." The latter part of this criticism is true. No man has a right to demand of a bright pupil twelve years of an ambitious life in order to cover the ordinary course of study. On the other hand, what shall be said of the boy at the lower end of the class? Because the assignment of lessons and rate of progress must be regulated by the average ability of the class, he is plunged prematurely into difficulties he does not understand, to drag helpless, indifferent—a so-called dullard and dunce—at the foot of his class, buried beneath a mountain of difficulties that consign him eternally and irrevocably to an educational grave. This is monstrously unjust; but it is not all.

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These same pupils, promoted perchance at the end of the year because of the average of results, carry with them a rotten substructure upon which nothing substantial can be built. A few days at the beginning of the year suffice to cause them to lose confidence in themselves. Discouraged and misunderstood, they rapidly develop into ambitionless, bad boys, and soon drop by the wayside and disappear from school life; and the name of this boy is Legion. Ordinarily we count the success of the school by the achievements of those who remain to do work; but, in the name of all justice and economy, I ask, What of the lost boys? What of the lost girls? And these are lost when they are crowded from educational life by the relentless press of a mechanical gradation. The illustration cited concerning the polishing of pebbles is defective in this, that it loses sight of the many who are buried beneath the mud and mirk of the process and never come in contact with the polish that touches the average of the class. These rough, unpolished breccia are never counted as the product of the school; but, nevertheless, they belong to its losses.

But suppose a graded scheme can be prepared that will adequately provide for the bright pupil by promotion at the end of the year, and that will just as adequately hang a millstone of discouragement around the neck of the other pupil, by consigning him to identical repetition of grades; what shall be said of the treatment of the pupil who is just upon the line of a grade requirement? Suppose the usual per cent plan of marking values is in use (and there must be some mechanical standard in mind in determining a mechanical gradation). Now, I can see how it is that a pupil bearing sixty-six and two-thirds per cent and over should go on to higher grade, and how a pupil under thirty-three and one-third per cent should repeat the grade; that is, I say I do for the sake of argument. But how about those of the middle third? Or, suppose the passing grade is sixty. The pupil barely attaining sixty goes forward, while the one who has only fifty-nine and nine-tenths takes an extra year. Now, what principle of equity will justify the magnifying of a line without breadth into so great an expansion that it constitutes a year, or, at least, a semester, of difference between these two pupils? The per cent may not be used, but the principle is the same for the basis of a gradation. There is some dividing line, flexible or arbitrary, between these two pupils.

2. The criticism is made that the public schools are full of pressure and over-tension; that the bright pupil of high-strung, nervous temperament is the one who is spurred and goaded on by the teacher's endeavor to bring up the laggards; that the incentives used tend to abnormal rivalry; and, in consequence of these conditions and others,

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there is frequently fearful sacrifice in the pursuit of an education. We may not realize the truth of this criticism, excepting as our minds are specially directed thereto. But, fellow-workers, think back over your experience of years, and recall the graduate who was necessarily excused from reading her essay; the pale-faced student who could not go on; the girl of thirteen who dropped by the wayside. Experience in the schoolroom need not be long to produce abundant illustration from personal consideration.

3. Do the public schools contribute to the good health of the children? They should. There is no reason why intellectual endeavor should not be conducive to physical health. Every school plan should be built fundamentally upon adequate provision for the grace and glory of robust, vigorous health; and the intelligent constituency of all America should cry aloud until this demand is perfectly met. Architectural precaution and schoolroom device are all important, but there is a weakness peculiar to class instruction that should give way. The presentation of subjects by class appeal is so enormously expensive that the study of lessons has been driven to outside hours, all because the teacher, with her everlasting class method and consumption of time, has appropriated the entire day, and thus driven the pupil's work to evening hours. If you think this is an extreme statement, examine the working programs of your various schools when you return home. You will find the entire day filled with recitations, with the teacher still calling for "more time." If there is no other result of individual effort, it has its perfect justification in this finding, that the work of the public schools can be done in normal school hours.

4. The conduct of the work of many pupils by graded effort is expensive in that it fills the individual pupil's working hours with so much dead time. Not only must he travel at some one else's speed and repeat lessons without fault his own, but he must sit passive during a good part of the day while waiting his turn. Suppose the recitation is in Latin, and that there are thirty in the class. The pupil who is on his feet in the act of reciting is probably essentially active; two or three others, or more, are perhaps getting a fair degree of value from the exercise; but the majority of the class are in a passive or comatose condition, and are much like men in a barber shop, each waiting his turn. Encouraged to listlessness and inattention, these pupils soon learn to calculate their turn and consequently qualify on parts, instead of wholes, and take chances in being called upon. There may be a value in this form of work. I do not doubt it; but, compared with the intense earnestness and activity of the individual method, it is a wonder that it has any advocates at all. Again, I say, the class recitation method is enormously ex-

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pensive, and must give way to something that will utilize every minute of the pupil's time. "Oh," says my fellow educator, "this is an extreme statement of class practice." My friend, have you forgotton the long hours you squandered in some good school or college when you sat listlessly waiting for the end of the period that was to bring far-off relief and the softening of the board upon which you sat? When will schoolmen learn that there is no growth by means of passive exercise and that activity is the essential principle of life?

5. Class methods are also unfortunate in that there is every encouragement to dependency. The work of the class is in reality done by a few pupils, and these few get the major part of the teacher's time. Leaning on these better pupils and watchful of every opportunity to gain help without work, is the greater part of the school, thereby failing to get value from personal accomplishment. There is also the inculcation of questionable motive, and the trend of practice is to a certain kind of mechanical results.

THE SCHOOL OF INDIVIDUALISM—ITS SUPERIORITY.

Contrasted with the graded school is the superiority of the school of individualism.

1. The individual school does not discard gradation, but holds to it primarily for a purpose higher than the mechanical assignment of pupils. A school must be both ungraded and graded; ungraded, in so far as the ready, flexible accommodation of pupils is concerned; graded, for the purpose of plan in work, continuity in execution, correlation of studies, and the utilization of superior experience and direction. There may be the flexible grouping of pupils for certain general purposes, but no gradation should tie a pupil to a definite anchorage.

2. The individual school has to do with numbers. It realizes in practical results far more than the graded school, because it receives all kinds of pupils, meets them at the door of personal needs, and holds to school-life that great number who are otherwise lost over the ragged edges of a gradation. There is perfect adaptation to the working ability of each individual. Somewhere along the line every pupil finds his convenient working place. It is not a question of a pupil for the school, but the school for the pupil. If a boy comes from the schools of another city, there is no transition loss. If he is forced to enter a month or so late, he begins where he belongs, without loss because he does not fit a class. If by sickness he loses several weeks, he is not abnormally pressed during his days of convalescence by the double necessity of keeping up with the class and of making up work he has lost. His working place is his own, deter-

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mined by what is scientifically best for himself, and in that place he works to get the greatest personal good, irrespective of the ordinary class limitation. To him assignment to a given room means nothing but personal opportunity. There is no non-promotion difficulty, because every day brings its conscious daily advancement. There is no class discouragement, for there has been no specific class assignment. There is no class interval with its unhappy transition, for there is no specific class. Everywhere there is life, vigor, growth, enthusiasm, because every moment brings its perfect opportunity for progress and enrichment.

3. The individual method is happy in its contribution to better health. The removal of dead time and passive exercise, the substitution of live direction of endeavor for the ordinary instruction cram, and the consequent possibility of limiting school work to school hours, bring to the pupil the realization that school work may be fundamentally conducive to vigorous health. Unwearied by a previous night of late study, the worker comes to the laboratory fresh and vigorous for the work of the day. To him there has been no hurried meal because of the encroachments of school work. There is no headache because of exhausted vitality, nor spectacles from working by an inferior light. Fresh, vigorous, and full of dynamic force, he is prepared for a successful day of work. The day is divided into its working periods of longer duration. All his working equipment remains in its respective laboratory. There is no divided energy in endeavor to anticipate the coming exercise; no anxious worry because of unprepared lessons. In each working period he works to individual accomplishment. When the session closes he leaves his technical work in the schoolroom and goes forth to gain recreation, complete rest. and renewed vigor before commencing the work of another day. The individual school builds fundamentally upon a basis of good health, claiming that there is more educative value in one hour of live, vigorous exercise, done under proper conditions, than in a whole day of passive, incompetent exercise.

4. Not only is there better physical health, but a health intellectual as well. The pupil does all his work under direction. There is no passive exercise; there is no desultory study. Every moment is full of live, vigorous accomplishment. This tends to make him a trained thinker. He becomes independent and self-reliant in action. Study takes on interest because every bit of the work is his own. There is no rottenness in his foundation work because he has skipped or prematurely passed certain elementary principles. His work is thorough; each step is basic. All his work is done under circumstances favorable to vigorous thought. When will the teacher learn there is no educative value in an exercise carried beyond a certain

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point of nervous tension? Exhausted brain may produce something; but that something is a thing of weakness, and the process has reacted in reflex weakness to the brain itself. The individual method bases everything in intellectual growth upon better health, and the habits that go to make the trained, self-reliant, independent, and spirited thinker.

5. When a school plan appears that successfully accomplishes the usual work of schools within the legitimate hours of the school session, it does seem that that plan possesses elements commending itself to consideration; but when that same plan realizes more work in shorter time, then what shall be said? Such has been the result. For instance, the principal of a high school where individual methods have been in operation for several years writes me of pupils who, in Latin (and I refer to Latin simply for illustration), in one and one-half years of time of one and one-half hours per day, have read and qualified upon two books of Cæsar, seven orations of Cicero, six books of Virgil, including grammar drill, scansion, prose composition, historical reference, etc.; this done in fifty-seven weeks, of one and one-half hours per day. Parallel with this, these same pupils have carried three other major studies, besides the usual incidentals belonging to public school life. Has such result been accomplished under the graded plan? It never has been in my experience. Now, wherein has the individual plan the time advantage over the usual graded effort? In this, that every period is a vitalized hour, realizing from the greater power of the pupil to do work. But, let me say, this condition of affairs will not appear in a day nor in a year, but comes with systematic growth under scientific conditions.

The teacher in the graded school stands confronted by the many new elements demanding incorporation into the school program. The report of the committee of ten, with its demands for enrichment, arises before her like her ghost. How shall a program already full be crowded more? How shall there be enlargement and extension of work without extension of time? In the midst of this dilemma the individual method presents itself, reduces the working hours of the pupil, and still finds the need of extension of courses of study and general enrichment in order to fill out the time.

6. But not only does the individual school realize in more work but in better work. Every part of a pupil's work must be his own. No one else reads to him the Latin lesson or permits him to copy the solved problems in mathematics. To him there is no royal road by the substitution of another's endeavor. He must do work by himself and for himself. He qualifies, not upon selected fragments of a whole but on every line and on every problem. He recites and passes examination in the most thorough manner. The result of this is, he may at first not do so much work, but he is thoroughly grounded upon

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every step; each acquisition becomes a part of himself, and there is no need of endless reviews and repetition of work. Whenever a dull boy is given a piece of work absolutely his own, that piece of work becomes to him an inspiration for the future, a solid rock of accomplishment and interest upon which he can and will build an educational superstructure. Hence, I repeat, the individual school realizes in more work and in better work because of utilization of the leading principles of vitalizing economy.

7. There is another glorious result. There is every promise of a more permanent class of results. Every step of the work, being basic, leads to the natural determination for continuance. There is no poor work. Excepting as a given piece of work is good, the pupil cannot pass on; and this passing on is determined daily. This all tends to making him the true student, and inculcates a nobler motive in work. Life to the pupil takes on a new meaning, an inspiration dawns upon him, an impulse uplifts him, and he is born again to a world of possibilities and accomplishments.

Now, I am well aware that my friend of the graded school says this all tends to disorganization; but he is mistaken, for it presents opportunity for order of the highest type. But this order will not obtain of itself. Back of the whole plan there must be the superintendent or principal, who is willing to live in his schoolrooms and not in the office; and, with it all, there must also be the teacher of higher qualification, who will certainly appear when the superintendent gives opportunity for life and realization.

I am also aware my friend asserts that the happy characteristics I have described belong to the better graded school. Well, I don't think they do; but I will not quarrel with him, for I am ready to recognize any school as good where there is individual opportunity. I do not care absolutely for individual practice, but I do demand that nothing shall stand in the way of individual advancement. However, whenever opportunity is given for untrammeled individual advancement, mechanical gradation gives way to the school of individualism.

The school of individualism does not entirely discard class methods. When there is the starting of a new subject, or the giving of working directions common to all, there may be utilization of class practice to advantage. There may also be the giving of certain typical exercises as the basis for individual ramification and extensions. There may be the symposium for the interchange of findings, or the utilization of seminar methods. There may also be the flexible grouping of pupils who happen at particular times to be working simultaneously upon the same or similar exercises; but nothing shall be allowed to stand in the way of individual enthusiasm, individual accomplishment, and individual advancement.

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The school of individualism, then, is the one that provides for the masses by holding a greater number to continuous educational life. It realizes in better health, enthusiastic spirit, nobler motives, better habits of thought, work greater in quantity and better in quality, with opportunity for enrichment, and in other results that go to make the true permanent student. It brings the teacher into the living necessity for child study, and presents an intelligent basis for scientific instruction. It may not be a system perfect in all its parts, for it demands adjustment, accommodation, and conservation all along the line; but it has already solved, for those who have used it, many school problems, and comes from the people with emphatic demand for incorporation into the public school policy of America.

The reading of this paper was followed by discussions. In replying to the opposing arguments made in answer to many questions, Mr. Search closed with these statements:

1. The school must be built for the perfect conservation of the individual. As such, he must be received and placed where he can get the greatest amount of good to himself, irrespective of all relative or mass considerations. The class method is too expensive in its demands upon time, is conservative of the few, is full of unjust comparison, of tendency to over-pressure, poor health, and mechanical results. It is possible, even in the public schools, to meet the individual at the door of his actual needs and to provide for his perfect conservation.

2. This is the day of child study. There can be no intelligent child study excepting as the teacher studies the individual. Of child study there can be no practical result, excepting as there is adaptation to individual necessities in the light of such findings. This leads directly to the only sound basis for scientific instruction. When a person wishes to become physically strong, he goes to the gymnasium to gain strength at the point of his actual needs. The old-time class instruction in the physical gymnasium has given place to the specific examination of physical condition, followed by individual assignment of drill and exercise in order that the person may become strong. Even so in the intellectual gymnasium. There must be examination of condition, and built upon this examination must be the intellectual drill calculated to develop the mind to its greatest advantage, not by the old hit-and-miss general exercise of traditional practice but by specific assignment directed to individual purpose. This is scientific instruction. It may be in advance of the school of individualism at its present development, but it will be the logical sequence of present effort at the conservation of the individual.

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3. The school of individualism bases everything upon better provision for physical, intellectual, and moral health, utilizes the doctrine of interest as the great motive in work, and seeks above all things the generation of power. Through its recognition of power—ability to do work—as the determining element in the placement and advancement of the worker, it changes the standard of schools and of colleges, and asks for reconstruction, that all educational provisions may conserve economy of time, enrichment of endeavor, adaptation to individual needs, and realization in higher opportunity.

DISCUSSION.

SUPT. L. H. JONES of Cleveland.—The paper has given us two vivid pictures, each graphically drawn by a few bold strokes. The first, a very poor graded school; and the second, a very excellent ungraded school—a school in which the instruction is chiefly individual. The lack of excellence in the graded school depicted is due chiefly to two causes. First, the school as described is really an ungraded school (that is, the pupils are of differing capacities), run on the program of a graded school. Secondly, the teaching in it as described is exceedingly poor. Now, a great teacher is an artist in his profession; he adjusts the pupils properly to the subject-matter, and then enters into the life of each pupil as an inspiring power, leading each pupil to master the subject for himself. In good teaching, it is the pupil who does the learning, the pupil who is developed, the pupil who receives the discipline and training. The pupil is the one in whom the great transformation implied in learning takes place. If this kind of teaching be done, there is no danger that the pupils will become automatons, even though all the teaching be done in class recitation. Indeed, there are some kinds of development and some worthy ends to be reached which can only be best done through class instruction. The most educative process that I have ever seen going on is that of class instruction, in which each pupil is attent upon knowing just what attitude the teacher wishes him to assume with reference to the subject; alert to hear everything said by each pupil who recites; eager to hear every explanatory remark of the teacher; busy adjusting what has been said by each and what he himself has been led thus to think; rejecting the irrelevant and finally drawing out of the mass of information given the true conclusion. The processes of mind which have been carried throughout such recitation are very much those which adapt the child to successful action in real life. Besides, it is impossible to bring to bear the strongest classes of motives upon children in any other form of instruction. The strongest fear of criticism which the child ever holds is the criticism of his peers in age and experience,—that is, the other children,—and what his teacher thinks upon a question may be to him of great importance, but what his classmates think upon the same thing is the supremely interesting thing to him. It is said that even a colt upon a race track, to reach the best results in training, must have a running mate of his own age.

The picture here drawn of the ungraded school, or the school in which individual teaching was described, excels the picture of the other school chiefly because

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the teaching described was better; and, therefore, the actual excellence of such school as pictured in the address is due less to the method of its organization than to the ideal excellence of its instruction.

DR. RICHARD G. BOONE, Ypsilanti, Mich.—We concede all that has been said against the dangers of the class recitation in the ordinary school. But let no one fail to see that it is the abuses of the graded school system that have been criticised.

We are prone to emphasize individuality. It is easy to exalt it unduly. When a pupil leaves school he goes out to live and move with others. He must co-operate with them in the common life of his kind. The school must fit him to do this. The modern method, speaking broadly, is the laboratory method; and in this individualism is exalted. A noted biologist of my state recently said to me that the defect in this method is, that each one is left to work alone. There is a virtue in such independent work. Its excessive use is vicious. The method has its defects and limitations not less than those incident to class instruction.

In individual teaching we are apt to emphasize what we do not want to emphasize—the acquisition of knowledge and facts, the covering of books and pages. Five pupils so taught go at five different rates of speed. This is not in itself a virtue.

The wise teacher finds large advantage in group teaching. The many-sided friction is a good thing for the child. The class advantages are a tremendous impulse in forwarding individual children. Individualism tends to a loss of the advantage and spirit of co-operative effort. Class work re-enforces the effort of each by the understanding of all others.

DR. W. T. HARRIS.—In some cases the graded school system is so managed that it is made to do harm to all pupils except those of average ability. Where the intervals between classes have been made so large as to include a year's work or more it is evident that the lessons adapted to the average of the class are too long for the backward pupils and too short for the bright and quick-minded pupils.

Because the graded system may be mismanaged or injurious when applied to rural schools or small schools in villages, many persons have supposed that the system should be abolished altogether. But the class system is really one of the greatest inventions ever made in pedagogy. A class recitation is a great means of instruction; far more potent than any device of individual instruction. Some have supposed that the ideal of instruction is the private tutor with his single pupil; but the pupil in the class has the opportunity of hearing his fellow-pupils tell what they have learned by their study. They have glimpses of the subject which he has failed to get. And, on the other hand, he himself has some views which are new to them. The teacher's views are more or less new to all of the pupils. It is this process of seeing the lesson through the minds of his fellow-pupils that makes the recitation so valuable in gaining new insights and new methods of study. The pupil in studying his second lesson is on the alert in many ways which he entirely ignored when preparing his first lesson. In the graded school the teacher should have two classes. One should prepare its lesson while the other recites. This develops two kinds of attention. First, the attention of the pupil to his own work, forgetful of the presence of his fellow-pupils and of the teacher. This kind of attention is absorption. Second, the attention of the pupil in the recitation, when he is alert to catch all the suggestions made by his fellow-pupils in their answers and all of the criticisms on the part of the teacher or other pupils. The private tutor when at his best cannot arouse the interest of the individual pupil so well as the average class recitation can do it.

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In the ungraded school the teacher has a great variety of subjects to teach, and must hold each pupil responsible for his work if he can. But he has only five minutes, or less, to probe the work of the individual pupil. He cannot go behind the words of the lesson to see whether the pupil understands them. It takes a recitation of twenty to thirty minutes to really probe a lesson and get at the ideas behind the words. The pupil is called upon to restate his ideas in his own words and to illustrate the same. Good teaching cannot be had in an ungraded school.

COL. F. W. PARKER, Chicago.—The ideal school is an ideal community—an embryonic democracy. We should introduce into the school what we must have in the state, and this is democracy in its pure sense. The child is not in the school to learn, not in there for mere knowledge; but he is in there to live, to learn to live—not a preparation for life so much as real living. The pupil should in school learn to live. He should there learn to put himself into life. The teacher is the leader in this community life. Self-government is the only true government. A child should be taught how to live for others. We are too apt to ignore the divinity of a child. The reconciling of the individual with life is the great problem of the day. It is the great social question of the day. All work should be educative. The question is, What shall come into life to-day? The class recitation is the one place where mind meets mind. A class of fifty is none too large. The forty-nine pupils help the one and the one helps the other forty-nine. When should a child be promoted? When he can do more good in some other place than he can do where he now is.

SUPT. W. J. SHEARER of New Castle, Pa.—If I understand the method which Superintendent Search advocates, it is a return to the ungraded school without recitations. Surely this would be a great mistake: First, because the graded school is a partial solution of the defects found in the ungraded school and better than the ungraded school, measures up to the requirement of "the greatest good to the greatest number;" second, because it would rob the pupils of all those many benefits which Dr. Harris has so well shown to be the results of the recitation.

That the graded school of to-day does not sufficiently provide for the individual differences of the pupils, all must admit; for, though the children of any grade differ widely in age, in acquirements, in aptitude, in physical endurance, in the power of attention, in home advantages, in the rate of mental development, in regularity of attendance, and in many other ways, the graded school of to-day would keep all the children of each grade in intellectual lock-step, not only month after month but year after year for their whole school lives.

This being so, is it any wonder that the iron-clad system which, regardless of all differences, would cast all minds in the same mold, and subject all to the same treatment for the same length of time, and test all in the same way, is objected to, because it demands so much uniformity at every step that the most are forced to stop school, and the few who do finish graduate too late to get a fair start in life? Is it to be wondered at, that, from all sides, there comes a demand for some system of grading which will be more pliant, and will not attempt to overcome, not only the differences of physical ability and physical environments but even the difference in mental ability which the Almighty has predetermined?

This "Procrustean bed of grades," which differs but little from the first system of graded schools introduced by Sturm almost 400 years ago, must plead guilty to many serious charges, among which may be mentioned the following:

1. The bright pupils are discouraged by being held back and the slow by being pushed forward; yet some wonder why sixty per cent of the pupils do not go more than three years.

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2. There is an amazing loss of time by those who remain. Statistics which we have just compiled show, that, for every 100 pupils in the schools, there have been over 112 years lost.

3. Even the brightest cannot gain time; while, if any but the brightest lose but a short time, they fail to be promoted and lose a year even when but a month or two back.

Though these defects exist, surely it is not necessary, pendulum-like, to swing from the iron-clad grading of the present to this plan, which would prove little better than a disorganized ungraded school.

By request, I mention very briefly the steps taken at New Castle to provide a more pliant plan of grading:

1. The promotion examination was abandoned. The pupil's promotion no longer depends on the result of an examination nor upon the calendar, but on his ability to proceed.

2. The pupils were graded carefully, and but one grade put to a room. As differences appeared, each grade was divided into three or four sections, according to ability, and each division was allowed to go just as fast as it could and should.

3. No certain amount of work was required of all in a given time; for, without uniformity of conditions, uniformity of results should not be expected.

In spite of limiting conditions, many advantages have resulted. We mention but a few:

1. It makes possible a frequent re-classification, which is the only means of preventing the sacrifice of the pupils to the graded school. When a pupil gets ahead or behind his own class, he is at once moved to a division a short distance ahead or behind his own, where he can work to advantage.

2. An accurate grading of pupils, according to ability, into classes of from ten to fifteen, instead of herding them in classes of fifty, furnishes a practicable means of reaching each individual.

3. Every pupil is touched with hope and with enthusiasm; for the progress of each one depends entirely on ability and application.

4. Forty-two per cent of the pupils in the highest grammar grade, having finished the work of that grade by January, at once started upon the work of the high school, and will be able to graduate in three years, instead of four years.

5. By the end of the first year's trial of the present plan, forty-five per cent of the pupils below the high school had gained from one-fourth to two-thirds of a year's work, without any urging on the part of the teachers.

If this method is not founded upon sound educational principles, for the sake of those in whom I am deeply interested, let the educational philosophers present criticise and correct.

If Superintendent Search, who so far has given us nothing but nebulous theory, has a plan and has tried it, let us have an explanation and some statement of results. Theory without plans or results is worthless.

MR. A. E. WINSHIP, Editor of "Journal of Education," Boston, Mass.—Superintendents, like others, worship the new thing that is their own. Their attack on what is not their own newness is often amusing, never more so than in this instance, when three men who stood pre-eminently for the most advanced thought in school administration turn upon Mr. Search with peculiar delight when he brings something newer than their newest.

Superintendent Search has brought us an idea that has been designated as individualism, and all of these speakers have at once arrayed themselves for a re-defense of the class system; a thing they have done, probably, regularly for thirty years. There is certainly nothing new in this defense.

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Individual instruction does not do away with class exercises, but rather with the tyranny of a program. It antagonizes that phase of class work which requires every exercise to begin at a given minute,—twelve minutes of eleven o'clock,—and close as definitely at eighteen minutes past eleven. As Mr. Search's idea is applied in several places in California, there are class exercises whenever there is any occasion for them. The class as a whole begins a subject and these exercises are continued till, one by one, the pupils are upon their feet, when they are allowed to go alone under the general direction of the teacher until such time as they can advantageously work together. The root element in individualism is to do the best for the pupils as a whole and individually, both through class exercises and through private assistance. Each subject is treated differently, as is each pupil. In geography, the pet subject of our friend from Cook county, the opportunity for individual work would be great; there being no attempt to have all pupils learn the same thing, but in many cases each specializing for his own advantage and that of his class. I make no claim to being an out-and-out believer in individualism, but I do believe that the greatest advantage in these meetings comes from having every man make the best possible presentation of the thing in which he believes. This meeting stands out above all others in the history of the association, in that we have had the best possible advanced statement of American Hegelianism and a very vigorous defense by the Herbartianists. The better each presents his own case, the sooner we shall have an ideal American product infinitely superior to either.

H. R. SANFORD, Institute Conductor, New York.—The objections to the graded school system have not been exaggerated. It is altogether too much platoon work. Children are treated in the mass, made to march along, step by step, together, and are graduated together, as far as possible, by the graded system. The tendency is, to keep pupils back and thereby discourage them; to keep pupils together for a whole year without any allowance made for the differences in their mental make-up. One plan to break this up is to have at least two classes in the same room. The latch-string should always be kept out for meritorious pupils. The theoretical age for entrance to the high school is fourteen years. I have tested classes in many states, and I find that substantially the same differences exist as I found in some of the Cleveland schools yesterday. In one of the entering classes to the high school I found that there were three pupils seventeen years of age, nine pupils sixteen years of age, eleven pupils fifteen years of age, five pupils fourteen years of age, three pupils thirteen years of age, and one pupil twelve years of age. All of the excuses that may be brought forward, and are brought forward, by teachers—some are sick, some are irregular attendants, others unusually dull—does not explain these differences in age.

DR. E. E. WHITE, Columbus, Ohio.—I improve this opportunity to clinch what I said yesterday, that the Herbartian pedagogy, as explained by its American advocates, leads logically to individual instruction and to the abandonment of class instruction. This was frankly conceded by Dr. Butler in his reply—a most important concession, as I see it. We now have had a concrete illustration of this fact. Superintendent Search has simply carried the theory to its logical result. He has obviously seen, that, if the apperceptive condition of the pupil at a given moment (whatever this may mean!) determines the next step to be taken in his instruction, pupils cannot be taught in classes, since there is no continued common apperceptive condition. The only thing to be done is, to let each pupil go at his individual gait without reference to the progress of others—led always by his interests, not to say his whims. This is the position of the paper in a sentence; and it is a logical one if the theory be true. This takes us back to the unclassified schools

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of fifty years ago, in which only a few bright pupils made satisfactory progress. Nine-tenths of the pupils in the schools of my boyhood droned over nearly the same ground in arithmetic, grammar, etc., from term to term, their progress being largely confined to spelling and reading, in which there were class exercises of some sort. The improvement since made in school instruction has been, to a great degree, the result of classification. It is true that the graded system has been attended with serious evils, but it does not follow that the only remedy for these evils is a return to individual instruction. Experience shows that it is possible to teach pupils in classes without sacrificing their individual abilities and needs. The thing required is the proper adaptation of class instruction to the individual pupils, and not the sacrifice of the pupils to class instruction. The abandonment of class instruction is practically the abolition of the schools.

DR. EUGENE BOUTON Pittsfield, Mass.—The conditions in the smaller districts and smaller schools are quite different from those in the larger cities and larger graded schools. In the rural district school the classes are frequently so small that the instruction is approximately or absolutely individual. The results obtained in such schools are, in most cases, distinctly inferior to those obtained in schools having from thirty to fifty pupils reciting together in the same grade. There is usually in them a dearth of vigor and enthusiasm. They are lacking in the interest generated by numbers and in the stimulus afforded by the successes of other pupils. In most teaching the same instruction is helpful to nearly all the pupils of a fairly graded class, and in schools of fair size the class intervals may be short enough to meet the needs of almost every pupil. If, however, the class intervals are less than three a year, the number of classes will usually be too great for satisfactory work. It is difficult to see how the efficiency of the teacher will be increased by practically dividing the room into as many classes in each subject as there are pupils to be taught. The amount of personal attention to each pupil would not be increased, and the multiplication of effect which characterizes class instruction would be lost. It is true that more attention should be given to pupils who from any cause are out of touch with the work that they ought to do. Such pupils will naturally class with others in some subjects, but in other subjects they must have help outside of the class or waste much of their time and effort and become bewildered and discouraged. Very likely an extra teacher in a school of fair size might use her time profitably in assisting such pupils. In schools of moderate size having a supervising principal this work might perhaps be best done by the principal. But it should be added to class instruction; it should supplement it rather than replace it.

SUPERINTENDENT SEARCH (in closing the discussion).—We have been standing upon different platforms. Some of you will see these things in a new light within the space of fifteen years. My work in this line has been experimental. This plan, of course, has its losses and its gains. I have sought to find the proportion of these, and my experience leads me to the opinion that the gains in this plan are very much more than the losses. It is not a return to ungraded schools. It is scientific study with the child as the basis of the work. There can be no such study except by individuality. There can be no true education except sub-education. In this the teacher can only direct. Each pupil must do his own work.

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CHILD STUDY—SYSTEMATIC AND UNSYSTEMATIC.

BY WM. L. BRYAN, INDIANA UNIVERSITY, BLOOMINGTON, IND.

I. It is a commonplace fact that one may give chief attention now to one and now to another mental occupation—now to seeing, now to hearing, now to meditation, and so on.

It is also a commonplace fact that one may through life devote main attention to a certain form of mental occupation, one giving himself mainly to poetic or religious emotion, another to the in-gathering of new facts, another to the deeper assimilation of facts already known, and so on.

It is a common opinion that the several forms of mental occupation, as they occur in an individual, are by no means essentially hostile to each other; rather, that they are essentially supplementary, or even still more closely interdependent than that word implies, all springing out of one life, and, all together, working out its more complete development.

If, by analogy, one expects that men of divergent mental habit will see the uses of each other; if one expects that poet, prophet, scientist, philosopher, and a man of affairs will confess themselves brothers, children of one life, working together in different ways at the same life task—if one expects this, what is the fact?

Go to your book-shelf and take down a half dozen of the masters—Plato's "Republic," "Gulliver's Travels," "The Imitation of Christ," Schiller's "Gods of Greece," Bismarck's "Speeches," and a monograph of the first rank on experimental psychology. All these books deal in some way with the life of man. But the ways are not the same. They are not at peace with each other. They are crowded with mutual hostilities. My colleague in psychology is impatient of everything and everybody outside of a laboratory. Plato urges his disciples to get away as far as possible from every sort of contact with the earth. Swift spends one-fourth part of his volume in bitter ridicule of all systematic science and philosophy whatever. Bismarck rails at the doctor-mob who would ruin the state with their scholarisms. Schiller is angry with physical science for banishing faith in the conscious divinity of Nature. And, finally, Thomas á Kempis distrusts all alike—science, philosophy, statesmanship, art, and common sense. For all these other masters he has only pity and a prayer that they may be saved into the quiet life.

Now, it is always possible to settle a quarrel like this by taking one of these points of view and explaining the others as degenerate

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or immature; and it is always possible to settle such quarrels by compromise—by an eclectic lash made up of the skin and bones of all the combatants and the marrow of none. But this quarrel of the masters the genius of history has not settled so. These men actually existed. They were all born out of our common life. They have all contributed to its development. The history of the world has been large enough to hold them all, just as they were. You may charge Nature with being a superficial eclectic for giving birth to so many sorts of men. You may complain at God for not being more obviously rational—for not giving us masters of one trim normal school pattern. But such and so many masters he hath given, and none of them for naught. Who shall say that the very bitterness of their strife is not without its measure of good, and the deepest message of each is an accent of the Holy Ghost we dare not lose.

If, now, in the great world-school, whose pupils are all mankind, God needs such and so many masters, which of them in the school we have in charge can we afford to do without? We have charge of the youth. We are the doorkeepers of the school. We have power to admit or to exclude.

I am no poet, but the influence of poetry I can admit or exclude. I may admit it as scraps for the copy-book. I may admit it as sentences to be parsed. I may admit it as texts for a philosophy which the poet would disown; or I may let the children meet the poet's own message in its form, so that, in some measure, the holy fire which burned in him shall burn again in them.

I am not a philosopher, but the best influences of the masters I may admit or exclude. I may affect to despise philosophy. I may affect to believe that my office is insulated from the universe. I may make decisions every hour which then and forever stand in the absolute judgment as if they were to stand in no judgment but that of the school board. Nay, in this case I do not exclude philosophy. The raw, crude, contradictory answers which every hour, by word and deed, I make to the riddle of the Sphinx is not common sense because I call it so. It is my metaphysics under a false name, without the masters' wisdom and with more than their dogmatism. Again, I may become a philosophic sectarian in the narrower sense. I may fail to get through any system that spirit which is the life of all the great systems. I may prison myself with words, which, to the masters, were unessential. I may descend upon the school in the name of rational freedom to crush out all spontaneity there. I may teach the youth born into this kingdom of divine surprise that all he has to do with anything he finds there is to pigeon-hole it.

But, also, without being a genius, I may admit to my school the better influence of philosophy. If I sufficiently desire the wisdom that

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comes with reflection; if I will listen to some master in whom spiritual fire has burned the raw material of experience into gold; if I will consider the questions of each day from the Mountain of Transfiguration as well as from the earth; lo! then, through me, in some small measure—through me and for my school—there lives that spirit of wisdom, which, like Dante's Beatrice, leads us all into the paradise of better life.

II. In like manner, gentlemen, if there were time, we might consider every other sort of master whom the doorkeepers of the school have the power to admit or exclude. But I have come especially to urge the more general recognition of two kinds of masters who study human nature—one of them by systematic research and one by personal acquaintance and insight. I wish to show, if I can, by an illustration, that nothing else can take the place of either of these, and that neither of these can take the place of the other.

My illustration is the problem of adolescence. How shall we find out what we need to know in order to help the youth most in this critical period of their lives? What is it that we know of this period from common observation? We know that it is a time of great change, physical and mental. We know that it is a time of critical importance for the establishment of health and habits, and other such generalities. Now comes a large body of scientific men, representing many special departments of science, and say that they will help fill out our knowledge. They must do this in their own way. They must take their own time. They cannot be hurried. They cannot promise every whipstitch a new discovery. They cannot promise that each bit of their work will, by itself, illustrate some general educational law or supply some schoolroom recipe. What is it they will do that takes so long?

1. They will measure hundreds of thousands of children in every way in which children show measurable change as they grow; the dimensions of the body as a whole and by parts; the weight of the body as a whole and by parts (*e. g.*, Donaldson's measurement of brain weights at different ages); the motor ability in every aspect—as the strength, endurance, speed, and precision of various muscles under various conditions; the sensory discriminative ability for all the senses; the tenacity and span of memory; the precision, speed, and endurance of the mind in various measurable tasks; the apperceptive capital and the spontaneous interests; the character and amount of sickness and the death rate; and still other determinations already made and yet to be made.

2. When any one of these determinations is made on a sufficiently large number of children, the results are treated by mathematical methods, which show, not only the average measure of children for a

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certain age but also the individual distribution. For example, Professor Bowditch's tables show that five per cent of the children of a certain age are below a certain height; ten per cent below a certain height; fifteen per cent below a certain height, etc. A comparison of the results for successive ages show the so-called curve of growth; that is, the absolute amount and the rate of growth from year to year. From this curve we can see the periods of accelerated and of retarded growth. In like manner, each set of measurements mentioned are treated by the methods found appropriate to each. And in like manner, accordingly, we find for each measurable function the curve of its growth, the time of life when it grows fast, the time when it grows slow, and the time when it reaches its full development.

3. As soon as a few studies like this are made, there begins a comparative study of the several functions that have been measured. What are exact relations between these several phases of human development? Which of these functions fluctuate up and down together, and which, if any, in contrary directions?

4. Finally, each and every part of this work must be reviewed in the light of the facts contributed by general biology, physiology, neurology, psychiatry, and related sciences.

Now, what is it that is hoped from this long and infinitely laborious task in which a little army of trained men throughout the world are co-operating? The thing hoped for is a picture—not a fancy picture, not a speculation, not a guess, but a picture whose every line is verified—of the development of man in many of the most important phases of his life. Most of the work is in the future. Not all. Perhaps 200,000 children in a half-dozen countries have been tested by the best methods known to the science, and the results have been to some degree digested. I wish to make no extravagant claims for the results so far gained. I have no ambition to show tin-rattle discoveries, and I have a horror of premature pseudo-scientific schoolroom recipes. But the picture of the developing youth is so far drawn by the studies already made that the school should not ignore it. I submit that those who set tasks, those who make the curriculum, have no right to ignore those curves of growth which show now retarded and now accelerated power to do the work required. As I said a while ago, every schoolman cannot be a scientist, but the influence of science he can admit or exclude. Inside the school are the children; outside are the sciences of help; at the door stands the schoolmaster.

III. But, as I already said, there is another kind of child study no less essential than the scientific; and that is, the child study which comes with intimate personal acquaintance. My own studies and interests have been in that field of systematic research which I have just all too rapidly sketched, but the relative importance and the rel-

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ative neglect of unsystematic child study leads me to devote somewhat more space to that problem. Let us take again the adolescent youth and face this question: What can the high school and college do to direct the abundant stock of life in later adolescence toward good growth? Here is a youth surcharged with force. It will find an outlet. The outlet it finds will be the habits, will be the character, of the man. Unhappily, this force is all too easily misdirected. The senses clamor for satisfaction. The opportunities for receiving satisfaction are everywhere abundant. The young man finds many already going and already gone into every form of delightful vice. What can we do about it? Many answers come to mind. One says: "Give the youth Spartan discipline. Command. Forbid. Demand obedience." Another says: "Teach him ethics. Have a little book of maxims for him to learn. Teach him that honesty is the best policy." Another says: "Reason with the lad. Give him an ethical principle by which he can guide himself. Lead him to be rationally free." Another says: "Inspire the boy. Read Tennyson to him. Inflame his soul with Dante. Kindle his enthusiasm with Beethoven."

All these things have more or less value, I feel sure; but I wish to suggest another which I believe is the essential supplement to any of these, and that is this: Better acquaintance by direct personal acquaintance. Now, the thing above all others to look for is this: What are the boy's interest? In what directions does the flood of force within him tend to go out? What does he enjoy doing? What work or play does he go to with instinctive pleasure? What, if any, part of the school work does he care about? What, if any, sort of book does he snatch up to read when he has a chance? What does he talk about and think about when he is not self-conscious? What sort of companions does he like to be with? Whom does he imitate? Who are his heroes—living, dead, or fictitious? Do you know none of these things about your boy or girl? Do you not know where they are or where they want to go? Do you not know in what good or bad, in what essential or trivial, ways the flood of life in them is pressing? Alas! then, your commandings are more likely than not to be stupid, brutal, ruinous; crushing the child's will or inciting it to rebellion. Your moral maxims and your moral principles will be like bulrushes against a Nile flood, impotent to check the blind rush of life you do not understand; and the noblest things that may inspire yourself may, as many of us bitterly know, fail to touch any responsive chord, because we do not know what chords are there or what ones to strike.

But if you have gained the right sort of acquaintance, then you will know what the best enthusiasms are and what will nourish them. Does he love sport? Be his comrade, and make him see how fine it is

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either to win or to lose, and be a gentleman. Does he love tools? Turn him loose in your high school workshop and let him make physical apparatus. A thing he makes is worth more than a hundred-dollar one, for, in making the thing, he is making himself. Does he read trashy novels? Don't give him your own favorite instead. Give him a good novel that he will enjoy better than he did the trash. Find him heroes that will appeal to his present admirations. If he admires the prize fighter, show him that there are fists that clinch and strike for right, and, in due time, he will find a higher knight-errantry that uses no blows.

There is just here, however, a certain thing to guard against. Because a boy loves sport is no reason why he should never do something more useful. Because a boy loves tools is no reason for educating him to be only a tool and not a man. Because a boy has some strong tendency which is good is no reason why he should follow that so far that it becomes an evil. All the time that we are encouraging the boy's best present enthusiasm we must be on the watch for the birth of better ones. Things happen rapidly in the time of adolescence. It is the time for conversion. It is the time for regeneration, physical and spiritual. It is the time for the dawn of love that may turn toward hell or that may turn toward all the heavens that a man can reach. We must therefore be on the watch for the birth of every better impulse as we await the birth of a child. We must save every one of these higher instincts as we would save a flickering human life. We must save the boy again and again from the best he is to make him a better.

My plea is, that we get acquainted with the boys and girls in true comradeship. One great advantage in this is, that at the same time we are getting acquainted we are learning how to influence them and are getting the power to do so. There is no power in the world like personal influence. Politicians understand this. One must have three degrees of initiation to become an efficient politician. In the first degree, you think it is enough to vote. In the second degree, you think it is enough to speak and write. In the third degree, you find that things good and bad are brought to pass by direct personal contact. And so I say, you must be the boy's comrade or he will escape you. If you have any sort of charm, use that, not for your sake but for his sake. If you have fidelity of character, he will find that out for himself. If a sneak looks out of your eyes, he will know it, and every fine maxim from your lips will send him the other way. If you care for the boy, if you want to do him any good, if you have in you any of the mother spirit which clings to a life and will not let it go, there is no power anywhere that can save if this fails, for it is the love of God.

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IV. My text to-night has been this, that God hath given us many masters, each of whom represents the emphasis of some phase of man's life, and all of whom are necessary for the education of our race. Of course, it is impossible for us to have in every schoolroom a Goethe, who was a practical road-builder, a scientist whom scientists recognize as such, a philosopher by right of original insight, and a poet who sang free as the voice of spring. Not one in a hundred years is of Goethe's stature. It may be that only one of Goethe's stature can be a whole man, with every faculty alive and every faculty the stronger because the others are alive. It may be that you and I can serve our race best by being fragments, specialists in art, science, philosophy, or business. I do not know. I cannot tell. But if you and I who have charge of the youth; if we professionals, for the sake of a mechanical consistency, for the sake of a little system, stand between the children and any light that God hath given, how shall we measure the largeness of our offense and of their calamity?

APPLICATION OF CHILD STUDY IN THE SCHOOL.

BY COL. FRANCIS W. PARKER, PRINCIPAL OF COOK COUNTY NORMAL SCHOOL, CHICAGO, ILL.

To have lived in the common school as a pupil and a teacher throughout nearly the entire time which marks its establishment, its growth, and development is a beneficent compensation for growing old. No other institution established by man ever carried with it such possibilities for human weal. It is an absolutely democratic institution; it sprang from the brain and heart of a people, and is, in the truest sense, of the people, for the people, and by the people. Without precedent, it established a precedent. It blazed its own path without guide or compass. It marched, met, and overcame every obstruction, met and led by the sturdy common sense of the people.

On the threshold of a new century it is well to consider some of the most obvious signs of its progress. As a sign of professional growth, ten times as many books upon education have been published in English during the past twenty years than were ever previously published in the same language. Second, the establishment of normal schools. Beginning with the first crude attempt, near the old battle ground of Lexington, in 1839, normal schools have steadily increased all over the United States. Third, the founding of chairs of

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pedagogics in universities and colleges has been the mark of recognition by higher institutions of learning of the fact that there is a science of education and an art of teaching. Fourth, a few of the most prominent colleges and universities have begun to take a deep and profound interest in the common school, have emphasized the vital importance of primary education, and reach a strong and helpful hand to those who are struggling with its serious problems. Fifth, the subject-matter or conditions for education have been enhanced by the discoveries in science, the reformation of history, and the production of an immense amount of pure and educative literature. These results, far reaching as they are, are dominated by others yet more satisfactory and prophetic. Chief among these indications I will place the fact that many educators have arrived at that stage of growth in which they heartily and cordially agree to disagree. In the early days of our common school civilization, principles and methods seemed to be incarnated. One hesitated to attack a method or principle in vogue else he should cause some heart that beat behind the incorporated method to bleed. Methods and principles—thank God! for the children's sake—are fast becoming impersonal; subjects for careful scrutiny and close criticism. The solid and stolid obstructions of fixedness, of dogmas, have, in part, broken away. The teacher is in touch with the spirit of the age—the spirit which pervades all other sciences—"*Ewiges Werden*," the "everlasting becoming." No syndicate of education to-day can lay a steel track, put on its cars, give imperative orders to its conductors, and proclaim "The Royal Road to Learning." All pronunciamentos in education, all discussions, courses of study and programs should be marked, "For this day only." This program is an adaptation to present conditions—simply tentative, opening the way to better things. All investigations, all discussions, are but steps on the way. He who truly faces the question of education, faces infinity; the work of to-day is solely a means of movement to better work to-morrow. Although abstract philosophy may lay down a few eternal principles, mixed with much that is perishable, it cannot reach or even suggest the ultimate in methods or the extent to which the art of teaching may reach forward. To hold fast to dogma is to be rooted in tradition. The blind obedience to any school of pedagogics or implicit following of leaders has no longer the charm of loyalty nor arouses the enthusiasm of the patriot. Mere discipleship closes the way to progress, instead of opening it.

Frœbel, the divinely inspired educator of the nineteenth century, has interpreted the words of the Master, "The letter killeth, but the spirit maketh alive," in these words:

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"Again, a life whose ideal value has been perfectly established in experience never aims to serve as model in its form, but only in its essence, in its spirit. It is the greatest mistake to suppose that spiritual perfection can serve as a model in its form. This accounts for the common experience, that the taking of such external manifestations of perfection as examples, instead of elevating mankind, checks—nay, represses—its development.

"Jesus himself, therefore, in his life and in his teachings, constantly opposed the imitation of external perfection. Only spiritual, striving, living perfection is to be held fast as an ideal; on the other hand, its external manifestation—its form—should not be limited. The highest and most perfect life which we, as Christians, behold in Jesus—the highest known to mankind—is a life which found the primordial and ultimate reason of its existence clearly and distinctly in its own being; a life which, in accordance with the eternal law, came from the eternally creating All-Life, self-acting and self-poised. This highest eternally perfect life itself would have each human being again become a similar image of the eternal ideal, so that each again might become a similar ideal for himself and others. It would have each human being develop from within, self-active and free, in accordance with the eternal law. This is, indeed, the problem and the aim of all education in instruction and training; there can and should be no other. We see, then, that even the eternal ideal is following, passive, in its requirements concerning the form of being."

Probably from no other source has the common school of America received so much of benefit and inspiration as from the kindergarten and its founder. It has brought new life and new light to the teacher. But the danger of the kindergarten is plainly marked out by the words of Frœbel above quoted. That which seriously threatens the onward movement of its young and glorious life is implicit discipleship—the mere patterning or imitation of method without the divine spirit of constant and persistent investigation. It was an imperative necessity for Frœbel, as for any other founder of a system, to have a carefully detailed method; but had Frœbel lived until to-day, he would have inevitably developed that method steadily out of itself into something higher and better.

Next to the incoming of Frœbel's system of education may be placed the doctrine and methods of Herbart, worked out by his great disciples, Ziller, Stoy, and Rein, and brought to America by some of our most thoughtful educators. The one distinguishing feature in the Herbartian pedagogics is movement, and movement ahead. When any one of the many followers of Herbart says, "I am a Herbartian, pure and simple; I adhere to his doctrine and his doctrine alone," he simply stultifies himself. In education, as in science, the one mode

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of motion is personal investigation; the eternal becoming; the beginning, not the closing of the account—the initial steps of a movement ending only in infinity. That many teachers are to-day eager and earnest students of the doctrine of both Herbart and Frœbel is one of the most healthful and promising signs of the times. The day of superficial and contemptuous denial is fast passing away; the day when ridicule can keep otherwise thoughtful students of education from investigating that which history has brought them is also passing away.

The conclusion reached by Herbart in regard to Pestalozzi may be truthfully made in regard to all educators of the past and present. He says the advantage of Pestalozzi's method lies, not in the means, the devices, or the material which he offered for education, but that Pestalozzi himself more bravely, more courageously, and more zealously than all the earlier teachers appreciated the duty to develop the mind and soul of the child. The one true element which exalted him was a divine zeal to know the child and to present conditions for his growth. No one can understand and appreciate Pestalozzi, Frœbel, or Herbart unless they come in touch with that earnest, indefatigable, loving spirit, controlled by a mighty desire to do something better for the children, which dominated all in common. Method and principle is always relatively crude; but the spirit was there—the love without which the giver were nothing. From this standpoint of Herbart we can judge of the educators of the past and present. We can see that nothing is ever fully worked out; that every method, every device, every course of study, every program, every exposition of principles is capable of infinite improvement. Seizing upon a mere detail, or device, or method, looking upon the crude outcome of an earnest but perhaps over-zealous spirit, and judging the worth of a teacher or doctrine from such a standpoint, is worthy only of a pedant or a dogmatist.

To sum up, the highest and best outcome in the progress of education is not to be found in the results of the schoolroom, in revised courses of study, or in the application of this or that theory of education. Faith in the future of the common school has a safe and sure foundation in the attitude of the few and ever-increasing number of thoughtful, earnest, scientific students of education; students who, open and ready to accept all the past has to bring, at the same time have a profound faith that there is no abiding in the onward march toward higher and better things.

Efforts are becoming more and more genuine; quackery is at a discount, and warmed-over devices ages old are not so easily foisted upon untrained teachers. In a word, a discovery in education to-day corresponds to that of chemistry, physics, and geology, with one ex-

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ception—it cannot so easily function itself. The time is at hand, however, when it will be possible for all discoveries in education to be put into one treasure-house for common use, that every teacher who is working along original lines can be put in touch with all genuine teachers and in turn receive the benefit of their studies. It takes less and less time in these days for a blessing to reach the soul of the child. Young teachers of to-day can scarcely appreciate what this means. Only those who have lived in the struggle comprehend

> In what a forge and what a heat
> Were shaped the anchor of our hope.

In the very nature of progress, the well-known methods of scientists the world over must soon become the methods of the teacher. A discovery in any science—chemistry, physics, or geology—soon becomes the property of every other science. It is heralded in the newspapers; it is open to students and to the public generally. Every schoolroom will be a laboratory in which scientific investigations shall be made, and whose results shall be given to all teachers.

The one central feature, and indeed the most encouraging one, is the attitude of many teachers towards the discovery of truth. Shorn of all narrowing prejudices, all implicit beliefs in dogmas, there are many teachers to-day ready to test anew the value of the old, and, with a profound faith in human possibilities, are ready to surrender any predilection and move to higher planes. I would not assert that these teachers are in the majority, but still there is many a child garden on our continent in which original discovery is fostered and nourished, and where teachers have begun to feel their true dignity and the divinity of their art. The crying need of the times is thoughtful, persistent, honest, earnest, courageous students; students of the history of education, of psychology, of pedagogy, of subject-matter, and of actual work done in the schoolroom. Implicit faith in worn-out theories and cold platitudes of rehashed philosophy is becoming less and less. The teacher has begun to feel that he marches along the infinite line of unrealized possibilities. The teacher is beginning to take his place with the true scientist, and to bring all other knowledge to bear upon the central thing, the child, and to study the conditions of his highest growth and development. The teachers of to-day, too, deeply realize that most human beings are simply specimens of arrested development; that the schools of the twentieth century must work out every socialistic problem which the nineteenth has presented.

Psychology in the past has had its full share in the pedantry and dogmatism that have marked the other sciences. It was once buried in an abstruse and ambiguous terminology. To Herbart, his co-

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workers, and contemporaries, is due the merit of founding a rational school of psychology. With Herbart, the real work of introspection began. He established a psychology that could be applied to education; he established a psychology that moved straight into the realm of mind knowledge. His pupils have been and are continually modifying the early doctrines of Herbart. As Herbart judged Pestalozzi, so we can judge Herbart. His greatest merit was his movement towards something better. An indispensable sequence of Herbart's psychology was physiological psychology; a psychology that would explain the physical causes of mind action, that would everlastingly temper and modify the results of introspective psychology. The students of physiological psychology moved directly to the study of initial life, to the beginnings of mind development, to child study. Child study as a pure science must be fascinating in the extreme. It may be studied with profound enthusiasm without any appreciation of its function—education; but it only reaches its sublime height when this sole purpose is fully realized, and when all its discoveries reach the life of the child through the work of the teacher. The grandest product of Frœbel's life is the profound recognition of the dignity and the divinity of the child. The sin of the past has been the contempt for the individual. Personality has been sunken and buried in human organizations. Frœbel lifted the child from this mass of ignorance and oppression and placed him before us as a type of the Babe of Bethlehem. He made paramount the study and exaltation of the individual; but Frœbel, with all his glorious enthusiasm, his loving zeal and courageous persistence, could not and did not fully know the child. His deep intuitions could not fathom this greatest mystery and most profound problem beneath the throne of the Eternal.

Child study is a direct sequence and outcome of the doctrines of Frœbel and Herbart. A distinguished sociologist said the other day, that, if all the Christians of the world should start out upon a burning crusade to save mankind, they would utterly fail, because they lacked a requisite knowledge of sociological conditions. We can say the same of education. Pestalozzi moved along the line, fired by a burning zeal to help the child, but his methods are now called crude and unpractical. Frœbel followed him, gathering the products of Pestalozzi's great work, and moved on; but Frœbel's striving simply formed the initiation of a far higher work, the work that has now so fairly and promisingly begun under the name of child study.

I can speak for the teachers of the West when I say that no subject has ever claimed such close attention or aroused such enthusiasm as the present movement. It may be well here to suggest the dangers that come in the wake of any movement like this. The principal danger is to be found in generalizations without the most earnest and

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prolonged research. This danger, however, can be guarded against by the presentation of the concensus of opinions of all scientists in this direction. The question of how the laboratory results of child study may be applied in the schoolroom is a very grave one, indeed. Movement in the right direction is generally so difficult that most persons prefer to stand still.

In regard to the application of child study in the schoolroom allow me to say, first, that those results which have been worked out by child-study scientists, and concerning which there is a general concensus of opinion, should receive our most profound and thoughtful attention. You will allow me to refer to one result concerning which I believe there is among scientists no dissenting voice, and that is the law of the diffusion of nervous energy. It has been decided, if I understand it, that the nervous energy of the child is diffused very slowly and gradually from the brain and spinal cord through the torso and limbs to the extremities; that this slow diffusion is marked by that which all persons may readily notice—broad, curved movements on the part of the child in walking, running, moving its arms and hands. If, say these scientists, the extremities are unduly exercised before this nervous energy is properly diffused, the undue action of the extremities—the fingers, for instance—causes a reaction against the flow of nervous energy, hemming it, and thus crippling the whole body. This is a conclusion of immense importance to teachers, and if it is applied in the schoolroom, finger writing, writing upon slates, drawing that requires minuteness and accuracy, the net-work of the kindergarten will be forever banished.

Second, child study will probably confirm many intuitions and discoveries from the side of close observation of children in the schoolroom by teachers unfettered by fixed habits of teaching. There are very few sympathetic teachers who have not groaned in spirit over the deformity in body induced by the prevailing manner of holding the pen in writing and the pencil in drawing. Now, the science of child study brings us a confirmation of that which many teachers have suspected from mere sympathetic observation. Dr. John Dewey says that an isolated study of forms of expression is disintegrating to the mind; that after a few years of such drudgery natural generalization and reasoning becomes impossible. Child study may throw new light upon this remarkable statement. It may be proven clearly from the child-study point of view that the saying of Horace Mann in regard to the spelling-book is a psychological truth. It may be proven beyond all doubt that there is an organic relation between thought and expression; that all attempt at art should spring directly from intrinsic thought. It may be shown that the brain fibers that lead from thought centers to motor centers should be exercised in order

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to be developed. Some of these suspicions of truth that have been awakened in the minds of many teachers who have brought to bear a loving spirit upon their work may be shown to be true, while others may be corrected or shown to be false.

Third, the knowledge of the relation of the body to the mind will come out in the clear. Father Jahn's prophecies may receive complete confirmation, by demonstrating that mental action depends upon bodily health and bodily exercise. The place of rhythm in education may be scientifically exposed, and music take its true place in education upon a sounder, more scientific basis. It is true that most of these suspicions lack, as yet, confirmation; but that which the earnest, unprejudiced teacher finds in the schoolroom in the future may be referred to the test of the laboratory and the work of the scientist.

Fourth, a careful and thorough investigation of the laws of fatigue may lead teachers to more properly balance the work with play, or work with physical exercise.

Fifth, the laws of interest and of attention may be discovered and applied. It may be discovered that a child with a stiff immovable body in the class cannot exercise in the freest way the powers of the mind.

All education must, of necessity, take one direction,—must have one goal,—and that is the close and careful study and appreciation of personality, and the consequent conditions for individual growth. The one duty of the teacher is to know the child and to supply the conditions for his highest growth and development into character. These words have been repeated often, but they never will be realized until the teacher has better means of interpreting certain physical manifestations of the child. It is undoubtedly true that thousands of children now in our schools are partially deaf, or partially blind; that they can only with great effort hear the teacher or see the printed line or written work upon the blackboard. The usual conclusion on the part of the teacher is that such a child is dull, stupid, inattentive, failing in obedience. Not long ago a mother brought her son, fifteen years of age, to me for advice and counsel. The boy had been in school for eight years and was still in the third grade. The mother said the boy was a good boy at home, willing and obedient; but in school he had never learned anything, while his twin brother was in the eighth grade. The mother was in despair in regard to her boy. When I spoke to the boy he turned his head and eye in a way that indicated that he was partially deaf. I said to mother, "Your son is deaf." She denied it vigorously; said she had never noticed it, and that the teacher in the school, an excellent one, had never said anything about it. The boy had been sitting in the rear of the room and

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could hear very little of what his teacher said, and could see very little of what was on the board. He had been made to feel that he was dull and stupid, and he covered himself, like a pachyderm, with a skin of profound indifference. The case of this boy is simply a type of the cases of thousands. Their physical defects are misinterpreted, and called stupidity, or worse—viciousness. It is a well-known fact, that, after a severe case of scarlet fever, the child's brain is not in condition for attention; that it takes sometimes one or two years for the brain to resume its normal condition. The child leaves school with great ambition for promotion; he returns with the same ambition but with a physical inability to study. The teacher presses him on, and an unhealthful morbidness is the result. There are many children who have chorea—whose motor centers are partially disintegrated. One-half the cases of disobedience in schools are owing to over-nervousness—a pathological condition; and it may be truly said that most of the other half of the cases of disorder are due to animal spirits. This nervousness should have the cure of physical exercise; of manual training, if you please. These animal spirits are simply an exposition of the unexpended energy which should have its outlet in educative work. These are a few of the many instances that may be cited to show that a teacher may be full of sympathy for the children, and still totally misinterpret them and apply the wrong conditions, with the usual result of arrested growth. Child study should be the most helpful means for the study of personality. It is an open question as to what extent teachers may take part in the scientific study of children, but it is safe to affirm that conclusions should not be made without the most careful thought and investigation.

Child study has entered most of our universities and a few colleges, under the direction of eminent scientists. The day is not far distant when the example of the Worcester Normal School will be followed, and a scientist in physiological psychology and child study will have a prominent place in every normal school, so that trained graduates may come into the work armed and equipped in this direction.

In the report of the Fifteen upon the training of teachers, I read that the teachers should study personality in a common sense way, but into this study the weighing and measuring of children should not come. It may be answered that weighing and measuring of children is a very common sense way of studying personality. One thing teachers can all do, and should do with great pleasure and profit; and that is, to assist the scientists in their careful examination of the children. They can fill out blanks sent from laboratories; they can watch and report upon dispositions of pupils, upon fatigue, and many

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other important items. I repeat, that this careful study raises the dignity of the child as nothing else can.

The effect upon the teachers of child study will undoubtedly be of great importance in the study of defects or symptoms of precocity. It will be readily granted that most teaching is simply and solely routine work, with little or no regard for personal needs and personal demands.

In another direction, child study may be exceedingly helpful; and that is, that it may lead parents to change their standard of education. The common standard of education on the part of the people—the products of the old education—is that of quantity, of learning pages, chapters, going over, finishing, being examined and marked, promoted, and if parents cannot watch by figures, personal reports, and promotions the progress of their children, they have no means of knowing that they move. The standard of character, of habits, of quality, has not entered the popular mind. There are many mothers who are becoming thoughtful in this direction; but most mothers are illustrating Rousseau's opening sentence in his great work upon education, "Émile," "The child comes perfect from the hand of God, but is degraded by education."

It may be of interest to you to know the plan of work of the first State Child Study Association ever formed. The Illinois State Society for Child Study was organized last spring at the Illinois University, under the successful leadership of Dr. W. O. Krohn. The scientific part of the work, the laboratory methods, are in the hands of a dozen or more eminent scientists, such as Dr. Wm. Bryan of Bloomington University, Dr. Donalson of the Chicago University, Dr. Holmes of the Surgeons' College and Dr. Meyer of the Insane Asylum of Kankakee. In the hands of these scientists is the general direction of the whole work, the publication of reports, hand-books, and other works upon child study. They are supposed to collect and promulgate all that is worthy of attention in this direction. The other officers of the society are teachers, and their special work is to assist the executive committee by investigation in the schoolroom, and to devise ways and means of applying in the schoolroom the principles and methods discovered, and to promulgate them in every possible way. The further aim of the society is to introduce the discussion of child study in all teachers' meetings and conventions and the formation of round tables by parents. A hand-book is now being made which will consist of a course of work, with full direction for the study of these round tables for one year.

The old Latin proverb, "*Natura non facit saltum*," cannot be too often recalled. No one should expect rapid strides and progress in nature study. We must expect many blunders and errors. The cour-

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age of success is the courage to blunder. The way to success is by a zig-zag route. One fact should arouse us to the highest pitch of energy and enthusiasm; should make us gird our armor on to fight for better things. It is the awful fact, that, good as our present common schools are, mighty as has been their progress and magnificent the results, they are not, by any means, equal to the tremendous social problems that face us in the coming twentieth century. Our common school system is not equal to municipal reform; not equal to overcoming the thirst for money, the desire to get something for nothing. It is not equal to the education of a vast number of people whose ancestors have been degraded through long ages of ignorance and oppression. We must have something better. The old German saying, "That which you would have the state, put into the school," we can revive and change to "That which we would have society, must be put into the school."

It is said that an aged statesman, in welcoming Charles Sumner to the senate, commiserated him in the fact that all the struggles of the new republic were over, and that there were no more worlds to conquer. This blindness to the situation is a common fault. There are dangers to-day far greater and far more threatening than those of 1861. We had a touch of the danger in the great riots last summer in Chicago. It is useless for us to say that we must not look to the common school for the development of every virtue; that the church and society must do their work. We must gird on our armor and put into the school everything that is good in society, and this can be done by the development of character; and character can only be developed by the study of personality and the application of the right conditions for its outgrowth. Our critics may deride us with their habitual ridicule, and say it is but the re-swinging of the pendulum; but hang the pendulum high in the heaven of eternal truth and its arc will sweep the universe.

The future ideal school is the ideal community, the embryonic democracy. The children are not in school to get knowledge; they are there to live and to learn to live. Dr. John Dewey says: "Education is not a preparation for life; it is life itself." In the ideal school should be all the elements of living. The main purpose of the school is the solving of the problem of all ages—the reconciliation of the individual to the state. The highest gift of a community is the liberty and the means of freedom. Education is the means of freedom, and the ideal school should present all the means which will assist each child in his personal striving for freedom. The old ideal was to sink the child into the state; to make him subservient to the organization, to the machine. The new one is to make him, through the development of his individuality, in the highest degree serviceable

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to the state. My fellow-teachers, he who truly faces the problems of education faces infinity and infinite progress. He must have a great, profound faith in the development of the human race; he must feel in his soul that education is the one means for the fundamental outworking of all the problems that endure for good to the human race, and he must have a heart full of courage, persistence, patience, and wisdom. Without ignoring the treasures of philosophy, we can say that, from three sources—three great converging sources—the stream of education is flowing on; one from Herbart, who has promulgated fundamentally the doctrine of unification; another from Frœbel, who has taught us the dignity of the child; and the third from child study, which will give us knowledge of the child. From these three we shall know the conditions which enable us to develop the child into the fullness of manhood.

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NATIONAL COUNCIL OF EDUCATION.

CONSTITUTION.

PREAMBLE.

The National Council of Education shall have for its object the consideration and discussion of educational questions of general interest and public importance, and the presentation, through printed reports, of the substance of the discussions, and the conclusions formulated. It shall be its object to reach and disseminate correct thinking on educational questions; and, for this purpose, it shall be the aim of the Council, in conducting its discussions, to define and state with accuracy the different views and theories on the subject under consideration, and, secondly, to discover and represent fairly the grounds and reasons for each theory or view, so far as to show, as completely as possible, the genesis of opinion on the subject. It shall be the duty of the Council, in pursuance of this object, to encourage from all its members the most careful statement of differences in opinion, together with the completest statement of grounds for the same. It shall further require from the chairmen of its committees the careful preservation and presentation of the individual differences of opinion whenever grounds have been furnished for the same by members of their committees. It shall invite the freest discussion of the reports of its committees, and, whenever said reports are not so amended as to embody the new suggestions developed by such discussion, any member making such suggestion or objection may put in writing his view and the grounds therefor, and furnish the same to the Secretary for the records of the Council. It shall prepare, through its President, with the aid of the chairmen of the several committees, an annual report to the National Association, setting forth the questions considered by the Council during the previous year, and placing before the association, in succinct form, the work accomplished. It shall embody in this report a survey of those educational topics which seem to call for any action on the part of the association. The Council shall appoint, out of its own number, committees representing the several departments of education, and thereby facilitate the exchange of opinion among its members on such special topics as demand the attention of the profession or of the public.

ARTICLE I.—MEMBERSHIP.

1. The National Council of Education shall consist of sixty members, selected out of the membership of the National Educational Association. Any member of the association identified with educational work is eligible to membership in the

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Council, and after the first election such membership shall continue for six years, except as hereinafter provided.

2. In the year 1885 the Board of Directors shall elect eight members—four members for six years, two for four years, and two for two years; and the Council shall elect eight members—five members for six years, two for four years, and one for two years; and annually thereafter the Board of Directors shall elect five members and the Council five members, each member, with the exception hereinafter provided for (section 5), to serve six years, or until his successor is elected.

3. The annual election of members of the Council shall be held in connection with the annual meetings of the association. If the Board of Directors shall fail, for any reason, to fill its quota of members annually, the vacancy or vacancies shall be filled by the Council.

4. The term of service of the several members of the Council, chosen at the first election, shall be arranged by the Executive Committee of the Council.

5. The absence of a member from two consecutive annual meetings of the Council shall be considered equivalent to resignation of membership, and the Council shall fill vacancies caused by absence from the Council as herein defined, as well as vacancies caused by death or resignation, for the unexpired term. All persons who have belonged to the Council shall, on the expiration of their membership, become honorary members, with the privilege of attending its regular sessions, and participating in its discussions. No state shall be represented in the Council by more than eight members.

ARTICLE II.—FEES.

There shall be no fee for membership in the Council of Education, but each member of it shall secure a membership in the National Educational Association by becoming a life member of the same, or by paying to the Treasurer of the association the annual membership fee of two dollars.

ARTICLE III.—MEETINGS.

There shall be a regular annual meeting of the Council held at the same place as the meeting of the National Association, and at least two days previous to this meeting. There may be special meetings of the Council, subject to the call of the Executive Committee, but the attendance at these meetings shall be entirely voluntary. The regular meeting of the committees shall take place on the days provided for the annual meeting of the Council. Meetings of committees may be called at any time by the chairmen of the respective committees, but attendance at such special meetings shall be entirely voluntary. A majority of the Council shall constitute a quorum for the transaction of business at any meeting, whether regular or called; but any less number, exceeding eight members, may constitute a quorum for the transaction of business at the regular annual meeting, as defined in this article.

ARTICLE IV.—COMMITTEES.

The general management of the affairs of the Council shall be vested in an Executive Committee, composed of the President, Vice President, and Secretary of the Council, and four other members, all of whom are to be elected by the

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Council at its annual meeting. There shall be twelve standing committees, each consisting of five members. They shall be appointed by the Executive Committee, and be named as follows:

1. Committee on State School Systems.
2. Committee on City School Systems.
3. Committee on Higher Education.
4. Committee on Secondary Education.
5. Committee on Elementary Education.
6. Committee on Normal Education.
7. Committee on Technological Education.
8. Committee on Pedagogics.
9. Committee on Moral Education.
10. Committee on School Sanitation, Hygiene, and Physical Training.
11. Committee on Psychological Inquiry.
12. Committee on Educational Reports and Statistics.

ARTICLE V.—DUTIES OF STANDING COMMITTEES.

The committees of the Council shall consider the topics assigned to them, and report on the same; they may select for their deliberations such other questions belonging to their departments as they deem proper to discuss.

Whenever called upon, the committees shall continue the deliberative work of the association on topics assigned to them, or prepare questions to be submitted to that body.

It shall be the duty of the standing committees to observe the new educational experiments and original investigations within the scope of their assigned topics, and report the same from time to time to the President of the Council.

ARTICLE VI.—DUTIES OF MEMBERS OF THE COMMITTEES.

The members of the Council shall render active service and assistance in the work of the committee to which they have been assigned, and further the general work of the Council as much as is in their power. They shall give their attention to the questions submitted to them, and communicate their conclusions in writing to the Chairman of the Committee.

Meeting of Committees for Special Work.—A half day at each annual session shall be set apart for "round table" discussions, and each standing committee may conduct its own meeting separately, inviting, at its pleasure, experts, original investigators, or other persons, to present their experience or theoretical views before it, for discussion.

ARTICLE VII.—DUTIES OF THE CHAIRMEN OF COMMITTEES.

The Chairman of each committee shall communicate the questions which are to be discussed to each of the members of his committee, and send them such other communications as may assist them in their work. He shall arrange a suitable plan for an exchange of opinion, and embody the conclusions arrived at in a brief report. He shall, from time to time, inform the Secretary of the Council of the progress made by his committee. He shall, with the consent of the other members of his committee, arrange special meetings at a convenient time and place. He shall see that the communications, sent in turn to each member of his committee,

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are promptly forwarded. He shall state distinctly (in the form of questions, when feasible) the topics on which he desires to have a brief expression of opinion from the members of his committee, and embody the substance of their answers in his report.

ARTICLE VIII.—THE WORK OF THE COMMITTEES.

The work of the committees of the Council shall be carried on in the regular meetings provided for above, and in such special meetings as can be arranged from time to time, according to the pleasure of the committee, and principally in writing, by an exchange of briefly-expressed opinions. It shall be the duty of each Chairman to devise a plan for the latter. Each member may be required to report on a part of the subject; or the whole topic may be submitted to each member, together with the opinion of the other members that have considered the topic before.

ARTICLE IX.—DUTIES OF THE COUNCIL.

It shall be the duty of the Council to further the objects of the National Association, and to use its best efforts to promote the cause of education in general. The Council shall assign work to each committee, and receive a report on the same; it shall cause to be published such reports of committees, or parts of the same, as in its judgment should be brought to general notice; it shall present, through the President of the Council, an annual report of its work to the National Educational Association.

Arrangement of Annual Program.—The President, in making up the annual program of exercises, may select any of the twelve standing committees which will, in his opinion, prepare work for the Council of the most timely and vital character, and he shall not be limited in his choice by considerations of routine.

The committee thus reporting may introduce before the Council such specialists, experts, original investigators, or inventors of new methods as they may deem essential to present effectively their subject-matter before the Council for discussion.

ARTICLE X.—AMENDMENTS.

This constitution may be altered or amended, at a regular meeting of the Council, by a two-thirds vote of the members present, and any provision may be waived at any regular meeting by unanimous consent.

By-laws not in violation of this constitution may be adopted by a two-thirds vote of the Council.

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OFFICERS FOR 1894-95.

President—C. C. Rounds, Plymouth, N. H.
Vice President.—E. Oram Lyte, Millersville, Pa.
Secretary and Treasurer.—N. C. Dougherty, Peoria, Ill.
Executive Committee.—The President, Vice President, Secretary; E. W. Coy, Cincinnati, Ohio; Charles W. Eliot, Cambridge, Mass.; B. A. Hinsdale, Ann Arbor, Mich.; James H. Canfield, Lincoln, Neb.

OFFICERS FOR 1895-96.

President.—H. S. Tarbell, Providence, R. I.
Vice President.—Earl Barnes, Stanford University, Cal.
Secretary and Treasurer.—Bettie A. Dutton, Cleveland, Ohio.
Executive Committee.—The President, Vice President, Secretary; Charles De Garmo, Swarthmore, Pa.; D. L. Kiehle, Minneapolis, Minn.; J. R. Preston, Jackson, Miss.; James M. Green, Trenton, N. J.

MEMBERS.

Note—The letter "A" following a name denotes that the member is of the class elected by the association; the letter "C," by the Council.

	Term expires.		*Term expires.*
Edwin C. Hewett, Normal, Ill.	A 1896	*W. H. Bartholomew, Louisville, Ky.	A 1899
Andrew J. Rickoff, Berkeley, Cal.	A 1896	*Frank A. Fitzpatrick, Boston, Mass.	A 1899
*Euler B. Smith, Athens, Ga.	A 1896	*Henry Sabin, Des Moines, Iowa.	A 1899
*Chas. A. McMurry, Normal, Ill.	A 1896	*E. Oram Lyte, Millersville, Pa.	A 1899
*J. F. Millspaugh, Salt Lake City, Utah.	A 1896	J. M. Greenwood, Kansas City, Mo.	A 1899
*John T. Buchanan, Kansas City, Mo.	C 1896	William A. Mowry, Salem, Mass.	C 1899
*H. S. Tarbell, Providence, R. I.	C 1896	Selim H. Peabody, Chicago, Ill.	C 1899
*E. W. Coy, Cincinnati, Ohio.	C 1896	*Nathan C. Schaeffer, Harrisburg, Pa.	C 1899
*Ellen C. Sabin, Milwaukee, Wis.	C 1896	*David L. Kiehle, St. Paul, Minn.	C 1899
*John W. Cook, Normal, Ill.	C 1896	*Mary E. Nicholson, Indianapolis, Ind.	C 1899
William T. Harris, Washington, D.C.	A 1897	*C. C. Rounds, Plymouth, N. H.	A 1900
*C. B. Gilbert, St. Paul, Minn.	A 1897	*J. H. Phillips, Birmingham, Ala.	A 1900
John E. Bradley, Jacksonville, Ill.	A 1897	*Z. Richards, Washington, D. C.	A 1900
*Earl Barnes, Stanford Univ., Cal.	A 1897	*James H. Baker, Boulder, Colo.	A 1900
J. G. Schurman, Ithaca, N. Y.	A 1897	*Thomas G. Harris, Austin, Tex.	A 1900
*Charles De Garmo, Swarthmore, Pa.	C 1897	*Aaron Gove, Denver, Colo.	C 1900
*L. H. Jones, Cleveland, Ohio.	C 1897	Wm. E. Sheldon, Boston, Mass.	C 1900
C. M. Woodward, St. Louis, Mo.	C 1897	*Irwin Shepard, Winona, Minn.	C 1900
*S. G. Williams, Ithaca, N. Y.	C 1897	Lucia Stickney, Cincinnati, Ohio.	C 1900
*Nicholas Murray Butler, New York.	C 1897	*H. H. Seerley, Cedar Falls, Iowa.	C 1900
Richard G. Boone, Ypsilanti, Mich.	A 1898	*James M. Green, Trenton, N. J.	A 1901
*F. Louis Soldan, St. Louis, Mo.	A 1898	*Augustus S. Downing, Albany, N. Y.	A 1901
N. A. Calkins, New York City.	A 1898	*A. R. Taylor, Emporia, Kan.	A 1901
*Joseph Baldwin, Huntsville, Tex.	A 1898	*W. H. Payne, Nashville, Tenn.	A 1901
James H. Canfield, Columbus, Ohio.	A 1898	*J. R. Preston, Jackson, Miss.	A 1901
A. S. Draper, Champaign, Ill.	C 1898	*Geo. P. Brown, Bloomington, Ill.	C 1901
*William H. Maxwell, Brooklyn, N. Y.	C 1898	*Bettie A. Dutton, Cleveland, Ohio.	C 1901
Emerson E. White, Columbus, Ohio.	C 1898	*Chas. H. Keyes, Pasadena, Cal.	C 1901
*B. A. Hinsdale, Ann Arbor, Mich.	C 1898	*Wm. L. Bryan, Bloomington, Ind.	C 1901
*N. C. Dougherty, Peoria, Ill.	C 1898	*Wm. F. King, Mt. Vernon, Iowa.	C 1901

*Present at the meeting of the Council in Denver, 1895.

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HONORARY MEMBERS.

Henry Barnard, Hartford, Conn.
William N. Barringer, Newark, N. J.
Newton Bateman, Galesburg, Ill.
D. Bemis, Spokane, Wash.
Thomas W. Bicknell, Providence, R. I.
Albert C. Boyden, Bridgewater, Mass.
Anna C. Brackett, New York City.
Edward Brooks, Philadelphia, Pa.
Matthew H. Buckham, Burlington, Vt.
David M. Camp, New Britain, Conn.
Aaron L. Chapin, Beloit, Wis.
Clara Conway, Memphis, Tenn.
Matilda S. Cooper, Nyack, N. Y.
Oscar H. Cooper, Galveston, Tex.
William J. Corthell, Gorham, Me.
J. L. M. Curry, Richmond, Va.
V. C. Dibble, Charleston, S. C.
John W. Dickinson, Boston, Mass.
Larkin Dunton, Boston, Mass.
John Eaton, Washington, D. C.
Chas. W. Eliot, Cambridge, Mass.
Geo. T. Fairchild, Manhattan, Kan.
William W. Folwell, Minneapolis, Minn.
W. R. Garrett, Nashville, Tenn.
Daniel C. Gilman, Baltimore, Md.
James C. Greenough, Westfield, Mass.
John M. Gregory, Washington, D. C.
Daniel B. Hagar, Salem, Mass.
W. N. Hailman, Washington, D. C.
G. Stanley Hall, Worcester, Mass.
Ira G. Holtt, Sacramento, Cal.
J. George Hodgins, Toronto, Canada.
James H. Hoose, Pasadena, Cal.
George W. Howison, San Francisco, Cal.
James L. Hughes, Toronto, Canada.
Thomas Hunter, New York City.
Ellen Hyde, Farmingham, Mass.
John S. Irwin, Fort Wayne, Ind.
E. J. James, Philadelphia, Pa.
Henry M. James, Tacoma, Wash.
H. S. Jones, Lincoln, Neb.
E. S. Joynes, Knoxville, Tenn.
Thomas Kirkland, Toronto, Canada.
Henry M. Leipziger, New York City.
James MacAllster, Philadelphia, Pa.
Albert P. Marble, Omaha, Neb.
Francis A. Marsh, Easton, Pa.
Lillie J. Martin, San Francisco, Cal.
Thomas J. Morgan, Washington, D. C.
Lemuel Moss, Minneapolis, Minn.
Birdseye G. Northrop, Clinton, Conn.
John M. Ordway, New Orleans, La.
Francis W. Parker, Chicago, Ill.
Warren D. Parker, River Falls, Wis.
S. S. Parr, St. Cloud, Minn.
John B. Peaslee, Cincinnati, Ohio.
William F. Phelps, St. Paul, Minn.
Josiah L. Pickard, Iowa City, Iowa.
John T. Prince, Boston, Mass.
William H. Ruffner, Lexington, Va.
H. E. Shepard, Charleston, S. C.
Edgar A. Singer, Philadelphia, Pa.
James H. Smart, Lafayette, Ind.
Homer B. Sprague.....Cal.
J. W. Stearns, Madison, Wis.
Thomas B. Stockwell, Providence, R. I.
Grace Bibb Sudborough, Omaha, Neb.
John Swett, San Francisco, Cal.
W. R. Thigpen, Savannah, Ga.
H. S. Thompson, Columbia, S. C.
L. S. Thompson, New Wilmington, Pa.
Julia S. Tutweiler, Livingstone, Ala.
Della L. Williams, Delaware, Ohio.
J. Ormond Wilson, Washington, D. C.
H. K. Wolfe, Lincoln, Neb.

DECEASED MEMBERS.

Robert Allyn.....1894
Israel W. Andrews.....1888
N. R. H. Dawson.....1895
Samuel S. Greene.....1883
John Hancock.....1891
William D. Henkle.....1882
Elnathan E. Higbee.....1889
George Howland.....1892
Merrick Lyon.....1888
James McCosh.....1894
M. A. Newell.....1893
Edward Olney.....1886
Gustavus J. Orr.....1888
John D. Philbrick.....1885
R. W. Stevenson.....1893
Eli T. Tappan.....1888
Charles O. Thompson.....1885
James P. Wickersham.....1891

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STANDING COMMITTEES.

The committees from which reports are due in 1896 are Nos. II., III., IV., VII., X., XI., and XII. The topics already reported on will be found in italics, with the years of the reports in parentheses.

The chairman of each of the standing committees should communicate with the other members of his committee at once, select a subject, and notify the President, H. S. Tarbell, Providence, R. I., by Feb. 1, 1896. It is the wish of the President of the National Educational Association that the programs of the National Association, its departments, and the National Council, be issued by February 15th.

Attention is called to provisions of the constitution of the Council in regard to the character of the work of standing committees. Provision is also made in the constitution for round tables, and it is expected that arrangements will be made for these by those standing committees to which formal reports are not assigned.

I.—On State School Systems.

SUB-TOPICS.

1. *Organization* (1883).
2. *Supervision* (1885).
3. *Licensure of Teachers* (1889).
4. School Revenues.
5. *Compulsory Education* (1891).
6. *Tenure of Office of Teachers* (1887).
7. Supplying the Schools with Text Books.
8. *State, County, City, and District Supervision* (1892).
9. *The Ungraded School* (1895).

N. C. Schaeffer, Harrisburg, Pa., *Chairman.*
J. H. Canfield, Columbus, Ohio.
J. R. Preston, Jackson, Miss.
J. G. Schurman, Ithaca, N. Y.
Henry Sabin, Des Moines, Iowa.

II.—On City School Systems.

SUB-TOPICS.

1. Organization.
2. *Supervision* (1884, 1890).
3. Superintendency.
4. Qualification of Teachers.
5. *Classification of Pupils* (1886).
6. Ungraded Schools.
7. *Business Side of City School Systems* (1888, 1889, 1890).
8. Promotions and Examinations.
9. Evening Schools.
10. Enriching the Course of Study below the High School.
11. *Graded Course of Study on Herbartian Principles* (1895).

Aaron Gove, Denver, Colo., *Chairman.*
L. H. Jones, Cleveland, Ohio.
Ellen C. Sabin, Milwaukee, Wis.
Oscar H. Cooper, Galveston, Tex.
N. C. Dougherty, Peoria, Ill.

III.—On Higher Education.

SUB-TOPICS.

1. *Higher Institutions Required* (1885).
2. *Harmonizing of Higher, Secondary, and Elementary Schools* (1882).
3. *Admission to College* (1884).
4. *Elective System* (1888).
5. College Government.
6. What Should Precede the University?
7. The Seminary Method of Instruction.
8. *Professional and Technical Instruction in the University* (1894).

J. E. Bradley, Jacksonville, Ill., *Chairman.*
William F. King, Mount Vernon, Iowa.
James H. Baker, Boulder, Colo.
A. S. Draper, Champaign, Ill.
S. G. Williams, Ithaca, N. Y.

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IV.—On Secondary Education.

SUB-TOPICS.

1. *High Schools* (1882).
2. *Academies* (1885).
3. *Preparation for College* (1884).
4. *Relation of High Schools to Colleges* (1887).
5. *Opportunities of the Rural Population for Secondary Education* (1889).
6. Schools by Correspondence.
7. *Uniformity in Requirements for Admission to College* (1891).
8. Difference Between College Methods of Instruction and High School Methods.

W. H. Bartholomew, Louisville, Ky.
F. Louis Soldan, St. Louis, Mo.
H. H. Seerley, Cedar Falls, Iowa.
John T. Buchanan, Kansas City, Mo.
Horace S. Tarbell, Providence, R. I.

V.—On Elementary Education.

SUB-TOPICS.

1. *Course of Study* (1882).
2. *Oral Teaching* (1884).
3. *Text-Books* (1886).
4. *Waste in Elementary Education* (1888).
5. Kindergarten.
6. Language Lessons in Elementary Schools.
7. Science Teaching in Lower Grades.
8. *Essentials in Elementary Education* (1890).
9. *The Uses of Literature in Elementary Education* (1892).
10. *Economy in Elementary Education* (1895).

Geo. P. Brown, Bloomington, Ill., *Chairman.*
William E. Sheldon, Boston, Mass.
Zalmon Richards, Washington, D. C.
J. H. Phillips, Birmingham, Ala
Bettie A. Dutton, Cleveland, Ohio.

VI.—On Normal Education.

SUB-TOPICS.

1. Kind of Normal Schools Required.
2. *Academical and Professional Training* (1883, 1889).
3. *Practice Departments* (1885).
4. *City Normal Schools* (1891).
5. *Teachers' Institutes* (1887).
6. *The Relation of the Normal School to Other Institutions of Learning* (1892).
7. Normal School Extension.
8. *The Kind and Amount of Practice-Work and Its Place in the Normal School Course* (1895).

R. G. Boone, Ypsilanti, Mich., *Chairman.*
Irwin Shepard, Winona, Minn.
James M. Green, Trenton, N. J.
William L. Bryan, Bloomington, Ill.
John W. Cook, Normal, Ill.

VII.—On Technological Education.

SUB-TOPICS.

1. *Technical Training in Public Schools* (1881)
2. Preparation for Institutes of Technology.
3. *Pedagogical Value of the School Workshop* (1886).
4. *Agricultural Colleges* (1888).
5. Summer Schools of Science.
6. *Relation of Technological to Liberal Education* (1894).

C. M. Woodward, St. Louis, Mo., *Chairman.*
Selim H. Peabody, Chicago, Ill.
Euler B. Smith, Athens, Ga.
William H. Payne, Nashville, Tenn.
Charles H. Keyes, Pasadena, Cal.

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VIII.—On Pedagogics.

SUB-TOPICS.

1. *Chair of Pedagogy in Colleges* (1882).
2. *Pedagogy as a Science* (1884).
3. Pedagogical Inquiry.
4. *Function of Public Schools* (1886, 1887).
5. *Educational Value of Manual Training* (1889).
6. Moral Education.
7. Pedagogical Terminology.
8. *The Education of the Will* (1891).
9. Distinguishing Ideas in the Herbartian System of Pedagogy.
10. *Scope and Character of the Pedagogical Work in Universities* (1892).
11. *The Laws of Mental Congruence and Energy Applied to Some Pedagogical Problems* (1895).

Nicholas Murray Butler, New York City. *Chairman.*
David L. Kiehle, Minneapolis, Minn.
A. R. Taylor, Emporia, Kan.
Charles A. McMurry, Normal, Ill.
B. A. Hinsdale, Ann Arbor, Mich.

IX.—On Moral Education.

[Changed from—"*On the Education of Girls*," 1891.]

SUB-TOPICS.

1. *Co-education* (1883, 1890).
2. *Technical Training for Girls* (1886).
3. *What Education is Best* (1888).
4. *The Education of Girls* (1891).
5. *Practical Culture of the Moral Virtues* (1892).
6. Direct and Indirect Moral Teaching.
7. *Moral Instruction in the Elementary Schools* (1895).

Emerson E. White, Columbus, O., *Chairman.*
Charles De Garmo, Swarthmore, Pa.
Lucia Stickney, Cincinnati, Ohio.
Charles C. Rounds, Plymouth, N. H.
J. F. Millspaugh, Salt Lake City, Utah.

X.—On School Sanitation, Hygiene, and Physical Training.

[Changed from—"*On Hygiene in Education*," 1891.]

SUB-TOPICS.

1. *Sanitary Exercises and Appliances in Public Schools* (1883).
2. *Recesses* (1884, 1885).
3. *Relation of Mental Labor to Physical Health* (1887).
4. *Harmonious Development* (1889).
5. *Physical Education* (1891).

William A. Mowry, Hyde Park, Mass., *Chairman.*
Mary E. Nicholson, Indianapolis, Ind.
Joseph Baldwin, Austin, Tex.
F. A. Fitzpatrick, Boston, Mass.
C. B. Gilbert, St. Paul, Minn.

XI.—On Psychological Inquiry.

[Changed from—"*On Educational Literature*," 1891.]

SUB-TOPICS.

1. *School Reports* (1885).
2. *Books on Pedagogy* (1888).
3. *Use of General Libraries* (1887).
4. *Educational Literature* (1890).
5. *Relation of Mnemonic Systems to the Cultivation of the Power of Thought* (1892).
6. *The Psychology of the Imitative Functions in Childhood* (1894).

E. O. Lyte, Millersville, Pa., *Chairman.*
William T. Harris, Washington, D. C.
N. A. Calkins, New York City.
Edwin C. Hewett, Normal, Ill.
Earl Barnes, Stanford University, Cal.

XII.—On Educational Reports and Statistics.

[Changed from—"*On Educational Statistics*," 1891.]

SUB-TOPICS.

1. *Reforms in Statistics* (1885, 1887).
2. *What Statistics Should be Collected* (1889, 1891).

J. M. Greenwood, Kansas City, Mo.
E. W. Coy, Cincinnati, Ohio.
A. J. Rickoff, Berkeley, Cal.
H. K. Wolfe, Lincoln, Neb.
William H. Maxwell, Brooklyn, N. Y., *Chairman.*

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NATIONAL COUNCIL OF EDUCATION.

SECRETARY'S MINUTES.

FIRST DAY.

OPENING SESSION.

DENVER, COLO., FRIDAY, July 5, 1895.

The Council was called to order at 10 a. m., in the supreme court room, state capitol, with President C. C. Rounds in the chair.

Prayer was offered by D. L. Kiehle.

In the absence of E. E. White of Ohio, the report of the Committee on "Moral Instruction in the Elementary Schools" was not presented, but was taken up for discussion.

Earl Barnes of Leland Stanford University opened the discussion, and was followed by C. C. Rounds, J. Baldwin, D. L. Kiehle, Henry Sabin, J. W. Cook, F. L. Soldan, and J. H. Baker.

The discussion was reported by James H. Baker.

Adjourned until 2:30 p. m.

AFTERNOON SESSION.

Council opened its session at 2:30 p. m.

The Committee on Elementary Education made a report on "Economy in Elementary Education," the report being made by Miss Bettie A. Dutton of Cleveland, Ohio, Chairman of the committee.

The report was discussed by Messrs. Brown, Richards, Soldan, Cook, and Marble.

The discussion was reported by W. F. King.

It was voted that the report be received and printed.

On motion of George P. Brown, the officers of the Council were authorized to bring the report before the Council at a subsequent meeting for further discussion.

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SECOND DAY.

MORNING SESSION.—SATURDAY, JULY 6TH.

Council met at 10 a. m. Prayer was offered by Joseph Baldwin.

The report of the discussion on "Moral Instruction in the Elementary Schools" was presented by James H. Baker.

Approved and ordered printed.

The Council then resumed the discussion on "Economy in Elementary Education."

The discussion was opened by Mr. Baker, and continued by Messrs. Gilbert, Cook, and Richards.

Report of the Committee on State School Systems was submitted by its Chairman, Henry Sabin. The topic of investigation was "The Ungraded School."

Report was discussed by Messrs. Cook, Kiehle, Hinsdale, Brown, Rounds, Baldwin, Prince, Boyden, and Barnes.

The discussion was reported by Geo. P. Brown.

Report was ordered printed.

On motion of B. A. Hinsdale, the chair was directed to appoint a committee of five, who should submit a plan for further investigation of this subject.

Adjourned.

AFTERNOON SESSION.

The Council was called to order promptly at 2:30, with President Rounds in the chair.

The following committees were announced.

Committee on New Members.—H. S. Tarbell, Mary E. Nicholson, James H. Baker, Earl Barnes, and Z. Richards.

Committee on Nominations—F. Louis Soldan, C. B. Gilbert, L. H. Jones.

The Council then organized as a Round Table on City School Systems, with N. C. Dougherty as Chairman. Subject: "Graded Courses of Study on Herbartian Principles."

The discussion was led by Charles A. McMurray, who was followed by Messrs. Brown, Cook, Baker, and Soldan.

The Council adjourned.

THIRD DAY.

MORNING SESSION.—MONDAY, JULY 8TH.

Council met at ten o'clock. Prayer was offered by N. C. Schaeffer.

The President announced as the committee to report on "Ungraded Schools," Messrs. Hinsdale, Kiehle, Preston, Brown, and Barnes.

The Committee on Pedagogics submitted its report on the "Laws of Congruity and Mental Energy Applied to Some Pedagogical Problems," through the Chairman, B. A. Hinsdale.

The report was discussed by Geo. P. Brown, J. Baldwin, F. Louis Soldan, James H. Baker, and L. H. Jones.

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The President announced that the afternoon session would be held in the assembly hall of the Denver High School.

Council adjourned.

AFTERNOON SESSION.

Council assembled promptly at 2:30 p. m.

The report of the Committee on Normal Education was presented by its Chairman, John W. Cook. Subject: "The Kind and Amount of Practice Work and Its Place in the Normal School Course."

The report was discussed by Messrs. Brown, Williams, Schaeffer, Barnes, Miss Nicholson, and Mrs. Sudborough.

William F. King offered the following resolutions, which were unanimously adopted:

Whereas, A reception was tendered by the Fortnightly Club of Denver to the Council of Education, on the evening of the 6th, at the residence of Bishop and Mrs. Henry W. Warren, at University Park; and,

Whereas, The pleasant ride, the beautiful and inspiring scenery, the perfect weather, the meeting of genial acquaintances, new and old, and the generous hospitalities of this model home, where wealth and Christian culture are so happily blended, combined to make this the social event of our delightful stay in Denver; therefore

Resolved, That we most heartily thank the Fortnightly Club and Bishop and Mrs. Warren for this very pleasant occasion, so liberally planned and so successfully executed.

Resolved further, That copies of these resolutions be sent to the Fortnightly Club, and also to Bishop and Mrs. Warren.

The President announced that the morning session would be an executive session, and the Council would meet in the supreme court room of the capitol.

Council adjourned.

FOURTH DAY.

MORNING SESSION.—TUESDAY, JULY 9TH

The Council met in executive session, at 10 a. m., with President Rounds in the chair.

On motion of F. L. Soldan, it was resolved that the reports of the committees hereafter to be submitted to this Council be published one month before its meeting, and a copy of each mailed to each member of the Council.

On motion of C. B. Gilbert, it was resolved that hereafter admission to the Council to other than members be by card, issued under the direction of the Executive Committee.

On motion of N. C. Dougherty, the General Secretary of the association was requested hereafter to secure railroad rates for the members of the Council and their families, in time to attend the opening session of the Council.

The committee appointed to report a plan for further investigation of state school systems made the following report:

Resolved, That there be undertaken under the auspices of the Council an investigation of the subject of "Rural Schools," embracing such topics as revenues and expenditures, the constitution, organization, and duties of boards of management and control, and the provision of suitable teachers. More definitely, said investigation shall be conducted in general on the lines laid down in the report of the Committee on State School Systems, submitted to the Council at its present session.

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Resolved, That a committee of nine be appointed to conduct this investigation, said committee to consist of the following persons: Henry Sabin of Iowa, D. L. Kiehle of Minnesota, A. B. Poland of New Jersey, C. C. Rounds of New Hampshire, J. H. Phillips of Alabama, B. A. Hinsdale of Michigan, S. T. Black of California, F. Sutton of Texas, and L. E. Wolfe of Missouri.

Resolved, That the Board of Directors of the National Educational Association be urgently requested to appropriate, at some session to be held during the course of the present annual meeting, the sum of $2,500, or such part thereof as may be necessary to defray the expenses of this investigation, including the publication of the report of the committee.

Resolved, That the committee shall report within the period of two years in such form as it may determine, and that it be authorized to publish its report.

Respectfully submitted,

B. A. HINSDALE, *Chairman*.

On motion of Henry Sabin of Iowa, the committee were authorized to increase their number to twelve,

On motion of B. A. Hinsdale, it was resolved that this committee be empowered and instructed to fill any vacancy that may occur in its membership, and it was further resolved that the President of the National Educational Association, the President of the Council, and the Chairman of the committee be appointed a committee to carry the request of the Council to the Board of Directors, and to urge its adoption.

The committee on nominations of members of the Council recommended the following persons for election to the places and terms mentioned:

Geo. P. Brown (to succeed himself)	1901
Miss Bettie A. Dutton (to succeed herself)	1901
William F. King (to succeed himself)	1901
Charles H. Keyes (to succeed Henry M. James)	1901
William L. Bryan (to succeed Della L. Williams)	1901
John Buchanan (to succeed John W. Dickinson)	1896

On motion of H. S. Tarbell, the recommendation of the committee was concurred in.

The Committee on Nominations submitted the following names:

President—H. S. Tarbell of Providence, R. I.

Vice President—Earl Barnes, Stanford University, Cal.

Secretary and Treasurer—Bettie A. Dutton, Cleveland, Ohio.

Executive Committee—Charles De Garmo, Swarthmore, Pa.; D. L. Kiehle, Minneapolis, Minn.; J. R. Preston, Jackson, Minn.; James M. Green, Trenton, N. J.

On motion of F. L. Soldan, the Secretary was directed to cast the ballot of Council for the persons named.

The President appointed J. H. Phillips to conduct the President-elect to the chair.

President Tarbell returned thanks for the honor conferred upon him, and the Council adjourned.

RECORD OF MEMBERSHIP.

The following were present at one or more of the sessions of 1895:

Baker, Baldwin, Barnes, Bartholomew, Brown, Bryan, Buchanan, Butler, Cook, Coy, De Garmo, Dougherty, Downing, Dutton, Fitzpatrick, Gilbert, Gove, Green, Harris (Texas), Hinsdale, Jones, Keyes, Kiehle, King, Lyte, Maxwell, McMurry, Millspaugh, Nicholson, Payne, Phillips, Preston, Richards, Rounds, Sabin (Wisconsin), Sabin (Iowa), Schaeffer, Seerley, Shepard, Smith, Soldan, Tarbell, Taylor, Williams.

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PAPERS AND DISCUSSIONS.

MORAL INSTRUCTION IN THE ELEMENTARY SCHOOLS.

DISCUSSION.

[REPORTED BY JAMES H. BAKER.]

MR. BARNES.—For many centuries it has been considered that conduct depended on religious instruction. Owing to the jealousies of sects our own country and France have been obliged to put religious instruction out of the schools. England is to-day on the verge of secularization. Nowhere has secularization of the schools been desired by the majority of thoughtful citizens—it is an undesired but unavoidable compromise.

As a consequence of secularization, children are growing up in ignorance of the fundamental ideas of the Christian theology. An examination of 1,200 compositions written by California children on heaven and hell shows that many of them think Christ was God's father, and many have not even heard of Mary or Moses. This makes it impossible for them to understand the spirit of our civilization, or the art, literature, and history of Christendom. Worse still, secularization is leaving in children's minds a feeling, that, when they have detected the invariable antecedent of a phenomenon, they have seen its ultimate cause. This makes life barren and weak.

But secularization is here and it must be respected. It takes from us the foundations on which moral training has rested in the past. Can we create a new basis for moral action through the love of birds and flowers, through admiration of Abraham Lincoln, or appreciation of Longfellow's poems, and if so, how? This is the question that confronts this Council.

MR. BALDWIN.—Conduct is the educational superlative. Educators are coming to think of school work as embracing five groups of studies blended into unity: Conduct studies, language studies, mathematics studies, science studies, art studies. The conduct group easily takes the first place. This group includes conduct lessons, school government, history, citizenship, mind lessons, religion. History, teaching the best lessons of individual and national experience, is central. These studies have the highest educational value. They awaken and develop the largest brain areas. They have the greatest culture as well as the greatest practical value. They give meaning and unity to the entire school work. Educators are first of all conduct teachers. The teacher makes even more thorough preparation for conduct lessons than for other lessons. In the near future the principals of our grammar schools and of our high schools will doubtless be conduct specialists. Thus, our ablest teachers, during the eight formative years, will give their best efforts to fostering character growth. The outlook is encouraging. Warm-hearted teachers are learning the art of developing into character the best possibilities of their pupils. In co-operation with parents and the church and society, our schools are coming more and more to stand for the fostering of good conduct.

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MR. ROUNDS.—For a few years past I have studied with much interest an experiment in moral instruction in a system of schools in a village community in New England. Convinced of the necessity for more systematic work in this direction, the subject of moral instruction was given a definite place in the course of study and in the time-table. The results were in some respects a surprise. Difficulties anticipated did not appear. It became at once one of the pleasantest subjects both to teacher and pupil, and there is no question of its value. Some remarkable instances might be given of the benefits derived from it in individual cases, and in general there has resulted a better understanding of the pupil by the teacher and a tenderer sympathy between them. The general atmosphere of the school has apparently been modified essentially by this instruction.

The course has been graded according to the gradually developing moral perception of the pupil. The instruction has been intuitional in a sense closely analogous to the usual object-lesson of the elementary school. This instruction is based upon spiritual perception as that is based upon sense perception, and it cannot be dogmatic in any sense. It is proved that lessons to a class cannot safely be drawn from personal experiences of the pupil, nor can individual personal applications safely be made before the class, for reasons which soon become obvious. The experiences drawn upon must be such as are analogous to the child's own experience or observation, and he must be left to make the personal application himself.

If literature, history, incidents from life, are treated from the point of view of right and wrong, there will always be at hand an abundance of material.

Whatever may be the degree of truth in the statement that the child cannot reason—and I believe there is very little truth in it—it is unquestionably true that the moral judgment is very early in exercise, and that correct inference in regard to right and wrong is one of the earliest forms of inference. Moral instruction, to be effective, must appeal to the feeling of the pupil. The moral lesson is the earliest revelation to the child of the spiritual world and its laws.

In the upper grammar grades the lessons are in morals and civics combined. These lessons have shown that very few of even the more intelligent pupils have been led to think of the application of ethical principles to questions of public policy. I believe, that, if American politics is to be redeemed from the reproach that rests upon it, the salvation is to come, not from this generation so much as from the next, which is now in training in the schools.

It is a great misfortune that the Bible cannot be more widely used as a basis of instruction in the schools. The community to which I refer is almost entirely a Protestant community. There is very little appearance of denominational differences in social relations; yet there is a degree of denominational feeling such as would render it very unwise to give a course in biblical instruction in the public school. Yet a judicious teacher can, in this community, sum up moral teaching in statements carefully selected from the Bible, and some teachers have said that their most effective instruction is that which is summed up in maxims, biblical and other, embodying, in the best form, fundamental moral truth.

MR. BARNES.—Do you not find that children are natural liars, communists, and anarchists?

MR. ROUNDS.—That has not been my experience.

MRS. SUDBOROUGH.—Will Mr. Barnes tell us whether it is true, as is sometimes said, that the religious instruction in the German schools is one of the causes of German infidelity

MR. BARNES.—I cannot answer the question.

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MR. ROUNDS.—A friend of mine, who spent some time in the study of German schools, tells me that he found the religious teaching generally formal and lifeless, or the teachers whom he questioned upon the subject said the lessons were given merely because the law required this, but that they themselves did not approve of the religious instruction in schoools.

MR. KIEHLE.—In the progress of Christianity leading emphasis was given first to government and forms of worship; then, in Protestantism, to theological expression of belief, which caused the intellectual dogmatic element to be given the first place in religious teaching. In recent times, the spirit of Christianity in heart-life and character is receiving prominent attention, and is recognized by church and state in common as of fundamental value in the teaching of children. Hence, all character, including that of Jesus of Nazareth, all record of life and history, including the Bible, are properly recognized by state and church as material for lessons in moral and religious spirit.

MR. RICHARDS.—If we could have properly qualified teachers in morals we should not find it so necessary to discuss this important subject of moral instruction. The difficulties all arise from the imperfect qualification of our teachers.

To train children to correct moral conduct in life, the teacher must be an exemplar of the moral principles which he wishes to inculcate.

This qualification consists, first, in the teacher's knowledge of what moral sentiments should be taught; and, second, in knowing how to teach, or inculcate, these principles; and, third, in practically exemplifying these principles. These qualifications ought to be thoroughly and practically secured in our normal schools. No teacher should ever be graduated from our normal schools who has not been properly trained to do this work.

The Bible is the basis of all moral principles, but it is not absolutely necessary to use the Bible in teaching morals.

MR. SABIN.—I have heard it said in the Council that children are liars, communists, and anarchists. I regret that anyone should hold such sentiments, and for myself, I would allow no primary teacher to enter a schoolroom who believed such things.

MR. BARNES.—I have only raised the question whether a child was a liar in truth, a communist in property, and an anarchist in general philosophy. Further I raised the question as to how far we ourselves have settled the primary questions of society, religion, and property. I urge that our problem must consist in clarifying our own minds; then, in finding where the children actually are in moral ideas; and, then, in leading them through all the work of the day to the best we know.

MR. COOK.—I dissent from the idea that what ordinarily passes for religious instruction is necessarily of much value as an ethical force in the school, and I press the necessity of setting up as the fundamental purpose of the school the formation of the moral will. To this end, there should be no isolation of moral instruction; but every exercise is valuable to the degree that it makes for wholesome conduct.

MR. SABIN.—Professor Cook gets nearer right the longer he talks. No school taught in the spirit which he emphasizes can be said to be a secularized school. I have seen a school in which the teacher was careful to read the Bible and to have the opening prayer, and yet that school was the most highly secularized school I ever saw. The spirit of Christianity was entirely wanting. I know a teacher who received this acknowledgment from a young man who years before had been one of her pupils. He said that something she said to them one day turned the whole course of his life, and that he had come out of his way to thank her for it. That teacher did not read the Bible to her pupils, but her heart was as an open book, known and read by them every day.

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There is one other side to this question. I am afraid the younger teachers are in danger of gaining wrong ideas from this discussion. The philosopher who goes about with his note-book taking down the simple and amusing answers which children make to his philosophical queries may be doing good in one direction, as adding useful information in child study; but he is doing harm in another direction, because these answers are often misleading. How many men and women there are who owe their success to personal influence of some teacher!

MR. SOLDAN.—"Can morals be taught?" is an interesting although not a new question. No one will deny that intelligence influences action; that to know what is right and wrong is the very condition of moral action. But the real trouble that moral instruction seeks to meet lies not merely within but largely without the possibilities of intellectual training. Reference was made this morning to the fault of lying and cheating of which childhood is so often guilty. The cause of this is certainty not that the child does not know that it is wrong to lie and right to tell the truth. But the trouble is, that, knowing what is right, the perverse soul persists in the wrong. The preaching of virtue does not with any certainty lead to its practice.

Lessons in morals must be largely a matter of practice and action. When school education takes charge of the child his ethical character has already been formed in its outlines, and the example and personality of the father and mother have taught him practical lessons in morality or the opposite, which the school training may deepen or modify, but which it will hardly succeed in eradicating. No matter how the teacher will present the beauty of truth-telling to the intellect of the child, the example of the parent at home will be more powerful.

And yet, school instruction is not without means of influencing a child morally, even if no special lesson be set apart for this purpose. Every reading lesson in which a noble action is held up to admiration or an evil action to disapproval and censure, influences the child's moral attitude. In every history lesson in which the child looks upon the heroes of his country, not only as great Americans but as humanely great beings of which the world feels proud, his admiration becomes the first step in his forming the wish to be like them in their public and private virtues.

MR. BAKER.—That a system of public education is a necessity most people agree. It is also agreed that certain instruction which can be done by the various churches and in the homes cannot be introduced as a part of a public school curriculum, since there could be no agreement as to the exact character of that instruction. The education of the future is to be public education; and I hope that we shall find nothing but progress in this fact. Progress now means the progress of the people, as such, and not the progress merely of class or sect. I think we, in our eagerness to secure ideal ethical results, may not appreciate the work that is now done. All proper requirements of the schoolroom, all investigation of truth, the examples of biography and history, the ideals of literature, the example of the teacher, are ethical in their influence. Habit was recognized in the Greek ethical philosophy as of prime importance, and our schools lay a solid foundation of right habit. Moreover, the spirit of reverence which recognizes a great creative power in the universe can be successfully taught in public schools. For the purposes of the schoolroom, selections from various sources, including the Bible, of a strong ethical character, may have more influence than perfunctory religious exercises. In our zeal may we not overdo formal ethical instruction and defeat our aim? The child possesses impulses that reach out toward the truth, beauty, and goodness of the world. Let the teacher invite these impulses by offering the proper objects for their exercise, and all instruction will be ethical instruction. I believe thoroughly in the religious work of the church and the home, and it may be asked if it is not better that the distinctively religious teaching should be given in them.

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REPORT OF THE COMMITTEE ON ELEMENTARY EDUCATION—ECONOMY IN ELEMENTARY EDUCATION.

BY MISS BETTIE A. DUTTON, CLEVELAND, OHIO, CHAIRMAN.

It appears almost superfluous after the recent very full reports of the experts and the scarcely less complete discussions of the same to attempt to say anything valuable on the subject of elementary education. Yet the distance from the daily work of the children sometimes seems to lead to a forgetfulness of immediate needs, which it is possible might be met, and an uplift all along the line be felt, could the attention of the best and widest students of educational problems be secured and brought to bear on the solution of those most immediate, and pressing, and simple.

Can anything be done, any word be said in this meeting of the Council of Education, which will bring into closer working relations those who elaborate the finer theories and those who must meet existing conditions in the schools? Can these conditions be bettered to some extent, by the united care of all, in their most evident needs?

For instance, in school organization. Is it not practicable to reduce materially the number of pupils assigned to one teacher's oversight in primary and grammar schools, that the teacher's care may be so centered as to make possible that personal oversight desirable, and to give to each pupil the benefit of close acquaintance? Just at this point there is special need of change. Teachers are attempting the impossible in the effort to give to each one of a half-hundred children the individual inspiration and uplift which come only from close, personal association.

That large numbers can be successfully controlled; that crowds even can be skillfully manipulated,—and with a dexterity worthy of military generalship,—no one familiar with the movements of large city and town schools can question. But the education of these hosts, if it meet in any true sense the ideals of present progressive leaders of educational forces, must be made far less like the drill of armies. The ideal teacher of to-day is no Napoleon in the schoolroom, and the model school is no longer a battle-ground. We believe there is no practical obstacle in the way of reducing the numbers in our schools at least one-half; and that such reduction would meet the hearty approval of wise patrons and boards of education.

Especially is this reduction important in first years of schoollife; when in place of the fifty or sixty small persons, for whom one

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teacher is striving vainly to care, no more than half these numbers should be grouped together; and this for health, and happiness, and real progress.

Did you ever consider what it is to live daily, and for a series of years, in the constant companionship of a half-hundred people?

Communities are conservative in school appropriation and expenditure, and the financial problem in public school administration is an ever-present one; but in wise expenditure for little children communities are far more responsive than we are apt to believe, and will tax themselves royally when convinced of the need. We would then place, in the first years of school, no more pupils under one teacher than can be known in their homes, studied in detail, led and fostered with individual, painstaking care.

If need for larger classes is anywhere imperative, let it be in the later years, when both teacher and pupils have better learned the adjustments to other than the home life. With the small classes the training should begin at an early age. A bright child, happy in the possession of health and of home comforts, should be permitted very early to begin the search for the knowledge learned from books and teachers; and the less favored children, with homes unworthy of the name, should be afforded early release from the desolations of their unfavored childhood. We are confident that those of our commonwealths, now more than half, that have legislated in favor of early admission to school have secured best opportunity for their children; and that, where the work is wisely planned, this advantage is immeasurable.

Continuous observation along this line for many years convinces us that the pupil of five years is much more readily led to the easy mastery of such of our complex vocabulary as is within its grasp than is the child of one or two years more, of even wise home training and associations; while the difficulties in the way of learning to read are far less formidable. It is a matter of no small moment that the strictest economy of time and mental energy be attained for the multitudes of children whose school-life is limited to elementary work, and whose highest ideals in intellectual attainment are furnished by the teachers of their childhood.

Indeed, it cannot be too vividly impressed upon the consciousness of those having charge of elementary courses of study, that the majority of those enrolled in public schools leave them before the age of twelve years, while they are still little children; a fact which gives importance to all questions relating to their highest efficiency in the accomplishment of those ends for which schools exist—the formation and establishment of right character, the development of mental strength, and the acquisition of useful knowledge. As the richest

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products of human thought are garnered in books and revealed from the printed page, it is essential, that, whatever other means of education are made use of,—in hand-skill; in physical training; in language, oral and graphic; in music,—the key which opens these rich treasures in literature be placed efficiently in the hand of every pupil within his first school year. The art of learning to read should have been attained, and the child who has had one entire year of school-training should have been given ready ability to read, unassisted, all simple, elegant English; should, in a word, be enjoying free foraging in the fields of knowledge as little hindered by unreadiness in the mastery of the mechanicism of language as are his seniors.

With this work effectively done, with the key to all knowledge thus early placed in their hands, our children would make rapid advance along the customary lines of school attainment and progress. The geography, the history, the arithmetic, the story, and the poem, the helpful description of beauty in flower and sky, in forest and stream, would now be working their blessed ministries in mental furnishing, not as a store on which to draw in that far-off indefinable future which we sometimes flatter ourselves will make all present unassimilated knowledge real, but for the "daily bread" which child mind needs for healthful growth to-day; for the moral support which this early acquaintance with the best thought of the world bestows, and which the growing mind must be familiar with if the best fruits of instruction and training be realized in maturer years.

To this readiness in reading, and carried hand-in-hand with it, the lessons in natural science should be given place in the first school year; and with as clear conception of the end to be attained as is recognized in the process of learning to read. All indefiniteness of purpose should be avoided in this most delicate guidance in the fields where nature must be alone the instructor and interpreter. While every sense is sharpened by the constant habit of observation and comparison, the judgment trained by daily exercise in classification and generalization, these results may not be reached through direct instruction, even though the teacher be of rarest skill.

The science lessons in elementary schools afford a course of danger, scarcely equaled in any other department, of substituting the teacher's statement of well-known natural phenomena, learned too often from books alone, for the results of the pupil's own experience in seeing. If this mistake be frequent and continued, the habit of close and accurate observation and of just conclusion will be weakened and lost, and the science lesson will have served no higher purpose than that of pleasing entertainment.

It was with intense pleasure not many weeks ago that I was permitted to hear, in a city schoolroom where thoughtfulness for results

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holds high place, a lesson on one of our common wild-wood flowers. The little people had each his own specimen blossom, which he was looking at with delightful intensity, and, while the teacher asked a suggestive question, showing most sympathetic interest. No intrusion of teacher or text-book came in the way of the children's personal acquaintance with the blossom so new and strange to them. When for a few moments they had quietly studied the form and color of blossom, leaf, and stem, had enjoyed the dainty fragrance, counted each for himself the different parts of the flower, measured carefully each one his blossom's tiny stalk, they made the picture; and finally, in writing, the description of the little blossom.

Among many of the pretty descriptions which I glanced over, this one has fixed itself in my memory: "My little blossom must have grown in a shaded place, for it is very pale." Then after giving a very good description of the parts of the tiny plant, he added: "The stamens stand up and look at me like soldiers; and the fragrance of my flower makes me think of something very beautiful."

This exercise was one of many, was no better than others, and in a school whose average age is less than seven years. This plant study was not an exceptional but a daily exercise.

Plant study may not be in itself more desirable for daily work than are the studies of stars or of stones; but as the material for illustration is in this most readily available, and as the flowers appeal unerringly to every true heart, young and old, we have in their use gain in interest inborn or already kindled and glowing. In kindred sciences our children must not be left with unopened eyes.

To be ignorant of the structure of the world, blind to the glory of color and shadow on a mountain wall, to know nothing of that marvelous energy which thrusts the cones and wedges of its crests miles into the immeasurable blue, to fail to follow the stars in their movements and to discern somewhat the laws which control and direct their march, is to lose in large measure the joy, and glory, and privilege of life.

Economy in mental force requires that the children be held in the schoolroom for briefer consecutive periods, and that, while this short session is in progress, the attention to the varying school exercises be intense and all-absorbing. For this reason, we cannot believe that the custom of furnishing for one-half so-called "busy work," while the teacher's care is given to the direct instruction of the other half, is conducive to best habits of study. The ever-multiplying "devices," too often resultant of inability on the teacher's part to hold the attention and of ready enterprise of business firms quick to provide supply for evident demand, lead only to loss if left in manipulation to the children's unguided zeal, while the teacher is in "busy work" of

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other sort. Teacher and young children should work together in every schoolroom exercise; and every eye and ear should be intent on all words spoken and each exercise performed. The mental impress, to be permanent and clear, must be that of the process instantaneous—neither blurred by too long exposure nor obliterated by needless repetition. To require of one division of pupils fixed attention to study while the teacher is, within their hearing, developing some interesting subject to their mates, is to force unnatural conditions. Who among trained students—how many of the scholarly and self-controlled learners in later life—would for an instant think it possible to work out the problems of absorbing interest in any field of investigation in the presence of a multitude and within sound of even the best beloved human voice!

It has been with serious concern that we have been forced to note in many of our graded schools, and in some whose light has hitherto shone afar, a drift toward departure from quiet personal work in lesson preparation and intensity of attention to class work; and in its place—a reaction we believe from crowded classes and needless formalism—the two or three manifold "divisions" pursuing in one room their varying lines of work. The personal oversight and ready helpfulness, the "word in season" which the "individual" needs, can but be lost or hopelessly deferred in other than wisely administered class work. In fact it is only in the class and only in the single class that individual need is promptly recognized and help effectually given. It is true that no system of classification will bring together, within the limits of reasonable numbers, pupils whose native abilities and acquired power of attainment admit no variations; nor is this an end to be desired or permitted. Sameness of instruction, evenness of process in development of truth, does not argue uniform impression on the mind of the recipient.

Do we not all listen to sweet music and receive uplifting according to the measure of our need and our acceptance? And does not the grateful summer shower fall upon uplifted flower-cups and forest kings with equal benediction? If, then, the minds of our pupils be kept in receptive mood, and instruction worthy of their thought alone be given, we may safely trust to each one to appropriate according to his need, unhindered by the weakness or the strength of his associates; while the teacher's time will be economized and strength and skill conserved for worthiest work.

Of the pitiful expenditure of teaching power permitted in many of our school systems in the attempt to teach exhaustively subjects whose beginnings only are "elementary," we have scarcely the courage to speak. This evil has been often pointed out and vigorous protests uttered by many whom we all delight to honor and whose skilled

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leadership in school administration has been above question or criticism. The work in English grammar and arithmetic, which the strength of years alone will bring within the mental powers, and which time will so simplify as to make clear almost unaided, is the required work of elementary courses of study and is emphasized in examination lists to-day.

The picture is still vivid in my mind, afforded by modern annual examination opportunity, of a group of well-qualified teachers in these branches, with heads together over one of those improbable arithmetical conundrums such as tradition tells us were frequently submitted "in the early days of the republic," when the time element was unmeasured and electric car and twin-screw steamship, telautograph, and linotype were unknown to the great thinkers of our county district schools. Questions whose solution, like the unraveling of our grandmother's knitting-work, could only be effected in reverse order—by beginning at the toe; banking problems upon which bankers differ, and insurance questions upon which insurance men will not agree; history questions that would make a Fiske or a Von Holts shiver; music that would have silenced a Beethoven forever; language exercises which would tax the linguistic skill of high school principals who can speak or be silent in all the tongues of Southern Europe and the East, are still given to children whose home amusements are paper dolls and kites.

On the successful solution of such puzzles must depend decisions vital to the further school attendance of boys and girls to whom a year marks differences in the determination, not of future courses of study merely but of all subsequent scholastic life.

The common age of pupils leaving our grammar schools for entrance upon higher courses of instruction is fourteen years. That these should be regarded as scholars in any field is unreasoning and cruel. That their training should have made it possible for any to require of them the work of expert scientists, musicians, historians, or arithmeticians is loss to scholarship and violence to childhood. Since ever the world was made beautiful, timeliness has been the order of the universe. It is "first the blade, then the ear, and after that the full corn in the ear."

Economy in moral training in elementary schools makes imperative a higher tone and subtler skill in the instruction given in our normal, high, and training schools. The line must be clearly drawn which separates here the clumsy and commonplace from the skillful and progressive.

Those destitute of high endowment and noble aspiration have no place in these schools; whose sole excuse for public favor lies, not in their own but in the children's need. Lessons in sweetness of life are

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lasting only from lips and lives free from the dust and soil of selfishness, and those who would lead children in right paths must draw no wavering lines upon the sand.

With the years of school-life economized by early admission and skilled methods in learning to read, with the science sense made keen and active in these self-same years, with the work which cannot be assimilated deferred until the natural season, with the character built up and fortified by daily, close association with teachers of high culture and rare skill, we may reasonably expect, as product of these factors, all that the public demand in scholarly attainment, in business skill, and in loyal, loving service.

BETTIE A. DUTTON, *Chairman.*
J. H. PHILLIPS,
GEORGE P. BROWN,
ZALMON RICHARDS,
WILLIAM E. SHELDON,
Committee.

DISCUSSION.

[REPORTED BY WM. F. KING.]

Miss Dutton gave as the first point: The need of materially reducing the number of pupils assigned to each teacher in primary and grammar schools, in order to get the benefit of close acquaintance and personal oversight.

MR. GEORGE P. BROWN.—I suppose this matter of economy means that we shall avoid waste by reducing the number of pupils from fifty to twenty-five. The school is for vastly more than for teaching the studies laid down in the curriculum. Is there not such a thing as so manipulating fifty pupils as to get satisfactory results? We must have a much more capable body of teachers in our schools, both men and women. We have now 450,000 teachers, and if we double this number we shall have 900,000. The Council could hardly consider such an increase practicable. It seems to me that economy is to begin and continue in the better preparation of teachers. And then, in this matter of numbers, I am inclined to think that the limit is not reached at twenty-five. I am inclined to think, that if our very small schools in the country were twice as large they would be more interesting and successful. In a school of twelve or fifteen, pupils and teachers are somewhat lonesome, while a master at the head of a school makes fifty possible and successful.

MR. Z. RICHARDS.—I do not rise to differ with Mr. Brown, for he is generally right. I would say, economy of expense as well as economy of time—not the time that the teacher is to devote to the scholar nor the time the scholar attends school. If we can have the right kind of a teacher, can we not do better with a small num-

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ber instead of a larger one? Can we not, by getting better teachers and having a smaller number of pupils, secure much better results? I am fully convinced that with the right kind of primary teachers we can save three years of time to the pupil, enabling him to enter the high school at eleven, instead of fourteen.

MR. BROWN.—Do you think that a desirable thing?

MR. RICHARDS.—Yes; if, as I believe, more than half the time of the pupils in the primary schools of to-day is wasted.

MISS DUTTON, in response to a question, said: "I should like to have more cultured men assist the women in primary work. It would be a good idea for some of the fine scholars to lay aside Latin and Greek for a while and descend to the primary room."

MR. F. LOUIS SOLDAN.—It will be rather difficult to fix abstractly the number of children which are to form the proper quota for a teacher in a public school, because the personal equation—the power and experience of the teacher—would enter very largely into such determination. For the average teacher of fair training and good gifts the quota might be placed considerably higher than twenty-five, which is the number suggested by the report. There is little use in discussing this matter without reference to financial possibility. The means of public education are closely circumscribed. Every friend of education will give ready assent to the general proposition submitted by this able report, namely, that too many pupils are assigned to one teacher in many of our schools. We have heard to-day of schoolrooms in which eighty-five children or more are taught by one teacher, and for such an outrageous condition the plea of financial limitations is but a very bad excuse. Considering existing conditions, the number of forty-five to fifty pupils as a maximum assignment to one teacher seems feasible financially, and presents no educational difficulty.

One of the honored members stated, in the course of this discussion, that, with a quota of fifty pupils, but five or six minutes of the teacher's time could be given to each child. I cannot quite agree with the idea implied by this statement. It would seem to suggest, that of the whole time a child spends daily in school he receives education and instruction for the few minutes only during which he receives the teacher's attention individually. If such a claim were substantiated, the public school, with its popularity, its masses of pupils, would necessarily be a failure, and the private school a success in inverse proportion to the number of its pupils—a statement which few will be ready to accept. The fact is, that, under a good teacher, each individual pupil is kept active during approximately the whole time that the class is under instruction. To illustrate: Whenever a statement is made by teacher or reciting pupil, every other pupil is mentally active while receiving it; when the teacher is asking a question, each child is formulating, mentally, an answer, because he may find himself called on in a moment to state the answer. Since Pestalozzi, the development in teaching has been largely in the direction of the growth of skill in handling masses with good educational effect.

I desire to be understood to be opposed to a larger assignment of pupils than the quota suggested at the beginning of my remarks.

MR. J. W. COOK, being called out by Mr. Brown, said: "Our method has been to bring the parents to the school. We have endeavored to supplement by finding out home methods. The meetings of parents have been very beneficial in starting lines of work in the home to supplement the school, especially in the matter of securing the proper kind of literature for the children."

Miss Dutton gave as her second topic: Use of skilled methods in learning to read as bearing upon economy of time. The child in its

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first year of school training should have learned to read readily and be as little hindered by the mechanism of the language as are his seniors. She added in defense of this point that it was not simply a theory with her. In the earlier days of her teaching she had eighty five- and six-year-old pupils in one class. Without any theory in mind, she put the five-year-old pupils in one class and those six years old in another, and, giving exactly the same instruction to each class, found that the five-year-old pupils made more improvement in every case. This superiority showed itself especially in reading, but in other subjects, also.

MR. COOK.—Were the five-year-old children exceptional?

MISS DUTTON.—They were just the same.

MR. A. R. TAYLOR.—Did you follow the two classes through the high school?

MISS DUTTON.—I did, and found that the five-year-olds showed superiority in the higher grades of the grammar school and the high school, and they were graduated one year earlier than the six-year-olds.

MR. SOLDAN.—How large a vocabulary do you think these children had?

MISS DUTTON.—I do not know, sir. They could read fluently all the literature adapted to their age.

In reply to the question, as to what method she would recommend in teaching reading, Miss Dutton answered that all methods should be well known by the teacher,—phonetic and phonic, word method and sentence method, analytic and synthetic,—and such discrimination made in their use as will best serve the immediate demand.

MR. BROWN.—I presume that Miss Dutton does not mean that the five-year-old pupils knew more than those who were six years old, but only that they learned to read better. It is evident that the five-year-old child will have less to think about, and hence less to confuse. A young child can learn the external forms of words more easily.

MR. RICHARDS.—I have noticed that children are more quick to learn at four and five years of age than later.

MR TAYLOR.—Was the slow progress of the six-year-olds not due to the fact, that most of them had already learned to read at home under faulty methods, while the five-year-olds probably began to learn to read in your classes?

MISS DUTTON.—That is hardly probable.

MR. TAYLOR.—Might not those six-year-old children have done much more?

MISS DUTTON.—Had they been received into school life at five, and given a year's proper training, undoubtedly they might.

MR. JOSEPH BALDWIN.—Did you teach these five-year-olds with more enthusiasm?

MISS DUTTON.—I think not.

MR. TAYLOR.—The report of the committee seems to warrant the statement that reading needs more emphasis in the lower grades than the elements of the natural sciences.

MR. RICHARDS.—What has been said seems to prove that at least two or three years are wasted in the elementary schools.

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MR. H. H. SEERLEY.—I approve the statement in the report advising the teaching of five-year-old children to read, as I know it is possible and not difficult to do. My own experience as a child verifies it. I learned to read at home under the instruction of my mother, so that my first recollections at school, and that at the time I was four and one-half years of age, are that I belonged to a reading class in a district school that used the third reader as a class-book. In the summer term of my fifth year I read with a reading class that used as a text McGuffey's third reader, first edition,—a book equivalent in grade almost to McGuffey's fourth reader of recent years,—and I know that I understood reasonably well what I thus read, being also able to read with fair facility from the New Testament Scriptures. In fact, after five years of age, all my lessons in reading were hardly of the character of school studies, as I made no preparation to be able to read readily any of the daily lessons given the class. In my judgment, therefore, the early teaching of reading is not only possible but desirable, as the child's mind at five years is capable of doing it better than at any other time in life.

One other statement from experience. The argument has been made that a child's vocabulary does not average over 300 words at five years of age. I feel certain that this statement is misleading; the average American child knows and uses more. I have been recently tabulating the vocabulary of an average child. He is not yet three years of age, and has already a vocabulary of over 600 words. I feel assured, therefore, that we are inclined to underestimate, rather than overestimate, the average child's vocabulary at the time he is five years of age. He knows more than we think he does.

Miss Dutton here presented the third topic as follows: To this readiness in reading, and carried hand in hand with it, the lessons in natural science should be given place in the first school year, and with as clear a conception of the end to be attained as is recognized in the process of learning to read.

MR. C. B. GILBERT.—Those of us who favor the study of nature by children in the primary schools do not mean by that study the use of the scientific method. We agree entirely with Dr. Harris in opposing the acquainting young children with this method. The scientific method consists in analysis and classification. This is for maturer minds. Young children should study nature sympathetically. The whole beautiful world belongs to the children. They are in sympathy with it, and they can appreciate its beauties as completely as you can. I regret, that, in the discussions to-day, so much attention has been given to the form of education and so little to its content—so much to instruction and so little to real education. Instruction is but one side of education—one element. Especially is this true of moral education.

I believe in the study of nature by little children for many reasons. It brings new and valuable content into their lives. It introduces them to a new world—the beautiful world that God has made. It furnishes a valuable basis for their instruction in form. I do not care for short methods in teaching reading as a formal study—a mere study of words. It is of no value for the child to learn to read words or to write words unless he has something worth while to read or write about. The literature that he can obtain in the reading-book is of little worth to him. He must get his truth, if he gets it through literature, after it has been filtered through adult minds and adapted to him. He can appreciate Nature as she is. Let him go to her and get content-matter for his reading and writing. I believe in the study of nature by the little child, not merely because it cultivates his powers of observa-

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tion—not merely because it trains his judgment, as emphasized in the report—but because it has an ethical value. It reaches his spiritual nature. It gives a purpose to all of his education which he himself can appreciate, as he cannot the study of form merely.

MR. L. H. JONES.—Methods may be employed which will make the teaching of natural science inimical to progress in learning to read; but better methods may be employed which will show these lessons on nature study to be necessary to and complementary to the work of learning to read. It is doubtless the latter method of procedure which is intended in this report. In this form of work, nature study leads a child into a new field of experience, and creates for him the need of a new and different vocabulary from that of his colloquial range. It also enables the child to put new and deeper significance into that which he reads, whatever the vocabulary used. I am heartily in sympathy with the attitude assumed in this matter in the report.

MR. SOLDAN noted a coincidence in these two points, and further discussed the relation of study of books and nature in natural science. Care should be exercised in the kind of natural science taught. Rousseau declared reading and the study of natural science to be inimical.

MR. JONES said this would be due to the method of teaching employed.

Miss Dutton presented as the fourth topic: Shorter school sessions, and more direct attention from all pupils during that time. The teacher should also be able to give her direct personal attention to everything going on, including the so-called "busy work."

MR. BROWN.—Perhaps this so-called "busy work" was valuable work.

MISS DUTTON.—Its highest value could only be reached by the careful guidance of the teacher leading to right habits of study. When the children are quietly at work they need, more than at any other time, the teacher's undivided attention.

MR. D. L. KIEHLE.—With reference to the short sessions recommended, what would you say of the three-hour sessions of the kindergarten?

MISS DUTTON.—In this respect there was a violation of sound educational principles.

MR. RICHARDS.—I understand that Miss Dutton would have but one kind of work at a time, and hence a smaller number.

MR. D. L. KIEHLE.—We shall all agree that the sort of busy work so often seen, which is but an aimless playing or fussing with material, is unworthy any place in our schools. It seems to me that it is a mistake to limit the hours of companionship with the teacher to the brief time given to earnest or intense activity in recitation. I should prefer such an arrangement of programs as will cultivate quiet, continuous, and persistent attention to subjects of interest, without what often appears as a strained and unnatural activity. To do this, there must be a varied program of physical and intellectual activity with frequent recreation and rest. All of which should be in the presence of and under the proper influence of the teacher. This done, there is no difficulty in continuing children in school five or even six hours a day.

Prior to adjournment the remaining points of the report were read without discussion.

On Saturday, when the report as a whole was under consideration:

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MR. JAMES H. BAKER said: "I wish to ask whether the question of economy of time, as suggested in a practical way by Miss Dutton's experience in teaching reading, may not be carried farther? In our refinements of method and exact application of ideal theories may we not waste time in all departments of elementary education? Do we recognize the full extent of knowledge and power which the pupil possesses when he enters school at the age of six. Might he not advance in essentials of education more rapidly? The report of the committee of ten showed that the various conferences recommended that certain studies usually confined to the high school should be taken up in the elementary school. The suggestion was not considered by the Council nor the committee of fifteen. Teachers reply: 'Crowded courses; no room for anything more.' Now, the inquiry is made all along the line, 'Can the whole period of general education be shortened?' and it is important that the question be answered for the elementary period by educators experienced in the work of that period. In Prussia three years, instead of eight, are given to elementary work, and at the age of nine high school work in method and organization begins. At the age of fourteen all the studies have been included which are recommended by the conferences, and it is agreed, that, in invaluable insight into leading subjects, the pupil is farther advanced than the American boy at the same age; and this results from economy of time in the elementary work and early introduction to other subjects. I hope members of the Council will give us the benefit of their views in the light of the experience of the last fifteen years."

MR. GILBERT.—Too much stress is put upon this question of saving time. What would be gained by putting pupils of primary grade into secondary work? The tendency of our times is to hurry through life. The true economy is to enrich the courses. It is a mistake to rush a child too soon into the college and university. What we should do is to give the child's mind all that it can use. Fill its curriculum with that which is worth while.

MR. COOK.—I deem it proper to refer to a case in Illinois. In Decatur the work below the high school is done in seven years, and the high school has become the most popular school in that city.

MR. B. A. HINSDALE.—How long has this been in vogue?

MR. COOK.—Several years.

MR. N. C. DOUGHERTY.—Are the graduates of the high school who are prepared to enter our best colleges younger than those of other high schools in Illinois?

MR. COOK.—Yes, by a year; and I regard the size of the Decatur High School as an unanswerable argument in favor of the plan.

MR. RICHARDS.—Life is short; art is long. I have made some calculations and have found that nearly two-thirds of our children in elementary schools do not go over five years. Is it not important to save all we can of the five years? Reading has been spoken of as a mere formal exercise; but reading is not simply a formality. It is educative. Let the children command the language.

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REPORT OF THE COMMITTEE ON STATE SCHOOL SYSTEMS —UNGRADED SCHOOLS.

BY HENRY SABIN, DES MOINES, IOWA, CHAIRMAN.

This report has reference only to questions which concern schools in the rural districts and the smaller villages in which no attempt is made at grading the pupils. The aim has been to make it strictly a business paper, dealing with facts and with theories which are both practicable and of immediate importance. Early in the spring your committee sent to each state superintendent a circular asking for information concerning revenues, organization, and preparation of teachers for ungraded schools. The plan of supervision, attendance, and the course of study were included, as incidental. Replies were received from twenty-five states, viz.: Iowa, Illinois, Indiana, Ohio, New York, South Carolina, Florida, California, Nevada, Maine, Kentucky, Texas, Minnesota, Missouri, Michigan, Rhode Island, New Jersey, Nebraska, Mississippi, Delaware, Massachusetts, Montana, Pennsylvania, Virginia, and Wisconsin. In addition a large number of state reports have been consulted, as furnishing desirable information. The information thus gained is embodied in the report in the following order of subjects: Revenues and distribution of same; organization of schools; supply of teachers.

REVENUES.

The school funds are derived mainly from three sources, namely, permanent or invested funds, state tax, and local taxes imposed upon towns or districts by vote of the inhabitants. Local taxes are imposed in each of the forty-nine states and territories, including the District of Columbia; thirty-nine have what is termed a permanent school fund, the interest of which is distributed in support of the schools, but the principal remains inviolate. Thirty-one supplement the proceeds of this fund by state tax. Ten have no permanent school fund; seven of these support their schools by state tax alone, and three by local tax.

In preference to any attempt at tabulation we have made extracts from answers received to the circular and from state reports, as showing the trend of opinion in the different states.

It will be noticed, that, while the answers and suggestions differ in accordance with the civil organization of different states, there is substantial accord of sentiment in favor of a change in the method

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of taxation, and that school district taxation especially meets with little favor. These quotations could be largely increased, if necessary, but the length of this paper will not admit of it. They look to some way of obtaining a remedy for the gross inequality which exists, not between the city and the country schools but between the ungraded schools in different districts of the same township.

The quotations are as follows:

Kentucky.—As revenue to pay teachers and superintendents, we would prefer county taxation after, and as supplemental to, state taxation.

Missouri.—Revenues for the support of the ungraded schools are derived chiefly by a direct tax levied only by each district. I prefer a township tax.

Mississippi.—I believe in a mixed revenue system; the state providing a certain proportion of the money necessary to maintain schools and distributing it to the county, township, or district, as the case may be, upon the basis of educable children. This to be supplemented by a county tax, distributed to the townships or districts on the basis of educable children; the townships or districts being permitted to levy such additional tax as they may see fit.

Texas.—The revenues for the support of the ungraded schools derived from local sources are very small. I should very much prefer a good, liberal, county school tax to any other means of local support.

Florida.—I would prefer a state levy, with county option to increase it.

Nevada.—I prefer the county tax.

Maine.—I prefer a tax raised upon the entire township.

Montana.—Revenue is raised by county taxation. I prefer this method.

Pennsylvania.—I incline to the opinion that a levy by the county would be more equable. Some townships in this state levy no tax. Others levy the maximum limit allowed by the law, namely, thirteen mills for building purposes and thirteen mills for maintenance.

Indiana.—We can make a levy anywhere from one to thirty-five cents on each one hundred dollars, and may go as high as fifty cents on the polls. We like the township system in this state, because it is so much cheaper.

Wisconsin.—The revenues for the support of the ungraded schools are raised in part by the district, part by the county upon different townships, and in part by the state. It would seem more equable if raised by the township instead of the district.

South Dakota.—Under our constitution we cannot have state uniformity of school taxation, but for school purposes we can provide for county tax levies that shall relieve the weak districts from the greater part of their burdens. This would be much better than our present method of taxation, under which the local school tax in some districts has been at times as high as twenty mills, while in other districts having equally good school privileges the levy for the same years has been only five mills or less.

Massachusetts.—The Massachusetts Teachers' Association resolved, that, for the purpose of enabling the poorer towns of the commonwealth to have the continuous service of trained teachers, adequate assistance should be afforded by the state, and for this purpose an enlargement of the state school fund should be made. Our revenues are wholly from town and state, principally from town tax. The low valuation of small towns makes it desirable to have a larger contribution from the state.

Minnesota.—The taxation by districts is, in the highest degree, unequal and exceedingly burdensome to the smaller and weaker ones. In some, the tax is one

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mill on the dollar, while in others it reaches twenty-nine or thirty. The districts that really need the best schools have the poorest, the school year is the shortest, and the poverty-stricken inhabitants actually pay the highest tax.

Wisconsin Report, 1893-94.—When taxation is made equal throughout the townships, the smaller districts will demand equal consideration with the larger ones in the selection of teachers and in the equipment of the schoolhouses.

Washington.—In my judgment, if the policy is to be continued of allowing the county commissioners to levy the school tax, they should be compelled to levy such a tax as will produce a specified amount for each child of school age in the county, and that amount should be such as, with the state apportionment, would provide for each district an ample fund to maintain a school for a reasonable length of time during the year.

Vermont.—If the town as a social unit provides the major part of the revenue for the public schools by an equal taxation, it should also disburse such revenue. It is a fallacy to think that equalization of taxes and the district system are compatible.

The spirit of our institutions is that of equality before the law. A system of schools which does not provide equal school facilities to all children within its limits is not an American system. To put this in different words: An American system of schools should seek to so equalize the burden of taxation that weak and impoverished districts with a low valuation should still be able to maintain a school equal in length of term and in its equipment to other schools of the same grade in that township or county.

Many excellent reasons can be advanced why the state should bear the entire burden of taxation necessary to the purpose of common school education. These reasons are, however, more than counterbalanced by the objection that it would remove the schools too far from the people, and would diminish the interest which they ought to have in providing means necessary to the rightful instruction of their children. It is the policy of our government to impress upon the people the fact that they are the government, and that everything which tends to strength and permanence comes from their united and intelligent action. While we believe that it is right that the state should provide a generous amount, either by a tax of a certain number of mills on each dollar of valuation or by a certain fixed sum in the aggregate, we also believe that local taxation is necessary to the healthful growth and prosperity of the schools. The question is, What would be the unit of taxation? Your committee are unanimous in the opinion that the system of district taxation in use in many states is both unjust and vicious. The argument is founded upon facts. Wherever there is a sparsely inhabited district, or one in which the valuation is low, the school interests suffer for want of sufficient support. Thus, in one district the children must put up with a cheap, incompetent teacher and six months' school, while across an imaginary line children have the advantages of a good

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teacher and of nine months' schooling. This is not in accordance with the spirit of free schools. It is true that the same discrepancies may exist to a diminished extent between different townships, and hence there has arisen the thought that the county is probably the best unit of taxation. This question must be settled very largely by the civil organization of the state and by the character of its population. In the older states, where the population has some degree of permanency and where the township organization has a clearly defined relation to the state, probably the township furnishes the best unit. On the other hand, in the newer states, sparsely populated, or in states in which the population is largely transitory or engaged in occupations which do not encourage the owning of homes, the best unit is the county. If the point is raised, that it is unjust thus to tax the wealthier portions of a county or township to support schools from which they can derive no benefit, the only answer is, that we not only educate the child at the public expense for the child's sake but also for the sake of the civilization in which he is to live. The state as a state has an immediate interest in the future of every child who is to become a citizen. We reach these conclusions, then: That the unit should be the county or the township, and that the law should be mandatory, compelling the levying of an amount as a minimum, which, added to the revenue derived from the state, would furnish reasonable school facilities to every child living upon that territory. This, however, should not prevent any community from imposing additional taxes upon themselves, if facilities of a higher order are desired.

The ungraded schools need this protection. They are suffering from low wages, short terms, and incompetent teachers. The question of insufficient finances is at the foundation of the trouble. We have solved one equation of the problem when we have adopted the most equable and acceptable method of supplying funds.

DISTRIBUTION OF REVENUES.

A question of equal importance presents itself in the methods of distributing revenues. In most of the states the distribution is based upon the number of children of school age in the township or district. This offers the temptation to swell the number included in the school census to its utmost limit in order to obtain a larger share of money from the state funds. The injustice of it is more clearly seen in the fact that the number of residents between certain ages furnishes no criterion of the actual school necessities of the district. It is as far out of the way as it would be to base the distribution of school funds upon the assessed valuation of the territory in question or upon the number of the people of all ages.

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These two points are to be kept in view. The funds must be distributed so as to equalize as far as possible school privileges, and at the same time stimulate the community to take advantage of the opportunities thus afforded their children. A few extracts from letters and reports will illustrate the methods in use at present, and also show the trend of educational opinion.

Illinois.—The state apportions the amount derived from the state school fund to the common schools on the basis of the number of persons under twenty-one years of age residing in the counties, as shown by the national census.

New Jersey.—Our ungraded schools derive most of their entire revenue from this state in the following manner: Two hundred dollars per each teacher employed and the balance per capita according to school census.

Pennsylvania.—The revenues for the support of the ungraded schools in Pennsylvania are distributed on the basis of the number of taxables at the triennial assessment.

Florida.—The one-mill tax is apportioned among the counties on the basis of the average attendance upon schools.

Mississippi.—The money is distributed to the counties and separate school districts on the basis of educable children in each.

Nebraska.—The interest of the permanent state endowment is apportioned to the school population.

Rhode Island.—The state money for schools is divided in all the cities and towns upon two different plans. Each town gets one hundred dollars for each school up to fifteen in number, and after that, all that is left is divided in proportion to the number of children of school age.

Minnesota.—The current school fund is apportioned to the districts in proportion to the number of pupils who have attended school at least forty days in the year.

Virginia.—State school money is apportioned on the basis of the school population.

Ohio.—The auditor of state shall apportion the state common school fund to the several counties of the state semi-annually, upon the basis of enumeration of youth therein. But the law, in another section, provides that so much of the contingent fund as may be set apart by a township board for the continuance of schools after the state funds are exhausted shall be so apportioned by the board that the schools in all the sub-districts of the township shall be continued the same length of time each year.

Iowa Report.—The suggestion made by my predecessor, that the apportionment of money, at present derived from the interest of the permanent school fund and other sources, should be based upon the average daily attendance for the preceding year, as reported by the county superintendent to the superintendent of public instruction, carries with it much force. It seems the only just and equitable way, when we consider that the money would thus reach those schools in which there is the most work to be done on account of the large number of pupils. In fact, such an enactment would doubtless increase the attendance, and act as a very efficient auxiliary to a compulsory law.

Washington Report.—The manner of apportioning the common school fund among the various districts is a matter that has often been the subject of interesting discussions; and, while the method at present in vogue seems not to have been very seriously criticised since its adoption, there are grave doubts as to its efficacy in accomplishing the best results possible with the fund at our disposal.

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South Dakota.—The apportionments of state and county general school fund should be based on the total attendance as shown by the annual reports of district clerks, and not on the total number of persons of school age. When the amount of each quarterly apportionment is made dependent upon the school attendance, there can be no doubt that more pupils will be enrolled in our schools than there have been heretofore, and that their attendance at school will become more regular. Such an amendment would probably increase the per cent of attendance much more rapidly than our compulsory attendance law has yet done.

New Jersey, 1893.—A fair distribution of state school moneys would require that a part, if not all, should be apportioned on the basis of the number of pupils actually enrolled or taught in the schools, and not as now, wholly on the basis of the number of children of school age, whether enrolled and taught, or otherwise.

It is plainly the consensus of opinion that the prevailing system of distributing school funds, *pro rata*, upon the school population as a basis, is detrimental to the interests of the rural schools. The result of this plan of distribution has been to give an undue advantage to the schools in the strong districts, and to leave those in thinly settled and impoverished districts helpless and unprovided for. Several states have already sought a remedy. If it is right to tax all for the benefit of all, then it is just to so distribute the funds thus raised as to accrue to the advantage of the entire community.

The most feasible methods of distribution cannot be discussed without reference to the next topic in this report; that of organization. We, however, cannot fail to reach the conclusion that justice to the rural schools demands that some method be devised which will insure a reasonable support to the weakest school, and at the same time act as a stimulant in obtaining the highest possible per cent of attendance.

ORGANIZATION.

The limits of this report will only allow to us to say, that, with but very few exceptions, the judgment of state superintendents, as gathered from their replies to the circular sent to them and from various state reports, is strongly in favor of the township as the unit of organization.

A few extracts from these papers must suffice. However, the old maxim applies, "From one learn all:"

Missouri.—I prefer the township system, because it operates on a larger scale and is likely to give expression to the sentiment of better men.

New Jersey.—The system (district) introduced many years ago, whereby townships were divided into school districts to fit the then prevailing conditions, is today antiquated, inefficient, and expensive.

Michigan.—We prefer the township system, because it would lead to a uniformity of text-books, taxation, and length of school year for all of the children of the township, and equal facilities so far as teachers and apparatus are concerned.

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Wisconsin Report, 1894.—In my judgment, the substitution of the township for the district, as the unit of the system, would result in the increased efficiency of the common schools.

Mississippi.—I believe the township system is the true philosophical system for public school organization, although we cannot reach it, owing to uneven distribution of population.

Texas.—I prefer the township system, with the county system as a close second choice. The district is too small to permit the organization of schools of different grades. The county is larger than necessary. The township is free from both objections.

Pennsylvania.—We prefer the township organization to district and county organization.

Indiana.—We tried the district system several years ago, and should consider it taking a long step backward to drop the township and take up the district system again.

Vermont.—It is doubtful if any law (township system) enacted in the State of Vermont, received under such antagonistic and discouraging circumstances, ever won more or stancher supporters than our present law during the short time it has been in operation.

Ohio.—To anyone who will take the trouble to give this subject careful study, the conclusion will be evident that the township is unquestionably the correct educational unit.

Iowa.—The only feasible remedy for these evils is to return as soon as possible to the provision of the organic law of 1858, making each civil township a district for school purposes.

New Hampshire.—The most far-reaching change made in the last ten years has been the substitution of the town system for the effete and impotent system of district schools. The district school had lost much of its usefulness, and was, in many towns, no longer susceptible of improvement. Under the town system it is regaining its power, and a better educated class of children is growing up in the rural sections of the state.

Rhode Island.—As fast as our towns have abolished the district by their own vote, they at once begin to consider the matter of a high school. So long as the districts exist, we shall not have high schools; but if we can get rid of the districts, we shall ultimately be able to provide high school facilities for the greater part, if not for all, of the children of the state.

The principal arguments in favor of making the civil township the unit may be stated briefly as follows:

1. The number of school officials would be greatly reduced; and, hence, less liability to loss of funds through incompetency or dishonesty. In Iowa, 27,000 school officers are serving as members of school boards. The secretaries and treasurers receive $135,000 annually as compensation for their services. In Minnesota, the township system would reduce the number of school officers from 18,000 to 3,000. In Wisconsin, it is estimated that the sum of $190,000 is wasted annually upon unnecessary schools. Under the district system, there is a great waste of supplies in one school, and a want of the same in another; buildings are allowed to become dilapidated for want of attention; several school officials are paid, when one officer

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would suffice. In these respects the township system would effect a saving of thousands of dollars annually. It is simply applying business principles to the business affairs of the schools.

2. The township board of education, a certain proportion going out of office every year, should be armed with the same powers and exercise the same duties as the board of education in the city or in the independent district. They should appoint teachers, locate buildings, select text-books, determine courses of study, designate what schools pupils may attend, consolidate schools when their numbers are reduced to a certain extent; and, in fact, transact any business which may lawfully come before them. Subdistrict lines would disappear and a most fruitful cause of trouble cease at once. In unity there is strength. To place all the schools of a township under the control of one governing board would tend to equalize length of terms, strengthen the teacher's position, and lift the schools to a higher place in the estimation of the public.

3. The township system affords the only means through which we may hope to reach township high schools and township supervision. We believe these two points are essential in any system looking to the improvement of the ungraded schools. The township high school has become a necessity, if we are to lift the rural school out of the rut into which it has fallen. To promote the highest efficiency of such a school it must be in complete and perfect harmony with the schools of the township. This cannot be the case unless they are all under the control of one board and supported from the same general funds. The establishment of these high schools would furnish a needed incitement to the pupils in the lower grades in the country, and would stimulate them to remain longer in school that they might graduate at the end of the course. It would dissipate the aimlessness of study and instruction so prevalent in the country schools of to-day. The answer to the question, Is it possible to arrange the course so as to lead up to the establishment of the township high school? is invariably in the affirmative. Township supervision is a natural result of the township system. It has already become an established feature of the Massachusetts system. It is rapidly gaining ground in Ohio under the Workman law. It is the objective point at which the board of education is aiming in New Jersey, and other states are developing the idea of either township or of some other form of close supervision in connection with the ungraded schools.

The establishment of the township high school would tend to strengthen the county superintendency. These schools would afford better facilities for the academic instruction of teachers. They could be utilized as centers of normal instruction. The township superintendent would naturally become the ally of the county superintend-

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ent in conducting educational meetings, in grading the schools, and in fostering a healthy public opinion in favor of good schools, competent teachers, and liberal salaries.

4. The adoption of the township system equalizes the burdens of taxation, and renders it possible to distribute state school funds in inverse ratio with the wealth of the towns. If the towns of the state have a valuation upon a common basis, then it is just, that, to a certain extent, those lowest in the scale should receive the greatest aid from state funds, in order that every community may be sure of good schools. This is the Massachusetts plan. In some states, notably in Massachusetts, New Jersey, and Rhode Island, a fixed sum is set aside for every school before any general distribution is made. The method of determining the exact amount thus placed to the credit of each school may be different in different states, but we believe the underlying principle to be correct, that public policy demands that the strong shall help bear the burdens of the weak. The remainder of state or county funds should be distributed to each township in a ratio based upon the actual attendance of pupils as shown by the record of the preceding year, with a possible discrimination in favor of those towns most willing to impose taxes upon themselves.

There is not time to discuss other points. Under the Workman law, in Ohio, many of the benefits of the township system may be obtained without abolishing subdistrict lines. Under the Boxwell law, in the same state, the tuition of graduates from ungraded schools may be paid by the township board in the high school of any neighboring city or village of the county. Such a provision in the law is practically introducing the county high school, and in many states would be a most desirable feature. In Massachusetts, New Hampshire, and other states, township boards are authorized to pay out of public funds for the transportation of pupils to such schools as it seems best for them to attend. Thus they are enabled in small towns to bring all the children to a central school, or to unite two or more small schools, lessening the expense, and at the same time improving the educational advantages of the townships. These points, with many others, are all germane to our general subject, but there is not time to discuss them in this connection. It must suffice to say, that we can reach no other conclusion than this: The substitution of the township for the district as the unit of organization is absolutely essential to the highest good of the ungraded schools.

SUPPLY OF TEACHERS.

The great question of the supply of competent teachers for the ungraded schools remains to be discussed. Of every one hundred pupils enrolled in the public schools, Texas reports that eighty are in the

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ungraded schools; Indiana, sixty-five; Illinois, forty-two; New Jersey, twenty-five; Minnesota, forty; Ohio, fifty; Wisconsin, fifty-eight; Florida, ninety; Massachusetts reports only ten; California reports no ungraded schools, but forty per cent of the pupils are in schools of one or two rooms. These figures, at best, are only approximate; but they are enough to show the magnitude of the question under discussion. Undoubtedly the number of pupils enrolled in ungraded schools will reach nearly, if not quite, fifty per cent of the entire enrollment. If we include schools of two or three rooms having practically no supervision, and which are but partially graded, the per cent would be much higher. It is very difficult to gather statistics which show the number of teachers in the ungraded schools having anything like an adequate preparation for their work. When we take into consideration the fact, that the very large percentage of graduates of our normal schools is absorbed by the schools in the cities and larger villages, and that generally the bright teachers, who have had the benefit of a partial course in the normal school, work their way into graded schools as fast as possible, it is evident that the schools in the country are mainly left to the care of novices without any special training.

The school age, the manner of gathering statistics, the number of months in the school year, vary so much in the different states that it is impossible to arrive at anything but general conclusions. In the number of trained teachers employed in the different states there is a wide margin. Virginia and Kentucky report only ten of every one hundred teachers as having anything like an adequate preparation for their work. Texas and Nebraska report only a very few. In some parts of California seventy per cent have professional training; in others, as low as ten.

Rhode Island.—About ten per cent with only a common school education, forty per cent normal trained teachers, and the remainder having either a high school or an academic training.

Missouri.—About twenty-five per cent of the teachers in ungraded schools are really prepared to teach.

Minnesota.—About nineteen per cent of the teachers in our common school districts have attended normal school.

Michigan.—About twenty or twenty-five per cent of the teachers of the schools have had some normal training.

Wisconsin.—About fifty per cent of the teachers are really prepared for their work. Two thousand six hundred and forty-four of them claim no higher preparation than that obtained in the common schools.

Indiana.—About fifteen to twenty-five per cent of our teachers in the ungraded schools have had an adequate preparation for their work.

It is not necessary to follow these statistics. They are taken from different sections of the country and are sufficient to indicate condi-

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tions in the rural schools. What is a fairly adequate preparation for the work of these schools? When we consider the low salaries paid, the short term of continuance in the work,—not much if any over three years,—it is evident that we cannot require a high standard of scholarship nor four years' attendance at a preparatory school. A reasonable preparation ought to embrace these three particulars:

1. A thorough acquaintance with the elementary branches. This would include a discussion of the educational values of these branches, both as sources of knowledge and of discipline; what studies should be introduced as best calculated to benefit the children in the mining districts, in the farming districts, and other questions as incidental to the formation of courses of study, which should be sufficiently elastic to suit conditions in different sections of the same state. But these all yield preference to the thought, that whatever the teacher attempts to teach, that she herself must know.

2. A practical knowledge of the best methods of teaching, of school management, and an elementary knowledge of the principles of education.

3. More or less practice in actual school work under a skilled trainer. This preparation would touch the three points in which the country school teacher is weakest.

These are the minimum of requirements, and can possibly be compassed in a two years' course, provided the entrance examination is rigid in the fundamental branches. Here we are confronted with the fact that no state provides means sufficient to give to the teachers advantages for obtaining this special preparation. Massachusetts, with six normal schools and with four additional schools in course of erection, comes the nearest to it. Pennsylvania has thirteen normal schools, each well equipped, but she has an army of 26,000 teachers. New York, with eleven schools and a large number of training classes, is yet very far from being able to place a trained teacher in every schoolroom in the state. To put Iowa on an equal footing with Massachusetts would require the establishment of twenty-five normal schools. While the erection, in any state, of high grade normal schools as centers of influence and enlightenment, with courses of instruction covering three or four years, is exceedingly desirable, it is evident that the solution of the problem does not lie in that direction.

There are four courses open to us:

1. The improvement of the county institute. This is not the place to discuss the institute system, except as regards a few particulars in which it touches closely the preparation of teachers for rural schools. It will not do to turn the institute into a school for academic work, the aim being to enable the teachers to pass the examination. The tendency in this direction is altogether bad. The spirit

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in which the institute was founded, calculated to create and foster a professional enthusiasm among teachers and an educational enthusiasm in the entire community, should not be overlooked. It is a very essential feature in the system. In the Western and Southern States, where for a time we must depend upon the institute to aid us in preparing country teachers for their work, there is one point which must be insisted upon. The instructors must be persons who know what good teaching is. They must be men and women who have had a professional training, and who have made a study of the conditions and wants of the schools in which the teachers in the institute are to instruct. Every exercise should be full of professional spirit, and every recitation should be a model recitation. It happens many times that the institute is the only opportunity given the teachers to learn by actual experience in what a good school consists. This one point being carefully guarded, the institute may be left to take such form and shape as the conditions of the community may determine. A dead uniformity in institute work even in the same state is to be dreaded.

2. A system of summer or training schools under the care and direction of state authority. Minnesota is making this experiment with assured success. A school of six weeks' duration, if rightly conducted, gives the teacher an opportunity to review, under a competent instructor, branches in which she is deficient. It is a new era in the life of many country teachers to come under the influence of a scholarly and cultured person, if only for a few weeks. Even this minimum of training thus secured cannot but be productive of good to the schools.

3. The state should avail itself of existing educational institutions. It is a fact which every one acquainted with educational progress in the Western States must have observed, that those colleges in which sound scholarship is the basis of work have produced a marked effect upon the schools in the surrounding region. We ought to make use of the preparatory departments of these colleges in fitting teachers. There are in Iowa several private normal schools which carry a two years' course only, and which by arrangements with school officials control the work in the public schools so as to afford the necessary practice in school work. Why should not the state give them material encouragement, if they conform their course of study to the requirements of the state department of instruction and open their work to state inspection? New York, with her system of training schools, claims to be making progress in the direction of preparing teachers for the ungraded schools. These classes are supported by the state, but the amount received depends upon the character of the work done as tested by the final examination. Al-

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though New York has exceptional facilities for this work, in a large number of old and well-established academies, there are some features of the plan which are worth consideration in other states.

4. The establishment of small normal schools at moderate expense as fast as possible in different places in the state. Care must be taken that such schools do not take on the name of college, or ape the airs of the university, and that the course of study does not become top-heavy. They must be kept down to the specific work of fitting the country teacher for her work in the country school.

The objective point to be aimed at in each of these plans is to bring at least a modicum of professional training to the doors of the teachers in the ungraded schools. When this is done we can shut the schoolroom door in the face of the untrained teacher.

The committee reach these conclusions:

1. The proper unit of taxation is in no case the district. It should be either the township or the county, as the civil organization of the state may determine.

2. Every community should be required to raise a certain sum for the support of their schools as prerequisite for receiving their share of public money. A certain definite sum should be appropriated to each school out of the state funds, and the remainder should be divided *pro rata*, in accordance with the actual attendance as shown by the certified records of the preceding year, with a discrimination in favor of townships most willing to tax themselves for school purposes.

3. The unit of organization should be the township, unless, as in some of the newer states, the civil unit may render the county preferable. In no case should it be the district.

4. The weakness of the rural schools is in the want of skilled teaching. Therefore, it is the duty, as it is for the interest, of the state to foster and encourage all available means of bringing normal instruction to the doors of the teachers, with a view of rendering it feasible to require some degree of special preparation for the work from every candidate who aspires to the position of teacher in the ungraded schools.

HENRY SABIN, *Chairman.*
JAMES H. CANFIELD,
NATHAN C. SCHAEFFER,
JOHN W. DICKINSON,
J. R. PRESTON,
Committee.

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DISCUSSION.

[REPORTED BY GEORGE P. BROWN.]

MR. COOK.—The ungraded school is one of the unsolved educational problems. The town and city schools are working out their destiny in a vigorous and interesting way. A steady and persistent movement is noticeable all along the line. Fairly organized, reasonably well supervised, and with something, at least, in the way of schools for the preparation of their teachers, they inspire a hopeful feeling in those who are studying them with any care.

The ungraded school, however, is not so happily conditioned. In many of the states—and in the older ones, too—these schools cannot claim anything approaching careful organization. They are quite destitute of supervision. The conditions of rural life are often of such a character as to make teaching in country schools appear to be a hardship to those who have grown up in the town. It follows that such fields of work are not regarded as desirable. Attendance is irregular; salaries are low; the terms short; the houses are often poor and ill-equipped; boarding places are unsatisfactory and remote from the schoolhouse, which is to be reached as best it can over muddy roads.

It is not strange, then, that the ungraded schools are suffering, as perhaps no other schools are, from the ignorance and inexperience of their teachers. I believe that these unfortunate facts will not be materially changed until the district school is taken out of its isolation and made a part of the system. This is impossible in that old and outgrown district system to which so many states still cling. It seems to me that the outlook is hopeless unless we move toward the township system, or some other system which provides for a large enough unit to admit of helpful classification. Why should the country boy or girl be denied the privileges of secondary education? A system which looks toward a high school seems to me an American necessity. The existence of these schools will also permit of an extension of training schools for teachers, by utilizing such institutions for elementary pedagogical instruction.

MR. KIEHLE.—The problem of the rural schools is, first, that of organization, which means the transition from the democratic, individualistic form of society, in which every man has liberty to do what pleases himself, to that of the republican, in which authority is delegated and society becomes more and more centralized. The transition is opposed by the people, and herein is the serious obstacle to the accomplishment of that which leads to the organization of a township system. In the meantime it is required that we meet present exigencies and do what we can for the improvement of schools and teachers under present and imperfect systems. To do this in Minnesota, we encourage our high schools by special appropriations of $400 to each school, upon condition that they admit, free of charge, all properly qualified graduates from the common schools of the country about. Besides this, we have a system of summer schools, one month each, about fifty in number, which furnish instruction for about 5,000 of our teachers. For the common schools themselves, provision is made by which as many of the schools as are able to meet the conditions required, in improved teaching and longer terms, shall receive $200 each. In principle, I believe we have begun at the wrong end, and that we should have established a complete township system of schools. Barring that, I believe that we have done the best practicable thing for the improvement of our

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schools and in preparing public sentiment for an early change to the township system.

MR. HINSDALE.—No more important subject will be brought before this Council or before the National Educational Association at this present annual meeting than the one that has been so ably presented in the report submitted by Mr. Sabin. There is an ample field and ample material for three reports embracing the subjects that have been presented by the committee. As divided by the committee the subject falls into three divisions: (1) School revenues and their disbursement. (2) School machinery or organization. (3) The supply of properly prepared teachers in sufficient numbers. We have reason to congratulate ourselves, however, that the committee has made a single report covering the whole ground. These three divisions or branches are divisions or branches of the same general subject. They cohere, and cannot be separated if we are to obtain an intelligent view, either of the subject as a whole or of its several divisions. The end or ideal to which all our discussions look is good schools or good education for the youth of the land who are taught in the ungraded schools; but the securing of this end depends immediately and necessarily upon school management or control, and this again is connected with the collection and disbursement of funds. We shall never have as good schools as we ought to have in the rural districts until something like unity and concentration of effort on the part of the managers is secured. Fifteen years ago, at a time when there were about 15,000 persons teaching in the public schools of Ohio, there were about 44,000 school officers who were supposed to be engaged in employing these teachers and in supervising and directing their efforts. It is needless to say to any man who understands the subject that it is impossible to secure, as a rule, good schools under such a system. I therefore indorse all that has been said relative to the importance and necessity of the township unit system. We must not blind ourselves, however, to the fact that the difficulties standing in the way of this are very great. One of these is the indifference, and even positive opposition, of a very large majority of the people who are most immediately concerned. There is a large number of citizens scattered through the states where the district system prevails who do not wish to see the petty school offices abolished or diminished in number. They wish to hold them, or to see their friends hold them. Moreover, many of these persons are interested in the emoluments and patronage which, under the present system, are in effect placed at their disposal. Another fact, and one that does these people more credit, may be mentioned. Many of them—probably a large majority of them—believe that the present system is democratic while the township unit system is oligarchic or aristocratic. They believe in local self-government, and actually suppose, that, in standing up for the present system, they are defending the ancient political institutions of New England, and, in fact, of the Anglo-Saxon race. These are all facts—unquestionable facts. I do not mean to say that they cannot be overcome. They can be. For example, Ohio, that had really made no educational progress for many years, three or four years ago arose out of her sleep and passed the Workman law that has been referred to. Still another thing should be mentioned. The American people as a whole believe that they now have an excellent educational system, excellent schools, excellent education; they believe that they have nothing to learn in this regard from any people in the world, which is very far from being the fact. We have very much to learn from foreign countries. There can be no question that our national self-complacency, our present satisfaction with the education that we have, is an obstacle in our way, not merely in respect to the subject before us but in respect to many other subjects. This obstacle, like the others, can be removed in the same way. That way is to enter at once upon a campaign of education, and then to press it with vigor; education, I mean, with respect to these very subjects.

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MR. BROWN.—This is a timely report and one of great practical value. It is a companion report to the now celebrated one on correlation of studies. In fact, it discusses the necessary condition that must be supplied if the educational values of studies are to be realized to any considerable degree. But what is the Council going to do about it? I have been a member of this Council for a good many years, and the questions here involved have been considered many times and settled so far as the opinions of the members of the Council are concerned.

Mr. Hinsdale speaks of difficulties in the way of procuring an adoption of the township system in the states where it does not exist, but is it not true that these obstacles would melt away if the people could be warmed by the conviction that township organization is best for their children and is also less expensive than the present independent district system? The thing for us to do, as it seems to me, is to set to work at once to organize a plan of campaign of education of the public upon this matter of a better system of rural schools. The people want the best thing, and a proper system of taxation and distribution of money is the necessary condition of realizing any plan of instruction provided for the children.

DR. J. BALDWIN, Huntsville, Tex.—Since more than one-half our pupils are in our country schools, we are bound to make these schools as efficient as our city schools. The difficulties are enormous. I venture to suggest the creation of a committee of twenty to report on the ungraded school problem. The paper constitutes an admirable basis. What the Ten have done for secondary schools, and the Fifteen for graded schools, the Twenty may do for the rural schools.

The township system is accepted by educators as a basis; but the schools of a township must be cemented into convenient organized groups. Each group must have its central schools, and the teacher of the central must be principal of all the schools of the group. This is vital, as I think the angels could not make our country schools efficient on any other plan. Each central school will become a center of culture and will develop into a limited high school. The teachers of the group work together as an organized faculty.

MR. BOYDEN.—I desire to call attention to the district superintendents of Massachusetts as a means for improving the schools of the rural districts. The law of this state provides that two or more towns may unite to form a district which shall have not less than twenty-five nor more than fifty schools. The school committees of the towns which unite to form the district choose the superintendent, and the state pays three-fifths of his support. The first step of the superintendent towards improving the schools under his supervision is to secure the best teachers he can command; the second is to secure a better co-ordination of the school work; and third, the economical expenditure of the school funds. The effect of this system has been a noticeable increase in the demand for trained teachers and a decided improvement in the quality of the work done in the schools. The superintendent improves the course of studies, holds meetings, secures better appropriations for the schools, and increases by these means the public interest in the schools.

MR. BARNES.—In my opinion, one of the most powerful influences acting upon the rural teachers is the county superintendent. In four years a superintendent gives an educational cast to his teachers; they quickly catch his ideas, his prejudices, his attitudes toward work and study. The same movement which has resulted in such improvement in some of our city systems, through demanding educational leadership in the superintendent, is certain to extend to the office of county superintendent.

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ROUND TABLE REPORT TO THE NATIONAL COUNCIL OF THE INFLUENCE OF HERBART'S DOCTRINE ON THE COURSE OF STUDY IN THE COMMON SCHOOLS.

BY CHARLES A. McMURRY, NORMAL, ILL.

1. The purpose of this educational movement is to gather into the school course as much of the world's accumulated store of culture as is suited to exert educative influence upon growing children. It is the problem of collecting and arranging the best materials of culture which history, literature, and social and scientific progress have brought to light and stored up.

2. It seeks in our own American history and literature, as expressed in our mother English, the principal center and substance of culture for our common schools. It is not foreign nor exotic, but thoroughly domestic, Anglo-Saxon, American. It is not in search of foreign curiosities. Its geography begins at home and remains long within our own borders. Its natural science deals chiefly, almost entirely, with our native plants and animals and with those natural forces and phenomena with which every child may be made familiar in his own home and neighborhood. By the increased emphasis which it places upon the story of our early national life and historical development, by the more abundant use of the shorter and longer masterpieces of our best American writers, it seeks for a fruitful entrance into the hearts of children of the strong and wholesome influence of our best American culture. It is, therefore, national and patriotic in the true sense.

3. Secondary and supplemental to these American materials are the choicest products of English and European history and literature. The history and literature of America, surprisingly rich as it is, is not complete enough to give the children the full rounded measure of culture which the experience of the world has gathered for the educative enrichment of children. We are compelled to draw upon Europe for some of the best thought materials with which to fill out the course of instruction for the young.

4. It is very evident that our course of study is deeply rooted in the past, that culture and civilization are a product not to be manufactured to order, but a growth and registration in historical and literary forms of racial experience and progress. The reason why we harp so much upon literature and history is because they contain in potent educative solution the rich culture influences which we wish to see redeveloped in every child. Moral and social culture, with all their

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humanizing influence, are contained in the choicest literature of America and Europe. Here are the ideals of life, revealed in their supreme strength and beauty. Here are the examples of men and women who lift and inspire. Here are revealed the moral qualities which should form the backbone of character.

5. If the course of study as a whole is thought of as a rope or cable, one of the important strands is a series of elementary science lessons stretching through all the grades. This fully accords with the immense influence upon human life which scientific progress has already attained. Herbartian pedagogy is in this respect thoroughly modern, and stands abreast of the requirement that education shall equip a child to live up to his present opportunities, and to make use of the fund of scientific knowledge.

6. This educational movement includes such a mastery of the English language and of elementary mathematics as our schools have long aimed at, but only partially realized. It suggests no great change in the scope of these studies. They are the necessary implements of culture and supply the forms of thought. But they should not be wholly isolated from the other studies, nor their separate disciplinary value estimated so highly as of old. The ideals, inspirations, and original sources of energy are in literature, history, and natural science. They are like deep fountains which spring from unfailing sources of supply.

7. This educational doctrine includes the effort to grasp all the studies and influences of the school course in one organized unit of influence, to so relate and combine the different forms of school discipline as to centralize and strengthen their combined effect.

8. In addition to this effort to lay out the best school course and to harmonize its various studies, there has been a strong, persistent, and practical effort to systematize the method of instruction, to find a set of principles sufficiently positive and definite for a common platform upon which teachers may stand and yet sufficiently elastic to adapt it to the variety of studies and to the individuality of teachers.

A somewhat full course of study for first and second grade is given in the "First Year Book of the Herbart Society for the Scientific Study of Teaching."

Leaving out arithmetic and language, which are similar to the usual course, a brief suggestive outline for fourth, fifth, and sixth grades is appended:

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FOURTH GRADE.

HISTORY.

Thirteen stories of pioneer life in the Mississippi Valley: Marquette, La Salle, Lincoln, Clark, etc.

GEOGRAPHY.

Twenty important topics in the Mississippi Valley. The Illinois river, the corn and wheat regions, forest belts, coal fields, etc.

READING.

"The Wonder Book."
Kingsley's "Greek Heroes."
"Tales from Spenser."
"Hiawatha."
"Stories of the Old World."

NATURAL SCIENCE.

The forest trees.
Hardwoods: Maple, oak, hickory.
Evergreen: Pine, etc.
Wild animals of Mississippi Valley: Deer, bear, beaver.
The formation of coal.

FIFTH GRADE.

HISTORY.

Pioneer explorers.
Twelve stories of Champlain, Hudson, Raleigh, Columbus, Smith, Cortes, Washington, etc.

GEOGRAPHY.

The Eastern States and North America.
Twenty-five important topics, as: The White Mountains, Hudson River, New York City, Washington, etc.

READING.

Higginson's "American Explorers."
"Tales from English History."
"Lays of Ancient Rome."
"Black Beauty."

NATURAL SCIENCE.

Butterflies, bees and other insects.
Grasses.
Physical experiments, pumps, engines, compass, thermometer, barometer.
Weather study.

SIXTH GRADE.

HISTORY.

The colonial period in Massachusetts, Connecticut, New York, Virginia, Pennsylvania.
French and Indian Wars.

GEOGRAPHY.

Countries of Europe and colonial possessions. Twenty-five important topics.

READING.

"Grandfather's Chair."
"The Sketch Book."
"Miles Standish."
"Tales of a Grandfather."
"Birds and Bees."
"Autobiography of Benjamin Franklin."

NATURAL SCIENCE.

The robin, thrush, owl, etc.
The frog, crayfish.
Turtle, fishes.
Experiments in combustion, the lamp, stove, etc.

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DISCUSSION.

MR. MCMURRY.—Our purpose is to discuss and raise questions on this paper. Questions will therefore be readily listened to at any point, and as far as possible satisfactory answers attempted. One of the chief questions asked about education is, What can it do to prepare children for the civilization—for the social order—in which they are to live? The counter question of equal importance is, What does civilization itself furnish? What has the past worked out and delivered to us, with which to prepare the children for the social state? One of our first duties, then, is to find out and gather up the culture materials of the past with which to educate children for the future.

MR. TARBELL.—In what sense do you use the words "principal center and substance of culture?"

MR. MCMURRY.—The choicest materials of culture—those which contribute to high ideals and to the strengthening of moral character—may be called the principal center and substance of culture. The American people began upon a very high level. Many of the people who first settled this country and laid the basis for our laws and institutions were far above the average of even civilized peoples in their moral and political standards. If we stop to trace the influence of the Puritans in politics, religion, and literature, we shall find that it has penetrated to the very marrow of our national life, and whatever was best and most enduring was directly owing to it. There was salt enough in the Puritans to salt a nation, and many of our best ideals to-day are derived directly from them. America is a young country compared with the societies of Europe, and it might be supposed that educative influences of the best sort had not been stored up in the brief period of our development; but even in this short time our country has passed through great and stirring epochs, the history of which, as worked out by our best authors in prose and verse, not only furnishes the children with plenty to read and think about but gives also that moral stimulus and character development which make the essential foundation of culture. Materials furnished by this history are mentally nutritious, and furnish the minds of children with their appropriate food. By noticing the fourth section of this report, it is seen that the prevailing idea is to use the complete masterpieces of American literature to teach American history, literature, and life.

MR. WILLIAMS.—What advantage has this literature, selected and arranged, over the reading found in the reading-book?

MR. MCMURRY.—The purpose of the Herbartians is to present complete masterpieces in their full force — not fragments and extracts, however choice in themselves. A child that has read "Hiawatha," or the "Sketch Book," or Hawthorne's stories, complete, has gained much greater benefit than he could by reading short, scrappy selections. A single complete masterpiece, like "Evangeline," contains more culture in its make-up that three or four extracts or fragments which, taken together, contain as much reading matter as "Evangeline." A longer complete work of literature gives greater time for the interest of the pupil to accumulate, and it gives the author a chance to make a strong and permanent impression upon the reader.

The question was raised whether the reading laid out for the fourth grade, such as Hawthorne's "Wonder Book," Kingsley's "Greek Heroes," etc., would not take the child entirely away from home and native land; that is was not domestic, not American.

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MR. MCMURRY.—There is a much closer connection between these Greek stories and our American history stories than appears at first sight. The Greek stories are personal and heroic, and the spirit that breathes in them is closely akin to the spirit and exploits of our pioneer explorers. Besides, the classic stories of Europe belong as much to us as to the European nations. They are also simpler and better adapted to children in the third grade than our American history stories. We use these Greek stories for oral narrative and presentation in third grade, and read them in the fourth grade.

DR. HINSDALE.—Why do you speak of exactly thirteen stories in the fourth grade?

MR. MCMURRY.—The stories, of course, need not be limited to any particular number, but the number thirteen expressed here simply indicates a particular collection of stories of the Mississippi Valley used in a few of our schools.

There followed a brisk discussion of the thirteen explorers of the Mississippi Valley.

MR. JONES asked why they were taken before the colonial explorers—why leave out the New England stories.

MR. MCMURRY.—It seems appropriate for the children of the Mississippi Valley to begin their study of history with stories of the Mississippi Valley; just as it is appropriate for children of New England to begin with the stories of New England. The idea is to begin at home, with the persons for whom our own towns and rivers were named, like Marquette and Joliet. If the lives of these men are spirited, heroic, and interesting, they will answer our purpose. I would defend the selection of the pioneer stories of the Mississippi Valley because the quality of the stories is the best. New England has no better stories with which to awaken and stimulate the minds of children than has the Mississippi Valley. The stories of Marquette, La Salle, and Lincoln are as choice and high-spirited as any stories of our country. And no other country has any better stories, if as good. Besides this, the majority of American children already live in the Mississippi Valley, if we include the lake states in this region. The story of George Rogers Clark is remarkably heroic and stirring. He showed as much iron strength of character, as much grit and spirit, as any man of the Revolution. The story of Fremont is, in some respects, as good as that of Columbus, and is much simpler; for the story of Columbus involves different nations, continents, oceans, and the world-whole. The history and geography of the Mississippi Valley go hand-in-hand, as is indicated by the course of study. It is not intended that we should neglect the stories of the East, but use them in the fifth grade. In one respect it makes very little difference where we begin our pioneer history stories. Pioneer life and exploration are the same in their spirit, whether we begin with Columbus or Fremont. The chronology of these pioneer biographies is of very little importance in the fourth and fifth grades.

MISS NICHOLSON asked if the character of George Rogers Clark was not a questionable one for children to study. His life had serious flaws.

MR. MCMURRY.—Clark's later life showed great weaknesses and faults; but that part of his early life which is included in the story is remarkably vigorous and interesting, as well as high-spirited. But the question, after all, may be fairly asked whether Clark's character is one that ought to be held up to children.

The question was asked whether boys are to be trained to be citizens of America rather than of the world, as the Romans trained children to be citizens of Rome; or is the Greek idea right, or training boys to be men.

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MR. MCMURRY.—What we need in education is to select, first, what is purest and best in our own national material—what has been given us from our own past. Was it Emerson or Thoreau who said, that a man could not be a true citizen until he voted and paid taxes in his own township? [Some one suggested that it could not have been Thoreau, as he wouldn't vote or pay taxes.] It is better to begin at home, and grow up under the full influence of the family, neighborhood, and the state, and especially of our Christian civilization. No matter what is done the child will grow up under the full measure of the influence of his environment and of the civilization in which he lives. The best we can do, therefore, is to utilize the best of our surroundings and the choicest of our historical and literary materials, and in this way we shall get the best out of our present surroundings and past development.

MR. BALDWIN.—What is the true idea of an Herbartian regarding the object sought?

MR. SOLDAN.—What is Herbartian, in the sense given, is the principle involved, and not the material. We may easily differ regarding the material, and not thus interfere with the principle involved.

The second question is whether the child is educated for any purpose outside himself. Should Paul be educated for Dombey & Son, and not for Paul himself? Herbart says the child must be educated for himself. His view has been unfortunately explained as being for the civilization around him and for which he acts. The child must be brought up to feel the heart-beats of the noblest life that is within his possibility. He must attain such a condition as to lead (1) to a good life with others, (2) to a useful life with others, and (3) to a happy life with others. Is not this what Herbart means and his followers claim?

MR. MCMURRY.—I think Mr. Soldan is right, as I understand him; and yet Herbart believes that what men have thought and felt and written are among the greatest of all educative agencies, and supply the ideals for future development.

MR. LUKENS asked the question whether the course of study suggested involved the theory of the "culture epochs." Nothing had been said on this point, either in the paper or in the discussion.

MR. MCMURRY.—In making out this outline of a course of study, I have had in mind the idea of the "culture epochs;" that is, the theory that children develop as the race has developed, by a not very clear process; and, that, at certain ages of child life, they are in sympathy with literature belonging to certain corresponding epochs of race growth. I have chosen the work of the grades, to some extent, at least, under the suggestion of this theory. Nothing, however, has been specifically stated on this point in the paper or discussion.

MR. LUKENS asked further what was the attitude of the Herbartians to the subject of child study.

MR. MCMURRY said, that, while not laying any claim to expert knowledge in the field of child study, he thought there were important lines of sympathy and co-operation between the Herbartians and scientific students of child study. The experiments along the lines of fatigue, physical reactions and measurements, hygiene, etc., have already supplied much useful help to teachers. Both schools believe in a more careful, and sympathetic, and individual study of children. The doctrine of apperception brings the Herbartians into very close touch with the efforts of all those engaged in child study.

MR. MARBLE.—Why in the fourth grade use foreign and ancient literature?

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MR. MCMURRY.—There does not seem to be too much opportunity given to foreign history in the Herbartian scheme. Much of the best materials for the earlier grades must come from Europe, as our own history and literature are deficient in these.

The question was again raised whether we should not consider, first of all, the child's own needs and possibilities, and educate him for complete and all-round manhood rather than for the perhaps narrow civilization in which he lives. Why should we impose our civilization on a child? Why not let him be free to develop what is in him? Child study seems thus broader and more universal as a basis.

MR. COOK.—Do we not use Greek to avoid provincialism?

MR. HINSDALE.—The Greek is the type of the universal; the Roman is more narrow. Were not both of them national in culture? Is it not simply a question of relativity? The two views—that of child study and the historical of Herbart—are complementary, and does not much depend upon the emphasis placed on one or the other?

MR. COOK.—Child study does not interfere with the application of the Herbartian principles in making a course of study. We must nourish the child with the materials of the civilization. The two standpoints are not antagonistic.

MR MCMURRY.—Child study should certainly have a full measure of recognition. On the one side, it keeps us close to childen and to the persistent needs and difficulties that pervade education. On the other side, the history, literature, and other culture products of the past supply the materials of instruction. They supply, also, the great inspiring ideals of political, social, and religious life which have been so potent in educational progress. We usually forget the powerful and pervading influence of the past upon us. We are constantly re-thinking its thoughts and imitating its acts. If we could blot out these historical influences and shut ourselves off from the ideas and examples of such men as Longfellow, Washington, Milton, the Puritans, etc.; if we could actually eliminate the influences of the past upon our present life, we should be face to face with blank barbarism.

Even in the education of children, child study is very narrow in its suggestiveness. There is much greater variety and depth of suggestiveness in this history of education in different countries and in the works of classic writers on education than in a whole school of people devoted to child study in a purely experimental way. What reason have you to think, friends, that, from your little child study, you can outweigh what has been established by our seers and prophets? Child study has its well-earned place and value, but it is no substitute for the best influences of past civilization.

For lack of time the discussion covered only the first part of the report. The place of natural science in the course of study could not be treated.

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REPORT OF THE COMMITTEE ON PEDAGOGICS.—THE LAWS OF MENTAL CONGRUENCE AND ENERGY APPLIED TO SOME PEDAGOGICAL PROBLEMS.

BY B. A. HINSDALE, CHAIRMAN.

The nouns congruence and congruity, and the adjectives congruent and congruous, are derived from the Latin verb *congruere*, which means to come together with something, and so to agree. The nouns mean suitableness, appropriateness, consistency, agreement, coincidence, correspondence, fitness, harmony, and their adjectives mean pertaining to or having this quality. The words have respect to relations, and they are favorites with those philosophers who place virtue in the fitness of things. For men to render obedience to God, or for a son to honor his father, is said to be congruous to the light of reason. Incongruence and incongruous are the negatives of these words. Congruence may be affirmed of physical things alone, or of psychic things alone, or of physical and psychic things taken together. The element of time is involved. Congruence is simultaneous or successive. If successive activities are congruous, the first flows naturally into the second; they blend. The first leaves the body or the mind, as the case may be, in a suitable frame to enter upon the second. Particular attention may be directed to this point, because the argument of this paper will turn in large part upon the relations of successive psychic states.

I. *Bodily Activities as Congruous or Incongruous.*—It is obvious that congruence must be affirmed of some physical activities, incongruence of others. No reference is here made to organic functions. Walking is a good preparation for leaping, wielding a hammer for shoving a plane. But violent exercise disqualifies the muscles or nerves for any activity that requires careful handling or delicate touch. The surgeon could not qualify himself for a difficult operation by first engaging in the vigorous exercises of the gymnasium, nor the painter fit himself for putting the last touches to a fine picture by crushing stones with a sledge. No more does the skillful teacher place the writing or the drawing lesson just after the school recess. We need not dwell upon the laws that underlie these facts further than to say that congruent exercises appear to involve, in whole or part, similar co-ordinations of the nerves and muscles and similar physical tones.

II. *Physiological and Psychological States as Congruous and Incongruous.*—That certain correlations exist between the body and the mind is too plain to be disputed; also, certain oppositions or antagonisms.

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Mental power and tone depend upon physical power and tone, while states of mind influence states of body. Repose of body conduces to reflection, meditation, or musing. Strong physical exercise tends to exclude mental exercise. Still there are obvious limits to these effects. The Greek laid stress upon maintaining balance or proportion between the body and the soul, but their great athletes and their great writers or orators were different classes of persons. Aristotle has left two striking testimonies relative to this subject.* "The evil of excessive training in early years is strikingly proved by the example of the Olympic victors; for not more than two or three of them have gained a prize both as boys and as men. Their early training and severe gymnastic exercises exhausted their constitutions." "Men ought not to labor at the same time with their minds and with their bodies, for the two kinds of labor are opposed to one another; the labor of the body impedes the mind, and the labor of the mind the body." This is at least measurably true, and the truth has important pedagogical applications.

III. *The Primary Psychic Elements as Congruous or Incongruous.*—Cognition, feeling, and will are present in every fully developed state of consciousness. Dr. Dewey† calls them "the three aspects which every consciousness presents, according to the light in which it is considered; whether as giving information, as affecting the self in a painful or pleasurable way, or as manifesting an activity of self. But there is still another connection. Just as in the organic body, the process of digestion cannot go on without that of circulation, and both require respiration and nerve action, which in turn are dependent upon the other processes, so, in the organic mind, knowledge is not possible without feeling and will, and neither of these without the other." This is very well as far as it goes. It does not, of course, tell us whether the three elements are all present in the first, or simplest, state of consciousness.

The further relations of the three elements are of the greatest interest, and must be considered more carefully. Two facts are very observable. One is, that up to a certain point the three elements vary directly; the other is, that beyond this point they vary inversely. Until the mental current reaches a given height, cognition, feeling, and will swell together. That point reached, any one of the three must swell at the cost of one or both the others. Höffding, who does not, however, generalize them into a single law, presents these interesting facts:

‡"Self-observation reveals at most only an approximation to a state in which all cognitive elements have vanished. Such an ap-

* "The Politics" (Jowett's translation), VIII., 4.
† "Psychology," pp. 17, 18.
‡ "Outlines of Psychology" (translated by Mary E. Lowndes), pp. 98, 99.

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proximation is reached the more the strength of the feeling element increases. Cognition and feeling must stand in inverse relation to one another; the more strongly the one is manifested the less the strength at the command of the other. An overwhelming joy or sorrow may drive out all ideation, all recollection; but an ecstatic condition of this kind stands on the margin of consciousness. * * *

"It is only in the course of psychological development that differentiation between feeling and will makes its appearance. There comes to be an ever-greater contrast between the two ways in which inner movement finds a vent. The psychological importance of the law of persistence of energy is here seen plainly; for the more energy an individual expends on the one kind of reaction the less can be expended on the other. This truth is strikingly illustrated in Saxo's well-known tale of the different effect which the news of the murder of Ragner Lodbrog produced on his sons. He in whom the emotion was weakest has the greatest energy for action."

But of the writers on this subject whom I have consulted Dr. Sully does it the fullest justice. Two paragraphs may be quoted:

* "These three kinds of mental state are, in general, clearly marked off from one another. A child in a state of strong emotional excitement contrasts with a child calmly thinking about something, or another child exerting his active powers in doing something. If we take any one of these aspects of mind in a well-marked form, we see that it is opposed to the other aspects. Thus, strong feeling is opposed to and precludes at the time calm thinking (recollecting, reasoning), as well as regulated action (will). Similarly, the intellectual state of remembering or reasoning is opposed to feeling or to doing. The mind cannot exhibit each kind of phenomenon in a marked degree at the same time.

"This opposition may be seen in another way. If we compare not different states of the same mind, but different minds as a whole, we often find now one kind of mental state or operation, now another, in the ascendant. Minds marked by much feeling (sensitive, emotional natures) commonly manifest less of the intellectual and volitional aspects or properties. Similarly, minds of a high degree of intellectual capability (inquiring or inquisitive minds), or of much active endowment (active minds), are, as a rule, relatively weak in the other kinds of endowment."

From the premises before us two or three important pedagogical rules are derived. One is that a gentle glow or wave of pleasurable feeling should play over the mind of the individual pupil and through the school. The intellect thrives best in a suitable emotional climate, Courage, hopefulness, appreciation, rather than their opposites

* "Outlines of Psychology," pp. 21, 22.

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should temper the atmosphere of the schoolroom. Optimism is more congenial to the normal mind than pessimism. Another rule is, that pupils should be protected against strongly excited feeling, no matter whether the feeling is their own or that of another into which they enter through sympathy. The wheels of the intellect, so to speak, will not revolve freely in a flood of turbulent emotion. No gusts of anger, cyclones of passion, or waves of sympathetic impulse in the school! Especially is the feeling that the teacher is unjust very harmful to the pupil. No immediate reference is here made to morals. "Nothing retards the acquirement of the power of directing the intellectual processes," says Dr. Carpenter, in a striking passage, "so much as the emotional disturbance which the feeling of injustice provokes." * Again, genuine interest may reach too high a pitch. When Sir Isaac Newton saw that the train of reasoning which he had so long been following would establish his working hypothesis, his emotions would not allow him to continue, and he was obliged to hand his manuscripts over to a friend to complete the work.

IV. *The Intellectual Activities as Congruous and Incongruous.*—Here we reach the application of the law of congruity to education that, considered from the point of view of the school, is the most important of all. So much will be admitted by those at least who regard teaching as the main function of the school. We must, therefore, proceed more slowly with this division of the subject. Still, it is not proposed to deal in detail with the nature or the relations of the cognitive elements. These subjects are treated in every text-book of psychology; and, although much of the treatment may be false, the commonly accepted views will answer the present purpose.

1. Here, as in the case of cognition, feeling, and will, we observe both mutual opposition and reciprocal aid. Up to a certain point cognitive elements grow together; beyond that point, the greater the energy expended on one kind of reaction the less can be expended on another kind. The complete action of perception involves memory; but energetic observation is at the expense of memory, while intense memory, on the other hand, tends to withdraw attention from surrounding objects. The imagination stimulates the thought processes until a point is reached where it assumes the ascendant and reflection retires into the background. Imagination and reflection, both in an excited state, cannot dwell together. Sense-perception furnishes the logical faculties needed materials; still, become too obtrusive, sense-perception is fatal to thought. Men or peoples who live in the senses do not live in the reason, and *vice versa*.

This point is pedagogically so important that we may well dwell upon it a little longer. The pedagogical realists make the sense-ele-

* "Mental Physiology," pp. 134, 135.

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ments of knowledge prominent in the school. Originating as a reaction from excessive devotion to the printed page, the realistic movement has been most fruitful of good results. With it are identified the great names of Comenius and Pestalozzi. To it we are indebted for the enlargement of science-teaching and the extended use of object-lessons and objective methods of instruction. At the same time, the true limits of realism are soon reached. Knowledge begins with the senses, but does not end with the senses. Properly speaking, a developing mind soon leaves the senses behind. Sensation is but a coarse form of feeling, and is subject to the same law. An excess of sense-elements in the mind smothers the rational elements. A blinding flash of lightning or a deafening peal of thunder arrests the higher mental activities; while less powerful sense-impressions exercise a more lasting, if a less intense, effect. The great scientific discoveries have not been made in immediate contact with nature, but in the retirement of the study. Nor is time the only element that is here involved; when immediate contact exists and is vital, nature may overpower the mind. It has been said that the machine may be lost to the mind in its parts, or the picture in the colors that compose it. Equally may the universe be lost in the multitude of the stars. Concentrated attention upon the technique of an art retards the development of its higher elements. A house-builder is not likely to excel as an architect; the practical elements of the trade exclude the ideal elements that are essential to the profession. On this basis Aristotle's prejudice against useful studies rested, as is evident from the following passage:

* "There can be no doubt that children should be taught those useful things which are really necessary, but not all things, for occupations are divided into liberal and illiberal; and to young children should be imparted only such kinds of knowledge as will be useful to them without vulgarizing them. And any occupation, art, or science which makes the body, or soul, or mind of the freeman less fit for the practice or exercise of virtue is vulgar; wherefore we call those arts vulgar which tend to deform the body, and likewise all paid employments, for they absorb and degrade the mind."

Abstract thinking—the thinking of relations and unities—which is the highest force of thought, is possible only when the mind has been unsensed or dematerialized. Whether instruction in physics should begin with theory or experiment is a mooted question. Begin where the teacher may, he has not taught the subject until he has taught those logical elements that give it its character. Still more, an ex-

* "The Politics," VIII., 2.

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cess of brilliant experiments may hinder rather than hasten the work. Experiments are like examples, of which it has been said:

> Examples may be heaped until they hide
> The rules that they were made to render plain.

2. The practical application of the principles of congruence to teaching involves the selection and grouping of studies. It brings before us the large subject to which the terms correlation, co-ordination, organization, and concentration of studies have been somewhat indiscriminately applied. It is not proposed to discuss these terms in this report, or even the subject itself, save as it involves fundamental principles. But to do even as much as this makes it necessary to state the principal laws relating to mental energy. They are the following:

(a) When any stimulus, as a sense object, an idea, or a lesson, is applied to the mind, the mind is not at once fully energized, but some time must elapse before it swells to the maximum of power.

(b) This maximum of power continues for a time, or, in the language of science, mental energy tends to persist.

(c) The maximum cannot, however, be infinitely maintained. On the contrary, when the mental current reaches what may be called the fatigue point, it begins to fall off in volume, but the fall is less rapid than the previous rise. Still, the volume can be temporarily renewed, in part or in whole, by the application of a stronger stimulus.

(d) An interruption of the mental current retards the energizing process, or frustrates the reaching of the maximum of power. Such interruption is caused by the introduction of incongruous materials. If the incongruity be of a marked character, the mind will come to a state of rest, or a new current flowing from a new center will be started.

(e) Through repetition the energizing process becomes easier and more rapid. Repeated activity in the same direction tends to groove the mind, or, to change the figure, the stream of activity digs out for itself a permanent channel of discharge.

(f) Mental power is of two kinds, specific and generic. In other words, the power that is generated in any activity can be fully used again in the same kind of activity, but only partly used in other kinds —the measure of the difference being the relative unlikeness of the two activities.

(g) Mental fatigue, like mental power, is also specific or generic. The mind may need rest from a certain kind of activity, or it may need rest from all kinds, or from all energetic kinds.

These psychic laws have their analogues in physical laws. The physiological psychologists find their causes in nerve and brain action, the explanation going back to the familiar functions of waste

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and repair. Moreover, these laws cannot be stated in quantitative terms. No one can tell, in general, how long it takes fully to energize a mind at a given time, or how far removed the fatigue point is from the initial point of greatest energy. Very much depends upon age, discipline, physical health, the character of the stimulus, and other circumstances. As a rule, the periods lengthen as the individual passes from childhood to youth and from youth to manhood. That is, a man's mental force is less quickly aroused and mobilized than a child's, and it tends to persist much longer.

3. From the laws of congruence and energy we derive some important rules of teaching. While these are applicable to all grades of teaching, they are particularly important in relation to primary teaching. The principal of these rules may be formulated as follows:

(a) Sufficient time must be allowed the pupil for him to collect his energies, to mobilize his forces. Slow and halting recitations tend to dullness of mind, while rapid recitations develop either confusion or shallowness. There must be a certain singleness or isolation of the fact or idea. "The child must be accustomed to give one impression time to take root," says Radestock,* "and not follow it immediately by a corresponding action, that it may not pass away with that action into air." The same writer quotes the following from Lazarus with approval: "Deep thinking requires time; it is therefore a great pedagogical mistake if teachers, as is now generally done, urge their pupils to answer rapidly, and praise those who immediately have an answer ready. This causes everything to be lowered to a mere effort of mechanical memory. The pupil should be given time for individual contemplation, for deep and energetic thought labor." This does not imply that lessons are not to be well prepared and subjects well thought out beforehand. When the fullest preparation has been made, there is still opportunity for energetic thought at the time of the recitation.

(b) The pupil should be held to the same subject as long as the mental current flows with full volume. To no new subject can all the energy that has been aroused by any activity be transferred, and to some subjects none whatever. Unnecessary changes from subject to subject, or from lesson to lesson, involve the dissipitation and consequent loss of both time and power, the amount of which will depend in great part upon the relative congruity or incongruity of the different subjects or activities. More power can be transferred from Latin to Greek than from French to German. This is Dr. Bain's physiological explanation of the rule laid down: †"We know well enough that the nervous currents, when strongly aroused in any direction,

* "Habit," p. 36.
† "John Stuart Mill," p. 23.

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tend to persist for some time. In the act of learning, this persistence will count in stamping a new impression; while part of the effect of a lesson must be lost in hurrying without a moment's break to something new, even although the change is of the nature of relief."

(c) Advantage should be taken of favoring times to do, or to secure the doing of, certain kinds of work. The more difficult subjects should be pursued by a pupil or student when both body and mind are fresh and vigorous. It is the flood-tide, not the ebb-tide, that brings the great ships up to the dock.

(d) Before the pupil reaches the fatigue point, the teacher should permit him either to take up another subject or to drop study for the time altogether. Persistent application on a stream of falling energy involves waste of time and power, and may lead to serious results. To some extent, no doubt, the needed relief can be had through a change of method.

(e) Whether the pupil should take up a new study, or drop all study for the time, depends upon the kind of fatigue that has supervened. Diminished power for one activity is not diminished power for all activities. Thus, a pupil who has studied arithmetic or algebra as long as it is profitable to-day, will take up geography or history with interest, and *vice versa*. To a degree studies are like gases; they are vacuums one to another. As a jar that is already filled with hydrogen gas will still hold as much carbolic acid gas as a jar of the same size that is empty, so a pupil that is satisfied for the present with mathematics will pursue literature with interest and profit.

(f) The school course of study should be made up with constant reference to the psychic laws that have been laid down. Into the question how far psychology and how far environment should control the educational ideal, we need not enter. No one denies that psychology must largely influence the choice of studies, and almost wholly control their co-ordination.

(g) The working program of the school, in particular, should be made up with reference to the same principles.

(h) The principle of congruence and its limitations have important applications to elective studies in colleges and universities. In filling out election blanks, it is believed students who are left wholly to themselves often choose studies that make strange bedfellows. Nor is this surprising; the criteria that should govern the choice are very subtle and intricate. This topic will come before us again.

The arguments on which the three last rules rest are practically the same. They involve the important subject of concentration. Congruent studies re-enforce one another with respect to both content and mental aptitude. One subject involves other subjects. The physicist must be a mathematician, the Latin scholar must know

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something of Greek, the historian must be acquainted with politics and political economy. For a time depth and breadth vary directly; after that indirectly. But in the absolute sense a specialist is an impossibility. An astronomer cannot study the moon by itself, or a physiologist the eye. No one object or subject can be understood when taken alone: it is related to other objects, it is a part of the universe. Still, to be effective the mind must be grooved, and this involves the repetition of the same act and of similar acts. Once more, if the practical requirements of the school compel a study to be discontinued before the fatigue point is reached, thus departing from the ideal, then some related subject may be taken up, because more of the power that has been accumulated can be transferred to a related than to an unrelated subject. And still the distance of the fatigue-point must be considered.

4. But congruence alone must not dictate the course of study, the daily school program, or the student's elections. Fortunately, there may be power for one subject when there is none for another subject. We have spoken of the mind under the similitude of a stream or current. The fact is, however, that the mind is less like a river from which you may take water for any purpose, than it is like a bank where the total amount of money that is on deposit is divided among many different accounts, and is subject to check by as many different persons. This is due to specialization of powers—to the difference between specific and generic force. The one-study college is, therefore, just as unphilosophical as those schools that break the work hours up into small crumbs of time. Thus the fundamental laws of mental energy, or of interest if you will, impose a veto upon an exaggerated form of concentration.

It is further to be observed that concentration is a relative term, at best. No wise teacher proposes to limit the pupil to a single study or class of exercises. To do so would in reality involve the dogma of formal discipline in its extreme form. Another remark is, that concentration in the primary school may be overdone as easily as specialization in the higher school. It has been shown time and again that the child may be over-taught certain subjects. His impressible mind may be so deeply and narrowly grooved that it can never be broadly cultivated. It become indurated, as it were. This result may be due in part to the intensity of the activity, but it is more due to its persistence. As the mind matures, there is less and less need of caution on this point. The pupil gets farther and farther away from the mechanical elements of knowledge, becomes more and more occupied with the higher logical elements, and so is less responsive to narrowing influences. While the child's activities must be duly limited, his full development still calls for a profusion of educational material.

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At this point some very practical questions confront the teacher and superintendent. How long should a pupil be kept at work on the same subject? How much work should he do in one school-day? How frequently should he change from one subject to another? How many studies should he have? No man can answer these questions in formulæ; the teacher or superintendent must answer them as they arise, and to do so he will find his best observation and judgment seriously taxed. It may well be doubted whether, measurably, the common schools are not now sacrificing the best results to swollen programs and short exercises. The question is one that the superintendent should study with a transcript of the facts that have been stated in one hand, and his course of study and time-table in the other. There is no reasonable doubt that much evil in the school that is now charged to the account of overwork should rather be charged to work done in the wrong way.

5. The psychic facts to which the names of congruence and energy have been given demand fuller investigation than they have hitherto received. It is well known that the school programs, both in respect to the co-ordination of subjects and the length of exercises, commonly rest upon a rude empirical basis. The factors that control those who make them appear to be the necessities of the school, real or supposed, tradition, and individual experience. This empiricism is not surprising, considering the meager attention that psychologists and pedagogists have given to the principles that underlie good school programs. Very little attention has been given to the time elements involved in psychic energy as applied to school exercises. When three heavy subjects appear upon the program for the day—subjects demanding the fixation of the attention—you will not indeed commonly find them all crowded into the same session; but that is about as far as the attempt to accommodate the work to the pupil's ability in this regard has been carried. Such delicate questions as these occur: How much time elapses between the application of different stimuli to the child mind at different ages and the development of maximum psychic power? How long is the interval between such maximum and the fatigue point? In respect to the swelling of the mental current to its full volume, and in respect to its persistence, how much depends upon the pupil's age? How much upon the peculiar stimuli at different ages? And how much upon the teacher's skill? It is easy to translate these questions into the practical interests of the school. They cannot be answered without much careful observation and collaboration of facts. The whole subject should enlist the serious attention of students of child study, both under its physiological and psychological aspects, and it is earnestly recommended to their attention.

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6. The correlation of the teacher and the text-book, if one be used, demands something more than passing attention. Dr. Bain has said that undoubtedly the best of all ways to learn anything is to have a competent teacher "dole out a fixed quantity of matter every day, just sufficient to be taken in and no more; the pupils to apply themselves to the matter so imparted, and to nothing else." The singleness of aim is favorable, he urges, to the greatest rapidity of acquirement; defects should be left out of account until one thread of ideas is firmly set in the mind. Still he admits that not unfrequently, and not improperly, the teacher has a text-book to aid him in his work. * "To make this a help and not a hindrance demands the greatest delicacy, since the pupil must be kept in one single line of thought, and never be required to comprehend upon the same point conflicting or varying statements. Even the footnotes may have to be disregarded in the first instance, since they act like a second author, and so keep up an irritating friction."

Nothing else is so essential to successful elementary teaching as unity or congruence of subject-matter. Dr. Bain does not exaggerate the value of the "one thread of ideas," or the "one single line of thought." His scruple about footnotes even is often justified. These more definite rules will determine the teacher's general relations to the text-book.

(a) If the book is the main source of instruction, the teacher should teach the book; that is, the matter of the book. If footnotes tend to confuse, what shall be said of the teacher who takes an independent line from the beginning? No wise teacher certainly would be so absurd as to give a pupil who is just beginning a new subject two text-books. A good Sunday-school teacher, dealing with the life of Jesus in a primary class, would not try to follow all the Gospels, or even two of them, at the same time; rather than do that, it would be better to select his material here and there and to blend them in a new gospel of his own. The teacher may teach something more or something less than the book teaches on a single point, but nothing different or contradictory.

(b) The teacher should also follow the methods of presentation that the book employs. Nothing could be more absurd than for a teacher who has assigned to a class a book lesson that is presented inductively, to go ahead and teach it deductively.

(c) The teacher should study to make the first presentation of a lesson successful. If two or more presentations are required, besides the loss of time, the mind is left in a littered-up condition that is confusing. This is the reason why it is often more difficult to teach a

* "Practical Essays," pp. 218, 219.

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subject well to a pupil to whom it has been imperfectly taught than to a person to whom it is wholly unknown.

(d) If the subject-matter of the book or of a single lesson is radically bad, or the method decidedly faulty, the book or lesson should be laid aside altogether. If only certain portions are objectionable, or certain methods of presentation, the teacher should not assign these to be studied, but should teach such subjects *de novo*. This observation assumes that the teacher is able to do so.

(e) The wise teacher will not present a subject in more than one way unless the first way has failed. It is folly to explain the division of a fraction by a fraction in a second way if the first explanation has been understood. The same remark will apply to casting interest and to many other subjects. It is well enough for the author of an arithmetic to give two or more methods of performing these operations, thus giving the teacher an option; but the teacher should choose the method which he thinks best adapted to his purpose, and then adhere to it. At the stage of teaching now supposed, never give more than one definition or rule on a single point. Superfluous illustrations not only do no good, but they do positive harm, begetting confusion worse confounded.

It will be understood that these rules relative to the use of the text-book apply to the early stages in teaching particularly, and that they would require very important modifications if they are to be applied to the advanced, rational, or critical stage of education. Narrow teaching must come before broad teaching. In time the pupil, if rightly handled, will get out of his single line of thought; will be able to deal with subjects; can criticise and weigh different definitions, contradictory views and rules, and opposing opinions; can use a variety of books, compare authorities, and employ different methods of procedure. Thus Dr. Bain recommends that in geometry the pupil should be held strictly to Euclid until he has become thoroughly at home on the main ideas and leading propositions; then he is safe in dipping into other manuals and comparing the differences of treatment, and in widening his knowledge by additional theorems and by various modes of demonstration. But the time when all this can be done will not be hastened by pushing the pupil forward prematurely. The teacher who inundates the pupil with all kinds of things is the pupil's worst enemy, unless, indeed, it be the teacher who keeps him too long and too intensely harping on the same string. It is only the knowledge that really energizes the mind which is valuable.

7. It has already been remarked that the laws of congruity and energy bear on the college or university student's choice of electives. How many subjects should such a student have at the same time,

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and what should be their relations? Should he scatter his energies over a considerable field, or concentrate them on a small one?

Professor Trowbridge,* discussing some years ago the subject of economy in college work, urged that the Harvard student should study two subjects for at least three months, and two subjects only; one of these should be a hard subject, giving plenty of opportunity for application, while the other might be a comparatively light subject that could serve as a mental rest through the change which it afforded. At the end of three months two other subjects might be taken up, and the first ones be relinquished for a time; and so on to the end of the course. After observing that some studies are so nearly related that intellectual effort in one is of service to another while others are not; that Latin and Greek, philosophy and history, political economy and history, are examples of the one class, while German and French, chemistry or physics and philosophy, are examples of the other, he examined the nineteen or twenty subjects which formed in the main the elective curriculum of Harvard University. He found that the division of subjects could be reduced to twelve, by grouping together the subjects which aid each other, as follows: Latin and Greek; French and French history; German and German history; political economy and history; chemistry alone, or in conjunction with English; Spanish and Spanish history; philosophy and history; physics alone; Semitics and ancient history; fine arts and music with English, or fine arts and music as a let-up with any of the severer studies; mathematics and English; romance philology and its suitable language. Having twelve subjects, the student could pursue three of these in the nine months of each college year, and in four years he could accomplish the whole twelve; provided, of course, he wished to take all the subjects enumerated.

This scheme has been introduced mainly for the sake of illustration. In criticising it we should remember that at Harvard University all studies are elective, save only a modicum of English and physics. Although propounded for a laudable purpose, the scheme is open to one or more serious objections. Within the successive three months' period study is certainly over-specialized, and particularly in the first college years. The common freshman will not, and cannot, work up his available power on one main line of study. The laws of mental energy are violated. The range of interests is too narrow. In the later years of the course this objection would be less serious. Other important questions, as whether the time allotted would be sufficient for the leading subjects, occur, but they need not be considered. This branch of the subject is dismissed with the remark that college electives call for a fuller examination than they have yet received, par-

* "Atlantic Monthly," November, 1888, pp. 671, 672.

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ticularly in respect to the principles that shall underrun electives and practical administration. There is good reason to think that in some quarters, at least, *laissez faire* has been carried too far.

8. The last topic to be mentioned is graduate study. While there is not, or at least should not be, a chasm between undergraduate and graduate work, still there are palpable differences of ideal and method involved. The first period looks to general cultivation. The second period looks to special cultivation. The undergraduate need not lay equal stress upon all the studies that he pursues; he may emphasize some more and some less; but he should not sacrifice general culture to Greek scholarship, Latin scholarship, mathematical scholarship, or any other kind of special scholarship. The graduate student, on the other hand, should go much farther on the road to specialization, and particularly the candidate for the doctor's degree. But even here specialization may be overdone. It is not desirable that the student should confine himself for three years to a special line of study. The first objection to such a course is that it is overgrooving the mind at the time of life supposed. Even the graduate student should not lose sight of general cultivation and fall into stark professionalism. But, secondly, a single study will not absorb to advantage the student's power. It will be carried on in derogation of the law of specific and generic fatigue. One brain tract will be overworked, while others are neglected. If the professional man needs a let-up, or an avocation, to keep his mind out of the ensnaring groove, still more the student who is yet lingering in the schools.

How many subjects then should the graduate student have? The answer will depend somewhat upon the student, as well as upon other considerations. As a rule, there should be at least two distinct lines of work, one of which may be heavy and one light. The first may include different subjects chosen with reference to congruity, as Greek literature and Greek history; Latin literature and Roman history; but there should certainly be a second distinct line of work, separate and apart from the first one, also made up with regard to congruency, that will at once cultivate breadth and also consume time and power that the main subject cannot appropriate.

At this point a cautionary remark may be dropped. It is a mistake to suppose that subjects are congruous merely because they bear the same name in part. Congruity is determined by elements and not by words. For example, how much have Greek literature and Greek antiquities, or Latin literature and Roman antiquities, in common? Certainly less than some enthusiastic scholars are wont to assume.

It will no doubt be said that this report is conservative on the subject of specialization. This is no accident. There is in the opinion of the committee good reason for reconsidering the relations of

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education and erudition. Professor Davidson says* it is the failure to draw this necessary distinction that is misleading our universities into the error of allowing students to "elect" specialties before they have completed the cycle of education; the result of which is that we have few men of thorough education or of broad and comprehensive views.

Professor Butcher, contending for the unity of learning, declares that it is at present endangered by disintegrating tendencies. "Conceive, if you can," are his words,† "a world of specialists, in which each man's vision and labor are concentrated on some microscopic point in the field of human activity, and the very idea of a political and social organism disappears. There is a point at which the subdivision of labor in the intellectual sphere must be checked, and some unifying principle introduced, if we are to retain any rational conception of man, or of the world, or of human life."

And finally, Professor Paulsen sounds a note of warning from the greatest of the German universities. Pleading for the unity of the university, he speaks of the danger of disintegration through the diminished influence of the faculty of arts. "Of course," he says, "there is no possibility of retrogression in the division of labor, upon which depend the mighty advances of scientific research. We are called upon, however, to oppose the spirit of 'specialism,' of over-narrow self-confinement and small-souled satisfaction with one's self; and everyone who belongs to a university is likewise called upon to help along the opposition." Dr. Paulsen‡ suggests several remedies, the principal one of which is the maintenance of the old conception of liberal culture. "In particular, the tendency toward generalization of study, the philosophical sense, which ever stands ready to turn the details to good account in the service of the ultimate and highest insight, must always find its proper home in the faculty of philosophy. Herein may be found a peculiarly appropriate field for 'public' lectures; to present to a wider circle of hearers, to the disciples of all related branches of learning, whatever problems and results of general interest are included in a special subject."

The purpose of this report may now be briefly restated. It is to apply the law of mental congruence as limited by the laws of mental energy to some important pedagogical problems, as the fabrication of a course of study, the making up of a working program for a school, the choice of college electives, and the whole subject of graduate study. Congruence means the meeting or bringing together of things that are consonant or related; and as applied to the problems enumerated it looks to the deepening, broadening, and strengthening of

* "The Education of the Greek People," p. 23.
† "Some Aspects of the Greek Genius," pp. 209, 210.
‡ "The German Universities" (translated by E. D. Perry), p 234.

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study and teaching by co-ordinating those studies and elements of studies that by their nature tend to support and re-enforce one another. It is hoped that the report may prove useful as a basis for further study.

B. A. HINSDALE, *Chairman.*
D. L. KIEHLE,
NICHOLAS MURRAY BUTLER,
A. R. TAYLOR,
CHARLES A. MCMURRY,
Committee on Pedagogics.

DISCUSSION.

[REPORTED BY E. O. LYTE.]

MR. BROWN.—This is another great paper. It is a great satisfaction to live in this educational era, when educational questions are discussed in the strong and masterly way so well exemplified in this report. The author evidently had in mind that other great report on the correlation of studies, and this paper is, in a sense, complementary to that. It is a basal discussion of the much-talked of question of concentration of studies from another point of view—the psychological. The practical question is, What are congruent and what are incongruent studies? In the large view of the world, all things are congruent, for the universe is a unity. But in the school curriculum there is seemingly much incongruence of activity, as the report defines the term. The social order is an incongruous congruity. To what extent shall the incongruity in the school studies control in the isolation of the one from the other? This is the problem of concentration stated in different words. I wish that this Council would take up this basal question and discuss it in the light and spirit of this admirable report.

MR. F. LOUIS SOLDAN.—While the great majority of us will unhesitatingly assert that the explanation of the thoughts and actions of man are found on a spiritual, not a material, plane, the study of the physical conditions, which forms part of this thoughtful report, leads at every step to valuable practical conclusions. The relation between emotion and energy is well stated in the paper. Fear saps energy; a pleasurable feeling promotes the serious work of the schoolroom. The teacher who tries to look and be pleasant in her intercourse with her pupils produces an environment in which the child is at its best. Jean Paul Richter utters this thought in his beautiful saying: "Serenity is the heaven under which childhood thrives."

To create a pleasurable feeling in teaching things naturally void of interest is the art which the teacher has to learn. Herbart said: "The greatest sin in instruction is to make it tedious." Illustration, attractive presentation, variety in the required drill, keeping the pupil self-active, are means of producing a pleasurable feeling in receiving instruction, which we call interest. I am aware that this does not exhaust the definition of interest. There is another topic contained in Dr. Hinsdale's report which invites discussion—the topic of continuity. The committee lays com-

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mendable stress on simplicity of instruction and coherence in teaching, the exclusion of profuse explanations that cloud the subject instead of clearing it and the persistence of teaching in the logical and grand lines of the subject in hand.

There should be greater continuity, however, in another direction also. I refer to the frequent changes of teachers during the school life of the child. In many of our large school buildings, as soon as the child has completed a certain task assigned to the grade—say, the arithmetical knowledge and use of the number seven, or pages 27 to 100 in some reader or geography—he is "promoted" into the next room, where he has another teacher, whom he does not know and who does not know him. Why not let there be a little more continuity in this matter, and let the same teacher "move up" with the class, so that the friendly and intimate acquaintance may spring up which promotes education in every way?

MR. S. G. WILLIAMS.—Herbart, in an opinion on school classes, favors in a modified degree the plan of letting the teacher go up in the school with his class during the earlier years of instruction, passing the class finally to more special teachers when greater maturity is reached. This carries farther the idea just expressed by Professor Soldan.

As regards that part of the report which seemed to emphasize the use of text-books, the speaker believed we could learn something useful from the practice of the Germans, who, in all the earlier years of instruction, cause the pupil's work to be done with the teacher, thus teaching him how to study and to use his time economically in gaining knowledge from books. Much time is wasted in mere cram of memory by our too prevalent practice of setting text-book lessons without such preparation for study. When a boy has learned how to study he no longer needs teachers.

MR. JOSEPH BALDWIN.—For half a century I have studied these problems as best I could. This paper awakens in me the burning desire to roll back the wheels of time that I might begin these studies over again. I realize that full half the energies of teachers and pupils are wasted because of our failure to observe the laws of mental congruity and mental effort. When we learn to lead our pupils to do their best when at their best, we will begin to realize the meaning of the art of manhood. The astounding soul-waste in all our school work still dwarfs our race. I am thinking of the future. The boundless possibilities of pupils will be developed because teachers and pupils will work according to law.

In reply to several questions by Mr. James H. Baker and others, Mr. Hinsdale said that narrow training must precede broad training. "In elementary teaching," continued Mr. Hinsdale, "I am in favor of close limitations in the subject-matter, of working on a single line of thought till that is established, and then the path should be widened. I am opposed to electives in high schools if the choice of studies is left wholly to the pupil. The pupil needs the guidance of his parents and teachers in determining what studies he should pursue. At the University of Michigan about one-half the studies are prescribed and one-half are elective. I rather favor the 'group system,' and incline to think that the college elective system is 'overworked.'"

MR. BAKER.—You believe with me in liberty, but not license, in the election of studies.

MR. Z. RICHARDS.—The world is full of incongruities and contradictions, and one part of our work in the schools should be to prepare the pupil to encounter these incongruities and contradictions and overcome the obstacles which they place in his path.

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MR. JOHN W. COOK—The striking feature of this paper to me is the fact that it is in line with the great economic movements of the modern world. It looks toward some relief from the dreadful waste which characterizes the work of the teacher. Let us hope that in some way it may go to the country so that teachers everywhere may find access to it.

MR. L. H. JONES.—The paper of Dr. Hinsdale may make us feel discouraged, but, at the same time, hopeful. We are in danger of overlooking the fact that educators are at work upon problems as difficult and as important as those of other learned professions.

MR. N. C. SCHAEFFER.—There is a line of school work along which the report is defective, viz., examinations. These are a necessary evil. We cannot do without them. But the examiners seldom pay any attention to the principles of congruity, and mental energy, and fatigue announced in the report. Some of the principles will have to be modified when applied to examinations; for instance, work must be stopped often when the maximum of mental energy has been reached. Perhaps the author of the report did not intend to discuss this phase of the question. The importance of it makes me hope that his committee will do this at some future meeting.

MR. HINSDALE, closing the discussion, made the following observations: Mr. Soldan has spoken of the mischiefs that flow from the too frequent changes of teachers in the schools. He has said that the principle of continuity applies to teachers as well as to subjects. What has been said is not only perfectly true but it is very important. Few things in education are more absurd—if, indeed, anything is more absurd—than the too frequent changes of teachers. Suppose the child had a new mother every six months or every three months? What would be the effect upon the child's life and character? It may be replied that the analogy does not hold throughout, but it certainly does hold to a very considerable extent. It is well understood that the Jesuits were the most accomplished school teachers of their time, in the days when they dominated the nascent intellect of Europe; and it is well known that one of the rules laid down in the *Ratio Studiorum*, which was constantly enforced, was, that, extending through a series of years, the teacher should be promoted with the pupil or with the class. What is more,—there can be no question that the success of the Jesuits as teachers, in considerable measure, was due to this very fact. The regimen that now prevails in the large high schools of the country, so far as my observation extends, is to an extent vicious and mischievous. Suppose the pupil, on coming from the grammar school where he has had but a single teacher, has three leading subjects, Latin, algebra, and physical geography. Suppose, further, that he has some subordinate subjects in which he has only an occasional exercise, as in drawing, reading, and the like. Suppose, still further, that he has a different teacher for each one of these subjects. The result is, that no pupil in such a school has a teacher, and that no teacher in such a school has a pupil; every pupil has several teachers, and every teacher has a great many pieces of pupils. Who does not see that some of the most valuable results of sound education are necessarily sacrificed by such a system? It is my opinion that the employment of special teachers is overdone in many of these schools, and that the results would be far better if the pupil, on coming to the high school, could be introduced to the rigor of the special-teacher system gradually. Let him, at first, have the same teacher in two or in three subjects at least, if possible.

Mr. Williams appears not to have understood the report on the subject of text-books. The report does not recommend a text-book grind, or any kind of a grind. The committee expressly refrained from discussing that subject. It said nothing

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about the correlation of the teacher and the book. What it said was, that, if text-books were to be used, then the criteria laid down should be followed. I may add, however, that text-books are now used in the schools as a source of instruction, and that, to a great extent, they will continue to be so used.

Mr. Richards has told us that the world is full of incongruities and contradictions, and that one part of a school education should consist in getting the pupil ready to encounter these incongruities and contradictions. Both of these statements are certainly true, but we must remember that everything should be done in its time. Broad teaching in the beginning will defeat broad teaching in the end. Due limitation of matter is a necessary condition precedent to successful instruction. To give every one his portion of meat in due season, is a scriptural expression. Mr. Richards is a religious man, and in training his children no doubt took pains to establish them in religious faith and piety. I cannot suppose, that, at first, he stated to his children some religious ideas, and then immediately added that many people do not accept these ideas; that there is such a thing as infidelity in the world, and that, after all, it is a very serious question, in the estimation of some people, whether there is any truth or value in the essential Christian doctrines. He no doubt grounded his children in the faith, and introduced them to incongruities and contradictions later, as they were able to bear them.

Mr. Schaeffer has called our attention, and very properly, to the important subject of examinations. The committee was not unaware of the fact that that subject is embraced within the field of the laws of mental congruity and energy. It was, however, impossible to introduce the subject into the report. I may dismiss it with the remark that the subject of examinations needs to be thoroughly investigated in the light of the fundamental psychic laws that were laid down in the report. Examinations are an essential teaching process. We are not going to dispense with them. We are going, I hope, to relieve them of some of their abuses; and this we can do only as we consider the subject in the light of fundamental principles.

Mr. Brown has told us, and very truly, that the great question—the really practical question—is, what school subjects are congruous, what incongruous. No more important statement has been made in the course of the discussion than this. The object of the report was to state fundamental principles, and to refer to studies and the elements of studies only in so far as was necessary to illustrate clearly the propositions laid down. There has never been in this country, so far as I am aware, any thorough investigation of the question that Mr. Brown has stated; nor am I aware that such an investigation has been made abroad. It is a very important matter, and I shall close my remarks with recommending it to the further consideration of the Council.

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REPORT OF COMMITTEE ON NORMAL EDUCATION—THE KIND AND AMOUNT OF PRACTICE-WORK, AND ITS PLACE IN THE NORMAL SCHOOL COURSE.

BY JOHN W. COOK, NORMAL, ILL.

In order that information might be obtained respecting the practice of state normal schools in this country, a circular was prepared, asking for quite detailed statements as to the courses of study offered, and especially as to the organization of practice-schools, the amount of preparatory theoretical discipline given before entering upon practice-work, the size of classes in practice-schools, whether normal pupils teach these classes for a part of each day or take entire charge of a room for a number of weeks, methods of criticising the work of the pupil-teacher, and the whole amount of time spent by them in the actual work of instructing children.

Reports were received from fifty-seven state normal schools, one county normal school, and five city normal schools. Twenty-nine states are represented in these returns; hence, your committee concludes that it has obtained sufficient information to enable it to determine, with a fair degree of accuracy, the methods generally employed in these institutions. With four exceptions, these schools are provided with model or practice-schools. The number of grades represented varies from three to twelve. Eight appears to be the preferred number. Where there are but three grades but little practice-work is done, the children constituting a model school or school of observation rather than a practice-school.

Forty per cent of the practice-schools are public schools. In a few instances they are the only public schools in their locality.

The instruction given by the normal pupils in these schools varies from seventeen to one hundred per cent of all of it. Since the average is about seventy-seven per cent, it appears that the children receive little instruction from any other source.

Three plans are followed in the practice-work. The first plan occupies the pupil-teacher for one, two, and sometimes three periods each day with the care of a class of from five to fifteen children. He is expected to carry on a portion of his regular work in the normal department at the same time. A second plan discontinues the normal pupil's recitations, and puts him in charge of a room containing from fifteen to thirty children, of whom he is to take entire charge. A third plan combines the first and second, requiring a preparatory

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discipline of several weeks in instructing a single class for one or two recitation periods daily before taking charge of a room.

The large majority of normal schools use the first plan. The second has a few followers, and among them are some of the most reputable of our teachers' training schools. The third is followed in a small number of schools; yet is more popular than the second.

The time in the course at which the practice-work begins is by no means uniform, yet there is a strikingly preponderating preference for the senior year, where the course is three or more years. The number of schools in which this work begins earlier is scarcely a third of all the schools reporting.

The time spent in practice-work varies from twelve weeks of one recitation a day to the entire charge of a room for twenty weeks. The average of the schools using the first plan is not far from thirty weeks, which would seem to be about the quantitative equivalent of six weeks of regular school work, although there are considerations which render such comparisons difficult.

Equal diversity is found in the organization of the critic force. Three quite distinct plans appear. In some cases the work is all done by the instructors of the normal department. The teacher of arithmetic not only instructs the normal pupils in their study of the subject, but he also supervises the practice-work in the same subject. A second plan puts a principal over each grade, and assigns the supervision of the pupil-teachers as an additional duty. A third plan provides critic-teachers, whose entire time is devoted to the work of supervision, principals being supplied for each of the rooms, whose duties include the care of the children and a considerable part of their instruction, in order that they may be protected, at least in part, from the inexperience of the normal pupils. These critic-teachers take entire charge of several grades, or of specific subjects in all of the grades.

The methods of making the criticisms are quite uniform. They are given in the form of general corrections in teachers' meetings, and in private conversations with individual teachers.

The reports of the various schools have proved to be very interesting to the members of the committee, and this opportunity is taken to express their appreciation of the kindness manifested by the several principals in placing the material at their disposal.

The committee ventures to offer a few suggestions upon some of the topics presented.

For convenience of discussion the order of the general theme is inverted, and the last question receives consideration first.

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I.—WHERE IN THE COURSE SHALL THE PRACTICE-WORK BEGIN?

It appears to the committee to be quite impossible to answer this question with any great degree of definiteness for a large number of schools. So many varying conditions appear that each school must determine it in large part for itself. The facts which will have greatest weight in this determination will be the age and general scholarship of the applicants for admission, and the amount of theoretical pedagogical work possible for the early part of the normal course.

A fair percentage of normal schools admits candidates who have completed the work of the eight grades below the high school. Others require an academic preparation substantially equivalent to that demanded by a certificate of the second grade. A small number of schools admit only high school graduates, or others having an equivalent preparation.

Your committee is of the opinion that the qualifications first mentioned are too low. Not only is the academic preparation insufficient, but such candidates are too young to undertake the serious work of a professional school. Young people who have just emerged from the grades cannot be expected to appreciate the gravity of the teacher's task. If conditions are such as to render it expedient to admit candidates of so low a grade of scholarship and of such general immaturity it is evident that practice-work must begin late in the course.

A rigorous academic training becomes the first necessity. Theoretical pedagogical work of the most elementary character is impossible with children, and to permit them to assume the role of teacher would mean a revival of the long obsolete monitorial system, in which the blind led the blind, and with the usual result.

Candidates who have received a teacher's certificate ought to be able to find a place in the normal school. It is certainly far better that they should be there than in charge of schools, unless they have fitted themselves for their work in some fairly adequate way. Such candidates should be able to enter upon the preparatory pedagogical discipline quite early in the course; hence, practice-teaching will become possible and proper correspondingly sooner. They may be assumed to be fairly mature, and having secured the requisite authority for teaching, their stay in the school is likely to be briefer. They should have an opportunity to engage in the actual work of instruction, under superior supervision, before attempting the unaided management of a school, if it can be done without sacrificing the theoretical work which is assumed to be indispensable.

Graduates of good high schools are generally equipped with a degree of culture and maturity which permits them to enter at once upon the study of teaching as a science. A year of professional dis-

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cipline would seem to entitle them to a place in the practice-school. Indeed, in many cases they may properly find themselves there after a much shorter probationary period. Schools in which the course is but one year, and "purely professional," as they are termed, as in the case of most of the city normal schools, begin the practice-work immediately, or after a few weeks. This seems to the committee to be a dangerous custom to make universal; yet, with many pupils, it is probably safe.

A fourth class should not be overlooked. In every state normal school a considerable number of persons will be found who have already taught for several terms. They are usually the consolation of the supervisors of practice, as they are able to mitigate the evils incident to a practice-school. It is often possible to permit such persons to carry theoretical and practice-work side by side, and at the beginning of their course.

Although not strictly germane to the subject, your committee desires to offer a few further suggestions respecting the qualifications for admission to normal schools.

In some of the states, more particularly those in which there are several training schools for teachers, a high school diploma, or an equivalent certificate of scholarship, is insisted upon. In some of the states such requirements appear unwise. In the first place, the very large majority of high school graduates are girls. If all who are disposed to become teachers should enter the normal schools, they would not fill those schools to anything like their capacity. Moreover, statistics clearly prove, that, where such requirements are demanded, the enrollment is almost exclusively made up of girls. It is the opinion of the committee that the great preponderance of women in the teaching force is already a grave misfortune. Such a policy tends to increase the evil rather than to remedy it, since the boys who graduate from the high schools, with occasional exceptions, find more remunerative, and consequently more attractive, fields elsewhere. Moreover, the country school problem should not be ignored in the interests of the town. Experience shows that young men and young women who have received only the instruction of district schools, but who have attained a good degree of maturity, quite frequently surpass the high school graduates in those qualities which the normal schools especially covet. Many of them have already served a considerable apprenticeship as teachers, and have thus acquired that maturity of view and that practical sagacity without which persons are teachers only in name. It is idle to expect that country schools are to be supplied with a high class of carefully prepared teachers in the near, or comparatively near, future. There will be an occasional district so favorably conditioned as to maintain a

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school for eight months and to be able to pay a fair salary to its teacher, but the urbanizing of our population is going on at such a rapid rate that the size of the country school is constantly diminishing. These schools must be supplied, in the main, by persons who are willing to work for small pay. The normal school should offer educational inducements to the strongest and best-prepared students in these country districts on condition that they shall return to their homes and engage in teaching for a period of not less than the time of their attendance at the normal school. It is a common remark of normal principals that much of their best material comes from these rural schools, and that these young people have acquired such habits of industry and take such an intensely practical view of life, that, at the end of a single year in the normal school, they are able to hold their own with the high school graduates. Moreover, the recognition of this class of applicants brings into the normal schools a body of sturdy young men, many of whom remain in the teachers' ranks permanently, and subsequently become principals and superintendents.

The earnestness which is so striking a characteristic of the normal student, and which is so often lacking in the high school and the college, finds its explanation in part in the presence of these young men and young women from the country. Their lack of education and limited acquaintance with many of the conventionalities of social life should not necessarily shut them out of the normal school. Although the range of studies which have occupied their attention is often narrow, so much time has been spent upon the elementary studies as to give a degree of power unknown to the pupils of the graded schools who have traversed the same ground in a limited time.

Such young people are able to enter upon professional work profitably quite as early as many of the high school graduates, and observation of quite large numbers of such pupils seems to demonstrate their ability to hold their own with them after a single year in the normal school.

Much as normal schools need higher scholarship as a prerequisite for admission, it is hoped that the managers of such institutions in the Mississippi Valley, and perhaps in the farther West, will not be so captivated with the customs that may well obtain in New England or New York, with their numerous schools, as to shut their doors against the country youth or to defer their practice-work for such candidates to the third or fourth year.

It is doubtless easy for a state that has a dozen state schools for teachers and a hundred and fifty academies or high schools receiving state aid for elementary professional training to require a high

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standard for admission, and then postpone its practice-work to a late period in the course, confident that most of the pupils will complete the course. In states, however, where even poorly prepared normal students are in great demand, such a course seems by no means the wisest.

Your committee is further of the opinion that the practice-work should be preceded by a somewhat careful theoretical preparation, and that this feature of the curriculum should begin with the student's admission to the school, or very shortly thereafter.

To prescribe just what this work should be would transcend the limits set to this report, as it would attempt to formulate the pedagogical course of the normal school. However, it should be of such a character as to give some adequate idea of the gravity of the problem of education, and of the view which modern peoples, at least, have taken of it. Some of the general facts of the nature of mind, the relation of the conventional knowledges to modern life, and the special methods of instruction suitable for elementary schools should receive at least some degree of attention before a pupil should be intrusted with the care of a class. It is of the greatest importance that the normal student should be awakened to something like a fair apprehension of the difficulty of his task, of the breadth of the field which is open to exploration by the student of pedagogy, and of the immense significance of the teacher, and this apprehension should come as early in the course as possible.

As to the character of the practice-work, there is a wide diversity of opinion, as has already been stated. Shall it consist alone of the daily single or double recitation? Shall it be made to imitate as closely as possible the work which the pupil is to perform when he shall enter upon the independent life of the teacher, or shall these methods be so combined as to make the former preparatory to the latter?

As has been stated, the first method is the one employed in the large majority of normal schools. While your committee is of the opinion that the third method is best adapted to the securing of the most admirable results, the practical difficulties in the way of its general adoption are recognized as quite insurmountable. The interests of the children are sacred, and should be surrounded by every possible safeguard. It is not forgotten, however, that the average teacher in the public schools has not yet attained ideal perfection, and it has been demonstrated in many cases that practice-schools are far better that the local public schools. Indeed, it may be said in entire seriousness, that much of the sympathy expended upon the children of the practice-schools is worse than wasted.

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In defense of the first method, it may be urged that it is in accord with the general principle that relative simplicity should have much to do in determining the sequence of steps in the acquisition of an art. It is far easier to instruct a single class for one or two periods than to take entire charge of a room. In consequence, the practice-work may begin at an earlier period than would otherwise be possible, a consideration worthy of no little respect when it is remembered, that, in a majority of normal schools, the average student attends for only a little more than one-third of the course.

A second defense may be found in the fact that practice-schools of great size would be needed for the accommodation of most normal schools. Those institutions which employ the second plan defer the practice-work to the end of the course, and thus avoid the difficulty by waiting until four-fifths of their pupils have left them. If the reports are understood, there are schools of the highest repute which have won their leadership by what they do for an eighth or a tenth of their membership, the rest having disappeared before reaching the practice-school, or even the technical pedagogical work. Since the missing majority presumably become teachers, it is an interesting question whether such an adjustment is wisest. It should be remembered that the children of the schools in which this escaped contingent appears merit some consideration.

The novice who has spent a year or year and a half in the normal school, and has had the pedagogical preparation possible, may safely begin his practice-work with a daily recitation or two, under the guidance of competent critic-teachers, and may even do admirable work, when it would be quite impossible to manage a room and take charge of all its instruction. If he should withdraw before the beginning of the third year, as the majority do in most normal schools, he will have had an experience that will be quite invaluable to him in his subsequent work. If he shall remain, the same thing may be said.

The third defense of this system appears in the fact that it permits the normal student to continue his theoretical work along with his practice-work. The principle of apperception is involved to no inconsiderable degree in such an arrangement. Any plan which postpones the practice-work to the completion of the theoretical work does so at the expense of a proper appreciation of the latter. It is often remarked by normal students that their subsequent instruction gains immensely in significance after dropping out for a year of teaching. This fact compensates somewhat for the experiences which children have been undergoing somewhere away from the normal critic or the county supervisors, but it adds point to the argument at least. It is quite doubtful whether one really values pedagogical in-

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struction by a proper standard until he has been obliged to officiate at that most interesting and quite remarkable performance which is expected to eventuate in the ability to recognize a word or make a computation.

It is granted that this method of preparing teachers for the charge of a school is defective. In the first place, the classes are usually quite small, many of the reports indicating from "five to ten" as the ordinary number. Such classes give small opportunity for acquiring skill in discipline and general management. That is a result which comes ordinarily with experience. A day in charge of a school may present more problems than a month with a small class. Moreover, the single recitation plan leaves each teacher quite in the dark as to the child's occupation in other subjects; hence, the importance of regular teachers for a portion of the day. Doubtless the frequent change in instructors has its evil effects upon the children, who need to have, so far as possible, a steady and persistent system of influences at work upon them, to the end that genuine stability and firmness of character may result.

Many of these evil tendencies may be counteracted by judicious supervision, but enough of them will remain to prevent the practice-school from becoming ideal.

It is the opinion of your committee that each person should have an opportunity before graduation to take charge of a room until he shall have demonstrated his ability to manage it successfully alone, or shall have shown that he has made a serious mistake in selecting teaching for his vocation.

At this suggestion difficulties present themselves in great numbers. With schools of any considerable size a system including several hundred children and a large number of rooms becomes necessary. A combination of the first and second plan is possible only under such favorable conditions. A practice-school of good size, supplemented by the schools of a town or part of a city, would seem to be quite essential to such an arrangement of the practice-work. A modification of this plan, by which two are assigned to each school, one serving alone for two and a half hours, the two working together for an hour, and the second finishing the day, will realize good results, and permit the theoretical work to run parallel with the practice.

As to the third point under discussion, the amount of practice-work, your committee would recommend that there shall be at least enough to reveal the significance of the educational theories taught, to show their entire practicability, and also to give the pupil-teacher a clear sense of freedom in dealing with children.

Superior skill cannot be expected, since that is the result of long-continued practice; but that course must be considered seriously de-

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fective which does not leave the pupil-teacher well stocked with ideas in which he thoroughly believes, an awakened sense of power, faith in his ability to put his ideas into practice, an ardent love for the school-room and for childhood, and an earnest desire to find a place in the noblest guild of teachers.

Realizing the imperfections of the normal school, and the difficulties attending the organization and administration of this indispensable department of its work, your committee submits this report, with the hope that it may be supplemented by the more valuable experience of the Council.

JOHN W. COOK, *Chairman.*
R. G. BOONE,
W. R. GARRETT,
IRWIN SHEPARD,
JAMES M. GREEN,
Committee on Normal Education.

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KINDERGARTEN DEPARTMENT.

SECRETARY'S MINUTES.

FIRST SESSION.

DENVER, COLO., WEDNESDAY, July 10, 1895.

The department met in the auditorium of Trinity church, a large audience being present. The platform was adorned with flowers and palms, placed there by the local reception committee.

Mrs. Hill opened the meeting with a few words of welcome. She presented to Miss Wheelock, as President, a gavel made of wild cherry cut at Mount Vernon, Washington's home, and tipped with Colorado silver.

Miss Wheelock accepted the gavel, saying she appreciated the honor which was hers in wielding a gavel made of materials which were the product of two such far separated states as Virginia and Colorado. She thought it typified the wide-spread influence of kindergarten schools and the national character of the movement.

Mrs. Ione T. Hanna was then introduced. She welcomed the audience on behalf of the Kindergarten Association of Denver and of the East Denver School Board. which had taken an early interest in kindergarten work, having already established ten kindergartens and being about to open ten more in the fall.

The kindergarten hymn, "Now Before We Work To-day," was then sung, the audience being led by Prof. W. J. Whiteman, Musical Instructor in the West Denver Schools.

Miss Wheelock, the President of the department, in turn thanked the people of Denver for their cordial welcome and numerous courtesies, and then delivered a brief opening address.

Henry W. Blake of Massachusetts was chosen to act as Secretary, in the absence of Miss Agnes Mackenzie, who was unable to be present.

Miss Amalie Hofer of Chicago, editor of the "Kindergarten Magazine," read a paper on "The Social Settlement and the Kindergarten."

Mrs. S. W. Harriman of Providence, R. I., read a paper on the "Pestalozzi Froebel Haus."

"The Kindergarten and the Home," was the subject of the paper read by Mrs. James L. Hughes of Toronto.

Discussed by Henry W. Blake of Springfield, Mass., editor of the "Kindergarten News."

Mr. Whiteman than sang "Little Boy Blue," and "'Tis But a Dream" as an encore.

Short papers on "Mothers' Meetings" were then read by Miss Mary C. McCulloch of St. Louis and Miss Wilhelmina T. Caldwell of Denver.

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Miss Laura E. Tefft of Greeley, Colo., also spoke on "Mothers' Meetings" as they are conducted in Germany.

The following committees were appointed:

On Nominations.—Miss Mary B. Page of Chicago, Miss Hattie Twitchell of Milwaukee, and Miss Ada E. Cole of Denver.

On Resolutions.—Miss Sara A. Stewart of Philadelphia and Mrs. Hughes of Toronto.

The department adjourned until Thursday, July 11th, at 3 o'clock p. m.

SECOND SESSION.—THURSDAY, JULY 11, 1895.

The session opened at Trinity church at 3 p. m., with a large audience.

The first exercise was the singing of the kindergartner's hymn, led by Mr. Whiteman.

In the absence of James L. Hughes of Toronto, who was not able to be present to read his paper on "Comparison of the Educational Theories of Froebel and Herbart," Miss Wheelock called Dr. Z. X. Snyder, President of the State Normal School of Colorado, to the platform.

President Snyder briefly addressed the department.

Miss Sarah Arnold, Supervisor of Schools, Boston, Mass., was introduced, and addressed the department on "A Knowledge of the Kindergarten Indispensable to Primary Instruction."

Mrs. Eudora L. Hailman of Washington, D. C., opened the discussion of the subject "Comparison of the Educational Theories of Froebel and Herbart."

Dr. W. N. Hailman, Superintendent of Indian Schools, Washington, D. C.; Col. Francis Parker of Chicago, and Dr. Frank M. McMurry of Buffalo, N. Y., continued the discussion.

Mr. W. J. Whiteman of Denver introduced a chorus of forty children, who sang two beautiful songs.

Prof. W. L. Tomlins addressed the department on the "Faculty and Ministry of Song."

The Committee on Nominations reported as follows:

For *President*—Miss Amalie Hofer, Chicago, Ill.
For *Vice President*—Mrs. Susan H. Harriman, Providence, R. I.
For *Secretary*—Miss Wilhelmina T. Caldwell, Denver, Colo.

The report was unanimously adopted and the nominees declared elected as officers for the ensuing year.

Miss Wheelock presented the gavel to Miss Hofer with a few appropriate words. Miss Hofer accepted it with graceful acknowledgments of the honorable service to which she had been called.

The Committee on Resolutions presented the following report:

Resolved, That the Kindergarten Department of the National Educational Association express their acknowledgment and appreciation of the cordial hospitality extended by the local Reception Committee, and for the welcome accorded by the Chairman of the Reception Committee, Mrs. Hanna of the Denver School Board, and Mrs. N. P. Hill; to Miss W. T. Caldwell and the Denver kindergartners, for the preliminary arrangements that have contributed so largely to the pleasure of our meetings; to Mr. and Mrs. Whiteman and the children, for assistance in our music; to the press, for generous reports; to the trustees for the use of Trinity church; also, to Mr. Henry W. Blake for his hearty and efficient service in supplying the place of the absent Secretary of the department.

Resolved That this department recognize the importance of the co-operation of mothers, the influences of the home, and the social spirit and fellowship as indispensable factors in education.

The department then finally adjourned.

HENRY W. BLAKE,
Secretary.

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PAPERS AND DISCUSSIONS.

OPENING ADDRESS.

BY MISS LUCY WHEELOCK, BOSTON, MASS.

I simply wish to refer to some phases of kindergarten work which seem to have special prominence, and which most occupy the thought of all kindergartners and all interested in the progress of the kindergarten movement.

We are to consider the details and methods of our work with reference to the needs of the great educational field. I have a very strong conviction that the kindergarten movement is only part of the great educational movement, and we must get into harmony with all other departments of education in order to accomplish best our own particular line of work.

There is no educational thought at present which is not important for the kindergartner to consider.

As I look over the educational world to-day it seems to me there are two or three educational movements of special interest to kindergartners.

First, child study. I have a strong feeling that kindergartners should be first and foremost in the support of the child study movement. We studied our material a great deal at our previous meetings; we talked more or less about the gifts and occupations, but I believe we are coming to see that the chief and foremost work of the kindergartner must be the study of the children themselves. So in all work being done by those who are forwarding the work in child study, I think we see the work which is most helpful to our particular field of work.

At first, in Boston, the kindergartners were afraid that some one was going to find out that possibly we had been doing too fine weaving, or that the length of our lines was not right, or that we had been giving work that was not best for the development of the child; but I know I can speak for all those who are interested that we have their close sympathy in the study of the child. I believe we can safely say the kindergarten does not depend upon any line or particular length of line. If we find it is better for the child to omit some of the work, which perhaps causes nervous pressure, we feel there is no principle violated thereby.

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One other thing is the use of gifts as our attention has been called to it. I believe if we go back to Frœbel's thought in the study of the child we shall discover whether we have been using the gifts in just the right way.

We have heard about the symbolism of the gifts and the exaggerated use of them. No kindergartner would claim that a child may be brought from a state of fretfulness into harmony and peace from the fact that the sphere is a symbol of unity. But I believe, that, just as we hold the Book of Revelations may fill us with lofty thoughts when we read of the great white throne, and we do not mind that some have perverted the symbolism, so when we come to know Frœbel perfectly, if we have studied his own use of the symbolism, we need not fear that we shall not make the right use of the gifts. And what I wish to claim and insist upon here is, that, as kindergartners, we shall study Frœbel himself more, and his letters, and his "Mother Plays," and his "Education of Man," to discover the educational principles that are involved.

Another subject which interests us all as kindergartners is the making of programs. If we refer our thoughts back to the child again, we shall see the child is to be the center of the program; that the material, etc., are used only with reference to the children with whom we are dealing. No ready-made program is of any use at all. The interests of the children with whom we are dealing is the only thing to consider.

The disciples of Frœbel are the first to maintain the idea of unity in the work. But the kindergarten movement means more than the work that we do in the two or three hours with the children. If the kindergarten movement maintains its full significance it must come into touch with the life of the people, the life of the fathers and mothers and children in other homes. The kindergarten means the education of the people. The people are to be educated through the children, and one of the interesting phases of the work at present is the recognition of the fact, that we come in touch with the people through the children—closely in touch with all social work. Especially is this true in the social settlement work.

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THE SOCIAL SETTLEMENT AND THE KINDERGARTEN.

BY MISS AMALIE HOFER, EDITOR OF THE "KINDERGARTEN MAGAZINE," CHICAGO, ILL.

There is no more fitting subject with which to open our kindergarten section of the National Education Association, than the consideration of these two sister movements, the social settlement and the kindergarten. To the latter has long been claimed the place of a mediator between the home and the school, a link between the family and the institutional life. It is now seen to be reaching in another direction in its work of bringing together human interests, and is rapidly becoming the tie which binds each philanthropic cause to the more conventional institutions.

The consideration of the subject before us plainly indicates that the kindergarten movement is strongly and closely allied to that phase of social and democratic evolution known as the social or college settlement. In recognizing the validity of social instincts, social interests, social opportunities in every human life, the kindergarten has taken the first steps toward socializing education, and of proving that the school, as the church, is not the preparation for a future life but is the actual process of living.

As the ancient astrologer studied the movement of the planets in their relationships in order that he might deduce the principle by which a solar system is governed, so the sociologist is to-day studying the movements of daily life about him in order to prove the laws which control human progress. The kindergarten work is one of these movements, and can only be justly weighed when considered parallel to the many other social and altruistic movements in simultaneous operation. Among these latter, well known to every observer, is that more recent endeavor on the part of humanity to make its whole self righteous, known as the social or university settlement. This special movement started as early as 1867, when it became the custom of a few undergraduates of Oxford, England, to spend a part of their vacation-time in the neighborhood of St. Jude's Church, in that part of the world known as the Whitechapel district of London. Their incentive to so doing was the same as that which inspires every generation of young people to dedicate their entire beings to the making right of some colossal wrong—to the making pure and clean of some Whitechapel. Among the students was one Arnold Toynbee, a young man of such sincere convictions that he called forth at the same time the ridicule and admiration of his fellow-students. The former was entirely outweighed by the latter when he left college

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in 1875 and took up his lodgings—made his home—in Whitechapel. At this time he wrote back to his friends, pursuing their college careers, as follows: "Our delicate, impalpable sorrows, our keen, aching, darling emotions! how strange, almost unreal, they seem by the side of the great mass of filthy misery that clogs the life of great cities!" He continued his residence for eight years, living together with his less fortunate neighbors, at the same time calling forth the noblest sympathy from the Oxford fellows, who, like many of us, were indifferent only because ignorant of the actual necessities of their fellowmen. This manner of life led by Arnold Toynbee has since come to be recognized under the name of the college or university settlement. In memory of his impressive example and as a direct result of his influence, Toynbee Hall was opened in 1885, and has now been in operation for ten years as a culture center and democratic meeting-place for all classes and kinds, mixing the lowliest, most ignorant, and impoverished together with the university and professional men who followed in Toynbee's footsteps.

It is interesting to know that John Ruskin was one of the originators in this movement of the Oxford students. The story is told, how, on a certain visit to one of the colleges, he induced a company of undergraduates to go out and work stone on the roadway, in order that they might realize as a fact and more truly estimate the conditions of labor. Among this company was Arnold Toynbee, who was always described as the one man who never failed to spiritualize his daily life.

Among other students who were influenced strongly at this time was Mr. Percy Alden, who is well known to-day on both continents as one of the ablest factors in social reconstruction. Dr. Barnett, who is at present in charge of the work at Toynbee Hall, has devised a full and practicable plan for social settlement work, a plan by which the university student with his many privileges may legitimately approach those of lesser opportunities, and, through personal contact, share his benefits.

The first settlement to be opened in our country, two years after Toynbee Hall, by Dr. Stanton Coit, is known as Delancey Street University Settlement of New York City. Dr. Coit has since been called to London, where he has opened similar work in the neighborhood guild at Leighton Crescent. The distinctive characteristic of the work at Delancey Street, which may be visited by anyone going to the city, is that of the self-government of the neighborhood people through well-organized clubs, and the generation of local patriotism, which is making itself felt in everything which touches the interests of the neighborhood. The import of such social organization among individuals, too ignorant to know their own rights, cannot be under-

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estimated by the most casual observer. The president of Columbia College, Seth Lowe, is also president of the university settlement, which fact in itself is one of great significance. There are now seven well-organized social settlements in the city of New York, and while we cannot discuss as we would like the detailed work of each of these, the fact itself is well-worth registering, for it means that there are seven social centers in our great seaport city where men and women of all classes and kinds may come together on the simple Christian platform of being neighbors and friends, with a common opportunity to serve each other and be served in turn, and with no other motive than that of democratic fellowship. Each of these settlements has, in addition to its many clubs for educational, municipal, and culture purposes, a thrifty kindergarten, which in each case is recognized as one of the most far-reaching influences of the settlement. One who has given himself to make further practical this reconstructive work, has made the following statement: "The true attitude of every social worker is that of a member of a noble family, in which there is the widest inequality, but in which equality and inequality are never thought of, and to whom the possession of greater knowledge and greater strength means only a greater capacity to love and be of service to his fellow-men."

The second social settlement in America was established in Chicago, and is perhaps more widely known than any other in our country. When asked, "How did Hull House begin?" the resident in charge, Miss Jane Addams, makes the simple reply: "Two young women were interested in this work through a knowledge of Toynbee Hall, and opened a home in the belief that the mere foothold of a house, easily accessible, ample in space, hospitable and tolerant in spirit, situated in the midst of the large foreign colonies which so easily isolate themselves in American cities, would in itself be a serviceable thing for a community. And because people are hungry to be befriended, we soon had a large circle of acquaintances and co-workers. Hull House was opened on the theory that the dependence of classes on each other is reciprocal, and it is a positive effort to add the social function to democracy." Hull House has to-day extensive buildings and a most extensive influence in the daily history of the life of the district in which it is located—a district with the most variegated national and political conditions. For the detailed work of this consciously organized social center, I would refer you to the printed history of the work, known as "Hull House Maps," and to the other book, "Philanthropy and Social Progress," the reading of either of which you will find more thrilling and interesting than that of the most acceptable historical novel.

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From the first month of its existence, Hull House has been a free kindergarten, and according to the general settlement rule, that only the highest and best shall be provided in every department, this kindergarten has been at varying times in the hands of the most talented and choice kindergartners of our city. Through the broad friendship of one of these kindergartners, who is well known to many of you here, the Hull House Woman's Club was organized some three years ago, which to-day has a membership of 200 earnest workers, who are as proud to wear the blue federation pin as the ablest literary woman or public worker. This woman's club was a direct outgrowth of the kindergarten; or, we might better say, the influence of the kindergartner. The president frankly says: "This club interest was confined at first to the subject of children. It soon widened into an interest in our mutual homes, and this brought us to feel a responsibility for our neighborhood, and our duty to the community, until now the club has become one of the strongest and most powerful organizations of the settlement, taking a substantial part in all educational, municipal, and philanthropic movements in the city. While it still continues its first interest in the children, and still rallies about the kindergarten as its center post, it does not hesitate to discuss all matters pertaining to family life, whether that of an individual family or that of the greater family which constitutes a city." The day nursery of Hull House is in charge of an experienced kindergartner, who also superintends the games and plays, the playground, the children's clubs, and all matters pertaining to child-life in the neighborhood. No city government would scarcely expect its police force to operate without a superintendent. Every machine shop has long since had its special supervisor and every steamship its captain. Child-life of any given district is as much more successfully operated under the charge of a scientific authority as any of these other important departments, and so the social settlement does not hesitate to provide for the children, as it does for the adults, the best guide and the best standard that can be secured.

Since Hull House was established there have been six more settlements opened in the city of Chicago.

Parallel with the opening of Hull House came an innovation which is worthy of recording, viz., that of establishing the first sociological department in a theological seminary, with a special professor in charge. In making a plea for greater knowledge of social conditions and the humanities which lend themselves to these conditions, Edward Everett Hale has said: "For working purposes the theological student can spare several things from his course better than his sociology, for this is the 'Kingdom of Heaven' part of his training." Through the efforts of Prof. Graham Taylor, who is in charge of this

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department, the Chicago Commons has been opened during the past year, with the family of the professor as residents. It is now organizing a kindergarten, and hopes soon to add a kindergartner to its circle of working residents.

The Northwestern University has opened a settlement, with a trained kindergartner as head resident, who, in addition to the manifold duties attending this high office—such as interviewing every class of needy; setting a good example as a home-keeper; as a respecter of all alley and garbage rules; as an attendant upon neighborhood funerals, christenings, and divorces; securing a place for John of the street in the Boys' Industrial Home or attending criminal court as a witness; superintending the sewing school, the gymnasium, the mothers' clubs, the young folks' circle, etc.—in addition to all this, conducts the daily kindergarten of from forty to fifty children, with no other assistance that that of the children themselves. Consequent to the broader knowledge of her neighborhood and its family conditions, this kindergarten has been kept closely in touch with the daily needs, and possesses a quality of the rarest freedom and soundest social co-operation. Again, the mothers' club is a direct corollary to the kindergarten, concerning which the resident of the settlement said a few days since: "Our mothers are the strength of the settlement. They believe in us without a single grain of reserve. They understand the meaning of the settlement better than we do, for they see open doors where before were closed walls, and they understand our ethical efforts in behalf of their children as direct means of grace and opportunity. We can command the affection of our mothers' club for any work at any moment and to any extent."

I could not tell you of the work of this settlement, presided over by a kindergartner, and make it read like a fairy story; but the opportunity is open in every large city for you to visit such a place and read with your own eyes such stories as that of a curbstone garden which grows cottage flowers at the command of what were once the bad boys of the street, or the social club for men and women where long forgotten recitations and fatherland songs are exchanged, and understand the meaning between the lines better than I could picture it. During the entire year one or two kindergarten cadets have lived in the settlement family, and have added their social endeavors to that of the family circle. During the present summer the morning and afternoon kindergarten is being conducted by these volunteers.

The head resident of the social settlement of the University of Chicago, in charge during the past year, was originally the kindergartner at Hull House and the organizer of the woman's club in that settlement. After the past year's demonstration in what is known as the Stock Yards Settlement, it may well be argued that the right

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kind of a kindergartner is the right kind of a social settler. A kindergarten of seventy children has been in daily session, conducted by one of our ablest professional workers. Over 200 children have been turned away from the crowded quarters, whose parents are still waiting for an opportunity to gain them admittance. During the daily sessions, the doorways and windows of the settlement hall are crowded with parents and friends, and many a day-laborer with his tin dinner pail has stopped to take a peep at the children and listen to their songs. This kindergarten has followed closely the general work of the settlement in every line. The chief purpose of a settlement being that of co-operation, and its most potent influence being in the direction of self-help, renders it most fitting and practicable as a basis for the kindergarten program. The children have been led to consider the family and home life as the great central interest, and have diligently assisted in the scrubbing, scouring, and cleaning of their own settlement kindergarten.

A class of forty kindergarten normal students have found their way into this district two or three times each week for their regular class-work; nor has the advantage been entirely to them, as they come to seek professional enlightenment. Two score of bright, energetic, purposeful young women, who show in their exteriors all the results of substantial family training, cannot pour through such a channel of humanity without adding to the clarifying and purifying directly. Their neat gowns and active, cheerful carriage has, without doubt, opened new vistas to the young women and parents of the district, as well as to the hundreds of little children lining the curbstone to see the procession go by. In the course of the year, group after group of these students has served as volunteers in the settlement kindergarten, and many have been the friendships formed between them and the children, and great has been their influence in fitting the affections and aspirations and ideals of these children of men.

Not long since one of the volunteers brought her family of ten for a visit to the home where many of these young women live, some distance from the settlement. The great awe with which the little ones looked about the house where Miss Mary and Miss Evelyn and Miss Marion dined and slept and kept their things was very impressive. The most skeptical person as to the advantage of these personal ties would have been melted had they witnessed the intense interest of these children in discovering how the other half live.

We thus find the social settlement making a wider application of the principle of interdependence, which has come to be so current a word in the kindergartner's vocabulary. The social settlement makes possible a larger interchange of human interests and a nearer oppor-

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tunity for crystallizing personal relationships into sincere potent friendships. At the close of the training-school identified with this settlement, the head resident put the following question to the forty young women students who have witnessed the varying daily life of the settlement: "Do you feel that any personal advantage or benefit has come to you through attending class meetings here in the settlement, and have you missed any opportunities through coming to this less attractive neighborhood which you might have gained in a more select or down-town district?" The answers which it was her privilege to receive were conclusive evidence that modern young women (the cynic notwithstanding) still possess a "passion for perfection," and still crave heroic opportunities and gladly spend themselves in devotion to altruistic ideals. The expenditure of money and energy which the year's work at this settlement has caused was more than well spent if it brought forty active, earnest, thinking women to realize the difference between a more conservative, selfish student life and the powerful development which comes through an insight into social human conditions.

One of the oldest kindergarten normal schools in the West, which has been conducted for thirty years by that pioneer optimist, Mrs. Alice H. Putnam, will gather its students during the coming year under a social settlement roof, in evidence of the profound conviction that contact with the social conditions arising in a social settlement will add to the practical value of professional kindergarten work. The judgment of such an experienced leader cannot be questioned, and we believe this step to be of great importance to the movement.

No less momentous are the well-defined plans for a kindergarten settlement in Boston, to be dedicated as a living memorial to Elizabeth Peabody, which will have more than a local meaning, since the projector of this plan (no other than our worthy president, Miss Wheelock) hopes through this means to gather up the threads of appreciation of this woman's work from all parts of the country. The settlement, like the kindergarten, is not a philanthropy in the usual sense of that word. Like the kindergarten, it is rather a common meeting-place, where the children of men may come together freely and frankly and find scope to express that indispensable ingredient in human nature, sociability. It is in no sense of cant or sentiment that when we say the social settlement is a kindergarten for the adults, and the head resident, like the kindergartner, lives with her associates, ever ready to honor and appreciate the slightest indication of socialization, with sufficient insight to understand those strange processes by which warped human nature regains its equilibrium. The gymnasium, the choral society, the sewing club, the girls' culture circle—all these are the gifts and occupations used by

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the wise head-worker. The culture of his or her personality becomes a background against which the aspirations, talents, and belated powers of friend and neighbor are thrown into relief.

Every kindergartner will be interested in the metamorphosis of one of our stock stories as filtered through the comprehension of a settlement protegé, viz., the Welsh milkman of the neighborhood. He joined us on the early morning street car, and, after the heartiest greeting, said: "Too bad you could not stay to the surprise party last night. We had a fine time, and she (referring to the recipient of the surprise party) told us a story that beats all the preachings." "How did the story go?" "Well, you see it was a sort of parable, about how once upon a time five brothers and sisters lived in a fine garden and always stayed together, till one day one of them got too good for the rest of the crowd, and went off by himself. The story told how, after awhile, he wanted to do things, and he was like the ring finger, and he could not pick berries, nor roses, nor anything without the thumb to help him. By-and-by he got sick of it and went back to the others, a smarter fellow. Then he gave them this advice: 'I tell you we better just stick together, because we can't do anything if we don't. I've tried it, and you fellows better take my word for it, that everybody is likely to need everybody else at some time or other,' and they always stuck together after that."

It is unnecessary to comment on the socialistic application made of this nursery tale.

A kindergarten so conducted that it uses to the full its many opportunities will naturally expand and become a sound nucleus for a social settlement, which will have a vital, organic, permanent quality not otherwise to be gained.

When asked, "What is the sovereign influence in the home?" we answer without hesitation, the mother. When asked, "What is the chiefest factor in the kindergarten?" we as confidently make reply, the kindergartner. Each is, by force of her position, the central figure in a social organism, and if she sincerely follow the daily expanding conditions of this organism, carrying to each part its peculiar food-stuff, her obligations, as well as position, will widen till she is the core of a social settlement. It is the need of the individual, the need of the neighborhood, the need of the community, which controls and governs the method of social work.

There is no better creed for a kindergartner whose aspiration calls her to the broader work than that statement of Dr. Barnett of Toynbee Hall: "Vain will be music or higher education, or even the Gospel, unless they come clothed in the life of brother men."

Lillian Whiting has given us the following clear statement of this work, which is more easily executed than defined:

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There has been of late a new form of philanthropic work, which is known by the general name of "college settlements." It is simply for one individual, or several, to go into the poorer quarters of a city and live as a neighbor to the ignorant, the defective, the very poor, or the degraded. It is less a mission than it is a ministry—the natural and informal ministry of right-doing. It is to be found a home which shall be a standing object-lesson in better ways of living; which shall illustrate the beauty of order, of cleanliness, of gentle ways, of generous thoughtfulness, of friendly sympathy. The men and women who are doing this do not keep a house of correction, or a house of refuge, or an asylum of any kind. They keep a home. They do not go out into the highways and by-ways to preach or to teach, ostensibly; but they endeavor to so order their lives as to give constantly the indirect teaching of example. Perhaps it is no exaggeration to say that to a greater or less degree they show forth the beauty of holiness. There is a twofold blessing in such living as this. It blesses him who gives and him who takes; and perhaps of all forms of humanitarian work, it is the one best calculated to effect good results.

But if the larger number of people wait to make some specific change in life before endeavoring to realize their higher ideals in conduct; if a change of location and general rearrangement and readjustment of method and detail must precede the better living, then it will be more than likely to be indefinitely postponed.

Why, indeed, should not the principle of the college settlement be carried into living under the usual surroundings? Why not fill one's usual place in life, do one's usual work, meet the customary duties, pleasures, courtesies, only meeting them from new motives and inspiring the duties with higher purposes? It is not only the poor, the ignorant, or even the degraded, who need to have good done them; who need the sunniness of hope, the sweetness of content, the renewal of courage, the unfaltering devotion of heroism. People are not necessarily rich in happiness or in hope because they live in more or less luxury of the material comforts and privileges of life. There is just as much need of the ministry of higher ideals to the comfortable as to the uncomfortable; to the intelligent as to the ignorant; to those who are reaching forward after truth and progress as to those who are receding from them. There is a vast amount of enthusiasm in the world over helping the unfortunate and defective and degraded classes, and so far as this zeal is genuine and discreet it is to be commended; but the righteous as well as the sinner, the moral as well as the immoral, the refined as well as the rude, are not altogether unworthy some degree of both private and public consideration.

As the kindergarten aims to provide suitable opportunity for the activities of the child, so the settlement would provide occasions, would make the opportunity for the adult to exercise his better nature through the various avenues of social contact, literary, musical, even political, experiences. One of the great unnoticed events in American history was the recent gathering in a New York social settlement, called the "Conference of Reformers," bringing together the men and women of varied, and often opposing, but always profoundly sincere schemes for human regeneration. It is no new thing for people to combine for industrial or political reasons; nor is it an uncommon relationship for people to be neighbors because they occupy the same apartments, or because their dooryards touch, or because of business profit, or because the same blood flows in their

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veins. It is not so common for people to come together for advantages which exist only because they are mutual; and yet the latter is the only basis for true fellowship. If it is ever your privilege to be invited to a social occasion at a settlement, do not overlook it. You will find a new class of society at such a reception; you will find fresh topics for conversation and an exhilaration such as comes when traveling abroad among new surroundings. As the kindergarten movement, so that of the social settlement is creating a new strata in society, and it is far more than merely interesting to meet on a common social plane a boodle alderman, or your own laundress, or the barkeeper's daughter with her bridegroom.

As the chief reason for the existence of a social settlement is that of meeting the various needs of a community, its policy must necessarily be flexible and adjustable, ready for experiment and keen to recognize every avenue of assistance which is offered. The kindergarten movement, as many others, might gain great benefit by leaving to a remoter time the crystallization of its theories into a system, and by a more vigorous study of the immediate actual needs of child nature. This social settlement is daily proving that men want more Christianity in their daily lives. The kindergartner, as well as the social worker, needs more, not less, Christianity, and should systematically reject the temptation which argues that an indirect method will answer the same purpose of revealing the Christ. As the abolitionist surrendered his whole being to the great movement which appealed to his natural love for humanity, so the kindergartner must learn to look upon her work, not merely as a scientific profession but as a Christian movement, carrying with it all the requirements of self-renunciation attendant upon such. It will then become an easy task to cherish the weaker members of the profession, and every effort will be made to guard this family of workers against disintegration or deterioration, and then will come that potent recognition of all those unprecedented excellencies which rise to the surface of every expanding movement. The political economist proves conclusively that hard times are the result of some congestion in the economic system of the country. A perfect circulation and interchange of values is as essential to the vitality and usefulness of an educational body as of the body politic. If our kindergarten body is to fulfill its possibilities and normal activities, complete circulation must be maintained. Pestalozzi wrote in 1800 the following fable: "A king, who was standing alone under a lime tree, was struck by the beauty of its foliage, and exclaimed: 'Oh, noble tree; would that my subjects held to me as do your leaves to your branches!' The tree answered him: 'I am forever carrying the sap of my roots to each of my leaves.'"

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Like the social settler, the kindergartner must possess unlimited social resources, and in proportion to her sincere affection for the people of a given community will she be faithful to continue her work in the same locality for more than one or two years.

We do not hesitate to demand to-day of state legislatures state support of our kindergartens, and we heartily recommend to those in authority that the workers, including matrons, teachers, and superintendents of state institutions, shall be more or less familiar with the kindergarten method of handling their peculiar problems.

But greater than these signs of the expansion of our work is the growing appreciation among our number for the social profit accruing to lesser communities and smaller towns from a vital, earnest kindergartner, who makes herself a center for the children of the locality. Her influence does not stop at the schoolroom door, nor at the neighborhood dooryards; but it penetrates every human relationship in a community, touching parents, teachers, church workers and lay workers of all classes. She becomes a Christian socialist, and may well say with the good gray poet, Whitman:

> Behold, I do not give lectures or a little charity—
> When I give, I give myself.

In these brave days, when our national committee of fifteen have substituted in place of the despised phase, "The three R's," that other phrase which appeals more readily to the heart, viz., "Humanity studies;" in this day of schoolroom art leagues, village improvement societies, the people's church, good government clubs, neighborhood guilds and civic federations, the social settlement, the kindergarten workers need no longer feel that they stand alone. The fraternal spirit ripens on all sides into labor unions and lodges, clubs and parties. The bricklayers and the joiners have each their brotherhood, their fraternity. The next logical step in the process of our kindergarten work is that of federation; nor must this be accomplished merely for purposes of professional protection or the concentration of power. It must stand on that broader platform of the mutual social interest, which alone will generate the neighborliness and the friendships essential to the life and growth of an organization, as well as of an individual.

"The Village Improvement Society" says: "The village must be something more than moral and beautiful. It must be beautiful that it may be worthy of the love that every home should inspire." "The People's Church" declares, that there are many in the church, as well as out of it, who need to learn that Christianity is neither a creed nor a ceremonial, but a life, vital, connected with the living Christ. The social settlement, as voiced by one of its eminent workers, makes the

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statement before the world—"if we tell a man he is a son of God, we must go further and say, You are a brother man." The kindergarten says, in the words of the originator: "It takes the whole world of men and women loving each other to make up the perfect image and likeness of God."

THE WORK OF THE PESTALOZZI-FRŒBEL HAUS.

BY MRS. S. H. HARRIMAN, PROVIDENCE, R. I.

Anyone who has made a study of Frœbel's "Mother Play" will recall one picture which shows three or four little children peeping into a bird's nest, and watching with eager delight the young life therein. It is an experience in the life of a child which Frœbel would emphasize, because through it the child may be led to an understanding of his family relations, may gain a deeper insight into the meaning of home life. It is hard for him to view fairly that of which he is a part; therefore, he must see the family relations, the home life pictured elsewhere—in this case, in a bird's nest. And we, as older children, know the value of stepping outside our own little sphere and looking at our work from another point of view. We realize that there is an inspiration which comes from seeing another's work, which often takes on a glow of the ideal, perhaps for the reason that we fail to see the hidden workings, which, undoubtedly to those most intimately concerned, are not without friction.

A year ago this summer it was my privilege to step outside my own work—outside the American work—and to catch a glimpse of the German kindergarten as seen in the Pestalozzi-Frœbel Haus of Berlin. I think this work is generally acknowledged to be truer to Frœbel's ideas than any other work in Germany; perhaps for the reason that it is under the direction of a niece of Frœbel, who as a young woman studied with him at Marienthal. From this view of the foreign work there came to me the lesson of the bird's nest—a deeper insight into my own life-work, a truer appreciation of Frœbel's aim; and as it was a great pleasure then to observe the work, it has been a great pleasure since to tell those interested what I saw and a great pleasure to address you to-day.

The Pestalozzi-Frœbel Haus is an institution whose aim is to advance the educational ideas of those two educators in honor of whom it is named. It is chiefly dependent for its support upon private benefactors, its chief patroness being the Empress Frederick,

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very dear to the German people as the wife of the emperor whom they loved to call "Unser Fritz." The government, too, having satisfied itself as to the worth of the work, pays a small sum annually into the treasury. Each pupil in attendance also pays a small tuition fee, some at the rate of twelve and a half cents per week, which does not seem so small when we find one of the teachers in the training class, a lady of noble birth and a personal friend of the Empress Frederick, receiving a smaller salary than is usually paid an assistant in an American kindergarten.

It was on a warm June morning that we made our first visit to the Pestalozzi-Frœbel Haus. Passing through the large, roomy hall we entered the rooms devoted to the kindergarten, but there was no suggestion of the American kindergarten. These rooms were small and dark, with scarcely a picture to brighten the dull bare walls. The furniture was of the crudest possible type. No tables with polished and checked surface; none of the little chairs which we provide for the use of Young America. In place of these were tables and benches of planks, roughly supported, and suggesting in their arrangement the old-fashioned schoolroom. All this, together with the total lack of sunshine, was almost depressing to eyes accustomed to the brightness which we deem necessary to kindergarten life; but as the children came in their round, rosy, German faces served as sunlight, and one forgot the bare walls as the kindergartners followed, so kind and motherly were the faces, so cheery and joyous the voices. As if by magic the room was furnished. There are about seventy children in the different departments, and these were assembled in the playroom for the morning exercises, which were very simple, consisting of a short prayer, repeated after Frau Richter (at that time acting as principal), followed by a hymn; the children standing in a compact body, instead of sitting in a ring, as is customary with us. After the exercises the children filed out, some to other rooms, some to the garden. We followed, and found the little ones playing in the sand garden, where on pleasant days they spent much of their time. Here was a sand garden indeed, shaded by trees; not the box which we dignify by that name. Here they could dig with their strong toy shovels; here they could transport the sand from place to place in their little carts. Passing through the sand garden we entered the real garden, which is the characteristic feature of the Pestalozzi-Frœbel Haus—that which distinguishes it from the American work. Here an opportunity is given for the observation and care of plant and animal life. In one corner we saw a goat, honored above its fellow in being brought here as the subject for study during June. Her small stable was most comfortable, and as we approached was being made ready for

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the day by a few of the older children under the supervision of a member of the training-class. Beyond was a tiny henhouse and rabbit cage, all cared for by the children. Correlation, the principle emphasized by educators of to-day, was here lived out by the children, for the grass cut by them from the lawn was given to the goat. Her milk was carried to the kindergarten, carefully skimmed at the proper time, churned into butter by the children, and eaten by them at lunch; while the children who had been helping in the indoor work by shelling peas were seen carrying the pods out for the goat's dinner. Surely a practical and clear demonstration of the law of interdependence between the animal, vegetable, and mineral kingdoms. In still another quarter children picked currants, taking them to the summer-house, where they were stemmed and later carefully and scientifically transformed into jelly, the children getting ready the small alcohol lamp, extracting the juice from the fruit, weighing the sugar, boiling, skimming, and testing, until at last is was poured into a glass ready to give to a sick playmate or beloved teacher.

But this practical work is only one aspect of the work. Returning to the building we found a class busy with gift work, building from the fourth gift a barn for the goat by night and fencing in a yard for his use by day; and in each yard was a tiny paper goat, which had been the occupation work of another class the previous day—for the carrying home of work, which we think so desirable, they look upon as undesirable, saving it for use in other classes. Passing on in our search for new ideas which might prove applicable and beneficial to our own work, we visited a room where the group work, the most interesting and characteristic feature of the indoor work, was being carried on.

As many numbers of the training class graduate from this school as nursery governesses it is an important part of their training that they be fitted to deal with children of different ages, To meet this need, these groups are formed by bringing children from different departments together and placing them in charge of a young woman whose aim it is to bring into the group an atmosphere of home life, and to keep the children happy and busy through interesting them in some simple home duty; in other words, to make the ordinary home duties a means of educational training for the children in that home. As we entered a family work basket seemed to be the center of interest. It was large, and full of such odds and ends as a family basket would naturally contain. The little ones rewound the spools neatly, while a boy was busy sorting needles and placing them neatly on a cushion. Another used the emery to free certain needles from rust, while an older girl, having found a bit of ribbon which suggested a doll's dress, was aided in cutting and fitting the desired gar-

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ment. A girl of seven did a bit of mending, while a pencil, rescued from the depths of the basket, was given to a boy from the transition class that he might write a simple letter to a teacher in another room. The value of this work as a means of developing the power of adaptability, of enabling a girl to turn everything to use and make it serve her purpose, cannot be overestimated. It is in these groups that Frœbel's mother-plays are worked out in material form. In connection with the goat, we saw the picture of the grass-mowing. The first step was to arrange a table and cover it with sod. Then tiny horses and the parts of a wagon were cut from paper by the little ones and joined together by the older children, who also covered the blades of the scythes with silver paper. The youngest of all—for, remember, the essential feature in the group work is, that the children shall be of different ages—sat on the floor making a dandelion stem chain, as suggested in the picture, while at another table the whole number took turns in churning the cream from the goat's milk referred to before. Such is the group work, and I think in this, as well as in the out-of-door work, we see the difference between the German and American work. We are so apt to interpret Frœbel's command as meaning "Come, let us play with our children." The Germans interpret it more truly, and really live with their children. Instead of trying to give a typical experience through gift work, or picture, they give the real experience. No distance is too great, no day too warm, no material too difficult to find, no conditions too hard to master, if there is anything which the lesson requires, anything which the well being of the child demands. These German girls accept as a part of their duty to the child duties which American girls would consider it impossible to do; and, on the other hand, they have the power of making the children work. Elaborate work is done, for it consists of parts, and the kindergartner takes advantage of differing ages, dealing out the work according to varying ability. And do not take it for granted that all this work is more easily accomplished in Germany than here. The school is in the midst of a large city. The soil for the garden has been brought there. Blueberry bushes brought from the woods, together with wild flowers of all kinds, while currants, gooseberries, strawberries, and other fruits are raised in small quantities. Beautiful roses bloom here, and bloom so freely in spite of the brick walls that tower on all sides that one is led to think that something more than rain and sunshine is vouchsafed by heaven.

But the rest of my time I must devote to telling you about the home life of the training-class; for herein lies the secret of the home atmosphere which pervades the whole work. The fifth floor of the building constitutes the Victoria Home, the abode of the training-class. I fear the accommodations would hardly suit American girls;

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for the tiny rooms, instead of opening on a hall-way, open one into another, so that it is sometimes necessary to pass through several rooms to reach the stairs leading to the classrooms below. Here, too, there is the utmost simplicity of furnishings, the charm of the rooms being due to the daintiness of expression of individual taste in books and photographs and to the flowers which seemed to breathe forth happiness and peace. In such a place the spirit of Frœbel might well love to linger, and the very atmosphere seemed a proof that these girls had interpreted his messages aright. The class is cosmopolitan, some of them poor girls fitting themselves for positions as nursery governesses; others who have enjoyed greater advantages previous to the training, hoping to go out as kindergartners; while one, a highly cultured English girl, a graduate of Girton College, was studying the system with reference to London philanthropic work. While the girls may live outside the home if they choose, the greater number prefer to live in it, and subject themselves to a rigid course in domestic science. All the work in the building, excepting the scrubbing, is done by these girls. On one sultry morning I sat in the kitchen, watching them as they worked under the direction of a teacher. Closet shelves were put in order, the fire kept in good condition, and dishes systematically washed. Here, again, simplicity of material was noticeable, wisps of hay serving as dish cloths, newspapers as covering for shelves. In all this work the children have their part. In preparing dinner, they pared the potatoes; and as they worked learned of a potato's growth. Perhaps you will wonder when these girls found time for study, but they had already attended an early morning lecture, the house-work being left till the arrival of the children.

Passing into the general sittingroom, we came upon another group of girls busy with the week's mending; patching and darning their own clothes, and caring for the table and bed linen. At the same time another group were receiving instruction in the bathing of children in the bathrooms, children being brought from the kindergarten for the purpose. Thus domestic science in all its branches is made a part of the training.

Later in the day we saw the class mounting their occupation work in books. This work, while more elaborate than is generally done in America, is not as artistic, owing to the crude colors used, for the influence of the Bradley and Prang systems is not yet felt in Germany.

And now I anticipate the question generally asked, How does the work in Germany compare with the American work? It seems to me the two can hardly be compared, because of the difference in environments and aim. In the work with the children, I think we have much to learn from each other. If we could give them a little of the

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sunshine which emanates from light walls with their pictures, from the snowy white apron, which is so prominent a feature in the American kindergarten; if we could imbue them with the lightness of our singing, the grace and alertness of our motions, the real play-spirit of our games; if we could give them some of the sentiment (of which we could spare a goodly amount), and have breathed in upon us in return their whole-souled interest, their practical common sense, their devotion in meeting all the needs of the child, we should both come nearer the ideal.

There is still less ground for comparison when we consider the training-classes. Our requirements for admission to the training-class are much greater than theirs; our standard higher. Many of the girls received there without detriment to the class as a whole would be a most dangerous element in an American training-class, because of that sense of "free and equal" in our atmosphere which would lead them to expect positions for which they were unfit. Here special classes with special aims are needed, and I hope the day is not far distant when our college and kindergarten settlements may open their doors to these girls of fifteen or sixteen years, whose advantages have been few, and give them a special training which shall fit them to go out as children's nurses, in place of the ignorant women so generally employed to-day, who are not only ignorant of every law of child-nature, of any need beyond those of food and clothing, but of the English language.

The chief beauty of the Pestalozzi-Frœbel Haus work to me is what it does for these girls. Coming from homes devoid of luxuries, they are not unfitted to return to them. No luxuries are offered them here, no hours of ease, no spacious room, no expensive pleasures. On the other hand, they learn perseverance, patience, thriftiness; to make the most out of what is at hand; to find the beautiful in life; to make life worth living in whatever circumstances they may find themselves. Considering the class as a whole and the practical training given to all, are we not led to look joyfully into the future for a glimpse of the homes, the mothers, and the children of the next generation? Surely a good woman will be found in many a German village living the life of the good Gertrude whom Pestalozzi gave us in fiction.

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THE KINDERGARTEN AND THE HOME.

BY MRS. JAMES L. HUGHES, TORONTO, CANADA.

[AN ABSTRACT.]

The educational reforms of the next generation must be worked out in the home. The kindergarten and the school cannot secure the best results, however sound their theories or good their methods, without the co-operative work of the home in securing from the first of life harmonious connectedness in the unfolding process. The essential principle of the kindergarten demands that this first period shall be intelligently and sacredly fostered in the home. Frœbel set the child in the midst and turned thought toward the divinely created and organized soul waiting to unfold, and seemed to say to us, "Wait and watch, and you shall see the glory of the divine purpose unfold itself and come forth from within." Shelter it and shine on it without anxiety or haste, and do not meddle; childhood is holy ground. We hear many speak of the kindergarten as the embodiment of Frœbel's educational principles, but the student of the kindergarten period soon finds herself a student of the life principles and the kindergarten only a part of the organic whole, inter-related and interdependent with all that goes before and all that follows after. Frœbel shows to both teacher and parent the sacred nature of the creation; helpless now, but holding within itself the potential strength of a creative and self-creating being, made to develop through self-action, set going by a divine power, for a divine purpose.

Teachers are slowly learning the weakness of methods which were planned to mold and shape the character from the external according to a human pattern; methods which emphasize the value of knowledge rather than the value of the unfolding soul of the child. Old traditions cling to us and set methods are hard to soften and change. We sin so often against the insight we have already gained, through the force of habit and the pressure of undeveloped public opinion, and most of all through the pressure of the teaching spirit. The change must be gradual if it is safe. True reform is growth, not revolution.

Frœbel's view of child-nature has revealed more than the needs of the school or the value of the kindergarten in child-growth. The influence of the mother and the home are seen to be divine factors in the sum of life. They have already given bias to the character, and will continue to modify the work of the kindergarten and the school and determine the spirit of contact with social life. There comes with ever-growing strength the conviction that educational re-

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form must not only include but be based upon clearer insight in the home life. We look for a more conscious motherhood—for a universal mother-spirit—among all women; for deeper and more loving insight into child-nature among both men and women.

The traditional theory of an instinctive wisdom accompanying maternity, which would prove all-sufficient to guide the young mother into ways of pleasantness and paths of peace, has been fairly proved false by its results. In our complex state of society, instinct alone is utterly inadequate to meet the necessities of both mother and child. Emotional love, which fills the mother's soul when she looks into the face of her first-born, like the emotional joy of all other physical relations, must be spiritualized by reason, by insight into the veritable truth which the physical emotion only shadows, or it cannot enter into the eternity of our lives. Consecrated, enlightened motherhood says with that first wave of joy in possession, "My child; our child; God's child;" and like the mother of old, she hides the growing manifestation of life in action and word in her heart and ponders over the strangeness of it, but does not try to mold and fashion this responsive soul according to her own pattern, but, with hands off, watches to see what shall be revealed. Mother's love stands for God's love to the babe. This is the root from which the religious influence springs. The mother-love must have in it the elements of divine love, or it cannot support true life and growth. Wise unselfishness is that which can endure the pain of watching the struggles of the growing life and not seize its burdens, and so weaken its effort and lessen the strength it would gain in carrying them. It takes a brave heart and unclouded faith to consecrate any child to any great purpose; to know that the struggle will be long and often the life bitter, and yet smile and encourage the effort. The poet, the saint, and all strong souls are born through the struggle which comes. There is a loneliness in all great lives; a holy of holies where none can enter, not even the mother. In the home the child meets freedom and material to work out vague ideas. The mother needs patience and insight, or she will cramp the freedom or starve the life.

In the kindergarten the child's experiences are organized for him, and the many impressions which crowd upon his consciousness are made to move in order and singleness before him. In the home he is his own organizer, and there should be no cramping through interference and lack of sympathy.

To secure such motherhood, we must turn again to the school and university and train the coming men and women with this in view. Not to love childhood is to be an incomplete being, either man or woman. An all-around growth demands the cultivation of the parental spirit in every individual. It may never be realized as physical

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parentage, but the spirit is necessary to the complete education and growth. Think, if you can, what change it would work in social life if that was the accepted universal attitude toward childhood. We should not have any reason to fear the decay of the home spirit, but should welcome it in its new form. A home suited to the broader and higher life of developed humanity and more complete spiritual ideals. Motherhood would no longer be looked upon as a slavery, but the crown of womanhood.

DISCUSSION.

HENRY W. BLAKE of Springfield, Mass., editor of the "Kindergarten News," was introduced as a kindergarten father, and spoke on the same subject. He said that the kindergarten brings into the home the trained hand, the watchful eye, the invigorated body, the quickened intellect, and the cultivated heart. It also brings into the home the spirit of song, the love of nature, and the love of God. All these things constitute an excellent platform for citizenship. Although Froebel is physically dead, the influence which he exerts is more thoroughly alive than ever before. He is with us in the kindergarten and the home, when we gather the children about us in the morning circle, or when they nestle in our arms at evening, pleading for "one more story," 'ere we breathe with them the evening prayer.

MOTHERS' MEETINGS—HOW TO CONDUCT THEM.

BY MISS MARY C. McCULLOCH, ST. LOUIS, MO.

Fifty years ago in Germany, an appeal was made that impressed a few earnest men and women with the truth that the realization of the possibilities of the individual and the perfection of humanity necessitated a knowledge of the development and needs of child-life.

"Come, let us live with the children," was a true life-call, uniting all in itself as in a central point; not only uniting human beings and human life with each other and with humanity but even with the Creator who said: "Let us make man in our image." To-day this call is answered by the efforts of leading educators to realize Frœbel's ideals.

The widening influence of the kindergarten asserts itself in its extension and introduction into the public schools, in the harmonizing of primary and kindergarten methods, and in the demands for

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teachers imbued with the spirit of the new education. With each advancing step of appreciation the purpose of education and the means to be employed become more clearly defined. In the light of Frœbel's insight "each stage of development of man, as in the plant, is from a preceding one, and the perfection of each depends upon the one that precedes, leading back to the beginning, to the mother at the cradle of her child."

To her loving care is intrusted the unfoldment and the nourishment of the child's powers. She is baby's interpreter of the world that bursts upon him—new, strange, and apparently disconnected. The consciousness of a mother's relation to the spiritual life of her child deepens the conviction that safe guidance demands conscious aims and methods.

Mothers are awakening to the sacredness of their trust, and recognize there is a science of motherhood to be mastered to make them worthy of their responsibility. Child culture clubs have been organized to study the natural instincts of childhood and the tendencies that mar or aid harmonious development. The revelation of Frœbel's teaching is an inspiration to all who are led to see that the destiny and life work of man is to become clearly conscious of his divine nature.

To kindergartners, mothers' meetings have become an effective means to gain the co-operation of those in the home circle. That conscientious efforts may be crowned with successful results, it is necessary to unify the influences of the home and the kindergarten; therefore, it is fitting that there should be frequent occasions for "coming together," to establish a sympathetic appreciation of the work to be accomplished and give an opportunity for an interchange of views upon all subjects relating to the welfare of the children.

The hand upon the dial of our kindergarten experience points to "mothers' meetings" and tells me that the phase of the work demands united effort to establish it as an essential factor in education. May we not with Frœbel turn to the mothers to learn the secret of the maternal spirit? May not the mothers gladly accept a message that reveals the meaning of their instincts and brightens the way with insights into the characteristics and needs of universal childhood? The celebration of the festal days have proved favorable occasions to attract the mothers to the kindergarten. In the sunny atmosphere of love is ofttimes born a desire to understand the meaning of play.

The mother's desire to know and the kindergartner's desire to impart establishes a bond of mutual helpfulness, that is followed by the "heart to heart" talks on the needs of particular children. This is the initiative step that leads us on to the true object of mothers' meetings, a study of child nature. For inspiration and growth we turn to Frœbel's "Mother Play" book.

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The interpretation of the songs makes clear the spiritual truths embodied in the child's relationships, and suggests a series of experiences through which the child may be led to prepare him for the duties of life. To quote from Susan E. Blow, the "Mother Play" book should be the guide of every mother who aspires to do what is best for her children. It should be the favorite picture and song-book in every nursery. It should be the beacon light by which each kindergartner directs her course. It should be the beating heart of every kindergartner. It should be the center around which revolve all the concentric circles of kindergarten activities. Only by its varied use will its secret be learned and the world understand the meaning of "Come, let us live with our children!"

MOTHERS' MEETINGS—HOW TO CONDUCT THEM AMONG THE POOR.

BY MISS WILHELMINA T. CALDWELL, DENVER, COLO.

Shall I have mothers' meetings? and, How shall I conduct them? are questions which confront every kindergartner in the beginning of her work, for in no other way can the home and kindergarten be brought into the close connection necessary for the good of the child than by the calling together of mothers to talk over with the teacher questions of common interest to all. The kindergartner should have a definite plan in conducting the meetings; but, before this can be carried out, she must gain the good will and co-operation of the mothers who send their children to the kindergarten. The trite saying, that first impressions are lasting, is applicable to mothers' meetings, and care should be exercised in arranging for the first meeting, for future success depends partly on the interest aroused. A study of the environment of the kindergarten should precede the meeting, for in no other way can the necessary knowledge be gained for the work than by visiting the children's homes. No matter how sordid and poor the district is in which the kindergarten is placed, the kindergartner should remember that the privacy and rights of the meanest house should be as sacred to her as any mansion on Capitol Hill. Household affairs do not always run smoothly in the best regulated families; cleanliness and order are not always possible when living in two rooms with six children. No unasked advice should be given at this or any other period of the work, and the visitor should have

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eyes that see not, ears that are deaf, showing the same courtesy and consideration which she would give to her friend. No matter how low in the social world the patrons of the kindergarten may be, but little good can be accomplished unless the kindergartner remembers, that, in the kindergarten, high and low meet on the same social plane.

A day and hour convenient to all should be chosen for the meetings. A written invitation addressed to the mother, to come and help with some work for the children, carried home by the children, will always secure a good attendance, even for the first meeting. Entertainment should be provided for the little ones who cannot be left at home, so that the mothers may be relieved of the care of them during the hour.

There is nothing like working for a common object to draw people together. In making some simple decoration for the kindergarten or a scrap-book, all formality and stiffness vanishes, a feeling of goodwill is established, and the first step is gained. Then, in working for the children, it is easy to pass to the children's work in the kindergarten and its purpose.

After some time spent in this way, some of the children's games could be played or their favorite songs sung. If possible, the songs should be type-printed; but if this cannot be done, have the words written on a blackboard and provide paper and pencils for copying.

The question of refreshments is a vexed one, but when given they should be of the simplest kind. With a small alcohol stove, a cup of tea or coffee, with crackers, can be served, and is all that is necessary. Let the table-cloth and china be of the commonest kind; but the cloth should be spotless and the cups and saucers as pretty as can be bought. If possible always have flowers on the table, even if they are only a handful of dandelions gathered from adjoining lot. We should remember that indirect influence is often the strongest, and the simplest kindergarten tea-table may teach its lesson in many homes. Cheap and ugly are synonymous in too many houses.

The meetings should always close promptly on the hour, so that those whose home duties are pressing may feel free to leave. The singing of one of the kindergarten good-by songs is a good signal for dismissal. "Will you come again, and help me finish the work for the children?" will bring all together again.

During the next hour a short sketch of Frœbel's life may be given. In the succeeding meetings, the chief principles of his educational system may be presented; but in what manner must be left to the judgment of the kindergartner.

The holding of mothers' meetings in the kindergartens connected with School District No. 1 has been optional with the directors. Thirty-five meetings have been held, with an average of attendance

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of thirty mothers. The same general plan as sketched in the preceding pages has been followed. After the co-operation of the neighborhood has been gained, different lines of work have succeeded. In one kindergarten a series of talks on typical songs from the "Mother Play" have been given, while in others model lessons on the gifts or on nature study have employed the time. Some of the directors have preferred giving the manual work; but the last half of the hour has always been spent in singing, the playing of games, and general discussions.

In one neighborhood collections of pictures have been shown to the older brothers and sisters on the same day the mothers' meetings have been held. A visit to the kindergarten one noon by some boys, to see the "little ones' school," suggested the idea. Their interest and delight with the pictures led to having a picture exhibit. Through the kindness of the librarian of the East Denver Public Library a number of woodcuts, colored and uncolored prints mounted on cardboard, were hung around the kindergarten. Five of these collections have been shown. At the last one, twenty minutes before the doors were open the boys had collected and waited not very patiently until allowed to enter. Hatless, shoeless, some in rags and tatters, few with clean hands, they came trooping in. The general order was good, although the excitement among the boys over the voting for the favorite picture ran high. Every pencil borrowed was returned, and when the ninety grimy pieces of paper were counted it was found that Longfellow's portrait had received one vote, and the picture of an ascension of a balloon was up among the forties. "No matter," said the director; "many of the Italians have had toy balloons; two boys have seen a balloon go up from the gardens. So we will be Herbartians, and call it an example of apperception."

In a district where it has been difficult to reach the families, on account of the inability of the majority of mothers and their children to speak or understand English, the children's gardens have been a link between home and the kindergarten. The director gives the following report of the last mothers' meeting:

We went into the yard, where the mothers were much interested in the children's gardens. One woman asked the name of a brilliant geranium, so she could buy one like it. Then, after being told how to plant them, each woman was given a package of seeds, and on our way home that evening we passed a house where a woman told us she had already planted her seeds.

Another woman said she had no place to plant her seeds, as there was no fence in front of the house; but a day or two later we were pleased to see a fence around the house. This house has been one of the worst looking in the neighborhood, but a great change has come over it. A good many improvements have been made. While the child was very irregular, there is now a marked change in his attendance.

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Every kindergartner should bear in mind these words of Bishop Dunham, that, "The true teacher gives nothing but materials, and opportunities, and impulse;" and along whatever line she works, she should remember that her mothers' meetings should supply the impetus and suggest means of self-improvement.

COMPARISON OF THE EDUCATIONAL THEORIES OF FRŒBEL AND HERBART.

BY JAMES L. HUGHES, INSPECTOR OF PUBLIC SCHOOLS, TORONTO, CANADA.

When history becomes a study of the past for the sources of life and light, the last part of the eighteenth and the first part of the nineteenth century will stand out clearly as the brightest period in educational development. The revelations of this productive era were more important than its revolutions. The most magnificent evolutions of the period were educational; not military nor political.

Among the many leaders of this era in the great work of educational reform, Pestalozzi, Herbart, and Frœbel are the great central figures. If all other educational literature were destroyed, the principles of these three kingly men would still reveal all the vital forces that are molding the educational systems and methods of to-day both in aims and processes.

These men were all living at the same time, and their spheres of labor were not far apart. Pestalozzi was born thirty years before Herbart and thirty-six years before Frœbel, and to him, more than to either of the others, must be given the credit of the educational awakening. He aroused Europe, and Herbart and Frœbel must have been influenced by the favorable educational conditions into which they were born. Frœbel undoubtedly owed more than did Herbart to Pestalozzi, because he was a student and fellow-worker with him.

Many of Pestalozzi's educational principles had been revealed by Comenius and Rousseau; but Pestalozzi rediscovered them and discovered other principles for himself, and his ardent enthusiasm and deep sympathetic love for childhood made educational principles living forces in a new and most impressive way. His schools became most suggestive object lessons, and through them his educational principles obtained a vitality that made them controlling forces which started a much-needed educational revolution.

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Herbart and Frœbel were both more scientific than Pestalozzi in their methods of dealing with the subject of education. They worked out their systems logically and constructively; he was emotional and instinctive.

In their study of the child as the basis of a sound pedagogical system, Herbart and Frœbel were in harmony in accepting the parallelism between the progress of the race and the development of the child. This idea was not original with either of them. Many of the ablest philosophers and theologians have held this view, and Rousseau and Pestalozzi had brought it within the range of educational discussion before the time of Herbart and Frœbel. Frœbel made more use than Herbart of this idea of similarity between the culture epochs in the growth of the individual and the race. It aided Herbart to decide what instruction is best suited to the child, the youth, the man, at different stages of his development; to Frœbel it helped to reveal, not only suitable material for instruction but proper processes or occupations by which the child, the youth, and the man should define and increase knowledge and power.

Both Herbart and Frœbel studied the child in order to lay down a system of education that would help to ennoble man and enable him to work out his highest destiny. They were fully in accord in regard to the true aim of education. Both made the development of moral character the great purpose of all education, and their study of the child was made to find the surest way to reach this desired end.

There was a radical difference, however, in their attitude towards the child. Herbart studied the child to find the best that could be done for it; Frœbel studied it to learn how it could be aided in working out its own best development. Herbart magnified the work of the teacher; Frœbel magnified the work of the child. Herbart made instruction and Frœbel made self-activity the source and cause of growth in knowledge and character.

This difference of view-point leads to the chief distinction between the work of the two great educators. Herbart discusses the work of the teacher, and shows what should be taught to the child, when it should be taught, and why it should be taught, with occasional suggestions as to how it should be taught. Frœbel, on the other hand, considers chiefly the work of the child, and endeavors to lay down a complete system of education by which the child's entire nature may be called into vigorous exercise. Frœbel keeps constantly in mind the work of the teacher, and he has clearly defined ideas regarding the order in which knowledge should be presented to the unfolding mind; but the basis of his pedagogical system is growth through self-activity of the child. He discusses the same problems as Herbart; but he reveals the child's part in the work of education, and tries to

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show the teacher how to guide the child in doing its own work without interfering with its spontaneity. Herbart improved the work of his predecessors; Frœbel revolutionized it.

President De Garmo summarizes the work of Herbart under three heads: "(1) The development of a system of psychology capable of immediate bearing on the problems of teaching. (2) The scientific application of this psychology to education. (3) The revelation of the possibility of making all the activities of the schoolroom, including especially instruction, bear directly upon moral character."

Even those who differ from Herbart in regard to the foundation principle of his system of psychology must recognize the wonderful ability with which he expounded it. His analytical power is simply marvelous. He sees all sides of a question clearly, and sometimes explains the details of opposing or qualifying principles so profoundly as to leave one somewhat doubtful as to the course of action recommended. A complete series of educational maxims covering the general fields of discipline, training, and teaching might be made from his writings. Certainly no other writer has given dignity to so many commonplace theories; but, on the other hand, no writer has made a closer analysis of mental operations.

Even those who reject the Herbartian theory of soul growth by the accumulation, enlargement, and modification of ideas will be ready to acknowledge the fairness of the claims made by President De Garmo in his summary of Herbart's work, with a slight explanatory statement. The third claim may be misunderstood to mean too much. The expression, "all the activities of the schoolroom," means infinitely less as applied to Herbart's system than when used in relation to the system of Frœbel. With Herbart it refers chiefly to the work done under the specific direction of the teacher; but in Frœbel's case it always refers specially to the self-activity of the pupil. The phrase, "including especially instruction," shows, that, in Herbart's system, it is the teacher's work, "especially the work of instruction that bears directly on moral character." Herbart makes this very explicit throughout all his works, and summarizes his entire pedagogical system in two brief sentences: "Instruction will form the circle of thought and education the character. The last is nothing without the first. Herein is contained the whole sum of my pedagogy."

Starting with the idea that the soul possesses no "germ-like faculties," and that it grows through the increase and enrichment of ideas, he concludes that: "The kernel of our mental being cannot be cultivated with certain results by means of experience and intercourse. Instruction most certainly penetrates deeper into the mind."

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Having laid this foundation, he is naturally led to rely on the doctrine of interest as the central element in his pedagogical system. Interest, desire, action, will, is the order of the sequence of human development in his psychology. The doctrine of interest has been expounded by Herbart in a way that leaves little room for enrichment by his successors. With him interest is no passing fancy, no temporary attraction to things or subjects. It covers the whole ground of knowledge and of sympathy; "knowledge of the manifold, of its law, and of its æsthetic relations; sympathy with humanity, with society, and the relation of both to the highest being." He describes interest as, "The joy of life and the elevation of soul which knows how to part from life." He makes it, in the language of one of his greatest interpreters (Ufer), "the root of volition." He has been severely criticised for making action lead to will, instead of adopting the commonly accepted idea that will leads to action; but those who dissent most strongly from his views regarding the relationship of will and action may learn quite as much from his pedagogical use of interest as those who are his most ardent admirers. Opponents as well as disciples may have their ideas enlarged and defined by Herbart's discussion of interest, many-sidedness of interest, proportionate many-sidedness, empirical interest, speculative interest, æsthetic interest, sympathetic interest, social interest, religious interest, absorption, and reflection.

Herbart's system made instruction the basis of virtue. Ufer crystallizes Herbart's teaching on this point in the sentence: "When instruction has generated knowledge that incites to volition, and that is controlled by ethical ideas, its task is done."

It is easy to see how essential it was for Herbart to insist on apperception and correlation or concentration of studies. Apperception to Herbart meant more than the accumulation of knowledge, or even of new knowledge allied to what was already in the mind. It meant mind awakening, mind activity, mind defining, and mind enlargement; not by accretion, but by assimilation of the new knowledge with the corresponding mind content to form a greater mind content, which should be a unity and not an aggregation of related ideas.

Frœbel's educational system rests broadly on two great laws, the law of unity and the law of self-activity. His fundamental thought was unity—unity in the elements of individual power, physical, intellectual, and spiritual; unity in the exercise of human powers, receptive, reflective, and executive; unity of the race, unity of man with nature, and unity of man with God. This law of unity led Frœbel to insist even more strongly than Herbart on the perfect articulation and harmonious correlation of studies. He criticised severely the lack

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of unity in the studies of the school he attended when a boy, and endeavored to remedy this defect in a school in which he taught while a student in Berlin. In all his after work he made unity an essential. He made this law of unity the basis of his kindergarten system. Every detail of his system, in the gifts, occupations, games, songs, and stories, is related to this central thought. To those who see behind the material and the occupations, the kindergarten is the objective embodiment of true concentration; and Frœbel strongly urged that this same principle of correlation should dominate the arrangement of school programs and the methods of teaching in the schools.

Frœbel's view of the human soul was directly opposite to that held by Herbart. Frœbel believed that the child has within him a self-active soul, an element of divinity, the selfhood or individuality of the child, and that this develops by being put forth in gaining a knowledge of its environment and in performing the duties pertaining to the social relationships. These opinions led him to discover his law of spontaneity, or self-activity, which he made the underlying principle of all his developing and teaching processes in the kindergarten and in the school.

He did not mean by this law of spontaneity that the child has to acquire all knowledge by himself, without the aid of the teacher. He gave instruction its true value. He did mean, however, that no instruction really becomes a content of the child's mind in the highest sense until the child has made a creative use of it in some way. Frœbel's lessons always have two parts, the instructive and the creative. The teacher gives new instruction, and immediately the child makes an original use or application or modification of it. In this way, by his law of self-activity, Frœbel secures, to the fullest possible extent, active, co-operative interest, and the most productive apperception. The child must be more interested and more definitely attentive when using knowledge than it can possibly be in receiving knowledge. Executive attention must be more developing than receptive attention, even if the pupil acts in carrying out the plans of the teacher; it becomes still more productive when the pupil executes its own plan or carries out its own design.

Apperception, too, is more complete when the child is self-active than at any other time. The mind content corresponding to the new presentation rises to the surface to receive it with greatest energy in response to an impulse to definite action in producing or accomplishing a creative purpose. In this way the assimilation of new knowledge with that already in the mind becomes most perfect, and the mind content so produced responds with greatest freedom and with most vital intensity to the subsequent presentation of new ideas. The superiority of the active apperception of creative self-activity

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over the relatively passive apperception of the most interested receptive attitude of the pupil's mind results, therefore, from two causes: The mind acts with more potency in the first apperception, and the resulting mental content possesses more perfect homogeneity and more responsive energy. The executive tendency of the mind secured only by self-activity is a most essential element in character.

In discipline and training Herbart was much more coercive than Frœbel, although less so than most of his predecessors and some of his successors. He made a much larger use of compulsion, both in forcing attention to study and in controlling the conduct, than Frœbel. Frœbel recognized the selfhood of the child as the true source of interest and the surest controlling force. He would not check effort, because he desired above all else positivity of character. He would not stop the current of real individual energy; he would change its direction when it was wrong by changing the pupil's center of interest. His constant purpose was to secure reform and progress through the child, so that it might become self-directing and self-progressive. Herbart recognized with great clearness the necessity for control; Frœbel saw the harmony between spontaneity and control—"the perfect law of liberty." Yet Herbart acknowledged the individuality of the child. He wrote many wise things about it. He says, for instance: "The teacher ought to make it a point of honor to leave the individuality as untouched as possible." He criticises severely those teachers who "dominate the feelings of the pupil, and, holding him by this bond, unceasingly disturb the youthful character to such an extent that it can never know itself." But even his disciples acknowledge the fact that there is at least an apparent incongruity between his conception of the mind of the child as built up "entirely of presentations," and a true recognition of individuality. Herbart himself saw this. It is clearly impossible to give individuality its full recognition when the conception of the soul is reduced to the smallest possible degree. The more the soul idea is limited the less important does individuality become, and the more potent does the teacher become as a decider of destiny. Frœbel's conception of the soul as an element of divinity in the child gave him a reverence for individuality so profound that he demanded of the mother and teacher two things for the child: Freedom, and opportunity for creative activity in applying and extending the knowledge gained by experience and instruction.

The characteristics of the systems of Herbart and Frœbel may be summarized as follows:

Both Herbart and Frœbel made high moral character the great purpose of education.

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Herbart limited the original capacity of the human soul to one power, "that of entering into relations with the external world," or, as De Garmo defines Herbart's idea, "he assigned to the soul merely the capacity of self-preservation." Frœbel regarded the soul as a germ of divinity that must inevitably develop in power and that should develop by its own creative self-activity.

Herbart studied the child to mold it; Frœbel studied it to guide it in its growth.

Herbart studied the child as a philosopher; Frœbel studied it as a sympathetic friend.

Herbart's recognition of individuality was limited by his conception of the inherent powers of the soul; Frœbel's idea of the child soul necessarily led him to reverence individuality as the central element in human development, and as the thing that made the increase of human power desirable.

Herbart saw the need of control much more clearly than the need of freedom; Frœbel saw the harmony between freedom and control.

Herbart made instruction the basis of virtue; Frœbel made morality depend on true living in the home and in the school, on the awakening of the ideal as a counterpoise to the sensual, and on the recognition of and reverence for the life principle in and behind nature.

Herbart made will result from action; Frœbel made action result from will. Self-activity developed the will according to Frœbel, but he taught that the will increased in power as the result of its exercise in causing creative self-activity.

Herbart's contributions to pedagogy are a matchless discussion of interest, a thorough exposition of apperception, and a philosophic foundation for co-ordination of studies, so that they may produce the most definite and most beneficial results on character. Frœbel revealed the law of creative self-activity as the source of growth, including in it the most intense and most certain interest and the most perfect apperception; and the law of universal unity, in which unity of studies (correlation or concentration) was definitely recognized, although it is not the most important part of Frœbel's comprehensive idea of unity. Frœbel's chief influence on educational forces rests on his recognition of woman as an educational factor outside of the home as well as in it, and his extension of the period of training by providing his comprehensive kindergarten system for little children. The kindergarten is an objective illustration of the results of reverent child study, and has undoubtedly led to the universal interest in the systematic study of the child which during the past ten years has become the most prominent characteristic of educational investigation. Frœbel influenced educational thought and practice, too, to

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a large extent, by his use of play as an educational force. Others had recognized the value of play, but Frœbel was the first to organize play as an essential element in training.

Herbart aimed to produce in his pupils the spirit and the power of co-operative and productive activity. In this ideal he was the peer of all other educators except Frœbel, and the superior of most of them. Frœbel's ideal was co-operative, productive, and creative self-activity.

DISCUSSION.

MRS. EUDORA L. HAILMAN, Washington, D. C.—In reading an account of Herbart's educational activity, we are surprised to see no mention of Froebel, although their life-work ran along similar paths and although Herbart was familiar with Pestalozzi's work and had opportunity to familiarize himself with Froebel's.

Among the explanations which might be given for this the most plausible as well as most charitable is found in his failure to recognize the value of early and earliest life development and his blindness to woman's share in this. All recognized education in his time was mere instruction, and even that in the hands of men only, who, from necessity, could not divine the soul of the infant being. Infant psychology is concurrent with the advent of the woman teacher and with the recognition of woman as the most important agent in the education of mankind. From the cradle to the grave it is woman who inspires, sustains, restrains, encourages, and guides. It is woman who has brought to schools and colleges humane methods of discipline. Therefore, any system of education which would lay claim to real merit must acknowledge the essential importance of early childhood. If education meant merely a logical piling up in the mind of more or less valuable information, we might do well to follow the Herbartian method. But the world is on a higher plane to-day in these matters than it was fifty years ago. The view is broader and deeper. The two men who did most to lift us upon this higher plane are Pestalozzi and Froebel.

The principal reason for this lies in the recognition on their part of early childhood as the beginning point in the work of education, and the acknowledgment of the relative infallibility of woman's method of developing soul. This is the chief difference—as I see it between the educational schemes of Herbart and Froebel.

Herbart directed his attention to the school-life of the child, or rather of the boy child, with reference to the advancement of learning and the establishment of ethical character in citizenship. Froebel directed his attention to the growing development of childhood towards all-sided humanity, of which learning and citizenship are incidents. He saw and utilized the value of the first six years in child-life as essential in the development of soul. He emphasized what Herbart failed to appreciate sufficiently—the careful attention to the training of the senses, both in seeing and doing, through which all percepts, concepts, appercepts, or whatnots of idea life are set in motion.

Herbart emphasizes the importance of stimulating interest in the child's mind, but does not recognize in his work the child's spontaneity upon which Froebel based a doctrine of interest broader, deeper, and more vital than that of Herbart. He

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paid too much regard to the correlation, co-ordination, concentration, and other externalities in school studies, but failed to grasp the nature of the child. Hence much artificial formalism and little natural development; possible enhancement of talent and certain arrest of genius; much accumulation of traditional lore, but atrophy of the creative impulses upon which human progress, or, as Froebel would say, the revelation of God in man depends.

Herbart strikes a keynote of the pedagogics of the kindergarten in what he calls interests arising from association with others, but fails to provide means for unfolding these interests in a truly helpful life of benevolent co-ordination. Herbart makes much of voluntary attention, but fails to build it on the strong foundation of illumined spontaneous interest of which Froebel never loses sight. Voluntary attention not so founded is cold and unimpassioned, lacks vitality, dies in erudition, and fails of life-fruitage.

Herbart and Herbartism is rich in devices, artificial courses of study, forced adaptations of painfully selected *ex cathedra* details to cruder generalizations of child-life—schedulings without end; but fails in regard for the child's individuality, in which Froebel sees the renewed promise of the ultimate revelation of God in man.

Both Herbart and Froebel emphasize the importance of experience in mental life. But Herbart limits it to its value in the apperception of stored treasures of learning, while Froebel extends it to all the varied moods of self-expression in an active, beneficent life. Herbart's child learns to see how to do; Froebel's child sees and does all along the line.

I confess that I realize keenly the difficulty of a comparison between Herbart and Froebel without constant danger of seeming unfairness to Herbart. Herbart has done much for which he deserves the gratitude of teachers with reference to school instruction and its value in character training; but Froebel's work embraces every phase of soul-unfolding. To compare the two is like comparing Pike's Peak with the Rocky Mountains. To compare Herbart's "General Principles of Pedagogics" with Froebel's "Education of Man" is like comparing a commentary on one of the books of the Bible with the Bible as a whole.

All honor to the commentary as far as it goes, and let us sincerely thank the author for the light he throws on the particular book of which he treats, but let us not fall into the error of taking the texts for life sermons in our work from the commentary.

DR. W. N. HAILMAN, Washington, D. C.—I agree with the proposition, that it is always an injury in the work of education if those who teach follow some one leader and not the child. I think one of the chief hindrances to the development of Herbartism is its name. We have in the kindergarten gotten entirely rid of Froebel. We don't call ourselves Froebellian any more. We are followers of the kindergarten idea. Men die and women die, but the principles live forever, and we follow the principles. Froebel himself was bitterly opposed to the term Froebellian. "Personal following," he said, "separates, and principles alone unite. Follow the principles I have indicated, but not me. I am but the weak exponent of the dawn of insight into that principle, and you, who do this work, must see it more clearly than I have done."

To place the name of any man at the head of a system will necessarily narrow and weaken its development. The comparison between Froebel and Herbart seems almost impossible, for the reason already given, that Herbartism deals with a course of study in school. It does not deal with education; it looks primarily upon instruction. Froebel looks primarily upon the child, and uses instruction as a method of development. This is a very important difference between the two.

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Herbart transmits the tradition of the race to the child; the kindergarten and its educational principles seek to unfold a divinity that lives in the child. The kindergarten deals always with the child—helps the process of evolution. Herbart goes upon the idea of culture epochs—declares that every human being in its development must pass through all the various periods of development through which the human race has gone.

Yet, granting that this is true, it does not follow that it is a correct educational principle to fix the child successively in all these periods; to make him for a little while a savage, and for another little while a half savage, and then a civilized being.

This arrests development. We want to give the children the best ideals of the present. Upon these ideals shall they stand. When these are firmly impressed on their souls, when they have the attitude towards the ideals of the present and future, then they can look with profit upon the ideals of the past which we have dismissed.

We don't want to arrest development. I was brought up in Switzerland. My teachers had heard of Herbart and we were taught some upon Herbartian methods. We were taught, more particularly, the Bible history. I remember the influence which Bible history had upon my mind. I see it with a sort of dread even now. I had been taught in my daily life to look with reverence upon social institutions. I saw my father and mother a unit in the family of which I was a part. Then I learned about the patriarchs, whom we were almost taught to worship, having several wives, and it impressed itself upon me that possibly my father might indulge in several wives, and that possibly when I grew up I might be as fortunate as the patriarchs. This had to be undone in my mind. My moral status was demoralized. So in regard to other things about patriarchs which even at that day I could not appreciate. I went to school to a little town that was two or three miles away from the village. Every morning I walked the three miles and in the evening I walked the three miles back to my home. I remember one day after we had been taught that history in which Jacob deceived Esau out of his birthright with the approval of God, I walked home the whole way protesting against the injustice on the part of God.

I called him, in a childish way, all sorts of ugly names, all to myself. There is some of the effect of the culture epoch. How does the kindergarten handle this? It says we must give only the best. How does nature handle it in the physical development? Does she give to the little child food which it cannot digest? No; she makes him strong first before she subjects him to the task of taking less digestible food.

Now, the kindergarten does the same. The kindergarten would make the child a social being, and therefore places him, not into a savage state but into an ideal little society, in which everything is kindliness and helpfulness, in which there is not competition but co-ordination, in which one helps and appreciates the help of another.

Then, when this attitude is established, it shows him that in life there are not ideal societies, but that he must labor, and forward, and strive towards this, which has been made his attitude.

Education and instruction are two different things. Herbart would teach: the kindergarten would develop—would develop soul. Erudition and life are the outcomes of the two—erudition of Herbart and life of kindergarten, but life includes erudition; therefore it is all that Herbartism would be.

The kindergarten, then, as I take it, has no quarrel with Herbart. The kindergarten accepts everything that Herbart has given us, and the followers of these

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principles accept gratefully this one great achievement of Herbart, that instruction must, at every step, develop character. That is good. Let us hold that fast. But the kindergarten has the same, and all good teaching for some time has had the same idea and ideal.

Herbart has taught it well. The kindergarten would acknowledge gratefully the contribution, if you choose to call it so, of Herbart to educational science, that everything that is done in instruction must be based upon the child's previous experience. All these things and several others I think the kindergarten would gratefully acknowledge, but not substitute these for the wider, higher, broader, deeper aim of education as presented to us in the "Education of Man."

In the "Education of Man" we are told that the destiny of mankind is to unfold the divinity that lies within, and the divinity is never unfolded within us by going back to previous periods and resting upon those. May I follow the example of Miss Arnold, and also close with a piece of advice?

One of the outcomes of this epoch is the present prevalent notion that children should be fed as early as possible with myths and fairy stories, representing an early culture epoch in man. Now, in regard to this, I would advise great caution. Upon the myth I look as one of the most highly developed creatures of human genius; as an effort to represent in poetic form the theory of life and the theory of nature, as it appeals to a mature, earnest, poetic mind. To bring this to a child, it seems to me, is a desecration of the myth, as well as a sin against childhood. In the first place, the child cannot appreciate the soul of the myth. The child lacks maturity, lacks the knowledge, lacks the experience, lacks the insight into things and relations of things which are absolutely necessary in order to appreciate the soul of the myth. Hence he gets from the myth merely certain externalities of plot or form, but not the meanings or soul of it. Something similar, it seems to me, applies to a fairy story. The fairy story is the outcome of a rich, vivid fancy, imagination. It pleases the child, but perhaps not all things that please a child are good, and in the selection of a fairy story we should be exceedingly cautious to see to it that its teaching should be in the right direction; that it should not lead the child back into former epochs; should not give him wrong ideas. I can tell you some stories from my lonesome walks to school. I was fed on stories, and I labor under the pernicious effects of them to this day.

I used to go home from school after hearing a fairy story and imagine myself the hero of that story, and I should blush to relate to you the absurd wickedness that came to my mind and which I fancied and acted out under the influence of the fairy story. There was, among other things on the road, an old castle. I visited that castle sometimes during the spring summer months. I went down into its deeper vaults, and there I communed with those persons who played with bones of skeletons, etc., and cruelty grew in my heart and much disregard for the sweet and beautiful things of life. And a taste for the hideous grew, and my mother had trouble to get that out, and I have labored to this day to help my mother in the work.

Give to the child the truth; that is not fairy story. Give him the truth to stand on, the truth to love, the truth to see always, the truth as he can see it; not the truth as you can see it, but the truth as he can see it. Is not nature beautiful? Is not the sunrise beautiful? And the sunset? The life of the flower, and the various animals of which the child can take loving care?

In the daily intercourse of one child with another, are not there ample opportunities for beautiful teaching, helpful, material, instructive situations? Why not take these, instead of those things which merely confuse, pervert, mislead the child's mind, and therefore arrest development? Let us hold fast to the truth; not follow names. Principles only are strong and will lead us to success.

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COL. F. W. PARKER of Chicago, Ill.—The initial movement in education in this century was made by the kindergarten. History will confirm this statement. The next great organized movement now coming in with zeal and earnestness and scholarship is the Herbartian method. I am neither a Froebellian nor a Herbartian. I don't like the word "follower" in this country. From both we get methods and principles of priceless value. Froebel recognized the divinity of the child. Herbart did not find that inherent, and therefore Herbart will have to be modified, for I believe Froebel was right. The child is possessed of marvelous powers of body and mind, and all the progress of education in the past and the future will grow out of it.

Here is the difference between these men: Froebel discovered the great dignity of the child. The great failure of Herbart is, he believes in class education. There is no class education in Froebel. That is the reason he was driven out of Prussia in 1848. Froebel meant the entire freedom of man. It is not his gifts and methods we quarrel over. He believed in the principle of freedom for every child—a democratic freedom. The aristocratic instinct knew what that meant, and so it drove him out. Herbart and his followers did not arrive at that.

The greatest thing in the kindergarten, which is above all, superior to all else, is the community life, which the child cannot have at home because he has nothing to do for others. The only way to educate a human being is to set him to work for others. You can make a pedant of him, but you cannot develop him in the highest way without giving him something to do for others. Morality is thinking and seeking what you can do for others, and ethics is putting it into execution. Froebel recognized that thought, and put the children into the community life, to give them something to do for others before selfishness seized upon them. Froebel and Herbart are working in the same direction. I believe in the work of Herbart, only I want to say, don't be followers of Herbart. Be followers of his spirit. Don't be disciples of Froebel, but interpret his spirit and apply it. The ideal school is the ideal community. The child is not in school to gain knowledge. He is there to live and to put his life into the community in which he lives. This is the future of education. We must abandon the quantity view, the knowledge view, and remember that the society of to-morrow is the school of to-day. We can only make the society good, the state good, as we make these little communities of children love each other and put their work in each other's lives, and so the world will move forward.

FRANK M. MCMURRY, Buffalo, N. Y.—My special topic is the relationship of Herbart and Froebel. Not long ago President Eliot remarked that the problem of education was the same, whether we spoke of the kindergarten, or the school, or the university. He declared that the laws of teaching, if true, are universal in their application. We have in this country to-day an enthusiastic body of kindergartners; likewise we have those interested in Herbart's teachings. If the laws of instruction are universal, there is no reason why these two bodies should stand aloof from one another. They ought to recognize the unity of their efforts. During the past year my experience has led me to feel we are losing much because we stand away from one another, thinking about topics which really are closely related. I have not a very long-time acquaintance with the ideas of Froebel, but all my work has led me to think of the relationship between these two men. Knowledge and discipline are not the primary objects of either of these schools by any means. I am going to touch upon the points of similarity. Knowledge does not stand first in the minds of the Herbartians in Germany to-day. Neither of these schools is utilitarian. Knowledge is an instrument and not a thing in itself. Both of these men keep in mind the condition under which knowledge can be gained.

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The attitude of the child toward the studies—that is what we are thinking about. Both schools are aiming primarily, not at character, not at knowledge, not at discipline, but at the right attitude of the child toward the thoughts given him. The development of taste is a strong test among Herbartians; also, the development of a religious, social, sympathetic, speculative interest and scientific interest. Herbart divided the work of instruction into these six fields. In each line the purpose is to develop a love for one or the other, or all of these lines. Then we agree in attempting to develop primarily the tastes, the loves, in the leading fields of knowledge. I hope, that, if I misinterpret the kindergarten standpoint, the mistake can be pointed out here this afternoon. I am preaching from the standpoint of Herbart, but it seems to me it is the standpoint of Froebel also.

To both of these schools, what is taught in the school is an exceedingly important matter. We don't agree on the whole with the common statement that it makes little difference what children study. We agree, that, through clear and accurate ideas, a strong character is to be developed, provided a lively interest in those thoughts is aroused. Here is possibly a difference: I am not certain whether the followers of Froebel believe that ideas themselves are the chief means through which a live interest can be aroused.

I saw during the past year a morning circle in a kindergarten in which corals were the topic, and the teacher presented a quantity of thought which was so difficult that I would not have attempted to give it in three or four recitations with ten-year-old children. The Herbart standpoint is that a lively interest is based upon clear, accurate thoughts. Whether that is the kindergartner's standpoint or not, I am not quite sure. We see, then, that both of these schools do not aim at discipline primarily. We are interested in choosing ideas which fit the child. Apperception is one of the most common words among Herbartians. Child study is one of the most common phrases. We are interested in just the same kind of work. We both realize that the school is for the child. The standpoint in this country to-day is not that. As I understand common schools, the teacher feels the curriculum is superior to the child. As I understand it, the kindergartners and Herbartians are opposed to that. The curriculum must be sacrificed for the children. I think the principle of going from the whole to parts is emphasized vastly more by the kindergartners than by the followers of Herbart. A part may be a whole, a whole may be a part; it depends upon how we look at it. On that account, the Herbartians emphasize the law of apperception. Begin with the thought which is nearest the child. We might begin with a tree or a part of a tree; for instance, the roots, if the roots of a tree are nearest the child's interest. So the law of apperception guides us in making our choice.

Coming down to the arrangement of subject-matter, I think the kindergartners are accomplishing concentration more nicely than the followers of Herbart. I have never seen such beautifully connected work in the common schools as in the kindergarten. The morning circle in which the ideas are presented which guide the work in occupations and gifts, it seems to me, is the center of interest there, the center of concentration, and the day's work in the kindergarten is better associated than in the common school; and many weeks' work is better associated in the mind of the child than the different weeks' work in the common school. I think teachers have a great deal to learn from the kindergartner. I don't believe we can ever apply the kindergarten idea fully, and I don't think it desirable quite, but I find the ideal relationship of the day's work there.

Further, both the kindergartners and Herbartians have brought into the world a new conception of what a recitation is. I heard two university presidents a short time ago state, that, in the universities, text-books and lectures were being given

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up largely, especially lectures. I believe it is, to a considerable extent, owing to these two schools. The kindergarten shows us that a recitation should be, primarily, a conversation. We see it above all in the circle work. It is certainly weak when we find people reciting what is in a book or listening to a lecture. The kindergarten gives us the ideal method of instruction. We meet face to face in the morning circle. The old plan of Socrates is coming into vogue to-day. The relationship of the occupations, the games, and the gifts is that largely of the application of the thoughts gotten in the morning circle. In no instruction anywhere is the application of the ideas, the doing of what is talked about, so emphasized as in the kindergarten work, and there is no point which is so vital to proper instruction.

The common schools and colleges do not to-day recognize that the moral thoughts gotten in history and literature should be applied in character. The kindergarten is leading us in that thought. The Herbartians are urging that point continually, when they say that the fifth formal step, viz., the application of thoughts in all studies, is one of the points of universal importance. The Herbartian primary school, then, if we agree as to these fundamental points, is practically a continuation of the kindergarten. If we had to-day our primary schools arranged as the Herbartian school insists, viz., with a rich course of study in literature and in nature—a rich thought contained—it seems to me that it would be a proper continuation of the kindergarten. We feel the kindergarten gives to children, first of all, attractive ideas. We feel in kindergarten a love for literature is gained—thoroughly imaginative literature. Here we provide for imaginative literature, like the myths and fairy tales. We feel that they are true. Myths and fairy tales are true just as poetry is true. The underlying thought in classic literature is true. In brief, then, I would say, simply, that we are working along the same lines. The principles we insist upon are universal.

THE FACULTY AND MINISTRY OF SONG.

BY W. L. TOMLINS, CHICAGO, ILL.

To speak of music or to write of music is not to express it. Music speaks for itself. Music tells for itself what words can never tell for it. Yet there are so many misconceptions abroad in regard to the faculty of song, and so much of that misconception in schools, that a great deal of harm is being done. I am very glad this afternoon to simply talk to you, talk to you as a workman coming from a workshop (for I am used to the workshop rather than the platform), and if possible suggest along certain lines what I think may help those of you who are workers.

First, we may speak of the universality of music. Music is appreciated by all peoples, and under almost all possible conditions from the cradle to the grave, as the lullaby in the cradle, the lover's song, the anthem, the battle hymn, the funeral march, and the dirge. Rus-

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kin says that music will not lend itself to anything that is ignoble, and uses the illustration that a girl may mourn in song the loss of her lover; a miser cannot voice in song his loss of gold. There are people who say that there is something unwholesome in music—in certain kinds of dance music. If you will bring me music which you claim to be unwholesome, I will put my finger on the spots which prove it not to be true music.

It is not necessary to understand music to appreciate it. It rather seems to understand us. When we come together music is appropriate. It sympathizes in our joys, consoles us in our sorrows. The power of music is almost magic. A year or two ago I remember standing on the corner of State and Madison streets, in Chicago, on a very busy day when everybody was hurrying along surrounded with the rush and turmoil of Chicago life. Suddenly a military band was heard, and at once it was a holiday. There was joyousness in every step, such was the power of even the more material music. In song, a higher form of music, the effect is very much greater. Some of you may remember how John B. Gough, the great temperance orator, used to begin his lectures and continue them for some time by telling a number of stories. Some thought he merely wished to get his audience interested, but he had a much more profound motive. His stories had a method in them. He would tell a story exciting laughter; another, pity; another, indignation; another, courage, sympathy, reverence; in short, he would go the round, the gamut of the emotions, and when he had touched the entire audience in every point of their emotional nature, then he struck. What Mr. Gough accomplished with these stories, systematically taking thirty or forty minutes to get his audience stirred, Patti would do in forty seconds, and do it very much better. One line of "Home, Sweet Home," and the entire audience was at her feet, her slaves. Not only Patti, but Nilsson, with the "Suwanee River," would affect people to a greater degree than John B. Gough. For instance, a man in that audience who was wrought up to intensity of mind, would be let down at once, and the poor woman at his side, who with weary watching was worn out, would be lifted up. Each one in the audience would be brought to his equilibrium. They were more themselves than before the song began. With their sympathetic response to the singer, they became equal to each other and equal to her. People who would sit, as people are too apt to sit, afraid to approach a neighbor on either side, would turn with a smile, and maybe a handshake,—so much did the song bring about the feeling of equality and brotherhood.

What is this spirit of song? Do we get it in books? I think not. You get in the books a great deal about flats, and sharps, and scales, and naturals, and keys, but that does not make you a musician. I

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know people who know ever so much about those things; they are not musicians. I know others who learn to sing up and down, loud and soft, fast and slow, but they are not singers. They can know all those things and not be musicians. Not only are you alive, if you are a musician, but you are capable of giving life to others. If my voice is fervent, vital with the song thought—if I sorrow, you will sorrow; if I am glad, your eyes will dry in response. The song voice, the voice of the inner self, the real self, the individual, is unique.

In my hand here I hold a piece of paper. It is limited in its length, possibly six or eight inches. If it were a scale of miles on a map of the state, it might represent 500 miles. On a map of the continent it might represent 5,000, but whether inches or miles, it is finite in its capacity, and if I move across it I have to come back again. If I bend it and curve it in form, it is still finite, until I make a complete circle; then it is infinite. Anything can pass around it millions of times. It is the symbol of infinity.

Here I will hold in my hand in imagination a bell. I strike it and the vibration will go freely around the bell. All of it will speak and its individuality will be announced. It will say to you, "I am a bell." Listen to it (strikes it)—bell-l-l-l-l-l. It voices itself. Its individuality comes from its completeness. I will take something else, which I will call a gong. In its completeness it voices itself, and says, "I am a gong." Let us see (strikes it)—gong-ng-ng-ng-ng. Take the gong in my hand now and muffle it, so that only half of it can speak. Strike it and listen to it. Let me take the bell and muffle half of that and strike it. Is there any difference? It says, "chink, chink." When we are fractional, and only part of ourselves, we say, "chink." When we are complete, as the bell, we say, I am a bell, a man, a singer, a child. The singers are altogether too full of chinks. We have not enough of individuality. The people who came in prosaic with everyday work were only a fraction of themselves when they came to hear Patti sing. Among others was the man striving for No. 1, trying to get ahead of everybody else. That is the last possible way of being yourself. Take care of No. 1, and you will never be anything. It is only in going out to others you can be something. These people came in and what did they hear? Patti's voice complete. As that piano responds to my voice, the people responded to Patti's voice, and for a moment they were really themselves, instead of the abnormal half-self which they were when they came into the room. Such was the influence of Patti's voice, in which her completeness so influenced them that for the first time in years they were complete selves.

Are we all Pattis? I don't think so. It is not necessary that we should be. It is not necessary that my voice should be as beautiful as Patti's, or that people should flock to hear me. But because my

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voice is not equal to Patti's, am I denied the right to be myself? Not at all. If my voice is not as beautiful, shall I not then be able to look out with love from my eyes, smile with tenderness, accomplish with enthusiasm; am I to be denied all that because my face is not beautiful, and white, and regular? Not at all. A year or two ago I saw in a "Century Magazine" a picture of Abraham Lincoln. His face is not beautiful, but in that picture I saw a type of fine Americanism, and there can be no more beautiful thing than looked out from his eyes. We have this power to express ourselves, whether or not our voices are as beautiful as Patti's. Another point comes here. Why is the effect so transient? If I had met those listeners as they came out of the concert rushing for a horse-car, and not feeling very well because they had to stand up, could I still see that which came in response to Patti? If it only lasted a few minutes, what is the good of it? Why is it transient? Fifty years ago the lightning illuminated everything for a moment. Is the lightning any good? Why doesn't it continue? Look at the electric lights in this church. Electricity is no greater power than music. God flashes music into our lives, and says: "That is what you ought to be all the time—normal, complete, manly. Individuality, nobility, spirituality, —higher and higher,—these are your real qualities." God did not intend we could get this illumination in one minute by hearing a line of Patti's song. He has arranged that we should be seventy years in this world, and there is no patent arrangement for music or anything else that could do God's work in one minute. God said, "So order your life that you may realize permanently what I give you temporarily."

If music is so great a power, are people who deal in music more than any others, professional musicians,—are these looked up to as the greatest people in the world? A few years ago, in Chicago, there was a boy singer who sang in one of the Episcopal churches, and sang very well. He made a great deal of money, which the trustees of the church put by for him. When his voice broke he was taken for a journey around the world. After twelve or eighteen months, when the boy was expected back, the people were talking about this boy, wondering how the money could be invested. One said to me: "We have done all this, and now do you know we have just received word from him, and he says he is going to be a musician. It is altogether too bad; it is extra bad because the boy has brains, Mr. Tomlins."

We are apt to have the drudgery of prosaic work in everyday life. Cares drag us down, and music comes with balloon-like elasticity to lift us up, that we may better carry our load. It invigorates us, inspires us. I should say that a ballast of prosaics needs this balloon elasticity, but it is just as apt to be all balloon and no ballast, and

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some of our friends are just that. They indulge in music for some selfish motive. The higher purpose of music does not come to them. It is not connected with their work in life and does not lift it up as it should. The buoyancy of the balloon without the ballast is the result. But Wagner himself, in 1844, made a statement of which I can give you the substance only. He said: "Not to you, supersensitives in music; not to you, great artists, is the future of music intrusted. You go on and up and up, with your higher culture and your supersensitiveness; but the future of music is that it shall come down in harmony, and love, and helpfulness to those who toil in the fields, to the worker, that there shall be fragrance in the life of him who only digs. And to you, who lift up music in its superexcellence as some people take fragrance from the flowers,—the attar of roses, for instance, and leave the dead leaves repulsive,—it was not intended in nature that the leaves should be without fragrance; and it was not intended that lives should be without fragrance; and do you know, supersensitives, that in God's nostrils you are as offensive as the leaves are to us?" The going down to the root soil of everyday life—this is to be the future ministry of music.

Let us go back to the illustration of the bell. Let us go up in the belfry and strike the large church bell, so that it proclaims the hour to the whole town. Boom-m-m-m, and as that deep tone dies away and grows softer, you will hear the higher harmonics of that bell—you will hear thousands of them like little bells. This is the inner thought, the inner life of the bell, made up of those little sound circles at the top of the bell. It is they that give quality to the tone of the bell. The quality of the bell is, therefore, according to the harmonics of the bell, their number and relationship. The bell is always the same. It is somber or clear-toned according as the harmonics are so. The tone of our voice goes out to the world. But we are different from the bell in this respect, that we may change the harmonics. We may be somber or be joyful, or entreat or command, or make sorrow or joy, or have faith, or hope, or love.

The inner quality of the voice in its harmonics may be divided into three parts, which may stand for the thought, the feeling, and the will. The artistic voice must possess these three elements. You cannot have a good song without all three. Some people think love songs, which in singing is not enough. The young man will not succeed with a lady if he goes to her saying: "My dear lady, I think I love you." It is not sufficient in a song. Some people feel a great deal; their voices are quite sympathetic and they are so sorry for everybody, and wish they could help them. This again is not song, for there must be an element of will as well as of feeling. The voice with only domination is masculine to brutality; with only sympathy,

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it is feminine to effeminacy; both the masculine and feminine must be in the voice.

There are three departments in music, as there are the three elements in the voice. Corresponding to the thought in singing is melody; corresponding to feeling is harmony; and corresponding to will is rhythm. These come together in what in music is called a beat. A beat in music is like a step in walking. The singer sings by beats in music, the soldier steps to the beat of the drum. When a recruit is put into the hands of the drill sergeant his chief idea in marching is self-consciousness. He lives on each step. He has no thought of going anywhere. He simply says, "I live on my left foot, I live on my right foot." He simply exists on his feet; he does not live at all. The lowest musicianship is that of the banjo player. He never plays his banjo except he uses his heel. So a soldier marches on his heel. After awhile he has a purpose and the instep comes in play, and then he walks to his sentry duty and back to the barracks. He goes somewhere and comes from somewhere. In the case of the singer, the single pulse becomes a series of impulses; it is an impulse not only like the step of the soldier, which comes from somewhere and goes somewhere, but the impulse remembers the past and expects and hopes a future. This impulse is a little piece of eternity. It has a history in the past which you recognize; it has the destiny of its future, which you feel.

All thought is for what purpose? To go out to you, my brother, and in going out with all my strength to you I enlarge my own capacity. In giving I get. This is what music is good for—to express brotherhood. The highest form of music is yet to come in the world. Fifty years from now if you look back to 1895 you will think it the dark ages of musical execution, when men sang with contentment for themselves—sang with self-consciousness. There was a rosebud one day in a garden. You know what is the proper experience for rosebuds. As long as they are incomplete and immature, the leaves simply bind over each other and the rose hides itself from the world. When maturity comes, each leaf laps outward and gives what is beauty of form and color to the rose for the world in its garden. But this little rosebud which was so very beautiful, said to itself: "I will have my beauty, fragrance, and color for my own satisfaction." The days went on, and it did not open, but faded away and fell at last to the ground. As it fell apart worms came out of it. It had rotted in its selfishness. Even so there is much danger in dealing with music. If you neglect the use of music, the ministration of music; if you do not go out to your fellows in encouragement, helpfulness, good will, in sympathy, and most of all in love, music may become a very dangerous thing.

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DISCUSSION.

The informal round table which had been arranged for the further discussion of the "Faculty of Music" by Mr. Tomlins, on the day following, grew in proportions, until it was a more formal gathering of several hundred representative kindergartners. Mr. Tomlins gave an hour's discourse, practically illustrating the influence of music—that composite language which utters many qualities of feeling and meaning in a single tone-word. He gave illustrations from the great oratorios, showing how one strain from Handel may express the mingled sentiment of reverence, grief, tenderness, profound conviction or emphatic declaration. He added many practical illustrations of how a teacher may work with children and secure the pure tone, which shall reveal the individual in his truest nature. The quality of tone to be secured through the chorus voice was carefully discussed, Mr. Tomlins indicating how the better part of each individual voice contributes to the beautiful effect of the whole.

A KNOWLEDGE OF THE KINDERGARTEN INDISPENSABLE IN PRIMARY INSTRUCTION.

BY MISS SARAH L. ARNOLD, SUPERVISOR OF SCHOOLS, BOSTON, MASS.

FELLOW TEACHERS: As I have sat looking upon your faces, I have been reminded of a poem read over and over again in childhood. I give you simply the thought. A weary man going on his way to his work passed a group of merry children, who were trying to climb up the steps of a schoolhouse. The steps were covered with ice, and they fell back again and again. One little girl said to the other, "It is easier taking hold of hands." So, all our work is easier when we take hold of hands.

The happy thing about this gathering is, that the primary teachers and kindergartners are meeting together. They are realizing that they have a common work together. I am happy to take hold of hands with you this afternoon, and to feel for myself new courage and new interest, because I know of the good work you are doing in your place.

One of the most beautiful signs of the times is that we are forgetting to cut the education of the child into slices, as though we were concerned with only one year of the child-life, and then to pass him over to some one to take charge of another period of his existence. The university looks down upon the secondary schools and finds help, and the high schools look down upon the primary, and now the National Council has appointed a committee to decide how

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the child in the ungraded schools can be better taken care of. We are learning that we are teachers of the child, and not teachers of a section. Our work is a common one, and if we understand the work our sisters and brothers are doing in their line, we can better do our own work. We must learn from it how to do our work in our path well, and we can never do our work thoroughly unless we know how it is being done by others who look at it from a different standpoint.

The subject allotted to me, "A Knowledge of the Kindergarten Indispensable to Primary Instruction," I shall not attempt to adhere very closely to; but I want to say, first, to you, that there are two distinct lines in which the kindergarten has been of inestimable service to the primary work. It has been so in some cases without the knowledge of the primary teachers. We have found that the truth that has been dearest to us all our lives is the truth you have been trying to express, that the child must grow through his own activity and not through the teacher's will impressed upon him. I think you would be glad to see how that ideal is being followed in these schools. The impressing of a teacher's will upon a child's will in the primary school is a thing of the past, as I have seen it.

The teachers are working in harmony with the children, and are striving to lead the child to express the truth that is in him, instead of endeavoring to impress upon him their own personality.

Again, the primary schools have been largely permeated—in some places much more than in others—by the beautiful spirit of the kindergarten. I cannot tell you how deeply I feel in regard to this. We must ask much of ourselves as teachers. We must demand the highest of all who would be teachers of little children. When I look into the face of a little child, and realize what a difference there must be in his life because of our ideals, our strength, our courage, I think we never can be too pure, or too strong, or too noble to teach these children as they should be taught.

As I look in the faces of children and think of this, I realize more and more surely every year that the great thing for us is the spirit of our work. We are disturbed if other people differ from us in methods; and yet, after all, it is true if we are wise enough to recognize the right end in our work, if we are in sympathy with our children, if we love our work and have the right spirit, all the other things shall be added unto us. If the teacher does recognize the great end she must reach, she will overcome the difficulties that lie in the way in technique, etc. You will learn the right method of teaching the child if you are right heartily consecrated.

The power to recognize in the immediate act of the child something that will make or mar his entire future is something that you

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have given to us and something for which we are under an unending debt of gratitude.

It seems to me that the great mistake of the primary and grammar schools, and some kindergartens, of the past has been, that we have looked upon every act as if it were a thing of itself. We have taught the arithmetic lesson, and called it done and put it away. We have insisted upon obedience, and not thought upon what the result of that obedience or disobedience is to be. We have now come to learn that every act of a child is for the making of a habit which will prove wings or fetters to him.

One of the beautiful things is, that we have come to recognize the ultimate end of our work and to see farther than the single act of to-day. These three things—the spirit of the kindergarten, the power to help the child to work with his own activity, the power to recognize the great end of our work and the deep meaning that underlies it—these have come to us from the kindergarten.

We are constantly questioning how the kindergarten may be brought closer to the public schools. We think we must get the child through the primary schools, through the grammar grades, etc., in a shorter time. If we can plunge him out of the kindergarten into the primary, and out of the primary into the grammar grades, etc., at a little earlier age, we think we are doing him great good. It seems to me that it is a mistake. The work of the kindergarten should be the pure work of the kindergarten until the child is ready to go into the primary school. The work of the primary school should be in entire harmony with the work of the kindergarten.

Let me illustrate in the subject of reading, for example. We have always felt that the first business of the child is to learn to read, write, and spell. We remember how we learned to read, write, and spell. As we study the process of learning to read, we find that we may recognize the words and never get the thought that was intended to be expressed. I recently saw a class reading about the village blacksmith. These children lived in a tenement in a city. I found not one of them had an idea of what a village was. Finally, I got a little boy who had a grandfather who lived in the country to describe a village, the blacksmith, etc. Until then, the children could have had no conception of what they were reading.

Imagine the Esquimaux reading the "Song of the Brook!" But suppose we told the boy who lived in the tenement district something about the life which is about the brook or took him to see one. The first thing we must do for the child is to widen his experience. The city boy must know something of nature if he is to read the poems of nature. The child who has lived away from labor of all kinds must visit the blacksmith, etc. So we are doing most for the

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child, we are best helping him to learn to read, when we are widening his experience, when we teach him to develop his power of imagination.

When you have your children play in the kindergarten the little games where they impersonate, they are learning to make real the things which by-and-by they will read about, and that is the best possible preparation for a primary school. It is the best possible way for shortening the course. We shall never learn to do our work well until we learn that these realities must precede the work that comes later.

I want to congratulate you upon meeting in this broader way, upon your taking hold of hands with those who are enjoying this common work and common privilege.

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DEPARTMENT OF ELEMENTARY EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—THURSDAY, JULY 11, 1895.

The department was called to order at 3 p. m., in Unity church.

Mr. F. Treudley, Superintendent of Schools, Youngstown, Ohio, President of the department, in a few earnest words welcomed the audience.

Mr. Lewis D. Bonebrake, Superintendent of Schools, Mount Vernon, Ohio, was appointed Secretary *pro tem.* in the absence of Mr. Warfield.

A chorus of 100 girls and boys of District No. 2, Denver, under the direction of Supervisor W. J. Whiteman, rendered a musical selection.

Dr. J. M. Rice, New York City, read a paper on "The Substitution of the Teacher for the Text-Book."

The discussion was opened by Supt. James McGinnis of Owensboro, Ky. He was followed by Henry G. Schneider, Grammar School No. 90, New York City; Supt. U. T. Curran, Santa Fé, N. Mex.; Channing Stebbins, Brooklyn, N. Y.; Mr. F. Louis Soldan, St. Louis, Mo. The discussion was closed by Dr. Rice.

Vocal Solo, "Hindu Song," by Mrs. W. J. Whiteman, Denver.

In the absence of Supt. W. M. Davidson, Topeka, Kan., the President introduced Supt. C. B. Gilbert, St. Paul, Minn., who spoke briefly on the subject, "Higher Education and the Elementary Teacher."

Miss Bettie A. Dutton of Cleveland, Ohio, followed in the discussion.

The chair then appointed as a nominating committee the following persons: J. A. Shawan, Superintendent of Schools, Columbus, Ohio; J. M. Fendley, Galveston, Tex.; Miss Mack, Denver, Colo.

Adjournment.

SECOND SESSION—FRIDAY, JULY 12, 1895.

The department met at 3 p. m., Friday, July 12th, in Unity church.

Miss Sarah L. Arnold, Supervisor of Schools, Boston, was introduced, and spoke on "Nature Study and Literature."

The address was discussed by the following: Miss Brooks of St. Paul, Minn.; Miss Dutton of Cleveland, Ohio; Superintendent Wolfe of Missouri; Mr. James of California; Mr. Reed of Nebraska; Mr. Beggs of Denver; Miss Barnard of Chicago.

Solo by Miss Jean Fritch of Denver; also, "Old Folks at Home," by Girls' High School Chorus Club, District No. 2, Denver.

Principal J. M. Fendley, Avenue "L" School, Galveston, Tex., read a paper on "Departmental Teaching in Grammar Grades."

The paper was discussed by Superintendent Glotfelter, Hutchinson, Kan.

The Committee on Nominations reported as follows:

President—S. T. Dutton, Brookline, Mass.
Vice President—J. K. Stableton, Lexington, Neb.
Secretary.—Henrietta B. Ayres, Denver, Colo.

On motion, the report was unanimously adopted.

Adjourned.

LEWIS D. BONEBRAKE,
Secretary pro tem.

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PAPERS AND DISCUSSIONS.

SUBSTITUTION OF THE TEACHER FOR THE TEXT-BOOK.

BY DR. J. M. RICE, NEW YORK CITY.

In my opinion, the greatest fault in the schools of our country lies in the professional weakness of our teachers. Consequently, in my judgment, the next step in raising the standard of our schools should be directed toward increasing the professional strength of the teachers. In the present paper I shall endeavor to point out just where the weakness lies, as well as to suggest a remedy, which might serve to improve the conditions.

By professional strength I understand the ability to apply expert knowledge in practice. In the domain of medicine, for example, professional strength must be measured by the degree of ability to diagnosticate disease and apply the proper remedy. From this standpoint, an individual may possess all the traits of moral character desirable in an ideal physician, such as sympathy, cautiousness, punctuality, conscientiousness, and yet be a weak diagnostician; and, consequently, a poor practitioner.

Just as the professional strength of the physician depends fundamentally upon the degree of ability to diagnosticate and treat disease, so the professional strength of the teacher must be measured by the ability properly to apply recognized educational principles in practice. While, in order to be an ideal teacher, more is required than the ability to conduct a recitation scientifically, yet the ability to teach is fundamental. One who does not possess a character destined to exert a good moral influence on the child should never be granted a license to teach; yet moral strength, in itself, no more constitutes professional strength in pedagogy than it does in medicine. Before our ideal individual is worthy the name of teacher he must add to his moral traits a knowledge of pedagogical principles and skill in their practical application.

In stating that the teachers in our country lack professional strength, I do not refer alone to the schools of low standard; I refer to the better class of schools as well. While the difference between our best and our poorest schools is, in certain respects, enormous, the variations are great mainly in regard to professional spirit and ideals and in the general plan of work, the difference in the quality of the teaching being confined within much narrower limits.

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In a word, the weakness on the part of the growing teachers does not lie in ignoring scientific principles nor in the lack of desire and effort to do the best for the child; it lies simply in the lack of the required knowledge and skill properly to apply recognized principles in teaching.

The rapid spread of professional enthusiasm among our teachers is certainly a hopeful indication; but we must guard against falling into the common error of mistaking it for professional strength. To entertain the belief, that enthusiasm coupled with an earnest desire to do the best for the child is all that can be desired in a teacher, is to arrest the growth of our schools at a very early stage of development. That additional elements are needed to place the instruction on a scientific basis I shall now endeavor to show.

In my opinion, the fundamental purposes in elementary teaching are two: First, to develop power—the power to observe, to reason, to do; and, secondly, to aid the child in storing in his mind a fund of useful knowledge. Other factors, however important they may be, are nevertheless merely incidental.

Of the old school of teaching it may be said, that the end and aim is the acquisition of knowledge; it appeals almost exclusively to the memory, and does but little toward the development of power. On the other hand, our most radical reformers are inclined to look lightly on the acquisition of knowledge, and to recognize as important only the development of power. Of course, on sober thought, we cannot fail to realize that both sides must receive due attention. The school that would turn out pupils with a mass of information but without the ability to think, and the school that would send into the world pupils able to reason yet absolutely ignorant of facts, would present equally sorry spectacles. While the broader aim is fully recognized by our progressive teachers, it nevertheless so happens, in the vast majority of instances, that, for lack of sufficient professional knowledge and skill, they fail to carry their theories into practice—that in spite of their severe condemnation of the memory system they themselves are slaves to it.

That the mode of teaching in vogue in our progressive as well as in our non-progressive schools is destined to cultivate the memory rather than the power to reason, is proved alone by the fact, that, in the subjects particularly adapted to appeal to the reasoning faculties,—the so-called thought studies,—the pupil is required to obtain his ideas by reading the text-book in advance of the recitation. If it be the teacher's aim to lead the child to think, it is necessary for her to apply the principle, that the child must be told nothing that he is able to find out for himself. To compel the child to study the lesson from the text-book in advance of the recitation, is

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to violate this principle *in toto;* because, by this means, he is directly told by the text-book every point that he might be able to reason out for himself. In order properly to apply the principle it is necessary to bring the new matter before the pupil for the first time during the recitation period. It is then, and then only, that the teacher is enabled, by means of skillful questioning, to lead the child to find out for himself whatever it is possible for him to discover. Facts that the child is unable to discover must be told to him by the teacher. Simply to hear children recite lessons that they have committed to memory is a very easy matter, and requires no expert knowledge and skill; but, by means of questions, to lead the child to think, involves both science and art.

Moreover, it is not only in regard to power but also from the standpoint of knowledge that the ordinary use of the text-book renders impossible the application of the principles of scientific teaching. In regard to knowledge, it is recognized by the new school that more is required than to lead the child to store in his mind a chaotic mass of cut-and-dried facts. This, indeed, is regarded as the bane of the memory system. The aim of the progressive teachers is, to aid the pupil in building, so to say, a solid and permanent mental structure, consisting of fundamental ideas, based upon concrete facts, which themselves shall ever remain fresh and active, forming a fund of ready knowledge. In short, what they desire to secure is, not dead knowledge, but knowledge which, in itself, is stimulating—which will create a many-sided interest in the affairs of life, and which will lead to activity when the schooldays are over.

To construct a mental fabric of this nature, it is necessary to bring the ideas to the notice of the pupil in a psychological order. It is only when we progress slowly and systematically, from the known to the unknown, and from the concrete to the abstract, that the facts may be properly welded together, and lead to the formation of clear fundamental ideas.

To employ the ordinary text-book method means a failure to apply these principles, for two reasons: First, in the text-book the facts are not arranged in a psychological order, but merely in a logical one. Second, in the text-book the facts are presented in too rapid succession. We frequently find on a single page of a text-book sufficient mental food for many lessons. The average child is able to commit to memory a very large number of facts in a comparatively short time, and thus aid the teacher in covering ground. But facts committed to memory in rapid succession serve no permanent purpose because they are not digested, and consequently do not become an organic part of the individual. They serve to carry the pupil through a recitation or an examination; but, when this

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temporary end has been realized, they lose their vitality, and are soon lost in oblivion.

In order that the mind of the child may be properly led from the known to the unknown, and from the concrete to the abstract, the teacher herself is obliged to take an active part in the work. Owing to a lack of psychological arrangement and the crowding of facts in the text-book, it is necessary for the teacher to digest the ideas that she wishes her pupils to obtain, and to make such plans for the recitation as will enable her to bring these ideas before the class with sufficient deliberation and in a psychological order of succession. It is only under these circumstances that the recitations will extend beyond the sphere of lesson-hearing and partake of the nature of actual instruction.

In our schools it is rare to find recitations that may be regarded in the light of instruction. In the thought studies, where scientific teaching is particularly required, the mechanical teachers attempt to do little, if anything, beyond hearing the pupils recite their lessons, either in the words of the book or in their own words. The progressive teachers, in addition to hearing the pupils recite what they have studied from the text-book, will take pains to explain obscure matters; to elaborate, and, when possible, to illustrate points by means of pictures, charts, and apparatus of various kinds. But it is clear, that, even in the latter instance, the recitations are based on lessons studied in advance from the text-book, so that they still must be regarded as lesson-hearing, though in a modified form. True instruction will not be obtained until the text-book is substituted by the teacher, as it is only then that the principles of teaching can be properly applied. To suggest the removal of the text-book without recommending anything in its stead, might justly be regarded as destructive criticism; but surely no one can construe my remarks in this light when I offer as a substitute the teacher herself.

Of course, merely to discard the text-book does not in itself suffice to render the instruction scientific; it simply constitutes the first essential step toward placing the teaching on a scientific foundation. Indeed, the early attempts to teach without a text-book are necessarily exceedingly feeble. The music of the hand-organ is immeasurably superior to that produced by one in his first efforts on the piano; yet one who would become a performer is obliged to pass through this infantile stage. To reach any degree of proficiency in scientific teaching is difficult, and involves years of study and practice. If we, as Americans, should feel unequal to the task, it will be better to retain the text-book. But, if we believe that we are able to do what our German colleagues have long since accomplished,

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then there is nothing to be gained by waiting. There is a constant complaint on the part of our teachers that the profession is not properly appreciated in our country. In my opinion, it will not be until it is made worthy of appreciation. As long as the American standard remains so low that a graduate of a district school, without further preparation, is eligible to become a member of the profession, a license to teach cannot command any special respect. In Germany the word teacher stands for something; in our own country it stands for nothing.

The argument concerning the text-book method applies, of course, to the thought rather than the formal side of education. Where there is no thought content, as in the mechanism of reading, writing, arithmetic, drawing, and music, the text-book question scarcely comes into play. In those studies, which necessarily involve an enormous amount of repetition of identical facts and processes, a fair degree of proficiency may be obtained by the ordinary mechanical teacher. A child that reads and adds every day of his school-life cannot help learning to read and add, provided his mental condition be normal. In the formal lines, much can be done to improve the results simply by a skillful application of modern methods and devices, even when the principles of scientific teaching are not strictly observed. And in these lines, some of our teachers are doing admirable work.

It is in the subjects involved in building up the thought content of the mind that the teacher finds the golden opportunity to carry her ideals into practice. It is from the ideas presented in them that the child secures that fund of knowledge which will exert a strong influence in determining his ideals and interests in life. The most prominent among these studies are geography, history, and the natural sciences. While, in the old school, the time devoted to these studies is small as compared with that given to the formal ones, in the growing school the tendency is to bring the thought studies more and more to the foreground. Indeed, in our most progressive schools there is an effort on the part of our teachers to center all the school work around them, and to teach the formal studies, which are simply modes of expression, in large part, incidentally.

The fact that the thought studies are destined to come ever more into prominence, renders doubly urgent the necessity for teaching them in a way that will do most toward the development of the faculties—moral as well as intellectual. It is admitted by perhaps all our educators, that, of the standard subjects in the curriculum, geography and history are the most poorly taught. In my opinion, they will not be taught satisfactorily until the text-book method is abandoned and the principles of teaching are properly applied.

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As to the natural sciences, it may be said, that, in some of our schools, the work is conducted on scientific principles. But, taken all in all, there has been, thus far, very little science teaching in our country. Most superintendents have hesitated to introduce this line of work, on the ground that the teachers are not prepared to care for it properly. Those that have held sway longest are perhaps physics and physiology; and these, in all but individual instances, are still taught by the text-book method.

In spite of their bar to scientific teaching, there has been strong opposition to the removal of the text-books, and particularly for two reasons: First, it is claimed, that, if the text-book should be abolished, the child would not acquire the ability to use books; second, that the removal of the text-book would cause the teacher to do the work for the pupil, so that the child's mind would be no longer properly disciplined. Both these objections, in my opinion, are entirely unfounded.

First, the fundamental purpose of education does not lie in teaching the child how to use books; this is simply an important incident, which it is well for the teacher to bear in mind. Again, to study a lesson from the text-book does not teach the child how to use books; it simply leads him to perform a task, either to please his teacher or to avoid punishment. To know how to use books is to understand how to look up sources of information, and this ability cannot be acquired by committing to memory the words of the text-book. By directing the pupils to write compositions, and by frequently calling for debates, in each instance suggesting lists of works to be used for reference, more can be done in a few exercises than can be accomplished by years of lesson study. Further, the ideal does not lie simply in teaching the child how to use books; it lies rather in developing a love for them, and, consequently, the desire to seek them. Under proper instruction, the pupil will become so much interested in his subject that he will, on his own account, go to books for further information. In my opinion, there is nothing that so much tends to destroy the love for them as the drudgery involved in committing lessons to memory. For many a child the happiest day of his life is the day on which he hands in his books. Last, to abolish the text-book does not by any means imply to discard the use of books; in certain subjects, they will always be required.

Second, when the teacher takes the place of the text-book, the child is by no means relieved of a task; on the contrary, in a recitation conducted on scientific principles the child is obliged to perform intellectual labor more severe in character, though less dull and mechanical, than when he commits the contents of the text-

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book to memory. When he studies the text-book, he acquires his information simply by exercising his memory; in a scientific recitation, on the other hand, he is obliged to bring many of his faculties into play in order to accomplish his task.

A consideration of the reasons for the lack of professional strength in our country will now be in order. With a clear comprehension of the causes, the remedies will suggest themselves.

First, the demand for good teachers is very small, the conditions under which licenses are granted being exceedingly liberal. The management of the school system in our country being a purely local affair, it is entirely at the mercy of local politicians, who can raise or lower the standard at their pleasure. In perhaps the majority of instances, the teachers' examinations are of an order so low that a certificate can be earned by one who has enjoyed no more than a grammar school education, with or without a little extra coaching. In some localities, a high school education is required, and, in a few instances, appointments are given only to those who, in addition to a fair amount of scholarship, have obtained some professional training in a normal school. Of course, to guard against this extreme laxity, nothing would suffice short of the adoption of a national standard; which, however, for the present, cannot be expected.

In the places where trained teachers are sought, there is, of course, a demand for professional strength. But, is the teaching in these places markedly superior to that in other localities? The question, unfortunately, must be answered in the negative; for the degree of excellence in the teaching found in a given locality is by no means determined by the proportion of trained teachers in the corps. This condition of affairs, naturally, can be interpreted in only one way, namely, that the normal schools fail to graduate their pupils with the required foundation.

In thus throwing the blame for the lack of professional strength on the normal schools, I do not wish to imply that the work of those institutions has in no way proved valuable. On the contrary, it cannot be doubted, that, through their instrumentality, much has been done to spread the doctrine of scientific teaching and to imbue with professional spirit even many of those who have not had the advantage of a professional training. But, while, in the theory of education, the work of the professional schools has been very helpful, from the standpoint of practice they have, in my opinion, for the most part, proved unsuccessful.

That professional schools cannot be expected to turn out perfect practitioners is clear; but what we have a right to expect is, that their students will be graduated with a foundation that will enable

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them later to develop in the right direction. That this foundation, as a rule, is wanting, is proved by the fact to which I have already alluded, namely, that the quality of the teaching in a given locality is determined by local conditions rather than by the influence of normal school training. If the graduates of normal schools have not sufficient strength to rise above their immediate surroundings, and thus show their superiority over the untrained teachers, then something must be wrong with the institutions in which they received their special education.

That, in the vast majority of instances, the work of the practice departments has been unsatisfactory, is but the natural result of their organization. The fundamental error lies in the plain and simple fact, that, in the selection of teachers for these departments, the question of fitness receives far too little consideration. If the students are educated in the art of teaching by those who themselves have not the slightest knowledge of the art, how can we expect the results to be favorable?

In most cases, when a city training school is established, the main consideration appears to be to find a building easy of access, and containing a room in which the students may conveniently receive their instruction in theory. The absurdity lies in the fact, that, without further ado, the building in which the training class is placed is converted into a school of practice, and the regular staff of instructors are promoted to the rank of model teachers. The students now acquire the art of teaching by observing the work of these class teachers and instructing under their guidance. As the foundation for their future work is laid by what they here observe and do, is it difficult to account for the fact, that, after graduation, they cannot be readily distinguished from untrained teachers?

In the state normal schools a more direct effort is made to select specially qualified persons as model teachers. But even in these institutions, individuals really competent to instruct in the art of teaching are, comparatively speaking, very rarely found.

In view of these facts, it is clear that what is most needed in order that the professional strength of the teachers of our country may be increased is to establish, in connection with the normal schools, training departments, in which students may receive such practical instruction in the art of teaching that they will leave the institutions with a foundation that will enable them, in due course of time, to develop into scientific teachers.

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DISCUSSION.

JAMES MCGINNIS, Superintendent of Schools, Owensboro, Ky.—I am disposed to agree with Dr. Rice's paper in the main points, and unreservedly so far as the spirit is concerned. He claims, and I believe, that much of our teaching in elementary work is lame and that we lean too much upon text-books. He does not so much propose to rob us of a crutch as to cure our lameness; not to do away with the text-book, but to give us teachers who shall make proper use of text-books.

What we need is a trained teaching force. We must both learn and know before we can teach, and then we must learn how to teach. As it now stands in thousands of cases over the land, our teachers have not gone beyond the grammar school themselves, and have not been trained; or, as set forth by Dr. Rice, they have been mistrained. I maintain that there should be increased facilities for normal training; that this training should be of the right kind; that none should be admitted to the normal school at all who have not at least passed through the secondary or high school. Our requirements are too low. We must raise the standard for the certification of teachers, which of itself will do much to bring about the desired training on the part of candidates for teaching.

I accept the doctor's definition of professional strength—that it is the ability to apply expert knowledge in practice. We must ask for knowledge, and for expert knowledge, and for a trained practitioner.

There is a fearful difference in teachers; between the empty teacher and the full teacher; the mechanical and the enthusiastic; the stagnant pool and the running brook. What we plead for is the teacher endowed, instructed, and trained. If there be a lack of such teachers now, the demand for them will bring them.

Dr. Rice has required in his paper that the text-book be used in its proper place. In a recitation, as in photography, there are three elements. There must be a clear image, a sensitive plate for it to fall upon, and a fixing process. There must be a clear bringing out of the subject to be taught, there must be keen, interested minds made ready to receive, and then there must be the fixing process of study and recitation. Dr. Rice claims that the use of the text-book is the third step in this process, and not the first as it is so often now. I agree with him.

NATURE STUDY AND LITERATURE.

BY MISS SARAH L. ARNOLD, SUPERVISOR OF SCHOOLS, BOSTON, MASS.

[ABSTRACT BY THE AUTHOR.]

The subject of my paper grew out of a conversation with a superintendent of schools, who remarked: "You believe in nature study, but I would teach literature instead." "But can the one be substituted for the other?" questioned his listener. "Are not both necessary to the child, and is not each necessary to the other?" My purpose is to attempt to answer these questions, and in so doing I ask your attention to three lines of thought.

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First—Nature study, as it should be presented in our primary schools, demands the aid of literature.

Second—Interpretation of literature involves knowledge of nature—full and sympathetic.

Third—The greatest good is derived from both nature study and literature when they are begun in childhood.

What benefits are derived from nature study? The question has often been discussed, and the advantages have been as often stated. The power of observation is developed; thought power is quickened; the child grows in accuracy of expression; he gains knowledge of fundamental facts of science; becomes interested in his environment. These results have repeatedly been emphasized by teachers of elementary science. But the young child should gain from nature study more than these—a deep, full, abiding love of Nature, "communion with her visible forms," power to interpret her "various language," a reverent spirit, a talent for rejoicing in beauty. Soul and spirit, imagination and feeling, should develop with the seeing eye, the hearing ear, the thinking brain. The child should see in the flower, not merely a member of a certain family, marked by various deflections from the type; not alone a particular arrangement of floral organs, with peculiar form and coloring. Science must give him this power and more; must lead him to recognize the marvelous adaptation of form and color to function—teaching him to lift up his thought to the Creator. But the poet must add his lesson—must teach the child how to "love the wood-rose and leave it on its stalk;" must lift the heart in reverence to the Maker of flower and bee; must help him to read the lessons written for his eternal welfare in flower and field. Only the poet and the child can truly read these lessons.

What grace and beauty, what dignity, are associated with the cornfield in the thought of one who knows and loves Whittier's "Corn Song," or Longfellow's "Blessing of the Cornfields!" What an inspiration enters into our lives when Holmes sings his "Chambered Nautilus," or Sidney Lanier pours forth the "Song of the Chattahoochee!" What message for you have the "lilies of the field," the "tares and the wheat," the "grain of mustard seed?" Shall we not share with the children these priceless associations? Nature study is incomplete without the treasures of literature.

Again, any study of literature, however elementary, shows us that familiarity with nature is indispensable to intelligent reading. We easily recognize this truth when we turn to the poems of Nature. Tennyson's "Song of the Brook," Bryant's "To a Waterfall," Lowell's "Vision of Sir Launfal," cannot reveal their exquisite beauty to one who has never loved a brook, or watched the flight of birds toward the sunset, or rejoiced in the treasures of the snow. But careful

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study would convince us that our choicest figures of speech are largely borrowed from nature, as are our common proverbs; witness, "a rolling stone," "birds of a feather," "an ill wind," "sour grapes." One must live with nature as well as with men, to read Ruskin, Emerson, Tennyson, and the rest. He who brings to the world of books the mind filled with beautiful pictures, the practiced eye, the listening ear, the quick sympathy, the trained imagination, the reverent soul, which the study of nature has developed, can indeed find and appropriate treasures hidden from the seeker who claims no fellowship with nature. It is not upon Peter Bell that the wealth of the poets is lavished.

> The primrose by the river's brim
> A yellow primrose is to him,
> And it is nothing more.

The treasure house of literature is only unlocked to him to whom "the meanest flower that blows" can bring "thoughts that do lie too deep for tears."

Finally, our own experience is daily revealing to us the truth that childhood associations are dearer and more enduring than all others. Beside the fact that knowledge of nature is fundamental, and therefore should be early imparted, we must place the equally imperative one—that habit, sympathy, interest, association, grow with the child's growth and strengthen with his strength. The impulses and yearnings of the child heart will be wrought into the ideals of the man. The great truths written in the pages of nature and in the books which chronicle the life and aspirations of men may be the companions of the boy and girl. If the boy is taught to rejoice in the beauties of nature, how is the happiness of the man insured! If the girl learns to "look through nature up to nature's God," she cannot fail of reverent and serene womanhood. This is teaching worthy of our noblest effort. And it must be given to children. The child is father of the man.

DEPARTMENTAL TEACHING IN GRAMMAR GRADES.

BY J. M. FENDLEY, GALVESTON, TEX.

The spirit of progress that characterizes this age has in the last decade wrought wonderful improvements in our schools. The grammar school, however, has not felt that large and quickening impulse toward better things that is so perceptible in the primary school and in the high school. Let us seek for the cause of this difference.

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To the teacher who would achieve the highest success in his work three things are essential. He must have a full, thorough, and exact knowledge of the subject that he would teach; he must be skilled in the best methods of presenting his subject; and he must conduct the lesson with that life and enthusiasm that beget a like spirit in his pupils. The first of these essentials—a knowledge of subject-matter—the primary teacher possesses before she takes charge of a class. The primary teacher, moreover, is relieved from the drudgery of correcting written exercises out of school hours, and her hours in school are usually shorter than those of other teachers. The high school teacher is likewise well equipped with a knowledge of subject-matter, for he is selected with special reference to his scholarship. After being elected, he is not required to teach all the subjects of the curriculum; but he has his favorite subject, and to this he gives his whole time. He can therefore become master of his subject, and work up an enthusiasm among his pupils. The grammar school teacher has neither the scholarship of the high school teacher nor the knowledge of methods possessed by the primary teacher; yet both are as essential here as in any other part of the work.

To teach geography according to the latest and best methods, the teacher must have on hand a vast fund of ready information on which she can draw to supplement the text-book; she must be good at sketching, and map-drawing, and molding; she must keep up with the latest geographical knowledge, and she must be familiar with the books of King, Frye, Parker, Ritter, Guyot, and other specialists in this line.

Or, if she would teach natural science, she must understand the different branches of the subject and be a close student of nature; she must go with the children into the field and assist them in making collections of specimens from the animal, vegetable, and mineral kingdoms; she must know how to devise simple home-made apparatus for illustrating the laws of physics; and she must be able to explain and get the children interested in the natural phenomena of everyday life.

An equal amount of special preparation is necessary for teaching mathematics, history, language, and literature, to say nothing of vocal music and drawing. While the teacher may delight in making this special preparation in one or two studies, when she undertakes it in all the subjects now taught in our upper grammar grades she is likely to exhaust her strength, become discouraged, and lose the vital element of enthusiasm. As a rule, the teachers of our upper grammar grades work harder and accomplish less than any other teachers in the corps.

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A consideration of these facts makes it evident, that, if possible, something ought to be done to relieve over-worked teachers, and at the same time secure better results in teaching. A very satisfactory solution of the problem has been worked out in the Galveston schools by adopting and adapting a form of what is known as the departmental plan of instruction. I will give a brief description of this plan as it has been in operation in my school for the past two years, and name some of the advantages that it seems to possess. If an apology is needed for this somewhat personal reference, it is, that I prefer to speak of work that is actually being done and results as I see them, rather than to theorize on what might, could, would, or should be done under certain circumstances and conditions.

This plan is in operation in our four upper grammar grades, where we have about 130 pupils, averaging near fourteen years of age. The work is divided among four teachers. One has charge of history and geography, another of mathematics and science, another of language and drawing, another of reading and literature. The principal usually teaches some one of these subjects.

Each teacher has a room and charge of a class which report to this room at the opening of the session. This is their room. Here their books and wraps are kept; here they prepare their lessons; here they are to be found when not assigned elsewhere. This class teacher keeps all records of attendance, scholarship, deportment, etc., and makes all reports; the special teachers furnishing her with the grades in their departments. She is closer to her class than any other teacher, and feels a more direct responsibility for their attendance, deportment, and general success in school work.

Each recitation in the principal studies is preceded by a study period averaging about twenty-five minutes in length. At given signals, the pupils all march to the rooms of the special teachers for recitation, then back to their own rooms for study. It would be simpler, of course, for the teacher to change and allow the pupils to remain all the time in the same room; but our plan is better, for the change of position and surroundings, the rest and physical exercise afforded by the marching, have an invigorating effect upon the minds of the pupils; moreover, the necessity for throwing wide open all the doors, and passing through the fresh, pure air of the halls, lessens very much the chances for poor ventilation—a matter that is so easily forgotten.

During the study period, the pupils are under the supervision of the class teacher. She sees that they are busy, but gives them no assistance whatever; nor is she even supposed to know what lesson is assigned them. This is much better than having them study under the teacher to whom they recite, for then the pupils would be tempted to ask needless questions, and the teacher to repeat directions and

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explanations that ought to be remembered, thus seriously interrupting the proper work of the study period. We desire that the study period should be devoted exclusively to quiet, uninterrupted study. The tendency is to explain too much. The pupils need to be trained in right habits of study, that they may be able to learn for themselves. They should be thrown on their own resources, and taught independence and self-reliance as soon as possible.

Twice a week all the pupils are taught vocal music by one of the teachers who understands music, knows how to sing, and knows how to get the pupils to sing. Once a week, and sometimes oftener, the classes are all assembled in the hall for general exercises.

The plan thus briefly outlined has many advantages, some of which I will mention.

It gives teachers an opportunity to do that work which is most agreeable to them, and for which they are best prepared. Almost every teacher has her favorite subjects, in which she does much better work than others. It not infrequently happens that a teacher who is highly successful in one line of work is almost a failure in another line. Require a teacher to instruct in a subject for which she is not prepared either by nature or training, and it is not surprising that she will enter upon it reluctantly, teach it in a mechanical way, and leave it as soon as possible. Give her, on the contrary, a subject that she loves, and the lesson is transformed from a dull, mechanical task to a stirring, thought-provoking exercise, in which teacher and pupils take a lively interest. We all delight in doing that which we can do well.

It gives relief to overworked teachers, improves their health, and increases their teaching power. Few people have such a tax upon their time and their strength as teachers have. Besides the daily routine of correcting papers, making reports, etc., the conscientious teacher will carefully plan each lesson, and endeavor to make thorough preparation for teaching it. With the long list of subjects that the grammar school curriculum presents, this preparation consumes much of her time, and even then often proves unsatisfactory to herself. Then consider the great burden of responsibility and anxiety that she feels for the success of her class in so many different lines of study, and the reason is clear why she is so often physically exhausted before vacation brings the much-needed rest. If, on the contrary, preparation is necessary in only one line of work, and that a congenial one, she has more time for rest and recuperation out of school hours, with less cause for worry and anxiety. This gives her a larger supply of energy to expend in the schoolroom in the actual work of teaching, where all the life, and vigor, and enthusiasm of which she is capable are needed to arouse thought and stimulate the

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pupils to put forth their best efforts. I have had the same teachers doing the same work in this department for four successive terms, and during this time not one of them has had to lose a single day on account of sickness.

It gives the teacher an opportunity to achieve the highest excellence in her department of work. With only one study to teach, or at most two or three allied studies, she has plenty of time to broaden and deepen her knowledge of the subject-matter and to become familiar with the best methods of teaching it. She becomes an authority and an expert in her line. She knows not only what to teach but what not to teach. Her teaching is not circumscribed by the text-book. She is fully prepared to answer any question that may arise during the lesson. She has surveyed the field so carefully that she knows every obstacle and how to approach it. She learns to teach so as to interest the pupils and awaken in them a love for learning. Thus she become an artist.

It makes it possible for the teacher to buy the books and appliances needed in her work. Books are to the teacher what tools are to the workman. She must have them, and they cost money. To be fully equipped for teaching any one subject, the teacher must have enough books on subject-matter and methods to make quite a little library. A short time ago I saw a collection of books that one of our teachers had made in the subject of geography alone that could not have been purchased for less than fifty or sixty dollars. Multiply this amount by the number of studies in the grammar school and the result represents an expenditure of money that the average teacher cannot afford to make, however much she may desire to do so.

It gives unity to the work. A strong objection to the grade system is, that the teaching is broken, jagged, fragmentary. A little bit is chipped out from the middle of the subject and the teacher is given four months in which to teach it. By the time she gets well acquainted with the pupils and works up an interest in the subject—sometimes before she does this—the term ends, and her class passes into another's hands. But when she has only one line of work, she teaches the same pupils for several successive terms. She knows what has been done the preceding term, and wastes no time in deciding where to begin. She views not an isolated part of the subject but the whole subject. She teaches not for one grade only but for all the grades. She knows, that, if any part of the subject is poorly taught, the defect will be seen in succeeding grades, and will be chargeable to no one but herself. She sees the end from the beginning. Thus she gives to her work unity, consistency, and completeness.

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I have been principal of this school ten years, and, comparing the work of these grades for the past two years with what was formerly done when each teacher tried to teach all the subjects, I see that the teaching is vastly improved and that the discipline is equally good and of a higher order. Arithmetic is no longer the bugbear that it once was. Geography and history are co-ordinated and taught together by a teacher who keeps herself well informed, so that the pupils drink from a running stream instead of a stagnant pool. In reading and literature the pupils have been led into an attractive field, and have been taught to appreciate some of the great masterpieces of literature. Inspired by the teacher, the pupils have, through their own efforts, purchased a library of 200 of the choicest books suited to their age, and have adorned the hall with fine portraits of the great authors. Drawing has been taught so as to have a real educative value; while in vocal music the results are incomparably better than those accomplished by the perfunctory efforts of grade teachers.

The department plan of instruction has been tried in the grammar grades of a number of the best schools in our country. Speaking of these experiments, the last report of the United States Commissioner of Education says (p. 667): "The results accomplished under it (the department plan) are so far superior to what had been done without it that a further extension seems inevitable. It is like going to another world to leave an alleged musical exercise in a school whose teacher has had little musical training and less talent, and who attempts to teach what she herself does not know, with no other guide than the 'course of study' and hand-book—and then to pass into a school in which a skilled musician has infused a liberal share of his own enthusiasm and devotion to the art. Such differences as appear under these opposite conditions are the strongest arguments for specialization. It is altogether fitting and proper, that, if a subject is to be taught at all, it should be placed under the most favorable conditions; and specializing the work of all teachers, at least in the higher grades, seems to be the most probable outcome of the educational experiences and experiments of the last few years."

The limits of this paper will permit but a brief reference to the various objections that have been urged by educational writers against specialization. The point most strongly insisted upon is, that, owing to the large number of pupils that come under the instruction of the special teacher, her moral influence will be much less than that of the grade teacher. The objection would hold if the grade teacher kept her pupils for any considerable time; but it is customary for the grade teacher to keep the same pupils only one term, and it takes her that long to get well acquainted with them. The special

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teacher has seen her pupils come up through the different grades, and has a knowledge of their peculiarities and individual traits of character that can only come by long acquaintance. Character is a plant of slow growth, and the opportunities for its development are far better when the teacher has the same pupil for several successive terms, even though it be for only an hour a day, than when she receives him as a stranger, keeps him for one short term, and then loses sight of him again.

It is claimed that the special teacher will get an exaggerated idea of the importance of her subject; that she will lead the pupils into details and difficulties beyond their comprehension; that she will not properly harmonize her work with that done in the other subjects; that there will be conflicting claims upon the time of the pupils, etc. These fears seem to proceed from the assumption that there is no head to the system and no co-operation among the teachers; for I do not see how such a state of affairs could exist under the right kind of a principal. I should not expect the plan to succeed without close organization and competent direction. Among my teachers in this department there is the most perfect harmony. All work together for one common end. Frequent conferences are held, at which are discussed questions of general interest, such as, individual pupils and how best to deal with them; the kind and amount of home work that should be assigned; how the work in each subject may be made to fit in with and re-enforce that done in the other studies, etc. Certain it is, that we have reached better results in these grades under this system than when one teacher taught all the subjects. It may be that the success of our work is as much due to this warm spirit of co-operation among the teachers as to any inherent virtue in the plan itself; but I believe that the plan of specialization which I have described is founded on sound principles, and that its introduction into upper grammar grades would be a long step toward securing better teaching in our schools.

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DEPARTMENT OF SECONDARY EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—WEDNESDAY, JULY 10, 1895, 3 P. M.

The department met in the assembly room of the high school, District No. 1, W. H. Smiley, President, in the chair.

President Smiley delivered an original and suggestive opening address.

Principal O. D. Robinson of the high school, Albany, N. Y., read a paper on the topic, "Should Electives in High Schools Be in Courses or Subjects?"

Principal Isaac T. Johnson, Friends' School, Wilmington, Del., presented a paper, discussing the same topic.

Prof. William Carey Jones of the University of California, Berkeley, Cal., read a paper on the subject, "What Action Ought to Be Taken by Universities and Secondary Schools to Promote the Introduction of the Programs Recommended by the Committee of Ten?"

Discussion of the paper was led by Dr. B. A. Hinsdale of the University of Michigan, Ann Arbor, Mich.

The discussion was continued by A. F. Nightingale, Chicago, Ill.; W. F. Hall, Vacaville, Cal.; C. M. Lacey Sites, Washington, D. C.; J. R. Bishop, Cincinnati, Ohio; Prof. E. E. Brown, Berkeley, Cal.; Mr. Dickinson of California; T. O. Baker, Yonkers, N. Y.

The chair appointed the following Committee on Nominations:

A. F. Nightingale, Chicago, Ill.; O. D. Robinson, Albany, N. Y.; Principal Brown, Columbus, Ohio; Miss F. A. Adams, Cleveland, Ohio; Principal Barber, North Platte, Neb.

On motion of the Secretary, the following committee was appointed to report a plan of action on the basis of Professor Jones' paper:

Wm. Carey Jones, Berkeley, Cal.; C. H. Thurber, Hamilton, N. Y.; A. F. Nightingale, Chicago, Ill.; J. R. Bishop, Cincinnati, Ohio.

Department adjourned.

SECOND SESSION.—THURSDAY, JULY 11, 1895.

The department was called to order by the President at 3:15 p. m.

The following report was presented:

The committee appointed at the close of yesterday's session to report a plan of action on the basis of Professor Jones' paper recommended to the department the adoption of the following resolution:

Whereas, The most pressing need for higher education in this country is a better understanding between the secondary schools and the colleges and universities in regard to requirements for admission; therefore,

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Resolved, That the Department of Secondary Education appoint a committee of five, of which the present President shall be one, and requests the appointment of a similar committee by the Department of Higher Education, the two to compose a Committee of Conference, whose duty it shall be to report at the next annual meeting a plan for the accomplishment of this end, so urgently demanded by the interests of higher education.

WM. CARY JONES,
A. F. NIGHTINGALE,
J. REMSEN BISHOP,
C. H. THURBER,
Committee.

This resolution was unanimously adopted, and the result communicated to the Department of Higher Education, from which the following reply was presently received:

Secretary Thurber,

DEAR SIR: The Department of Higher Education has arranged to have a committee appointed to co-operate with the Committee on Secondary Education in regard to requirements for admission to colleges and universities.

Very truly,
JOSEPH SWAIN,
Secretary.

The President announced the appointment of the following committee in accordance with the above action:

Wm. Carey Jones, Berkeley, Cal.; A. F. Nightingale, Chicago, Ill.; C. H. Thurber, Hamilton, N. Y.; J. R. Bishop, Cincinnati, Ohio; in addition to the President, W. H. Smiley, Denver, Colo.

The program was then taken up as follows:

"First Year Science in High Schools—Its Possibilities and Difficulties."

(a) On biology.
O. S. Wescott, Principal of the North Division High School, Chicago. Ill.

(b) On physical geography.
Edward L. Harris, Principal of the Central High School, Cleveland, Ohio.

These papers were discussed by A. F. Nightingale, Chicago, Ill.; W. F. Hall, Vacaville, Cal.; E. W. Coy, Cincinnati, Ohio; F. Y. Moseley, Boulder, Colo.; A. V. Storm, Storm Lake, Iowa; J. T. Buchanan, Kansas City, Mo.; and Principal Wood, Cleveland, Ohio.

The recommendations of the Head Masters' Association were read by Principal J. T. Buchanan, and on his motion referred to the Conference Committee.

RECOMMENDATIONS OF HEAD MASTERS' ASSOCIATION OF BOSTON.

1. It is desirable that such colleges as prescribe the reading of certain books in Latin, as a condition of admission, should introduce more variety of reading into their requirements. For example, some part of Nepos might be required as an equivalent for one or more books of Caesar's "Gallic War;" some part of Ovid as an equivalent for a portion of Virgil; selections from Cicero's "Letters," or other writings, as an equivalent for one or more orations.

2. It is desirable, both as a guide for teachers and for the sake of uniformity in the reading preparation for college, that colleges admitting candidates by certificate, and others admitting mainly on examinations in reading "at sight," should recommend a course of reading in Latin for preparatory schools. If, moreover, such colleges would unite with those having definite requirements, in a recommended course of reading, the gain to preparatory schools would be great.

3. Both in the case of prescribed and recommended reading, it is desirable that changes be made from time to time after due notice, as is now done by the Associated New England Colleges in regard to English, French, and German.

4. It is desirable that the colleges should recommend that some months be spent in reading easy Latin, both modern and classic, before authors of the difficulty of Nepos and Caesar are taken up. Such a recommendation from the colleges would have great

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weight with secondary schools; would, if followed, diminish difficulties and discouragements in the earlier part of the Latin course, and tend to the improvement of elementary teaching.

5. The writing of Latin, based on certain prescribed and limited portions of Latin text, to be changed from time to time, ought to be made a part of college entrance examinations wherever Latin is prescribed for admission.

6. The foregoing five recommendations ought to be made in regard to Greek, so far as they are applicable.

7. The requirement that parts of Homer be read, in preparation for college, ought to be maintained, but the examination ought not to be confined to books of the "Iliad."

8. It is desirable that the colleges designate the more important subjects of grammar, both Greek and Latin, in which students come up to college poorly grounded.

9. It is the opinion of this association that passages set for sight translation, particularly in Cicero's "Orations," are often too difficult, considering the circumstances of the entrance examinations.

Principal B. C. Matthews of the High School, Newark, N. J., presented a paper on "Ethical Instruction Through Sociology."

This paper was discussed by A. F. Nightingale, Chicago, Ill.; C. M. Lacey Sites, Washington, D. C.; Mr. Southworth, Denver, Colo.

The chair called attention to the reception tendered by the Woman's Club.

The Committee on Nominations made the following report:

For *President*—E. L. Harris, Principal Cleveland (Ohio) High School.
For *Vice President*—F. L. Bliss, Principal Detroit (Mich.) High School.
For *Secretary*—C. H. Thurber, Principal Colgate Academy, Hamilton, N. Y.

The Secretary was unanimously instructed to cast the ballot of the department in favor of these officers, who were duly declared elected.

On motion of C. M. L. Sites of Washington, D. C., the address of the Committee of Twelve of the American Philological Association was referred for consideration to the Conference Committee.

A. F. Nightingale, Chicago, Ill., and the chair both urged upon the department the importance of signing this address.

Mr. Nightingale moved that a vote of thanks be extended to the President for his admirable administration.

The motion unanimously prevailed, as also a similar motion in regard to the Secretary.

The retiring President expressed his appreciation of the assistance rendered by the department in carrying on the meeting, and presented to the department the President-elect.

On motion, the department adjourned.

C. H. THURBER,
Secretary

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PAPERS AND DISCUSSIONS.

PRESIDENT'S OPENING ADDRESS.

BY PRINCIPAL WM. H. SMILEY, DENVER, COLO.

The pleasure one feels in welcoming any portion of the throng that has gathered here, near the crest of the continent, to participate in the discussion of questions, the issues of which are identical whether they arise on the Pacific or the Atlantic, on the Lakes or the Gulf, is equaled only by one's wonder at the extraordinary growth of this national spirit in education. Examine the programs of our state teachers' associations, so many of which occur at the same time each year. You will find ninety per cent of the subjects identical in spirit and probably in form. Does the Schoolmasters' Club of Boston discuss the elective system for high schools, then will the Schoolmasters' Club of San Francisco probably be found doing the same. So the tide of educational reform sets in much the same direction, rises to equal height, and ebbs at about the same time, the country over.

Therefore, we are glad to welcome you; glad to feel the pulsing of this tide of common interest; glad to share with this representative throng in the inspiration and enthusiasm that comes from clasping hands and looking in each other's eyes with faith in the promise of mutual helpfulness.

There is no need to review at length the problems of the hour. The educational press, with singular activity, chronicles every movement and experiment. Your personal interest and professional spirit keep you in touch and make you familiar with them. At the recent classical conference at Ann Arbor, Dr. Nightingale, superintendent of Chicago High Schools, referred to the report of the committee of ten as the New Testament of secondary education. Colorado teachers may be allowed a pardonable pride in this now famous document, because the meeting and movement out of which its conception came was called by the former principal of this high school, and doubtless from the vigorous sermons preached from its texts in teachers' gatherings everywhere has come, in large measure, this energized national interest.

I am aware that a chairman's privilege and duty is to do no talking himself, but to introduce his speakers and to direct discussion; yet I would call your attention for the few minutes I shall take from

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the formal work of the afternoon to a topic not touched in the report alluded to above, and one, indeed, that has not received the attention it deserves, because of the very minuteness and earnestness of the discussion of the important questions raised therein. The question to which I would invite your attention is this: "How can the students of a secondary school, whether large or small, be made to feel that they form a united society existing, not simply for the cultivation of intellectual power in the individual but for the realization in the mass of certain ideal standards of feeling and conduct—standards to which the individual, consciously or unconsciously, submits and which he is careful of offending; a body moved by a public opinion which each student is conscious of shaping and in which he sees reflected his own noblest aims and impulses?" I am confident that this is a question as worthy of careful study and as easy of solution as that of the relative educational values of physics and chemistry, or their proper sequence in a course of study.

It is perhaps hardly strange, in a period so marked by the spirit of individualism as are all lines of intellectual activity, that this influence should be strongly felt in all problems of school organization. Realizing as never before the preciousness of individuality and the necessity of conserving it, we have bent all our energies to the task of devising ways and means for its development, granting privilege after privilege to the individual student without considering or calling his attention to the duties owed in return to the social body to which he stands indebted for his growth in culture. This tendency appears in many forms. I see it in the high value set upon individual versus class instruction; I read it in a high school program recently published, where it states that a pupil regularly promoted may, "at the request of parent or guardian and with the approval of the principal, study any subject in the 'Course of Instruction' which the daily program will permit;" I hear it from the lips of the professor of pedagogy in one of the greatest American universities, when he declares that he does not know of a single subject of the secondary school course that he would regard as absolutely essential. Now, all this may be very right, if the school that gives greatest freedom to the individual student's development secures with equal care opportunities for the exercise of his social instincts; but there can be no question that the specializing spirit often leads to the cultivation of personal power at the serious loss of personal sensitiveness to the just claims of the school upon his active, public support of those principles affecting conduct that receive cordial assent from the majority of students when presented to them as individuals. Yet, how often, when we have occasion to remind a student of St. Paul's passionate affirmation, that "No man

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liveth to himself," are we met by the reply, "I can answer only for my own actions; I have no responsibility for those of others." In brief, we have as yet found no way of focusing the best sentiment of the whole school body in a positive manner upon the evils we would reform. Yet there are no societies among students that bring to their work greater energy, enthusiasm, honesty of purpose, and, in the main, better judgment in execution, than high school organizations.

To make clear the application of my general statement, let me give a single illustration. Belonging to the two high schools of this district is a cadet battalion. Its commissioned officers are elected by its members; its non-commissioned officers receive appointments by united action of the commissioned officers and the major of the battalion, Mr. Bradley, the present principal of the Manual Training High School. The cadets have rarely failed to elect boys of honorable and forceful character to important positions. Certain of these commissioned officers sit as a court martial for the trial of offenses of various kinds. It has been my privilege to be present at some of these trials. The boy who is summoned before the court martial for the first time is inclined to regard the whole affair as a huge joke from which he intends get some fun at the expense of his superiors. He consequently appears with a jaunty look and anything but a military bearing. The dignity and seriousness, however, with which he is met, the sharp criticism of his dress and the unsoldierly attitudes into which from nervousness he constantly falls, sober him quickly. He has come most likely with flimsy or feigned excuse; the flaws in which soon appear beneath the skillful examination of his judges. Often, dropping his show of bravado, he pleads guilty and is dismissed, sometimes reprimanded, sometimes fined, and always with most excellent advice as to his future conduct. He walks out with a far more business-like air than he entered, and often with a sense of shame and mortification at his foolishness. The boy may appeal from the decision of the court martial, and bring his case before the battalion at its monthly meeting; its decision, however, is rarely reversed. Thus the cadet brings himself or is brought by his fellows to the recognition and practice of soldierly bearing, honorable dealing, and unquestioning obedience. Now, I sincerely believe that in this self-governing organization we have a type that may be imitated in form and spirit for the maintenance and preservation of many other ideals.

Cheating in examinations has disappeared from several colleges, notably from Princeton, because the student body, by public action, decided, that, if they were left unwatched, the man who was dishonorable enough to cheat and was detected by his classmates must

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sever his connection with the college; a conclusion voluntarily accepted by several offenders. You object, perhaps, that we can hardly expect of the high school student what we may of the collegian. I answer, that much more may be expected in the way of positive action, if students be rightly guided step by step and encouraged to its use. Boys and girls of high school age are no casuists; with them an action is absolutely right or absolutely wrong. They weave no fine-spun excuses for themselves over the mixture of good and evil in yielding to inclination; they do wrong deliberately, sometimes for the purpose of judging you severely, if you overlook too easily their offenses. They object to no punishment of which the school approves, but you will hardly get them to do that which they believe their mates would not accept as just. It sometimes becomes necessary to discover their feelings towards a movement requiring their co-operation. Have you ever noted with what marvelous rapidity, by glance of eye, they take note of each other's position before hazarding opinions? Their appeal is, not to the reasonableness of your proposition but to their classmates' conclusion.

In this universal appeal to a common consciousness and desire for mutual support we may find if we will the strongest force we have for the upbuilding and controlling of individual character. Therefore, encourage its growth, by giving every possible opportunity to the school for the expression of its feeling and opinion, through united or representative action. In this way only can the school learn to co-ordinate the action of its heart with its brain, its feeling with its intelligence. Trust your students, and you will have no reason to fear in them lack of taste or wisdom. Let them learn the strength and weakness of concerted action; better mistakes now than when they try to serve in later years a large community. Do not keep them in pupilage too long. Give them credit for an increasing power of social action, that keeps pace with their growth in judgment. If we expect mature society to cleanse itself of cheating, lying, stealing, and impurity, we cannot begin too early to invite their co-operation in the cure of these ills. It is not difficult to make them realize that these evils entail more serious consequences upon school society than upon the individual offender. When our students once believe this, our work is practically done. Later they will leave us with faith in their fellows, hope in the power of united action, charity for the weakness of individuals, and some ability to make their knowledge efficient in a society of which the school after all is a faithful though possibly a flattering counterpart.

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SHOULD ELECTIVES IN THE HIGH SCHOOLS BE BY COURSES OR BY SUBJECTS?

BY OSCAR D. ROBINSON, PRINCIPAL OF HIGH SCHOOL, ALBANY, N. Y.

Such was the question assigned us in the wisdom of your committee, and feeling thoroughly convinced that courses of study are, and for a long time must remain, a necessity in our school economy, we are forced to occupy the unfortunate position of defending that which to the minds of probably more than ninety per cent of this audience needs no defense. If it be true that there is always a fair presumption in favor of existing conditions and institutions, then the burden of argument should be upon those who demand a change in the existing order, and the subject should have been opened by those who would attack, and not by those who would defend, a system which we have reached through wearisome years of effort and evolution. Among the prominent educators in the country we know of only one who unreservedly advocates the abolition of all courses of study in high schools, and but for the products of his prolific pen for the past few month this discussion would seem almost a waste of time. But the mere fact that our course-of-study system has been openly and repeatedly attacked by so eminent an authority as Dr. Samuel Thurber is perhaps sufficient reason why some of the valuable time of this association should be devoted to the question as proposed by the committee. Let us bear in mind, that, in a discussion of this kind, all the favorable conditions for argument are on the side of the untried, the merely theoretical.

In favor of choice by courses of study we can cite the established order of things (needing improvement, to be sure; but so elastic as to readily admit of improvement), the approval of thousands—in fact, almost the entire body—of our best educators, and results (which, while not all that could be wished, are certainly far above what could reasonably be expected in the absence of this system). On the other hand, in favor of choice by electives we have no end of brilliant arguments and glowing statements of what the results would be, and—that's all. Any facts supporting the theory of choice by electives in secondary schools are as difficult to find as the traditional *dentes gallinarum*. It is worthy of note, also, that Mr. Thurber does not even hint at the desirability or possibility of conducting the great endowed or private schools in any other manner than by study courses.

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Here, then, at the very outset, let us state what we are to understand by the expressions "electives by courses" and "electives by subjects." By the first we mean simply this: That all the subjects which pupils may be allowed to pursue in a given school are so arranged that each is awarded a certain ratio of the whole time (say of a four-years' course), and that each takes its place in a fixed order with reference to the other subjects. As more subjects are admitted in the curriculum of most schools than every pupil can profitably pursue, these are arranged in groups, often differing by only a single subject, and by a rather awkward nomenclature are called "courses of study." Critics and iconoclasts seem to take delight in speaking of these so-called courses as though they were entirely separate and distinct from each other, each with a distinct set of pupils and a separate set of teachers, a form of statement very misleading and entirely at variance with the facts. The much criticised (and in some respects justly criticised) specimen programs of the committee of ten furnish a good illustration of fixed courses. These differentiate almost wholly along the line of language studies, and we all know that there is no necessary separation of pupils except in the one or more subjects which differentiate one course from another. In the first year, for example, the classical and Latin-scientific courses are identical, and in the second year they differ but slightly. As a matter of fact, all those pursuing algebra through a given year, in whatever course, would recite to the same set of teachers; the same is true of physics, geometry, Latin, etc. The classicals are not separated from the others in branches common to all, but only in the one subject of Greek, and so on through the whole. Undoubtedly many secondary schools make a silly display of multiform "courses of study," much to the satisfaction of the reformers, but it is well to bear in mind, when citing the terrible example of a school with "seven courses of study," that the "Latin course" of such a school may differ from the "French course" by a single subject, and very likely not by a single teacher. I find, that, in most of the few high schools where Greek is allowed, four so-called courses are the outside limit, and in schools omitting Greek three is the maximum number. The numbers are much more likely to be three and two. So much for the number of courses. We repeat, then, that, by the course method, the mathematics of each of the four years is fixed in amount and in the order of succession, and all the pupils of a given grade pursue their mathematics as though they were in the same course. The same is true of those other substantial subjects which make up the bulk of the high school curricula. Students of the same grade, in subjects common to all the courses, are grouped as if belonging to the same course, and are separated only in the

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differentiating subjects. Under these conditions a principal, knowing from experience the probable number that will select the various courses, can arrange the teaching force at his disposal (which, by the way, Mr. Thurber never seems to regard as a limited force), in the manner to secure the best possible results. Nor does this system involve any such procrustean method as our opponents would have us suppose. I know of no high schools that prohibit pupils from entering upon any single study in which classes are already formed for those in course, provided they are qualified and can show any good reason for so doing, whether of poor health or other necessity. On the other hand, we are all glad to have a student in one course take an additional subject belonging to another, provided he has the mental and physical ability; and, while we more frequently advise students to lengthen than to shorten the time assigned, we never object to their taking all the Latin or mathematics assigned for two years (or even more) in a single year, provided they are able. Liberal substitutions are also allowed in most schools, along kindred lines, so that there is under the course system great opportunity for selection if not for election.

What the schools do say, what they have a right to say, is in substance this: "We require such and such minimum attainments in mathematics, in literature, in science, etc., before we give you our diploma. If you double the amount of literature and omit the mathematics, or increase the mathematics and omit the prescribed science, we will not put the stamp of our approval upon it in the form of a diploma." Consequently all the talk about pupils being obliged to forego the privileges of education, or take to the completion certain definite courses of study in certain periods of time, is mere buncombe. But I believe every principal who has watched the progress of pupils who have been allowed to elect this and that from various courses will agree with the statement, that, notwithstanding a few exceptions, these efforts have for the most part resulted in miserable failures. In fact, when a high school pupil begins to have an itching for "electives" or a "partial course," unless on account of ill-health or unavoidable necessity, it generally marks the first stages of the disease known as "going all to pieces."

Now, what is choosing studies by electives? As I understand the plan, it is as follows: The school authorities shall simply prescribe in advance the list of subjects that may be pursued (and some would delegate even this to the choice of the pupils), leaving order, sequence, and time to be decided by the children. If, for instance, your school consists of 500 pupils, by the elective system 475 might choose French, physics, and botany and the remaining twenty-five might be distributed variously among the other studies allowed.

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with from three to five in each trio of subjects. Now, suppose you get your teaching force adjusted to this unique arrangement, and at the close of the semester the popular sentiment of the school has changed (as it is almost sure to do), and 475 wish to take literature, astronomy, and German, and the remaining twenty-five distribute themselves among a new set of trios. What glorious headway we should make!—aiming at nothing, and sure to hit it; traveling to nowhere, and bound to get there. But you may say this is not a fair statement but only an absurd caricature of the elective system. Very well, we will take the evidence of the great exponent of this system, and let him state his own case. From an article by Dr. Thurber, in the "Journal of Education" of Feb. 14, 1895, I take the following extracts:

> The very idea of a course of study—apart from any contemplated plan of rewards in honors and degrees, which have no essential relation to the philosophy of the matter—is nothing less than absurd. To assume that certain studies, in certain proportions, naturally articulate together so as to form something like an organic unity, is a piece of pedantry hardly to be paralleled outside the province of pedagogy.
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> The high school should cease to constrain minds to mingle subjects together regardless of the effects of the mingling on the minds themselves. This comes pretty near to saying that high schools should have no courses of study: and this is precisely what I wish to say.
>
> A prescribed grouping of studies is just as necessary for a high school as it is for Harvard College; that is, it is not necessary at all. * * * The ideal high school will have a large and pleasant room for study, where there shall be a sufficient library and teachers ever on duty to preside over discipline and to give aid and guidance in the use of books. The pupils in this room will have freedom of movement and of conversation, so far as these freedoms are natural and inevitable in associated work. Of carrying home of books, except for voluntary reading, there shall be none at all. The first step towards the realization of this ideal is the abolition of the course of study. This does not mean at all that any study will necessarily be erased from the program.

Talk about caricature! You can no more caricature such a scheme than you can caricature Coxey's army. Such an "ideal" high school would seem absurd enough if composed of 100 pupils and four or five teachers; but suppose it to be a mixed high school of 800 or 1,000 pupils and twenty-five or thirty teachers; enlarge your room and increase your books proportionately, and then say to these girls and boys: "This is a purely local option school; choose your own subjects, exercise all necessary freedom in conversation and movement, and call upon your teachers for assistance when you need it." I think if we failed of an ideal school under these conditions we might feel sure of an ideal bedlam.

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Having discussed at considerable length the method of procedure in these two systems, let us see what is claimed for the reform, or elective, system. However numerous the reformers may be, Dr. Thurber appears, up to date, to be the only outspoken champion, and surely his colleagues could not desire one more courageous nor expect to find an abler. In addition to the brief article in the "Journal of Education" for February 14th, from which we have just quoted, I find in the same periodical of May 2d an abstract of a paper on the same subject, read before the Massachusetts Association of Classical and High School Teachers; also, an article in the "School Review" for April, on "Rigid Courses versus Optional Studies;" and, lastly, a very able paper in the "Journal of Pedagogy" for June, on "Courses of Study in Secondary Schools." We have in these papers a severe arraignment of "philosophers" and "decemviri," who attempt to make courses of study and persuade others to adopt them, and much wholesome criticism of over-crowded courses and under-disciplined high school graduates, always coupled with the assumption that all these evils would disappear if we would abolish courses of study.

Now, we maintain that the evils against which he declaims can be better remedied under the course system than they could possibly be under the elective system. If observation teaches anything in this line, it is, that the inexperienced pupil, if allowed to choose his subjects, rarely chooses wisely either in number or kind. To abolish courses of study because there are evils connected with them is to adopt the plan of the anarchist, who, because there are defects in organized society, would have organized society abolished. But again, we affirm that the course system as such is in no way responsible for the evils which we are all interested to remedy. It is no more necessary that this system should demand more than three subjects to be carried on continuously than that an elective system should, and this procrustean, cast-iron process against which these pointed shafts are aimed is but a figment of the imagination—an ideal realm of the hero who sighs for a new world to conquer. We do not deny the existence of many errors in our present arrangement —God save us from the day when we shall say, "We have reached perfection!"—but we deny the efficacy of the remedy proposed. In all the articles above referred to, the author, when enumerating defects, seems to be dealing with conditions as they are; but when he proposes his panacea for these defects, and prophesies the results, he enters an ideal realm, or at least one unknown to the ordinary high school teacher. Nothing short of ideal pupils, ideal teachers, ideal boards of education, and ideal equipments would harmonize with his proposed scheme, and these we do not look for in real life—especially the life of the teacher.

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It is all very well to plead Harvard College as an example, but the ordinary village and city high schools are very different institutions from Harvard College. Call to mind the high school pupils as you and I have known them. They enter at ages varying from thirteen to fifteen. All of them come from homes of respectability, but few from homes of wealth, and fewer still from homes of culture. Their stock of ideas is yet too limited to enable them to decide what studies are best for them, or even what subjects they are likely to pursue with most interest. Their ideas of education, if indeed they can be said to have such ideas, are exceedingly crude. To talk of such children choosing the branches of study which will be best for them, following their own tastes, etc., is worse than pedantry. They have no reliable data on which to found a choice; and, as for taste, their only conception of the word has reference to the palate. These children are the raw material—very raw, generally—out of which, with proper training, will come men and women, the glory and pride of our schools, but who are at present as incapable of selecting the subjects or order of their studies as I should be of deciding upon an agricultural system for the inhabitants of Mars, and for the same reason—lack of proper experience or knowledge. Nor, in most cases, are the parents any better fitted to make this selection than are the children, while it is a well-known fact that the most intelligent and best educated as a rule select for their children the most rigid courses of study. We maintain, then, that to throw away our courses of study would be to go back from organization to chaos. There is ample opportunity for those who wish to do so to try the experiment. If it succeeds, as they claim that it will, the rest will quickly enough follow. On the side of electives there is, as we have shown, nothing but argument and prophecy. On the side of the fixed courses we have the experience of all our past history, and, while faults still inhere, they are easily eradicable; we point to results which we believe could have been attained in no other way. We may wish for a better guide than experience, but there is none. Results may seem meager when compared with prophecy, but they are sure; and certainty is a great deal in this life. Our fixed courses already afford large scope for electives, while they give to the uncultured youth who pursue them a preparation for collegiate, technical, professional, or independent study which no one, in the light of present experience, would claim could be secured, under our necessary limitations, by any other system.

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DISCUSSION.

ISAAC T. JOHNSON, Friends' School, Wilmington, Del.—A system of electives in high school courses seems to be a necessary part of the high school work. For after a boy has mastered the elements of an English education and begins to do higher work his inclinations or his own or his parents' hopes for the future require that he specialize more or less, or that from several possible courses or subjects of study he choose only such as will fit his needs.

Farther than this, the tendency now is to begin to elect earlier than the high school and to exclude such elementary work in the grammar school as may be brought in with the high school course or may be undertaken to better advantage later. The colleges claim, and with some degree of justice, that the boy should be prepared at an earlier age than eighteen or nineteen for admission, or else be more thoroughly equipped for advanced work at the age he now enters.

On the other hand, the community demands in its turn, that, in the ten or twelve years during which the school has the boy, he should be trained and prepared in the best possible manner for the duties of life. But just what is the best preparation for the duties of life is where there is some difference of opinion; as one will claim that the best preparation lies in the course which gives the best discipline of the mind and control of the faculties irrespective of the dollar-earning value of the course, while another claims that the dollar-earning value of the study as well as the disciplinary may be found also in the subjects studied. In a very few large cities and wealthy communities both ideas are met by the regularly organized English high school, Latin school, and manual training school. But these are so few that they cannot be considered as types. We must take rather the high school of our smaller cities and larger towns where separate schools cannot be organized.

The same public sentiment which is found in the larger one must be considered in the smaller community.

There is the boy who is preparing for one of the many courses offered by the college or university; the boy of mechanical turn, who will serve his apprenticeship at a trade; and a third, who will enter upon a business career or the work of the farm.

For the first (who is in a decided minority) provision must be made, and with the idea constantly in view that success in preparing the college boy will raise the tone of the work in all other courses. For the second, some variation from the course of the first must be made, that he may attempt only the work which will either be complete in itself or be so well started that it may be completed by the pupil by his own unaided efforts after he has left school. As far as possible, also, it should be of value to him in his trade.

For the other and far larger class, the community seems to demand that the special college and technical work be excluded, and that such work be given as will give both the best discipline of mind and such general knowledge as will be of value to the citizen.

The question before us asks whether all these demands can be best met by giving electives in subjects or in courses.

If we analyze carefully the work required of the high school we shall agree, that we must have such work done as will secure for all the best discipline of mind and development of character; that, to secure this, the work done by each child must have a system in its arrangement and such a relationship in the succession of studies that it will secure the desired training as well as secure the

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practical ends desired. This consideration in itself will preclude all selections by subjects except the subjects be in themselves arranged in courses, and preclude all selections which may be made to gratify a feeling that one subject is "easier" than another.

According to the principle just laid down we should outline a few courses in the high school from which the pupil should make his selection of a course. Then, if possible, in the last two of a four years' course, opportunity should be given of substituting for some of the prescribed work elective subjects, elected for the purpose of doing more advanced work in lines already undertaken or to meet the requirements of college or business. The number and character of the courses to be offered in a particular school will depend largely upon the resources of the school, upon the teaching force, and upon the equipment. No school should offer more courses than it can teach well.

All schools can offer at least two courses for a part of the four years, if not for all. These two courses will be arranged differently in different communities. Some will have a classical or language course and a scientific course. Others may have an English course with the manual training work and a classical course.

In all schools and among those pursuing every course are found a few who seem, we might say, incapacitated for mastering some one subject but who display a genius in some other line. For these some provision should be made, as well as for those who, for special reasons, desire and are able to do advanced work in any one subject. The election and substitution of work by subjects in such cases must be limited by the resources of the school and exercised entirely at the discretion of the teachers in charge.

The practical considerations of teaching force and making of programs must be considered. The larger the number of electives offered and chosen the greater will be the tax upon the teaching force and the greater will be the difficulty in arranging time cards. This often amounts to the task of trying to accomplish the impossible.

The high school is organized for the greatest good to the greatest number, and when it so happens that by a system of electives the teacher is forced to conduct a large number of recitations per day, and in many subjects, the work in no one subject will be of a high order nor results satisfactory. It will result, that, in attempting to satisfy a few, all will be dissatisfied.

It is a mistaken idea, that, as the high school is supported by public funds, it should necessarily offer the opportunity to every one to pursue at public expense studies which may be considered by parent or pupil of special advantage after leaving school.

When the state offers opportunities for the best training of all the faculties of the child and the development of character, and when it employs the best expert talent at its command to accomplish this end, all has been done that should be done by the state; and the question whether the work will be best done by courses or by subjects, or by both, will be determined variously by those who try honestly to do their duty in the locality in which they work.

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THE PROSPECTS FOR A FEDERAL EDUCATIONAL UNION.

BY WM. CAREY JONES, UNIVERSITY OF CALIFORNIA, BERKELEY, CAL.

A state school system, in the sense of a series of schools, completely organized, thoroughly articulated, from the kindergarten to the university, under the express and direct control of the sovereign authority, does not exist in the United States.

The state has universally established the elementary school, with plans for natural connection between its successive years. It has, or has not, made legal provision for high schools. If so, then generally without any definite and necessary connection with the elementary schools. It has, or has not, made provision for a university. If it has, then generally without imposing any obligation of inter-relation with the high school. It has not, in general, sent down the tap-root of education—the public kindergarten. The state has, at best, arranged for an independent existence of kindergarten, elementary school, secondary school, and university. Whatever there is of a harmoniously working combination of the several grades has come from the voluntary and spontaneous co-operation of these several separate and legally independent parts.

In some portions of the country, particularly in the West and on the Pacific Coast, this voluntary association of educational interests has developed to such a degree that we may distinctly see an emergence from former chaotic conditions and may view with confidence the probable tolerably complete articulation of the several parts of the series in one connected whole. The study of educational theory, the discussion of definite questions and problems, the establishment of educational journals, an increasing body of highly educated and professionally trained teachers, the growth of kindergartens, and the awakened interest of colleges and universities in the whole question of education, have been among the influences that have been working to the amelioration of our educational condition and to the production of real educational systems.

To my thinking, among the most potent factors in this construction of the new education have been the kindergartens in their influence on the first years of the elementary school and the universities in their policy of co-operating with the secondary school. The practical exemplification of a natural and true method by the kindergarten has impelled the thought of theorists and teachers to correction of the methods and improvement of the studies of the lower grades, and co-operation with college and university has given to the high

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school in many portions of the country a tone, a life, a vigor that make it an active and efficient agent in the enlightenment of the people. If it has been true that the most discouraging problem in educational America has been how to give a conscious aim and purpose to the formerly dead-and-alive secondary school, this is no longer, at least universally, true. But while the elevating influences of the reanimated high school are pervading, too, the next preceding school years, the greatest waste of energy to-day in the educational life of the child is found mainly in the years midway between the kindergarten and the high school. I refer to this chiefly for one reason, namely, to draw attention to the fact, that, when the desiderated extension of the secondary school course to six years—not upwards, but downwards—shall have been accomplished, the contents of the whole school curriculum may be easily strengthened and enriched.

Now, this voluntary co-operation, and hence, the inception of a system of education, has, as a rule, at least, come from the initiative of the university. The university has reached down to the high school and sought to bring about a real connection between secondary and higher education. This action may have been prompted by motives of self-protection or self-aggrandizement. But, if this has been generally true in the beginning, it has not long remained so; especially not in the state with whose educational history I am best acquainted. There (in California) the contact between university professor and high school teacher soon resulted in opening the mind of each and in producing in the university professor an intense interest in the cause of secondary education; and, indeed, in the whole education of child and youth.

So successful have we been in California in beginning the work of articulating the several parts and grades of the educational series, that I cannot do better than give the history, present status, and prospects of the accrediting or diploma system in California—the Californian plan for uniting secondary school and university.

The accrediting of schools by the University of California was authorized by the governing body in 1884. The faculty laid out a careful, thoroughgoing, and conservative scheme of action. They offered to high schools, and later to private schools, to inspect, upon request, their courses of study and the extent and quality of their work. They promised, that, if, after a searching inspection, these were found satisfactory, the graduates of such schools might, on the personal recommendation of the principal, be received into the university without examination. The official inspection has in each case been conducted by experts in the several departments of study—classics, English, history, mathematics, science. The visit to the school is repeated yearly, with occasional exceptions in particular branches. I think that no

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school has ever been passed for a single year without visits from several university officers. The accrediting is for a single year only. Accompanying the yearly application for accrediting must come the course of study in the school, the list of teachers, and specimen papers showing the style of work. Some regard is paid to the record which recommended students make in the university during their first year.

At first the schools responded slowly to the proffered inspection. They had been living long their retired, independent, self-sufficient life. They did not court interference from without. In 1888 there were but six schools that had become affiliated with the university. In the fall of that year, however, and during several following years, a messenger, a missionary, went forth from the university, up and down the length of the state, explaining to the teachers and officials of the schools the methods and purposes of the university in the proposed affiliation. The result was a rapid and steady increase in the number of accredited schools, which grew, in successive years, from nine in 1889 to fifty-one in 1894.

To render the work of useful connection between secondary schools and university in California more difficult, the constitution of 1879 had taken away from and denied to high schools any state pecuniary assistance. This caused the death of many high schools which had sprung into existence during the previous decade. In 1889 there were only twenty-one high schools (and some of them called so only by courtesy) within the whole state. These were supported by local taxation. But, in 1890, through the operation of the accrediting system, without any change in the organic law, the interest in secondary education had become so stimulated that thirty-seven schools were flourishing. And these have grown until, in 1894, there were ninety-four.

To recapitulate, the features of the Californian accrediting system are: (1) The careful yearly inspection, by a body of experts, of every school desiring affiliation; (2) the acceptance of graduates of accredited schools, upon presentation of a personal recommendation from the principal. The diploma alone will not admit; the recommendation alone will not admit. Entrance examinations continue to be held as though the accrediting plan did not exist. These examinations are open to all—to those from non-accredited schools and to those from accredited schools who have not received the principal's recommendation.

It may be suggested that the system will fail through overweight. And so it will, if it be not modified. How can it be modified without sacrificing the elements that give it strength? We Californians think it can be done, even to the improvement of our present methods. What we are thinking of just now is this: We

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propose to form, instead of our present examining committee consisting of six or seven men, who are also charged with full teaching duties in the university, a smaller committee of, say, three. These three shall be, perhaps, clothed with the title of assistant professor or associate professor, together with that of university examiner. They may, perhaps, be attached to the department of pedagogy. They will be men of extensive knowledge, competent to inspect the work of the schools; one, say, in the classics, one in mathematics and science, and one in English and history. German and French may be assigned to one or another, according to circumstances. These men may, perchance, be required to devote all their time to school visiting, and similar work, or they may be able to conduct work in the university during a portion of the year. Their inspection of schools may be supplemented or replaced, in particular instances, by the department professors.

The most effective method of correlating the university and high school now in practice in America is, probably, that which is being carried out in California. The fairest promise of a thoroughgoing systematization of school work along the whole line exists, too, I believe, in California; and this promise is mainly dependent on the intimate connection created between high school and university.

What has been done in California may be done in every other state. The difficulties on the Pacific seemed at first insurmountable. But those who determined on the conquest adhered to their resolution, and the many difficulties that still remain toward perfecting the system will not deter us from pursuing our work until the whole field is conquered. I plead, in behalf of the systematization of our state school work, (1) for the adoption of an effective, thorough, well-guarded scheme of accrediting, where none now exists; (2) for the strengthening and safeguarding of existing accrediting schemes; (3) for the abandonment of all certificating of schools by colleges and universities, whether open and aboveboard or *sub rosa*, without inspection of the actual work of the school.*

Such are the prospects for a systematization of our educational institutions in some of our states, and such are the means by which a like systematization may be effected in many others. What are, now, the prospects for inter-state co-operation, and what the means of promoting such co-operation in order that we may finally arrive at a federation of educational systems? Foremost among the influences in breaking down everything like sectionalism, as Principal C. H. Thurber has well shown, and in creating a national sentiment in education, is the report of the committee of ten. The body of ex-

*The different methods of admission to college are well explained by Miss Lucy M. Salmon in the "Educational Review." Her article is a valuable contribution on the subject of this paper.

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pert opinion contained in its several conference discussions furnishes a basis for study and a guide for action everywhere in the country. Its programs constitute a working theory for the organization of the secondary school and for promoting its right connection with the university. The curricula are to be regarded as "sample programs," and as such essentially practical. I cannot see anything "ideal" in them. They are types, and are capable of many readjustments. They include at least almost all the subjects that profitably fall within the purview of the secondary school. Whether the time allotments are the best need not be at all considered here.

Either independently of the report of the committee of ten, or in discussion and execution of its recommendations, much is being done in various parts of the country to bring about co-operation within limited circles. These efforts have, too, to a greater or less extent, an influence beyond the boundaries of their nominal spheres. The New England Association of Colleges and Preparatory Schools and the Association of Colleges and Preparatory Schools of the Middle States and Maryland have, for instance, furthered greatly the uniformity of relations between college and school. The committee of fifteen of the National Department of Superintendence has contributed to the nationalization of educational thought by its recent admirable report. Two associations whose fields of activity are avowedly within single states may also be specially mentioned, because their example is one worthy of imitation and because they are engaged on lines of work which have a national import. I refer to the Michigan Schoolmasters' Club, whose valuable proceedings have been published in the journals, and the State Educational Conferences held under the auspices of the University of California. In fact, I do not know but that this latter body has done one piece of work which, by further extension, may not be taken as a practical basis for the general readjustment of the relations of university and high school. This particular work is a report made by a committee of the California conference, consisting of Principal W. F. Hall, Principal T. L. Heaton, and Prof. Frederick Slate. The collecting, collating, and digesting of the statistics of this report was done by Mr. Hall. It is an exhaustive examination of the courses of study actually in vogue in nearly all the high schools and in the leading private preparatory schools in California, together with specimen curricula of a representative list of similar schools in the Eastern and Middle States.

Prof. Nicholas Murray Butler has said: "The colleges have been injuring higher education in America by giving their own idiosyncrasies as to admission examinations free scope, instead of agreeing together upon a policy." In fact, the present chaos of college entrance requirements is the greatest obstacle in the way of giving

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a national character to our higher education, as well as of bringing about the unification of our educational interest at large. The differences that characterize these entrance requirements are utterly irrational and indefensible. They represent whims and idiosyncrasies, or antiquated theory, or ill-considered radical notions, or unworthy concessions to ignorant demands. They block the road to the improvement of the secondary school. They are a travesty upon our claims to be authorities in matters educational.

In order to rise from the particularistic and provincial self-sufficiency of this condition, we must establish an inter-collegiate policy on the subject of entrance requirements. To effect such a policy I would suggest and recommend that the programs of the committee of ten, in their character of types, and with suitable and various redistribution of subjects be, so far as they go, indorsed by the universities and adopted by the high schools of the country; that the universities hold examinations in, or accredit on, all the subjects included in these programs; that state universities, where such exist—or other universities, where the state institutions do not exist—adopt an accrediting system drawn on careful and well-guarded lines; and that a system of reciprocity be established among the larger universities, whereby matriculates in one university may be received into another with full credit so far as valid difference of entrance requirements will allow.

Finally, I wish to recommend that a committee of considerable size, composed of representatives of the larger universities and of typical high schools, with proper regard to geographical distribution, be organized to devise plans for carrying out such suggestions as I have made, or for otherwise promoting a federation of our educational institutions. In the suggestion that the representatives be taken from the larger universities, I am not careless of the interests of the college as distinguished from the university, nor indifferent to the sphere and functions of the college. I am not seeking to have it overlooked, displaced, or overwhelmed. But we are in the face of many dangers: dangers of low standards, low ideals; dangers of idiosyncrasy, of aimlessness; dangers of confusion—confusion of college and university, confusion of college and high school; dangers of pernicious rivalry of universities; dangers of excessive increase of entrance requirements to academic work; dangers of low standards in the professional school. Now, it is imperative that the universities—the dozen larger universities of the country—should meet together, through delegates, to discuss these and like questions; to seek to obviate these dangers; to establish a *modus vivendi* among themselves; to abandon their unessential differences, and yet maintain their inherent and characteristic aims; to fix and regulate the quantum and standard of admission require-

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ments; in consultation with representatives of the colleges, to come to a common understanding of the sphere of college and university respectively, and the relation between the two; and, in consultation with representatives of the high school, to regulate the relations between secondary school and university.

Without discouraging or disparaging the formation of local associations, whose services in the causes are indispensable, I favor for the purposes here suggested a national congress rather than sectional conferences. The results obtained through the deliberations of such a body are more likely to be of a broader character and stronger foundation. Their recommendations would command greater attention and respect. A little union of a dozen, or even half-dozen, universities, knowing no sectional boundaries, would be a nucleus for the ultimate federation of our educational realm.

DISCUSSION.

PROF. B. A. HINSDALE.—The spirit of our educational organization is quite different from that of Europe. We cannot depend upon any central power. We must resort to persuasion. I should like to ask two questions in regard to Professor Jones' paper. Is it proposed in California that hereafter the examinations are to be made annually? We may perhaps assume that such is the plan of the institution. Is the examining faculty to be permanent or to be changed from time to time? If this faculty is to be a permanent body, is it not to be feared that it may, in some degree, grow out of sympathy with the work that is being done in the university itself, and pass upon the institutions examined from an abstract point of view?

Let us consider for a moment the real question under discussion. What shall be done towards securing the adoption of the secondary school program of the committee of ten? In urging action along this line Professor Jones has spoken of these programs as types. I do not understand that they were ever intended to be anything else. They are what may perhaps be called norms, that are to be in some degree and in some manner filled out as we advance in the discussion. I do not know that any educational authorities recommend the adoption of these courses as they are formulated. What we should do is to do all we can to secure a movement along these lines, using these courses, not as finalities but as types which can guide us in achieving something better. What can be done? It is certain that we can do nothing at present, working from the legal or state administration standpoint. Our educational foundations are not along these lines. We must seek the accomplishment of our ends by way of discussion and action on the part of universities and colleges in their individual capacity. This is the first step. In regard to the final point of Professor Jones, such an organization as he proposes should, as a matter of course, look towards a national organization of this sort. In the meantime, in my judgment, results that will be wholesome and salutary within certain limits may be achieved by local organizations of this kind; as, for example, one on the Pacific Coast, one in the Mississippi Valley, and one in New England.

PROFESSOR JONES stated, that, in the opinion of the faculty of the University of California, it would be so difficult as to be almost impossible for one man to

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do the proper supervision, and they therefore preferred a committee. It was their opinion that this committee should be reasonably permanent.

SUPT. A. F. NIGHTINGALE of Chicago, Ill.—Standing in the rarefied atmosphere of the leading silver city of America, I do not know that it would be safe for a Chicago man to present any golden opinions on this subject, even if he were conceited enough to believe that he had any. I am not in sympathy with the charge made, that the colleges of the country are so engaged with their various idiosyncrasies as not to be in sympathy with the work done in our high schools. The best high schools and the best colleges are in very close sympathy, and the poor colleges and the poor high schools are also in harmony. The college-men of this country are too wise to draw far away from the high schools, upon whose success their own longevity and vitality depend; and the high school men are too wise not to so strengthen their courses of study as to prepare amply for any college. Practically, the high schools of this country are all accredited by the colleges of the country. All colleges and universities except Harvard and Yale receive pupils on certificates or their equivalent. We cannot expect that the graduates of our schools can be received into any college unless we do the work that college requires. The high schools are uplifting with much greater rapidity than the colleges of the country are uplifting themselves. The educational progress of this country to-day is such that we must individualize our work in the schools of the country. The time is past when we can take the children and put them all through identically the same course of study. I am proud to have my name signed to this protest of the American Philological Association against any course receiving the name of classical which does not provide for at least five recitations a week in Latin through four years and for the study of Greek through three years; but, at the same time, I am persuaded that it is a crime to try to persuade some pupils to study either Latin or Greek and it is a crime to induce others to go into the depths of scientific study. It is our duty to develop mental power along the line indicated by the endowments of the Creator. One course of study in a high school is enough, but it should be so provided with electives that every student can find in it what appeals to his individual powers. There should be, of course, a general admixture of all if the pupil is able to receive something of all. It is the individual that we should study. I am glad that the high schools and the colleges of the country are drawing so closely together. I believe that the colleges are of great inspiration to the high schools. I believe that the high schools are able to occupy the entire field, a large part of which has hitherto been occupied by private and endowed schools. The high schools hold the key to the situation. Let us not throw it away. What the high schools are prepared to do the universities will accept, and what the universities demand the high schools are able to accomplish.

PRINCIPAL W. F. HALL of California.—The discussion and method of attack, in the article on "Electives by Course or Subjects," does not seem to be quite fair, in that the position of those who advocate election by subjects was not fairly stated. Election by subjects does not mean that the school authorities shall prescribe a list of subjects that shall be pursued without order and sequence of time. It means that there shall be due regard to both order and sequence of time. Those who urge option in courses have never tried option in subjects. Those who urge option by courses are those who always have been bound by the ties of history and tradition. They say that the results obtained by option by courses could not have been secured otherwise. Let us thank God that they could not. I am convinced, that, by the method of option by subjects, I have been able to get stronger personal hold upon my pupils, able to lead them better, and I do not see

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that any of the evil results in regard to lack of definiteness of purpose which have been urged against this method have resulted.

There are four good reasons which may be given for options in subjects as against courses:

First—The greater opportunity afforded the student for his adjustment to his civilization and environment through specialization.

Second—The increased strength of character in the student resulting from thus early learning to think out the problems of this adjustment.

Third—The opportunity afforded to thoughtful scientific educators for finding out something practical about relative educational values.

Fourth—The better opportunity for finding out early the student's line of interest, and then for leading him along the line of these interests from what he is to what he ought to be; and this, it seems to me, is the end of all systems, and of all courses, and of all subjects.

Finally, the system of election by courses recognizes only the formative value of subjects; the system of election by subjects mainly their practical value. The ultimate solution must recognize both values, and, while giving an all-round mental development, must, at the same time, give to each individual student the best opportunity for solving the problems growing out of his adjustment to his environment on the practical side.

PRINCIPAL C. M. LACEY SITES, Eastern High School, Washington, D. C.—It is too late in the morning of this new day of educational progress for a person to stand upon the platform of such a meeting as this to advocate the strict holding to courses in our high schools. I have heard it stated in the Department of Higher Education that it is a tremendous responsibility to undertake to fix a course for a college student. Do we meet our responsibility by mapping out fixed courses in the secondary school? While our course in the Washington High School is not one that I should care to present as a model, we do have in the third and fourth years a wide range of electives not arranged in courses, and we find the plan productive of earnest interest and substantial results. The greatest good of the greatest number is not the true ideal. Our motto ought to be, the highest good of every individual. I have heard it said that a principal ought to be more than a program-maker and a bell-ringer, yet these terms, if understood in the sense of planning the work and inspiring the activity of individual lives, may well imply the highest praise. A program-maker does not simply make a program and turn a pupil loose on it. He sees to it that every individual has opportunity to develop the full possibilities of the capacities within him. We heard this morning discussion of the correlation of studies in the elementary schools. There was a very clear presentation and comparison of two ideals, viz., fitting the program to the demands of the civilization of the day, and fitting the program to the demands of the nature of the child. The latter was set forth as the true ideal. The test of the reality of the success of our work, as secondary teachers, is, that we reach every individual child, and, by studying the individual case, by breaking away from mere facilities of organzation, we give the widest possible range to the development of the powers of the young lives committed to our care.

J. REMSEN BISHOP, Walnut Hills High School, Cincinnati.—I am tired of hearing of the report that worried the superintendent that worried the principal that worried the teacher that worried the pupil. It undoubtedly did a great work, but I should now like to let it go down the avenues of time without interfering with its progress. Now, I hear Professor Jones recommend that the high schools tentatively adopt the courses proposed by the committee of ten. That recommendation is my objection to the admirable paper to which we have been listening. I do not like those courses of study. I have received a great deal of suggestion

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from them, but I should be most unwilling to have any one of them adopted in a school in which I was teaching. It is not necessary to state the objections to the courses. The mere fact that there were so many objections proves that there were great defects. I believe that if the colleges of this country were to throw open their doors upon some such conditions as seem to have been accepted in California, we could send a vastly increased number of pupils to the colleges. I think that this could be safely done by the colleges. I feel somewhat jealous myself of the standing of the colleges. If throwing open the doors would lower the standard, it should be opposed. When we consider the character of the professors in our colleges, to ask the question, Would these men allow the standard to be lowered? is to answer it. The high schools would come up.

PROF. E. E. BROWN, University of California, Berkeley, Cal.—The vital suggestion in Professor Jones' paper is, that there should be a conference in connection with this department that should take steps looking toward the calling of some such congress or senate as he proposes. The report of the committee of ten left this matter in an unfinished state, or rather the real problem is one not touched by the committee of ten. As regards state organization in this country, we are, for the most part, either on foot or on horseback. We have a sort of middle form of organization that is mostly lack of organization. Of our states, perhaps five have systematically undertaken secondary education, properly so-called. New York has; also, Wisconsin, Minnesota, and Indiana. We have in other states something approaching state systems of education which have grown up through the character and influence of the state universities. Michigan, California, and Minnesota, and some others, are in this class. The problem of the formation of state systems of secondary education is strongly emphasized by the relations of the secondary schools to the colleges and universities,—the relation that is emphasized by the report of the committee of ten. But the report passes over the fact that these relations cannot be achieved permanently without a system. How much can be done in this direction is a very serious question, but it is a question for such a body, as that which is proposed, to consider.

PRINCIPAL DICKENSON of California.—Ten years ago there was very little sympathy between the University of California and general education throughout California. Little by little a different spirit entered. When Stanford University was created, a great impetus was felt. It brought a department of pedagogy with it. The university at Berkeley very soon had a similar department, but Professor Barnes at Palo Alto and Professor Brown at Berkeley did not take the ground that they were unwilling to lower the standards of the universities in order to meet the high schools. They came down a little, and did their share towards bridging the gulf. If the example of California should be imitated, and the colleges should be willing to lower their standard a little to meet the high schools, the result would be a great growth and strengthening of sympathy between the two.

T. O. BAKER, Yonkers, N. Y.—If there is anything we ought to be proud of it is the work of the committee of ten. I do not think that a single member of that committee dreamt that the schools would adopt the programs recommended. The question is, What action ought to be taken to promote the introduction of the programs recommended by the committee of ten? There ought to be in the United States three steps in education—elementary, secondary, university. I have not heard Colorado mentioned in this discussion, and yet I think that this state has approached this ideal organization perhaps as near as any. The high schools have been brought to a certain standard. Now, we need to take another step, which is to bring the universities to something like par. Our entire system should be uniform throughout the United States.

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BIOLOGY IN THE FIRST YEAR OF THE SECONDARY SCHOOLS.

BY O. S. WESTCOTT, PRINCIPAL NORTH DIVISION HIGH SCHOOL, CHICAGO, ILL.

When, last January, there came to me from the president of this department an urgent solicitation to undertake to expound biological instruction in the first year of high school life, the letter which contained this solicitation was so plausibly written, that, possibly without due reflection, the recipient shouldered rather willingly what has proved to be a heavy and somewhat embarrassing, though not in every particular a disagreeable, burden.

I was told, that "there is the utmost diversity of practice as regards the science subject for the first year of the high school course of study; that the tendency seems to be to teach the elements of physiology and hygiene in the grammar grades; that two subjects in the main at present claim a place in the first year of high school science—botany and zoology (classed together often as biology) and physical geography;" that the time is ripe for the presentation of the merits and demands of these branches of science for this part of the high school curriculum.

This complex of statements so plausible induced me to agree to present for your consideration a resumé of what appear to be the difficulties and the possibilities incident to the study of biology in the first year of the high school.

For many years there seems to have been a tacit agreement among school authorities that there should be three regular lines of work in secondary schools—work in language, work in mathematics, work in science. Naturally we would expect the inclinations of teachers to be toward the least abstruse line of science for pupils in the ninth grade. If it appears that a decision is likely to be made between physical geography and biology, I shall by no means be reluctant to stand as the confessed champion of biology. It may seem unnecessary to state, that by biology I understand what has many times been expressed by the term natural history; *i. e.*, zoology and botany. In a broad sense, biology would naturally include vastly more; so that I am at a loss to understand what a recent commentator on the report of the committee of ten means, when he asserts that the committee have inserted too many science studies in their suggested programs, and illustrates his statement by saying that the committee have added botany or zoology to biology.

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The objectors and the objections to the study of biology in so low a grade as the first year in the high school are marvelously numerous. The biologist himself would gladly have his work assigned to a higher grade, even the twelfth; but I have yet to meet the high school teacher who wishes his work assigned to a lower grade or who is satisfied to have it remain where it is. The physicist knows that his work belongs in the last year of the high school, after pupils have finished their mathematics and their chemistry. The astronomer is equally positive in the same direction; so is also the geologist. Surely geology presupposes a knowledge of zoology, of physics, of chemistry, and a scientific cultivation of the imagination. It is evident, then, that the inclinations, not to say the idiosyncrasies, of the instructors themselves cannot be consulted, but the sequence of scientific study in the high schools must be determined by supervising authority, and there must be a yielding in certain directions that greater difficulties may not be encountered.

The objection broadest in its scope, however, is the one propounded by the father of one of my pupils a year or two ago. The pupil said to me that his father did not believe that either I or my teachers knew anything about the science of life, which he understood to be the definition of biology. While it is unfortunately true that we are all lamentably ignorant of what life is, it is at least supposable that we would hardly have harmed the young man had we been permitted to familiarize him somewhat with some of its phenomena; but the young man was excused from the study by our good-natured if not too susceptible supervising superintendent.

When, more than two decades ago, I left the office of educational colporteur to assume again the *toga pedagogica*, I found that pupils could be rendered emulous—and, indeed, enthusiastic—by being encouraged to discover that some certain organism was regarded by scientists as belonging to the animal kingdom, because it had life, sensation, voluntary motion, breathed the oxygen of the air, lived on organic food, and had a calcerous skeleton. What if future discoveries assured them of the existence of vegetable organisms having separately every one of these characteristics or possibilities! Their belief in animal organisms was not thereby rudely shattered. A knowledge of the differing life of the vegetable kingdom, of the sensitiveness if not the sensation of the mimosa, of the voluntary motion of the diatoms and the desmids, of the organic food of *Dionæa muscipula*, of the inspiration of oxygen by plants under cover of darkness, of the cystoliths in the cells of *Ficus elastica*, of the aciculate crystals of oxalate of lime in tradescantia, etc., merely served to fix the knowledge of the law and make the lesson a lasting one.

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After this determination of the fundamental fact, it was not entirely uninteresting, even to the tyro, to be able to proceed to say further, that the organism belonged to the branch ——, because ——; to the class ——, because ——; to the order ——, because ——; to the family ——, because ——; to the genus ——, because ——, and to the species ——, because ——. It was a simple thing, and a natural one in this connection, to suggest the significance of prefixes like sub and super so often, so conveniently, and so accurately used by classicists.*

If the present generation of instructors in biology would do a little more in the direction of classification, they would thus accomplish two or three very desirable things. They would conciliate many objectors who were more or less instructed on what may be called the old lines. Furthermore, they surely would not find the time employed in this direction misspent. There is really no harm in allowing the student to become familiar with more than one animal or plant in a branch, class, order, etc., instead of confining his attention to the special one some one has selected as a type. It is possibly all very well for the masters in zoology to disregard almost *in toto* analytical keys (if they do), as if they were of no use. The fact remains, nevertheless, that organisms must in some way be identified before any information can be communicated with regard to them. A fact or a phenomenon brought to light by an independent observer is not known to be new until he has read up the literature of the organism under consideration. He must, hence, first identify it. To get credit for his possible discovery, its statement must, of course, be published in connection with the known name of the identical organism. The use of analytical keys draws the attention of the student to the very points which will sharpen his powers of observation, while at the same time it avoids an otherwise great waste of time employed in investigating trivial characteristics; interesting, indeed, but not of emphatically scientific value. It is more than possible,—it is even probable,—that, following the trend of modern laboratory practice, we are many times in danger of losing by neglect one of the most efficient means of attaining the object which we claim to be seeking to attain. How better than by their careful use can the student develop that necessary power of

* This work, crude as it was in comparison with the work of the present day, was nevertheless beneficial. It required careful investigation on the part of the pupil, an investigation which was so deliberate as to insure the retention of the facts, and, more important still, the growth of the power of observation, the formulation of exact statements, and the development of the power of classification and abstraction.

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abstraction without which his reasoning faculties can never be developed?*

That school supervisors themselves—in particular, the superintendents and principals of schools—are often not familiar with biological work as arranged by competent instructors, is also unfortunate. When some years ago the superintendent of schools in a large city asked the members of an institute composed principally of ladies, how long a butterfly lives, he unconsciously opened a field of investigation never before tilled by but a few of his interested auditors. It is not science so often as ignorance that asks embarrassing questions. When, in Illinois, the law was first enacted that schoolteachers, to hold a first-grade certificate, must show themselves somewhat proficient in natural history, there was naturally a vigorous effort on the part of the self-conscious ignorant to amend themselves. The institute was the channel by means of which their weaknesses were to be purged away. I remember hearing a self-styled lecturer in natural history electrifying at least some attendants at one institute by telling of the rhizopody, the infusiory, and the gherrygonida. The rhizopoda and the infusoria were not entirely hidden by this peculiar orthoëpy, but that the gherrygonida were intended for the gregarinidæ was not at first so apparent. The unfortunate part of the effort was that teachers were endeavoring simply to amass facts. Facts are but secondary. The office of biology in the schools should be rather to educate than to instruct. The work should be so planned as to give a power of observation, of discrimination, of delineation, of description. There will be no lack of phenomena upon which this power may be subsequently exercised.

That the number of good teachers in biology is limited, is an objection having a certain amount of weight. But the opportunities for improvement are especially numerous, and enthusiastic professors in summer schools are ready and eager to guide the inquiring soul aright. Wood's Holl sends out annually many teachers whose equipment has been greatly improved. The post-graduate courses

* When the teacher in biology was unfortunately absent by reason of the grippe being no respecter of persons, the task of keeping the work apparently going fell upon the principal. To be ready at a day's notice with material for 300 pupils was a difficult but not an impossible task. I had, when in California and Colorado in 1892, not been sparing of effort in collecting material illustrating the insect fauna of these states, and I unearthed a sufficient number of one insect to supply the students each with a specimen. They had done little or no work at that time in entomology, but it was gratifying to see with what avidity they attacked the differing material. To educe from the pupils the facts of animal, anthropod, insect, hexapod, coleopter, pentameron, telephorid, chauliognathus, limbicollis, proved a much lighter task for a forty-minute exercise than I should have found it without their previous experience in critical observation and definite statement. The effect of their previous work in observation was immediately apparent.

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in many of our universities are particularly strong in biology. Illinois State University has already established a flourishing out-door summer school which is peculiarly well adapted for furnishing instruction in biology. So, too, is the school at Madison, conducted by the officers of the State University of Wisconsin, and many other similar schools have been or are to be established. There is no danger that the supply will fail to keep pace with the demand.

The lack of sympathy with the work on the part of parents and school officers is not especially strange. Their own school life presented no equivalent to our present biological work, and conservatism, until differently instructed, usually expects or wishes its offspring to be educated precisely in its father's and grandfather's way. I have a very distinct recollection of having been repeatedly told in my youth, that, if I could cast interest and could cipher and do sums in the rule of three in "Daboll's Arithmetic," my mathematical education was sufficient. We may as well admit that the science of education is not yet complete; that our children should have advantages denied to us, and be thankful rather than jealous that improvement in the schools is to some extent keeping pace with the improvement of the world in other directions.

But the chronic objectors say that it is impossible to obtain needed apparatus. This would be no objection with the principal of a high school not a thousand miles from mine, who, only two years ago, strenuously objected to the use of a microscope in school at all. He took the strange position that pupils would not use their eyes—indeed, would lose their keenness of vision—if they were allowed to use a microscope. I have never experienced this difficulty, and do not anticipate any danger from an over-supply of microscopes or other desirable apparatus. But let us remember, that, in a lack of all modern laboratory facilities, much in the right direction may always be accomplished by the enthusiastic and enterprising teacher. The slothful saith: "A lion in the way." A few tin pans and glass tumblers, with simple microscopes—hand-lenses—make an excellent beginning. Indeed, it is a serious question sometimes whether more is not accomplished by the poorly-equipped than by the richly-endowed. The boy who has been educated in a manual training school, where are all modern mechanical appliances, the best of tools, lathes driven by steam or electric power, etc., is not at first a brilliant success when deprived of these implements. But the boy whose back-saw and jack-plane are his treasures because to him an expense is fertile in expedients, and more often makes the skilled mechanic. There is, then, no reason to despair if some school authorities are as yet unwilling to invest in compound microscopes and other expensive apparatus. Their education is one of the things now to be

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vigorously undertaken. Their sympathies and those of the parents will be secured so soon as they note the inevitable educatory effects upon the pupils.*

There is sometimes a certain amount of repugnance with fastidious and over-sensitive pupils with regard to the work. The judicious teacher will very easily and inoffensively deal with such cases. It is a curious but common experience that the most timid frequently become the most interested, the most inquisitive, the most bold. Sometimes a prejudiced parent gives the pupil no opportunity for change of mind. A lady in a Michigan city objected to her daughter's studying physiology on account of its inherent disagreeabilities. The comment of the instructress was blunt but perhaps not altogether inappropriate. She told the mother that she regretted that the daughter was to be so reared as, like the mother, to be ashamed of her own body.

The public press is always only too ready to circulate anything startling in character, so I was not surprised a few months ago to note in the alleged newspaper of a small city an item to the effect that vivisection was a thing constantly practiced in Chicago high schools. Indeed, I received a letter from an eminent surgeon of Cook county, Illinois, making inquiry as to our practices, and shortly afterward I noticed in print an indignant epistle from a lady, representing, I think, some anti-vivisection organization, in which she appeared to look with holy horror upon our barbarous practices. And justly, indeed, if such practices existed. There were none such in my bailiwick, and I have never been able to learn of any in our city.

I have recently received a circular issued by the American Humane Association, the object of which is to induce people in official school positions to allow their views in the matter of vivisection to be published. Should it be abolished? Should it be legally restricted? Should it be left unrestrained?

One would think that the second of these questions is the only one likely to obtain a general affirmative response. In the present

* The instructor in biology in the North Division High School of the City of Chicago during the last year is not a man to be baffled or even greatly hindered by such a trifle as lack of suitable apparatus. With nearly 300 pupils to deal with, and these placed in six different rooms, he was nevertheless up to the occasion. It was his common practice to keep fifty pupils at work, nearly one-half engaged with our limited supply of but nineteen microscopes, while the others were engaged in some grosser work, as, for example, investigating the external anatomy of cray-fish or star-fish. We had living star-fish as well as living cray-fish. I had some hundreds of star-fish packed in rock-weed (*Fucus vesiculosus*) thoroughly drenched with the salt water of Narragansett bay and shipped to me by express. They reached me in splendid condition, and, barring their possible discomfort *in transitu*, nothing was done with them which could possibly affront the honest convictions of our friends of the Humanitarian Society. In a small way, the oyster men were glad to see even a few of their enemies made useful in death.

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condition of unrestraint there is no doubt that liberty too often becomes an inexcusable license. On the other hand, utterly to abolish the practice is to deprive science of one of its most useful modes of discovery and instruction. Personally, I do not believe with the oft-quoted poet that

> The poor beetle that we tread upon
> In corporal sufferance finds a pang as great
> As when a giant dies.

When an animal organism has the power of reproducing lost parts, and, indeed, after they have been voluntarily cast aside for good and sufficient reason, and, for aught we know, in actual anticipation of the exercise of this convenient function, it is hard for us to believe that its sensations are as acute as we know them to be with more highly organized creatures. That lobsters, crabs, and cray-fish are excellent articles of diet one would hardly question, yet it is true that unless they are prepared for the epicure's stomach while they are still alive they are exceedingly unwholesome comestibles. The lady who at once refused to continue her favorite repast of raw oysters when she learned that they were still alive upon her plate, was perhaps more sensitive than sensible. That the simply-organized common star-fish and the humble hydra are only multiplied rather than destroyed by repeated fission goes to indicate the extreme obtuseness of their sensations. That the numerous still more lowly creatures with which pupils become acquainted by reason of our modern school course in the zoological part of biology have, in many instances, the same power, exercised indeed without extraneous interference, indicates the same thing.

Let, then, the self-styled humane and anti-vivisection organizations make some distinction in the grades of animal life. Let vertebrate vivisection be confined to the surgical schools; let it occur only when its utility is beyond question; and let the subject always be anæsthetized that the operation be painless. Our public schools have enough to do without trenching unnecessarily upon the field of the scientific specialist. I have never discovered that the officers of humane societies decline to take their annual summer fishing excursion. The gasping, dying fish do not seem to appeal to their consciences so strongly as the cruel treatment of a domestic animal by its owner. Nor am I specially disposed to criticise them. We are not yet willing to follow the plan of the pious Buddhist, who, in his respect for life, declines to destroy even the vermin which may be to him a great annoyance. Our occidental consciences will have to be marvelously softened before the flies and the mosquitoes shall cease to be molested by the thrifty housewife, or the ownerless yellow curs of the city streets be freed from their fear of the noose of the dog-catcher.

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No hard-heartedness is inculcated by practical lessons in biology. Certainly my own children would never needlessly set foot upon a spider or a caterpillar. By reason of the family interest in entomology, either one would much sooner be brought to me for coveted information. Even what seems to be a natural antipathy to snakes is greatly modified by a study of their habits and an examination of their personal adornments. Toads are petted and recognized as benefactors; non-venomous snakes are unmolested; spiders and caterpillars are left unharmed and are no longer slandered. Thus, nothing can better serve the interests of truth and morality. Surely the first year in the high school is not too early a stage at which to familiarize children with lessons so practical as these. Long before —even in the primary school—should they have been brought to their attention.

If chloroform or potassic cyanide, or some other anæsthetic, is brought into requisition, painlessly to terminate the life of an animal organism, it is often from a humane standpoint the most desirable thing that could have happened. The butterfly, that, having missed the end and aim of its existence, is fluttering about in constant anxiety as to the possibility of its escaping the maw of some pursuing, rapacious bird, is surely mercifully consigned through anæsthetics to a painless death, when otherwise his almost certain destiny is to be pulled asunder and devoured piecemeal.

But, say some of our correspondents and reporters for the city press, the work is shockingly plain. Topics are introduced for discussion that are tabooed by all genteel society. If some of the reporters could be shocked into a little thoughtful attention, perhaps we might extend the benefits of our instruction beyond the walls of the schoolhouse. The reporter, or possibly the editor, of one of the great Chicago dailies last January referred to Dr. O. P. Hay, the well-known herpetologist, as a great reptilian, and the same paper on the following day had occasion to speak of the diamond-back turtle as a crustacean. Such censurers must have been instructed by the lecturer on the rhizopody, the infusiory, and the gherrygonida. And their modesty is shocked! Think of it! People who write up, and evidently gloat over, all forms of crime and debasement; who dote on criminal courts, and who carefully select for publication all the prurient items from prominent divorce cases, are shocked at the merest intimation as to the origin of life! Pistillate and staminate flowers are to them the height of impropriety. They are shocked at the plainness of speech indulged in by the biologist. So far as I am able to judge, there is far less occasion for prudery to criticise this department of our schools than the literary department, where Shakespeare, and Burns, and Conan Doyle, and other plain-spoken

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persons dispute for precedence, and where all such are reverenced, with no one daring to say nay. For my daughters I fear much rather the contamination of the daily press and of the alleged English classics that are furnished for our home reading than I do that of any of the treatises on biology I have had the fortune to see. Think of criticising the plainness of biological instruction in college, and then step into the next room and hear mixed classes read Plautus and Terence. Faugh!

The interest awakened in school by the study of life is equaled by the study of hardly anything else. In the first year of the high school it is peculiarly useful in insuring a prompt attendance. The winter months too often are marked by numerous defections from the ranks, especially in this grade. But our membership at the close of last March was exactly the same as it was at the close of February; and, indeed, one more than the attendance at the close of January. Some of this persistency of attendance I believe fairly attributable to the enterprise and enthusiasm, contagious as they were, of our teacher in biology. This interest extends even beyond the school contingent. The parents themselves seem to realize that, many times, powers hitherto dormant have been awakened in the children through the influence of this work, and their own attention is consequently awakened.

The line of work now marked out by most teachers in biology in secondary schools introduces the student to a new world. Even in the primary grades, the study of the common domestic animals does not prove to be a matter of absorbing interest. The child of tender years frequently knows more about a cat from actual observation than the teacher herself. Hence, the latter can hardly be expected to make the subject particularly attractive.

But protozoic organisms are, even to the high school pupil, marvelously attractive, if only for their novelty. The preparation for their study is an education. To manipulate successfully a compound microscope is possible only to the adept. Slides must be thoroughly cleaned; thin glass covers must be deftly handled to avoid breakage; facility in handling the mirror must be attained, that a clear field may always be at command on which to project the object to be examined; the object itself, especially if living, must be handled as Izaak Walton handled the worm, as if he loved him; the fine adjustment of the microscope must be carefully studied, that objects for examination be brought promptly and accurately in focus; and, if study stopped right here, the effect on the pupil should and does result in a carefulness of manipulation, a delicacy of touch, itself of the greatest value.

But, when this preparation is supplemented by study which familiarizes the student with the several types and varieties of structure

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which have been evolved from the common ancestor or from the original idea of a creative mind, the value is plainly inestimable. As these pass successively before his mind, to them as kindred may subsequently be referred the new acquaintances that he is constantly to meet in his future life of investigation.

By the laboratory method in biology pupils are thus taught to see accurately, hear accurately, draw accurately, talk accurately, write accurately. This magnificent work, it must be remembered, could never be accomplished simply by the presentation of a mass of facts, either from book or from teacher. The learner needs, not so much facts themselves as an ability to appreciate facts when presented. Facts and phenomena will be thrust upon his attention all through his life. If he has been taught to investigate phenomena and facts and has been taught to draw logical inferences, he is indeed well equipped. He is educated rather than instructed.

The great utility of the constant reproduction of things seen needs hardly be mentioned. If there is a little personal expense for drawing and other materials, so much the better. In a life spent almost entirely in school work, it has often occurred to me that the New England rate-bill of a half century ago had special advantages. What costs nothing is too often regarded as worth nothing.

By many it is claimed that it is impossible in school to do the line of work indicated in such a laboratory manual as the one authorized for use in the schools of Chicago. Besides doing much work not suggested in the manual, our biologist has this year substantially done the work of the manual; the omissions being a part of the work in vertebrate anatomy. This apparent neglect of the vertebrates is strictly in accord with the fundamental thought in education and instruction, viz., that the most time shall be spent upon what is least known. Amœba, actinophrys, paramœcium, stentor, spongilla, vorticella, daphnia, cypris, hydra, cyclops, etc., as well as numerous higher organisms, have heretofore been entire strangers to the pupil. They are now his companions and provocative of constant investigation and further intimate acquaintance. The work in physiology in the grammar grades has familiarized the pupils anatomically with the vertebrate type, and this may therefore with good reason be somewhat slighted in the high school. I can hardly be alone in this opinion, if one is to infer opinions from conduct, since the biologists, to a man, seem to have avoided any thorough treatment of the warm-blooded vertebrates of the text-book used as our laboratory manual. Indeed, the author of the manual himself tells us, that, by reason of lack of good facilities, he has felt compelled to omit some of the suggested work on the vertebrates, especially that on the pigeon and the cat. I sincerely hope that there

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was another underlying motive which prompted his action, a motive in line with that of the humanitarians. For the past three years the biology teachers of the Chicago high schools, whether with or without modern laboratory facilities, have had no special difficulty in completing all other work of the manual. The omissions suggested should to some extent do away with some of the objections enumerated. If sufficient material of a desired kind is difficult to obtain the ingenious teacher will be ready to utilize the material at hand.*

A former conservative superintendent of Chicago schools was too frequently regarded as a decided opponent of what has been termed the new education. The truth is, that he was far in advance of the noisy and reckless self-styled avant-couriers of alleged reform. I have a very distinct recollection of his having once provided for the use of the students of his high school at his own expense a suite of the birds of Colorado, at a time when many of the present teachers of biology had not yet aspired to the dignity of trousers. Far away from his inner consciousness was any opposition to the teaching or the teachings of science. His only anxiety was lest the

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* As indicative of work which may be substituted for the exact work of the manual, I append memoranda of a study of *Fucus vesiculosus* which we had in abundance by reason of its utility as packing material for the transportation of our star-fish.

FUCUS VESICULOSUS (ROCK-WEED).

(Example of the Oöphyta instead of Study III.)

Habitat. Usually growing to rocks, etc., in the salt water near the tide mark.

LABORATORY WORK.

General Morphology. (Vegetative condition.*)

A. What is the general appearance and color?
To what can you compare its feeling? Its texture?
Is chlorophyll evident?
What reagent would you use to find whether chlorophyll is present?
How would the plant be less adapted to its surroundings (environment) could it stand upright?
Distinguish stem branches and disk† to the thallus.
Is there an upper and a lower side to the thallus?

B. Is the stem elastic? What is its shape? How do the branches differ from the ordinary branches of a shrub or a tree? What is the common sense in the difference? Examine a tip and find the terminal pit. (In this pit is the delicate apical cell upon the fission of which the growth of the plant depends.) Why the terminal pit?

C. Describe one of the bladder-like vesicles.
Where on the thallus are they most abundant? Why?
How do you think they are formed? What do they contain?
Of what use are they to the plant?

EXPLANATIONS.

* The reproductive condition will be described later.

† The disk will be in most cases absent, being left attached to the rock. (See "Boyer's Manual" for definition.)

(For the inspection of those interested, I have also similar studies of Agaracus, Echinus, Campanularia, Eudendrium, and Lucanus.)

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haste of the builders of the foundation should cause the edifice to topple before the roof was in place or even the walls had been carried up. As many of us remember, he was equally conservative in not yielding to the first pressure for the use of entire classic models in place of reading-books crammed with disconnected material from all sources. In these and similar instances we can hardly go astray if we follow the lead of one who made few mistakes because his motto ever was *"Festina lente;"* or, as monosyllabically expressed in our own vernacular, "Go slow!"

PHYSICAL GEOGRAPHY—ITS POSSIBILITIES AND DIFFICULTIES.

BY EDWARD L. HARRIS, PRINCIPAL OF THE CENTRAL HIGH SCHOOL, CLEVELAND, OHIO.

There was a decided difference of opinion between the conference and the general committees on secondary schools as to the relative positions of physics and chemistry in the school curriculum. Instead of following the recommendation that chemistry should precede physics and that both should be placed as late in the course as possible, the general committee proposed that physics come first and be placed even as early as the second year. We agree with the one committee, that physics and not chemistry should precede the other, and, with the other committee, that both should be postponed as late as is consistent with this in order that there may be more maturity of mind and a more nearly adequate mathematical preparation on the part of the pupil. We suggest physical geography for the second year. Change this subject from the one semester of the first year to the full time of the second. This will give as a required course in natural science for the four years, zoology or natural history, physical geography, physics, and chemistry, with botany, geology, and astronomy elective.

As geography has been presented in many works and by many teachers the subject has been uninteresting, not instructive, and almost wholly without educational value. Nothing short of the whole earth seemed sufficient in the treatment. Each continent, each island, in its formation, must be studied in detail. The catalogue of the vegetable and animal life of the different zones must be committed. It was of little importance that the causes that invariably lead to the same result should be understood; causes which,

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if understood, might easily be applied to any location or to any climate. In some schools the subject has been placed in the senior year in order to serve as a recapitulation of all the natural sciences taught therein. That the study of physical geography might be and should be made attractive there is no doubt. Dr. Houston has well said that this subject should "form the natural introduction to elementary natural science, since it treats of the causes and effects of the things that are constantly before the child's observation." The study of this branch, then, in educational value, should have two objects: First, the understanding of the causes upon which the form of the land depends; second, the introduction to other natural sciences, especially physics and chemistry. The entire treatment should point to life and to mankind.

I have not a clear understanding of that vague term physiography, as applied by some scientists. I do understand the meaning which Professor Huxley gave to the term. I prefer the old name, physical geography.

THE POSSIBILITIES.

The possibilities that await the modern, energetic teacher of this subject will be appreciated more readily from practical illustrations than from a statement of theory. It is not my purpose to lay out a logical course for the year, but to take up different topics under different headings. This will show the method of work suggested.

The essential parts of the text should be taken, supplemented by experimental work on the part of the teacher. The pupil should be prepared with a note-book, in which he may place all supplementary work, including the experiments made by the teacher and by himself.

Geology.—At the beginning of the text comes the description of the form of the earth. "The earth is an oblate spheroid, being slightly compressed about the poles and slightly bulging in the equatorial regions." This is a statement of the fact in the text. It conveys to the pupil little idea of the cause of the shape of the earth; if, indeed, it does of the shape itself. Here at once is an opportunity for experimental work. Use the whirling table. Show, by the depression of the flexible hoops, the flattening at the poles and the bulging at the equator. The probable cause of the shape of the earth, formed while in a plastic state, is seen and understood, and in addition you will have helped to attain the second object, "the introduction to other natural sciences." You have Newton's first law of motion. Urge the child to continue the experiment with his old friend, the sling; tell him to watch the course of the stone when it is released; make an application of the law to the earth

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in its orbit; to the earth in its relation to the other members of the solar family.

Drainage.—There are many experiments that may be made in treating of the internal heat of the earth and its evidences. To illustrate the geyser, the lowest one-third part of a narrow glass tube, three-fourths filled with water, may be heated in a Bunsen flame. This will produce ejections of hot water and steam similar to those of a geyser. Incidentally the boiling point of water and the effect of hydrostatic pressure upon it is brought out.

Too little attention is given in our texts to the formation of soil and to erosion. It takes little to turn the mind of the child already familiar with nature to the agencies that are wearing away the rocks and carrying the soil to other places. He is somewhat acquainted with sand, clay, and mud. He should know from what kind of rocks these different kinds of soil came and are constantly coming. After any storm he can see the effects of the little rivers; he should recognize that each little brook or large river is doing its share in proportion to its size and its rapidity of work (or rather, in the proportion to the second and sixth power of its rapidity).

In the explanation of the intermittent spring the term siphon is used, a term which the average pupil understands fully as well as he does the intermittent spring itself. I have known teachers to pass over this subject with only a definition of the siphon. I have seen another teacher with two battery jars, a glass tube bent for the purpose and some water, not only show what the siphon is but obtain also from the pupils the cause of the action of the water. It took some time. One thought it was due to the suction of the atmosphere; another to the weight of the water. It was worth all the time spent when the children themselves said that it was due to the pressure of the atmosphere. It takes only one more jar and one more tube to have a model intermittent spring, seen in active operation and thoroughly understood.

Physical and Chemical Changes.—It will be of much assistance to show early in the course the difference between physical and chemical changes. Chemistry will be a willing and powerful ally in the explanation of many phenomena connected with this subject. The object should be, not to teach the chemistry or to show the reactions but to bring about, by her assistance, certain results. This very treatment will prompt the pupil to investigate, to ask questions. It will furnish some little idea of what chemistry will be to him, and it will tend to hold him through the high school course.

The difference between the physical and chemical changes should be shown by experiment. Heat some iron wire and then allow it to cool; heat some iron filings and sulphur; dissolve some salt and recrystallize it; heat some red oxide of mercury. Note carefully

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the changes in each experiment. Such a line of work will thoroughly fix in the mind of the child the essential difference between physics and chemistry. This may be followed with definitions, discussion, and illustrations of the general properties of matter. Take, for example, indestructibility. This was well illustrated in a class as follows: Three test tubes containing a solution of silver nitrate, hydrochloric acid, and ammonia water were balanced by a weight on an equal arm balance. Silver chloride was then precipitated by pouring a portion of the acid into the silver solution. The same weights would still counterbalance the two with their contents, thus showing the increase of matter to be an apparent one only. Again, the precipitate was dissolved in the ammonia water and again no change was observed.

Impenetrability may be shown by placing a bell jar over a float in a battery jar. By pushing the former into the water the water is seen to rise in the battery jar, not in the bell jar, showing conclusively to the pupil that air and water cannot occupy the same space at the same time. So through all the general properties. Experiments may be given in class and others suggested to the pupils that will fix the clearly understood principles in their minds. The properties of liquids may be treated in a like manner; the level of water in connecting vessels, the downward pressure, the upward pressure, Archimedes' principle, specific gravity.

Ocean Currents.—Without some external force acting on the water of the sea there would be no disturbances, no such phenomena as waves, tides, currents. What an opportunity there is, then, to bring forward and illustrate such terms as motion, velocity, acceleration, momentum, force. Right here may follow Newton's remaining two laws of motion, stated, tested, applied in such a manner that there may be no doubt as to their proofs, in the mind of the child. Naturally the parallelogram of forces follows; not the simple statement but the demonstration. The pupil will now understand why the polar currents do not move in a direct line but are left a little behind the meridian on which they started. It will be apparent to him why the gulf stream takes a northeasterly direction. Again is the second object gained—the introduction to the natural science, physics. The pupil will find friendly terms greeting him as he enters that subject the third year. I would better say that he would never know when he enters, being at all times surrounded by friends.

The Atmosphere.—In a text at my command I find this analysis of the first section on the subject of atmosphere: (1) Its relation to other elements. (2) Its composition and elasticity. (3) Its weight and pressure. (4) Its density. (5) Its height.

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Notice the terms used: Element, composition, weight, density. All properly used, and used as if thoroughly understood by the reader. What possibilities here await the live teacher, to interest, to educate, to introduce. The law of gravitation will easily follow the supplementary work in force. Then follows the definition and illustration of weight; the demonstration of the weight of the atmosphere by weighing a hollow sphere, first with stop-cock open and then with air exhausted; the further illustration of the pressure of the atmosphere by the Magdeburg hemispheres. The child is ready to understand the action of the force pump and lifting pump as well. He should sketch and explain them fully. Here and not in physics is the place to study the barometer; not to study about the barometer, that it is "from two Greek words," etc. The instrument should be made in the presence of the pupils, and perhaps by the pupils themselves afterwards. It takes only a glass tube, a flame, a measuring rod, some clamps, some mercury and a teacher with a little mechanical ability and common sense. After this experiment the pupil will understand the barometer in its various uses.

Heat.—In discussing the sources or causes of heat, it will be shown that motion causes heat and that heat causes motion; that friction causes heat; that chemical action produces heat and that heat produces chemical action. The mixture of sulphuric acid and water, the striking of a match, will illustrate this. Here, again, are possibilities realized by cutting away from the dry text and by showing the eager mind a glimpse of a broader field. Here is the subject of energy; the different kinds; the conservation of energy; the sun as the source of all energy, sending forth that energy in light and heat, which, as potential, is stored up in the plant and imprisoned in coal, to be transformed again by the animal into the powerful energy of motion.

I cannot dwell here upon the subject of the diffusion of heat. In this generation it is not sufficient to have the terms conduction, convection, radiation, given and defined. Each should be thoroughly shown. The pupils' attention should be called to the different methods of diffusion by the many illustrations in everyday life. There will be pupils in the class who can furnish examples of the effect of heat in expanding solids, liquids, and even gases. All will have seen the thermometer, but few will have heretofore understood it. A thorough explanation should be made with the thermometer in the hands of the child. Afterwards let him test the boiling point, blood heat, and the freezing point. Evaporation, distillation, condensation, the dew point and all other terms may be clearly shown by experiment in the classroom. The mind of the child may be called to many methods of experimental work at home. There is

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the weather report, the daily reading and recording of the barometer, of the thermometer, and numerous other things that the active mind of the teacher who is so inclined will suggest. As before indicated, my purpose has been to show the possibilities in this fertile subject, keeping in mind the two objects, first, the philosophical explanations of the causes of the phenomena, and, second, the introduction to other natural sciences.

THE DIFFICULTIES.

I have little time to speak of the difficulties; they are few, indeed. The first that will naturally arise is the lack of suitable apparatus. In this age of manual training schools there is little trouble in this respect in the cities. In any place, if the second difficulty is overcome the first entirely disappears. That second difficulty is the procuring of a suitable teacher. He must be thoroughly informed on his subject; full of it; a specialist in each division; not only capable of making the experiments but of originating them and of making what simple apparatus is necessary. He should have a special training in a school where modern experimental science work is part of the curriculum. There is no excuse in the principal's handing the class over to inexperienced hands, or to one who chances to have a vacant period. Experienced teachers are to be had. It has been my pleasure to have had just such a teacher during the past year. There is still one other difficulty: The lack of an enlightened public opinion in some localities; an opinion that will cause suitable teachers and proper equipment to be furnished. This kind of practical work naturally appeals to the average business man or woman. Under a superintendent or a principal who favors the work and himself understands the object to be attained, I firmly believe all other difficulties will disappear and the great possibilities be realized.

DISCUSSION.

SUPT. A. F. NIGHTINGALE, Chicago, Ill.—It may be trite for me to say to a company that I suppose is composed largely of scientists that we are able to obtain our alcohol in bond free of duty and also to import our microscope free of duty at a cost of fifteen dollars each, less two per cent discount for cash. I believe that no wise board of education (and we know that most boards of education are full of wisdom) will be unwilling to furnish a live teacher with the apparatus and material necessary for proper instruction in this department. I believe that none of us should hesitate about establishing a laboratory in biology for fear that we may not be able to obtain proper apparatus. The greatest advances along edu-

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cational lines in the past ten years have been in science—biology, physics, and chemistry—and I think we owe very much to the enthusiastic scientists of this country for pushing the laboratory teaching of sciences to the front. They set the high schools of the country a magnificent example which we ought to more fully follow in teaching of English, mathematics, and history. I hope the time will come when all subjects will be more largely taught in laboratory form. The advance in the teaching of science in the last few years has been most marvelous, and so marvelous that it seems strange to me that we should ever have taught natural history by the use of text-book alone, measuring out the lessons by the foot and yard for our pupils to commit and reproduce to a lazy teacher the next day. Yet such was the method in use only within the last few years. We should abandon this antiquated method of teaching in other departments as well as in science. Biology has been a first year study in the Chicago high schools for four years. Pupils have not only obtained very valuable knowledge of this subject, but their powers of observation have been greatly awakened and their love for investigation, and research, and discrimination has been greatly developed, so that they have been splendidly prepared for the after study of physics, chemistry, and geology, and I believe that the great value of biology as a first year study in the high schools is in this fact. Many a boy has been kept in our high schools because of the study of biology in the first year. This study has been mainly in the hands of men, while, perhaps, algebra and English have been mainly in the hands of women; and while I value an equal balance of men and women, I do feel that it is a great necessity that the children should be under some male influence in the teaching of the first year, and I believe, that, by giving biology very largely into the hands of men, boys are retained in the schools and their love for study is greatly increased. I hope no lady will consider I am discounting her ability as a teacher of biology, for I am proud to say that two or three of the best teachers of biology in Chicago are women, and we are looking for more. But it is important that there should be this admixture of woman's influence and man's influence in the first year of the high school. There is no study that is more attractive to the boys in the first year of the high schools than the study of biology, and I know it is equally attractive to the girls. Principal Westcott has gone so well over this subject that he leaves very little to say. I agree most heartily with his paper.

PRINCIPAL W. F. HALL, of California.—It has always seemed to me necessary in science, as in other things, to begin with the child along the lines of his previous experience, and to take him from where he is to where he ought to be. Now, the lines of the child's previous experience have been the gross plant forms and the gross animal forms; so I should say, that, unless the children have had this work in gross forms, they ought to have it in the high school before they have any work with the microscope, and I believe it is a mistake to take children fresh from the grammar school and put them at once to microscopical work. That ought to be led up to through a study of the gross forms. With regard to the other paper, some of you may be interested in an experiment I have been trying the past year in the line of physical geography. Instead of using a text-book, and illustrating various points by experiments, as suggested in the paper, I have dropped the text-book work entirely and devoted an hour or two each evening during the past year to writing out experiments and questions upon these experiments which would lead the students of my high school to get for themselves very largely the facts of physical geography, leaving out of consideration the general matters that they should have previously learned. The first exercise was to develop the idea of mass and density in a simple way. I told them nothing. I tried to plan so that the

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questions following the experiments would lead them to see what I wanted them to see. I was surprised myself to find how many of the facts of practical astronomy, geology, physics, and chemistry I could bring into these experiments, and I was also surprised at the amount of interest I was able to develop in this way.

PRINCIPAL E. W. COY, Cincinnati, Ohio.—I sympathize largely with the views of the gentleman who has just spoken. But on one point my experience is different. At the beginning of this year we thought we would try commencing with microscopic work. One trial is not sufficient to establish the advantages of it. Yet I was very agreeably disappointed in the results, especially in the interest awakened. I had not believed it was practicable to introduce the study of the cell with the microscope in a class of young pupils, but I am trying it this year. I find an amount of interest that has greatly surprised me. If it should continue in this way I should be entirely converted to a view that the microscope is the thing with which to begin. While we have had considerable interest before, yet it has seemed to me that there has been a lack of scientific value in the work. It has not proceeded on the lines it should. By beginning with the microscope I think we shall get better scientific results.

F. Y. MOSELY, Boulder, Colo.—In regard to text-books, I should like to give this advice: Take that one which tells the student the least about the plants and animals he is going to study. I have tried both of the methods that have been mentioned. First, beginning with the frog as a type; and, in the second, beginning with the amoeba, and then working up in logical order of evolution. The second method is greatly superior. There is no special difficulty in looking through a microscope. It would be well to caution students when using the microscope to keep both eyes open. The strain of closing one eye has a very considerable effect upon the sight in the course of time.

PROF. A. V. STORM, Storm Lake, Iowa.—I want to say a word about physical geography. The remarks that have been made simply indicate that physical geography as usually taught is practically hash. If we take away from physical geography, astronomy, geology, biology, meteorology, physics, chemistry, and a few other auxiliary sciences, what would we have left? The question arises in my mind whether or not it is better for the child to take the elements of each of these sciences which concern physical geography, or whether it would be better for him to take these sciences in their fullness—by laboratory methods, of course—and then have a brief course (I should say three or four months would suffice) to apply all of these to the earth. While the suggestions made are most excellent, this work will not be work in physical geography, but will be simply work in the various sciences. I see one objection to this plan; that is, that the pupils who do not complete the high school course fully will not get this application of the sciences to the earth. Whether or not that objection is sufficient to overbalance the advantages that would come from studying these various subjects in the logical order and at the proper time, is a question for us to consider. I believe that when these studies are pursued by laboratory methods three months' time would be sufficient to cover all the work in physical geography. I know of no text-book that would permit us to follow that plan. Perhaps there is an opening for some enterprising publisher to supply a need in that line.

PRINCIPAL J. T. BUCHANAN, Kansas City, Mo.—I regret that I did not hear the papers that are under discussion. Some things that I have heard in the discussion make me think that I am laboring under a mistake. I had supposed that in a little high school somewhere in the western part of the Mississippi Valley was found the only biological department that was taught on purely laboratory plans.

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I am converted to the microscpoe first. In this school to which I refer we have biology two years—zoology the first year, botany the second; both on the laboratory plan. Every pupil this year has made as many as 150 slides himself, to be used in the work. That is a great step in the right direction. I find, that, under the influence of the master mind that is teaching this subject, they have not only been able to make useful apparatus, but they have, by reversing the microscope, been able to cast upon a screen a large picture of the subject that they were examining. Professor Harvey has had a special lens made which they used in the reversed microscope, and by means of a large screen what is visible to the eye of one student is made visible to all. Within the last four years we have put biology on a purely scientific basis, using pure laboratory method. Our pupils have a greater interest in high school work than they have ever had before. We have scientific work in every year in the course, the first year zoology, in the second botany, the third year chemistry, and the fourth year physics; and we find that the preparation given in the first years of the course makes easy sailing over what used to be rough seas in the later years. The pupils in the school are more easily controlled, and I attribute this very largely to the interest gained through the study of subjects in the natural way.

MR. WOOD, Cleveland, Ohio.—I should like to answer the objection to introducing physical geography early in the course. I heartily agree with those who urge the value of laboratory work in biology, chemistry, and physics. For that very reason I believe in beginning physical geography in the second year. The student will be expected to do quantitative work in physics, and at least qualitative, if not quantitative, work in chemistry in the high school. If he is expected to do quantitative work in physics, he should certainly have had some previous training in physical principles, and should know what an experiment means; otherwise he will lose himself in the difficulties of manipulation. I also wish to answer the objections of the gentleman to the use of the text-book. I think Principal Harris' remarks in regard to text-books were misinterpreted. We do not illustrate the text-book. Experimental work and the careful preparation of note-books, containing drawing, descriptions, and explanations, precede the assignment of any work in the text-book; but it is not wise to get away from the text-book entirely. The pupil must have something that he can tie to. The text thus serves as a review, and the physical principles are applied directly to physical geography. It is likewise a valuable, and almost necessary, aid to those unavoidably absent from the class and in the work of recapitulation at the close of the year. I cannot urge too strongly the devoting of a full year's time in the second year to physical geography when taught in accordance with this method.

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ETHICAL INSTRUCTION THROUGH SOCIOLOGY.

BY B. C. MATHEWS, PRINCIPAL OF HIGH SCHOOL, NEWARK, N. J.

The fact that there is great social discontent throughout the entire Western world requires no demonstration. The forms in which it manifests itself are numerous. In the various forms of socialism, and in the form of nihilism, it permeates every department of European life. In the rural portions of our own country the same spirit of discontent, though in a much milder form, manifests itself in the Farmers' Alliance and in the Populist movement. In our cities and towns it appears in labor organizations and in socialistic societies.

The adjustment of the parts of our social organism is certainly not harmonious. Collisions between classes whose interests are opposed have at times paralyzed domestic commerce, have involved the comforts of the nation, and have reminded thoughtful men and women of conditions preceding revolution. Not infrequently state militia, and even the United States troops, have been called out to protect life and property and to quell riots.

It is important that educators should inquire whether the schools are in any degree responsible for this unfortunate condition of affairs. We are compelled to acknowledge that we think they are, though other agencies are responsible in a higher degree. The responsibility of the schools is not a blameworthy responsibility, for the forces of no other agency have been guided with purer motives. Hence, there is no place for condemnation. The relation of the schools to society, however, is so intimate, and their influences are so potent in their formative effects, that it would be folly to claim that they are entirely free from responsibility in this grave matter; since, even if they have not contributed directly and purposely to it, they have not studied to prevent it. They have cultivated—unintentionally, of course—those characteristics of the race which have produced it, and have failed to cultivate, except incidentally, those better characteristics which must correct it.

Throughout the whole course of the development of our public schools, their relation to the child as an individual, with personal ends in life to be attained, has always been a prominent feature and a determining factor, while their relation to the child as a member of society has never been sufficiently emphasized. The effort, therefore, on the part of the schools has uniformly been to enable the child, when grown to manhood, to successfully guard his personal interests and secure his personal ends. There is no general or con-

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tinued effort to so train and so develop him that he will contribute to the welfare of society. The result has been to center and to fasten his attention upon his personal interests, and to cultivate in him selfishness instead of an altruistic spirit, which alone is the truly social spirit, and which alone will produce harmony among the classes now in collision. Why has the child been taught to read, to write, to cipher? Primarily, because a knowledge of these has seemed to be absolutely essential in securing his so-called rights among his fellows. Only recently has his relation to society been seriously considered. His ethical side is now demanding cultivation more loudly than ever. So far as education is purely intellectual, it only trains him for a fiercer part in the great human struggle for personal ends, and tends to diminish the severity of that struggle in such degree only as purely intellectual culture indirectly contributes to the ethical, through attention to subjects related to the ethical.

Back of all social discontent, and back of all forms in which it appears, we find the primary cause of social disorders in the presence of erroneous ideas among men, particularly the presence of erroneous notions concerning the relations which exist among men. There are certain fundamental ideas upon which the social edifice is built; pivotal ideas about which the social world turns. In each of these, ten thousand others germinate; and the ten thousand are wrong if the one is wrong. The following are samples of these fundamental, pivotal ideas which have become stock notions of the people: Cæsars and Napoleons are civilizers; royalty is related to the gods; the Creator made some to be served, others to serve; legality is justice; standard belief is more important than standard character; morality divorced from religion is dangerous. Any social structure founded upon such ideas alone is a monstrosity. To-day we stand face to face with the fact that these ideas, and others like them, form a large part — entirely too large a part — of the foundation of modern society.

All existing government, and all other institutions, have been at some time simply abstract ideas in the brain of their originators, and afterwards have become concrete realities; right ideas giving birth to right institutions, wrong ones to wrong institutions. This same relation of cause and effect which exists between ideas and institutions exists also between ideas and the character of individuals and between ideas and the character of the relations which exist among individuals. So far as individual character and existing relations among men are right, they are the product of right ideas; so far as they are wrong, they are the product of wrong ideas.

If, as we think, the presence among men of erroneous ideas is the cause of social disorders, the cure will be their displacement,

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through educational processes, with such as will produce right character in men and inspire right relations among men. We believe this is entirely possible, and we think that both the agencies and the methods are in sight. Both must be educational. All political and legislative schemes, the single tax theory, the nationalization of land and industries, all socialistic projects, all co-operative remedies, will prove of little avail they aim at curing social disorders by improving the environment only of the man. The man himself is wrong. He is the thing that needs improvement and correction; not the world in which he lives, or the form of government under which he lives. The only possible way of correcting him, and through him of curing social disorders, is through the processes of education,—education of the child with the potential man in him.

The church, the press, and the schools are the agencies which, supplemented by other forces, have determined the existing fundamental ideas of society. If these agencies have been able to formulate and fix these, they certainly can modify them, or even displace them with others. Their functions, and their methods in the execution of these functions, however, must be modified, some even revolutionized. Although the church and the press (the discussion of whose functions and methods the limits of our paper forbid) are powerful agencies whose influence is beyond all computation, or even conjecture,—agencies which must be employed in the improvement of social conditions,—yet they are not the agency upon which greatest reliance can be placed. This agency is found in the schools —the great free public school system. There is greatest hope in this agency for many reasons; particularly, because its organization is fully adapted to the requirements of the situation; because it deals with the child which is a moldable, and not a crystallized, thing; and because the schools are the agency which, in large degree, determines the character of all other agencies.

Our hope, then, is in the schools; but their function and methods must be modified, because they are not giving to the world the best they can give. They are not giving what the world most needs: the best possible character, which results very largely from a careful, rational study of our relations to others, from a right understanding of all those relations which are interwoven everywhere among men in all phases and departments of life. Nothing is more important for our children and youth to understand than the nature and character of human relations; but these are ignored as if there were no such relations. Here, in our judgment, is the most serious defect of our schools, and not in the lack of proper correlation of studies.

Whether this is the province of the schools we cannot stop to discuss; but I pass it with the remark that the schools belong to

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the people, and the people have the right to do what they please with their own. They can make the function of the schools whatsoever they choose to make it, whatsoever will serve themselves best.

How, then, can this most serious defect be remedied? By introducing instruction in pure human ethics divorced from religion, which then becomes a study of the relations which exist among men in this real world. One great difficulty in the way of providing instruction in ethics heretofore has been the lack of a clear distinction in the minds of the people between ethics and religion. The Christian world has been in the habit of thinking, and of claiming, that there can be no valid system of ethics except that which is based upon the existence of God, and upon the relations which we suppose exist between him and us. This claim has never been substantiated in a manner satisfactory to scientific thought. Religion is a system of beliefs and worship, and points to an after-life for which we all hope; while ethics is a system of principles of conduct for man as a social being in this life which we are all living. Ethics deals with realities; with a real life in a real world. Its realm is entirely a realm of actualities; while the realm of religion, defined in a scientific manner, is one of beliefs and hopes. So far as these beliefs and hopes are determining factors in the conduct of man to man, the realm of religion affects the realm of ethics. But, apart from this, if, by some magic power, the realm of beliefs and hopes were annihilated, the realm of ethics would remain absolutely undisturbed. Does ethics, then, find its basis in religion? Does that which is real depend for its existence upon that which we suppose to be real? It may, providing that which we suppose to be real is actually real; but when, as in this case, it is beyond human powers to determine whether it is real or not, it is about as unphilosophical to declare that something which is known to be real depends for its existence upon another something which we suppose to be real as to declare that the Himalayas hang upon the sky. The only possibility of substantiating the claim that ethics and religion cannot be divorced is found in so formulating a definition of one of them as to embrace in it the realm of the other. But such an attempt would be futile in this scientific age of discrimination and definition. Ethics and religion are both right, and have their separate and appropriate missions and fields, which, as we have indicated above, overlap; but their bases are two distinct things in reality, and ought to be made so in definition. The sooner this distinction is recognized, the more rapid will be the moral development of our race.

Upon what, then, can we base a system of ethics? Upon the fact of human relations. If there were only one human being in the

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world, there would be no need of an ethical system; because there would be no other being to whom he could have any relations. Neither would there be any need of it, if the inhabitants were few and were so scattered over the earth that no one of them, in securing for himself the necessities of life, would ever come into contact with any one of all the others. But just as soon as any one place on the earth becomes the common abode of two, so soon relations are established between them and there is need of principles of conduct governing each in his acts which in any way affect the other. An ethical system to control the actions of these two men alone would be very simple. But when, from increase of population or from motives of common interest, individuals unite and form a tribe, there comes to be tribal ethics. When two tribes come into contact, inter-tribal relations are formed; and when tribes grow into nations, national and inter-national ethics arise. And as the life of the individual becomes more complex within itself, and more involved in its relations to other members of the same tribe or nation, and as the nations increase in size and number, the rules governing this increased complexity must become more and still more complex, until we have the most possible complex system of ethics governing the most highly developed society. It is here, in this fact of human relations, we find a basis for human ethics. It is instruction of our children and youth in these relations for which we plead, as a remedy for social disorders. Some recent modifications of school work point toward such instruction; but, in our judgment, none of them are calculated to satisfy the demand of our day. The moral results of the work in the kindergarten, where the little ones are unconsciously instructed in their relations to each other, cannot be overestimated. Similar results ought to be produced all along the line of educational work, but these cannot be secured through kindergarten methods with children beyond kindergarten age. Other methods must be invented.

If the study of human relations is so important, how can our children and youth be instructed in them? We venture to reply that this end can be attained by the introduction, in undeveloped and elementary forms, of the new science of sociology, which, if not scientifically defined as the science of human relations, certainly treats of the whole realm of these relations, and no other science does. There is evidence that "the education of the future will be sociological; that the supremacy which has been accorded to the classics, and which is now accorded to the physical sciences, will be transferred to sociological study."* The tendency is certainly in this direction. It is seen in the methods employed and in the char-

* Professor Fulcomer, lecturer in Chicago University.

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acter of the work done in the kindergarten; in the comparatively fruitless effort to extract moral lessons from subjects already taught; in the use now being made of the story and myth in literature; in the making of text-books with a view to moral impression; in the provision made for manual training; and in the preference shown by the committee of fifteen for "an objective and practical basis of selection of topics for the course of study, rather than the subjective basis so long favored by educational writers." All this is in response to a demand that the schools must do something more than to cultivate brain power. They must also guide it. This demand, however, can be more fully met through the medium of sociological studies, which can be made the vehicle for effective moral impression.

Aside from the ethical character of this new science, which renders it superior to all other subjects for ethical purposes, it possesses two very important advantages which disarm two classes of objectors to ethical instruction. One class is composed of those who say we cannot teach ethics because that means religious instruction. This objection falls to the ground through that separation of ethics and religion which this new science establishes. Since this is so, and since the ethical codes of all parties interested in the schools are substantially the same, and since there is no hope that the state will ever provide for religious instruction, may we not hope, that, on this ethical ground which sociological studies furnish, a compromise may be effected through which something may be accomplished in the schools of vastly greater importance to humanity than any degree of manual training, or even of purely intellectual development. Those who are opposed to religious instruction would not be losing their case, since ethics is not religion. All who desire religious instruction would, from their point of view, be gaining their object in part, since they include ethics in religion. To no party would this be a sacrifice of principle.

The second class of objectors to ethical instruction declare that direct moral instruction would be abortive; that all moral impression must be made indirectly. This is an assumption to which the facts of experience are opposed. However, without stopping to argue the point, we present to this class of objectors this same subject, which can be so handled, if it is desired, as to slyly insinuate moral lessons into the boys and girls when they are off guard—side-flank them. With this notion we have no sympathy. Moral training must be known as moral training. An importance of its own must be attached to it by placing it on the same level with, or even above, every other branch. On the other hand, sociological studies can be so employed as to openly, frankly, teach matters of right and

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wrong, and stamp such an importance upon the right as to make profound impression.

The ways and means for teaching this new science must be discovered by trial. Whatever is here said in reference to it is purely suggestive and tentative. The present undeveloped condition of the science requires that first effort shall be made with the most mature pupils; hence, in the high schools. Later, without doubt, what may be called elementary sociology will be developed and adapted to the other grades. Child sociology is already taught in a practical way in the kindergartens. The primary aim ought not to be to acquaint high school pupils with the theory of sociology, desirable as that may be, but to make them as familiar as possible with the multifarious relations of life before they enter upon them as individuals independent of parental protection and guidance.

Perhaps I can indicate most clearly the line of work as it lies in my own mind by venturing a few thoughts upon the character of a text-book suitable for this work. I would devote the introductory chapters to the establishment upon a philosophic basis of some universally accepted ethical principles with which actions are to be compared and adjudged as right or wrong. The best, the simplest, the most easily understood, and the most generally accepted, is, "Do unto others as you would have them do unto you." In our judgment, this is entirely sufficient. Nothing better is known; and I would make a text-book sing the spirit of this beautiful principle of social life upon every page. It is the condensed epitome of all the ethical teachings of the Great Master of ethics, as they are recorded in the New Testament; hence, acceptable at least to all Christian peoples and institutions. This principle can be based upon a philosophic induction from social data. This, perhaps, would clothe it with renewed authority, which, because it is heard so often and is so universally ignored, it unfortunately does not now possess. A similar induction might be made to result in some other general principle, if that is desired; like that of Bentham, which, without philosophic verbiage, is, that that is right for this world which aims at the greatest degree of true happiness to the largest number of persons. These and other like generally accepted principles are sufficient guides for all in all ordinary situations in life.

After they have been established, they must be so stamped upon —so burnt into—the mental fiber of every pupil that he must, by necessity, carry them through life; that he cannot, by any possible line of conduct, cause them to fade out, or by logical process silence their voice. This result I would make the aim of the remainder of the book, which should embrace civics in all its branches, business and industrial relations in all their ramifications; natural rights and

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duties of the individual; the object, rights, and obligations of society, and all kindred subjects.

Civics embrace duties to country and whatever contributes to best citizenship. Under this topic I would direct attention to political abuses of all sorts, and impress the importance of living by the same moral code in politics as in religion. I would discuss whatsoever would bring plainly to view the individual's ethical duties and obligations to country and government. In the treatment of business relations I would go into the details of the various branches. It seems entirely practicable, for a man familiar with business life and methods, to conduct students, equipped with their code of universally accepted moral principles, according to which human acts are to be classified as right or wrong, into and through the ten thousand ramifications of all kinds of business,—behind the counter, into the bank, into the boards of trade, into the business and professional office, into the exchanges, into the council chambers of great corporations, into every corner of the business world,—and study the relations which exist among all who are occupied there, as well as between these branches of business and the great world outside. Here the like relations of the industrial world should be considered; the relations between those who possess capital and those who labor; between those who employ and those who are employed: the rights and duties of each to the other.

In treating of the natural rights and duties of the individual, I would attempt to impress the ethical relations between individuals which arise from the fact of birth. All are in the world through no fault or merit of their own; hence, no blame or credit attaches to the fact of being here in any case. No man brought anything with him which every other man did not bring; hence, all by nature are endowed with equal rights and entitled to equal opportunities. This opens up an immense field of thought in the direction of modifying the existing conditions of unequal rights and unequal opportunities, which all students of social questions recognize with serious misgivings.

Closely allied with this subject are the objects of social organization, the relations which exist between society and the individual, the rights of each, and the duties of each to the other. Society is a necessity. Being a necessity, it ought to be so organized as to continue and perform its functions with the least possible friction and with the greatest possible comfort and happiness to all who compose it. Hence, the immeasurable importance of investigating, and of establishing in the minds of the rising generation an ethical adjustment of the parts of the social organism.

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DISCUSSION.

SUPT. A. F. NIGHTINGALE Chicago, Ill.—I should like to inquire when the supremacy of the classics was transferred to the physical sciences. I have always thought that the perfection of scientific study depended upon the study of the classics, and I believe, that, in the future as in the past, language study will always be the basis of educational work. So long as the truth remains, that out of the heart are the issues of life, the best book for the teaching of ethics will always be the open book of a great teacher, whose example and influence shall be powerfully felt by the pupils with whom he comes in contact.

PRINCIPAL C. M. L. SITES, Washington, D. C.—It seems to me that I should wrong myself, and it would be a wrong for us, to allow the possibility of misinterpretation of a paper in respect to a certain tone that might be understood from it of under-estimating religion. The gentleman says that faith and hope are elements of uncertainty upon which we must not hang something of which we know positively. He does not say that the basis of ethics is the third element in the great trinity, love. What is the world to do without faith, and where would we get our ethical relations without the love that was taught by the Great Teacher? Materialistic science, self-centered and self-sufficient, tends to carry the moral world out of its normal orbit. Faith and love are the centripetal and coherent forces that hold society in right relations to the source of light and life.

MR. SOUTHWORTH Denver, Colo.—This admirable paper shows that society alone makes your work as teachers of any value. Since the application of the inductive theory of Bacon, the world has been gradually drawn toward giving the first place to natural sciences and the second place to linguistic study. We want a thinker behind the language. The supremacy of the natural sciences needs no discussion.

ADDRESS OF THE COMMITTEE OF TWELVE OF THE AMERICAN PHILOLOGICAL ASSOCIATION.

To Teachers of the Classics and To All Friends of Sound Learning in the United States:

The American Philological Association, at a large meeting held in Philadelphia, Dec. 28, 1894, unanimously adopted the following resolution, proposed by Professor Hale of Chicago:

Resolved, That, in the opinion of the American Philological Association, in any program designed to prepare students for the classical course, not less than three years of instruction in Greek should be required.

The resolution expresses the opinion of the association, that every school which prepares pupils for what is known as "the classical course" in many colleges, or pupils who intend to study the classics in any college, should provide a course of at least three years' instruction in Greek, which all such pupils are expected to follow. In the judgment of the most experienced teachers, three years is the shortest time in which the preparatory course now offered by our best schools in the reading of simple Attic prose and of Homer or Herodotus (or both), in the essentials of Greek grammar, and in the elements of Greek composition, can be

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properly accomplished. This resolution, it will be seen, concerns itself only with courses of study which profess to be "classical." It does not imply that any school may not prepare pupils for courses not so described, in the case of colleges which admit such students, with a shorter term and a smaller amount of study in Greek.

The immediate occasion of this resolution was the proposal made to various associations of teachers to recommend to the schools and colleges which they represent the adoption of the four programs recently submitted by the committee of ten as providing adequate preparation in all lines of study for the colleges and scientific schools of the United States. Only one of these four programs includes Greek at all, and this is styled the "Classical Program;" its general adoption would therefore do much to fix the standard of preparation in classics for all our colleges. This so-called "Classical Program" provides that Greek shall normally begin in the third year of the four years' preparatory course, and that only two years shall be given to it. It is true, that, in certain exceptional cases (mentioned in a footnote), schools may "substitute" Greek for German or French in the second year; but this substitution is evidently not what the authors of the program desire or expect, or they would have made this the regular, and not the exceptional, arrangement. Nothing can be more obvious than the deliberate intention of the committee of ten (at least of those members who accept the report in full) to confine Greek to the last two years of preparation for college, and gradually to establish two years as the maximum of time which even the best schools will regularly give to that language.

It is of the highest importance that all classical teachers in both schools and colleges, and all who have the direction of schools in which classical students are prepared for college, should understand what this "Classical Program" means. It means that the standard of preparation in Greek for our colleges is to be lowered to what has been known as the "elementary Greek" or the "minimum Greek" in elective schemes of admission; in other words, that there is to be no systematic study of Homer, or Herodotus, or of Greek composition, in even our best schools; and that no provision is to be regularly made, even for pupils who show special aptitude for classical study, to advance beyond the merest elements in Greek. It means that our schools are seriously advised to adopt a course of study which now would not admit their pupils at all to any first-class college having fixed requisites for admission, and would not admit them to any of the freshman Greek courses which are regularly taken by classical students and are necessary to prepare them for the higher courses in any college having elective requisites for admission. The scheme is therefore unintelligible unless it anticipates a reduction of the grade of all the regular Greek courses in the colleges, so that the work now done in the last year of school shall become the ordinary work of the first year in college, with a corresponding reduction of all the higher work. There is no escape from this alternative. Either the schools which adopt this "Classical Program" must cease to prepare pupils for the ordinary classical courses in our colleges, or the colleges must lower their standard in Greek by a whole year to suit such schools. Either of these results would be disastrous; and we can hardly believe that either of them, with all its consequences, was seriously contemplated by the framers of the proposed program.

The bad effects just indicated would not be confined to the classical courses in college. The importance of Greek to students who intend to devote themselves to the study of English or any other modern language, whether from the literary or the philological point of view, has never been denied in Europe, and is not denied by any competent American scholar in these departments of learning. For students specially interested in English literature, for example, to enter college with no knowledge of Homer, under the impression that their time has been spent to the

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best advantage in the preparatory school, would be a grave error. For such students to be forced to begin their acquaintance with Greek literature in the freshman year would seriously cripple their work in their chosen department. And this would be the result if the program in question were adopted; for it is not till he reaches Homer or Herodotus that a boy begins to understand, that, in studying Greek, he is dealing with a great literature. The elementary or minimum Greek generally does not acquaint him with literary material that appeals to him. These objections apply with equal force to students who intend to make a special study of the literary history of any modern tongue.

The department of theology would feel the proposed reduction of Greek as a severe blow. It is difficult now for theological schools to require of their students such a knowledge of Greek as is necessary for the study of the New Testament: the discouragement which would result from this plan would aggravate this evil immensely, and would be felt in every school of theology in the country.

This "Classical Program" is exceedingly liberal to all departments except the classics. It requires four years' study of English, and provides for three of history, three of German or French, and four of mathematics (including trigonometry and higher algebra). In these studies, therefore, pupils might be carried a year beyond the ordinary requisites for admission to most colleges, while in Greek they would fall short of these requisites by just a year, so that Greek would be degraded relatively by two years. It is well known that there is a vigorous and increasing demand for putting back either geometry or algebra and a modern language into the grammar schools; and this has actually been done in some important schools. The pressure of other studies in the high schools—the only excuse which is made for depriving Greek of a year—is, therefore, likely to be temporary, while the reduction of Greek to two years, if once accepted, will be permanent.

The committee of ten asked and received the advice of nine conferences, composed of experts in nine departments of study, and they justly attribute great weight to the careful judgments of these conferences, which give the proposals of the committee their chief authority in matters of detail. It may surprise many to learn that the Greek conference introduced its recommendations with the following general statement:

> The conference recommends that the study of Greek be begun at least three years before the close of the course preparatory to college.

This primary recommendation, which is the basis of the whole report of the Greek conference, is set aside by the committee of ten almost without consideration. This is, we believe, the only case in which the decided opinion of one of the conferences, on such a fundamental matter, has been so summarily rejected. It is true that other studies are not allowed by the committee all the increase which they desire; but Greek alone is to be reduced and crippled. The resolution of the Philological Association is simply an appeal from the decision of the committee to the judgment of the experts who advised the committee. The unanimous and enthusiastic approval of the action of the Philological Association expressed by the large classical conference recently held at Ann Arbor shows that scholars in the West are in perfect harmony with their colleagues in the East on this important subject.

The plan of the committee, if adopted, would aggravate most unnecessarily one of the greatest evils in our system of education—that the colleges are compelled to do work which belongs to the schools, and which in most other countries is done by the schools with much greater efficiency and at much less cost. This evil is acknowledged and deplored by all; and yet the colleges are to be asked to lower their standard of classical scholarship that they may assume a new burden of elementary work, which the schools are now doing with ever-increasing efficiency. On the other hand, the loss of this work would be seriously felt in the schools. Every

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step which limits the range and quality of study in school increases the difficulty of obtaining and keeping able and enthusiastic teachers, and nothing attracts men of taste and cultivation to teach in a classical school more than the literary work of the higher classes in Greek.

The undersigned believe that both colleges and schools have a common interest in opposing a scheme which threatens to degrade them both at the expense of good scholarship. They therefore appeal earnestly to all who have the interests of sound learning at heart to unite with them in opposing the introduction of the so-called "Classical Program" of the committee of ten into the schools of the United States.

WILLIAM W. GOODWIN, *Professor of Greek, Harvard University, Chairman.*
CECIL F. P. BANCROFT, *Principal of Phillips Andover Academy.*
FRANKLIN CARTER, *President of Williams College.*
WILLIAM G. HALE, *Professor of Latin, University of Chicago.*
WILLIAM R. HARPER, *President of the University of Chicago.*
FRANCIS W. KELSEY, *Professor of Latin, University of Michigan.*
GEORGE L. KITTREDGE, *Professor of English, Harvard University.*
ABBY LEACH, *Professor of Greek, Vassar College.*
THOMAS D. SEYMOUR, *Professor of Greek, Yale University.*
CHARLES F. SMITH, *Professor of Greek, University of Wisconsin.*
MINTON WARREN, *Professor of Latin, Johns Hopkins University.*
ANDREW F. WEST, *Professor of Latin, Princeton University.*

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DEPARTMENT OF HIGHER EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—THURSDAY, JULY 11, 1895.

The Department of Higher Education met in the high school building, at 3 o'clock p. m., President Baker of the University of Colorado in the chair.

President Swain of the University of Indiana was elected Secretary in the absence of Secretary Horace Goodhue.

On motion, it was ordered that hereafter the regular officers of this department should constitute the Executive Committee.

By the request of the Department of Secondary Education of the National Educational Association, it was determined that the officers elected for 1896 should appoint a committee of five to confer with a committee from the department of Secondary Education to consider questions suggested by the following resolution:

Whereas, The most pressing need for higher education in this country is a better understanding between the secondary schools and the colleges and universities in regard to requirements for admission; therefore,

Resolved That the Department of Secondary Education appoint a committee of five, of which the present President shall be one, and request the appointment of a similar committee by the Department of Higher Education, these ten to compose a Committee of Conference, whose duty it shall be to report at the next annual meeting a plan for the accomplishment of this end so urgently demanded by the interests of higher education.

This resolution was reported as adopted by the Department of Secondary Education, and the following Committee on Conference as appointed from that department:

Principal W. H. Smiley, Denver; Prof. William Carey Jones, University of California; Supt. A. F. Nightingale, Chicago, Ill.; J. Remsen Bishop, Cincinnati, Ohio; Principal C. H. Thurber, Hamilton, N. Y.

Prof. W. H. Fraser of the University of Toronto not being present, his paper on "The University of Toronto" was read by Dr. Charles S. Palmer of the University of Colorado.

The next paper, by Dr. Richard T. Ely, University of Wisconsin, was entitled "The Future Organization of Higher Education in America."

A discussion of Dr. Ely's paper followed, by D. R. Boyd, University of Oklahoma; William O. Thompson, Miami University, Oxford, Ohio; H. H. Freer, Cornell College, Iowa; Richard T. Ely, University of Wisconsin; A. A. Johnson, University of Wyoming; W. H. Black, Missouri Valley College, Marshall, Mo.; B. A. Hinsdale, University of Michigan, and was closed by Dr. Ely.

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President Baker appointed the following as members of the nominating committee for the Department of Higher Education:

Prof. William C. Jones, University of California; President Robert B. Fulton, University of Mississippi, and President William Thompson, Miami University.

SECOND SESSION.—FRIDAY, JULY 12, 1895.

In the absence of Professor Perrin of Yale College, Prof. James E. Russell opened the discussion on the subject, "Conservative View of College Electives."

The discussion was continued by Prof. Edward Channing, Harvard University; Prof. W. R. Rothwell, William Jewell College, Missouri; President Richard H. Jesse, University of Missouri; Dr. A. B. Hyde, University of Denver.

Dr. J. N. Hall, Secretary State Board of Medical Examiners, Colorado, read a paper upon "Standard of Admission to Professional Schools."

Prof. T. R. Bacon of the University of California read a paper on the "Relation of College Courses to Professional Schools."

The Chairman of the Committee on Nominations made the following report:

The Committee on Nomination of Officers for 1895-96 begs leave to introduce the following resolution:

Resolved, That, for the more useful and effective work in the Department of Higher Education, closer relations should be cultivated between the colleges and universities and the National Educational Association; that to this end, the Department of Higher Education should mark out a line of policy, and make every effort to give it a continuous and well-defined character; that the President of the department be invited to make an address at the opening of the session in 1896, which shall set forth the lines upon which the work of the department may be most profitably conducted.

The committee respectfully reports the following as its nominees for officers of the Department of Higher Education for 1895-96:

For *President*—James H. Baker, University of Colorado.

For *Vice President*—Dabney Lipscomb, University of Mississippi.

For *Secretary*—Joseph Swain, University of Indiana.

WM CAREY JONES,
R. B. FULTON,
WILLIAM THOMPSON,
Committee.

This report was adopted by the department.

The following Committee on Uniformity of Requirements for College Admission was appointed to co-operate with committee of the Department of Secondary Education:

Dr. Nicholas Murray Butler, Columbia College; Prof. Paul H. Hanus, Harvard University; Dr. B. A. Hinsdale, Michigan University; Dr. James E. Russell, University of Colorado; Principal John T. Buchanan, Kansas City High School.

After two very successful and well-attended sessions the department adjourned until the next annual meeting.

JOSEPH SWAIN,
Secretary pro tem.

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PAPERS AND DISCUSSIONS.

THE ORGANIZATION OF THE UNIVERSITY OF TORONTO.

BY PROF. W. H. FRASER OF THE UNIVERSITY OF TORONTO.

The University of Toronto is the non-denominational state university of Ontario, one of the provinces of the Dominion of Canada, with a population of 2,114,000. The university is a teaching body in arts and medicine, and a degree-conferring body in arts, medicine, law, applied science, dentistry, pharmacy, agriculture, music, and pedagogy. Its management is intrusted to the provincial government (representing the crown), the board of trustees, the senate, convocation, the university council, the council of University College, with the co-operation of federated universities and colleges.

The present apparently complex organization is so largely the result of modifications of the university act of 1853, and this act is so closely connected with previous acts, that the functions of the abovementioned bodies will be more readily understood if the description of them is undertaken in connection with a brief historical sketch of university legislation.

The original charter dates from 1827, previous to which the university had been endowed by large grants of crown lands, in anticipation of its establishment. By this charter the teaching, examining, and management were practically intrusted to the chancellor, the president, and the professors. In 1837 this governing body was increased from nine to twelve members—four non-academic—and all religious tests previously in force were abolished. Only in 1842, however, was the work of teaching begun, at which date faculties of arts, medicine, law, and divinity were established. In 1843, and again in 1846, legislation was considered, but not finally passed, looking to a federation of all existing colleges in Ontario into one university. In 1849 the faculty of divinity was abolished, the institution reorganized, and its name changed from "King's College" to "The University of Toronto."

This reorganization was so fundamental as to demand more extended reference here. Under the reorganization the body of supreme control was the senate, consisting of the chancellor, vice chancellor, all the professors, and twelve representatives, six appointed by government from among non-ecclesiastic graduates of at least five years' standing and six by various independent colleges of divinity. The

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chancellor was elected by convocation, and must not be a clergyman or a professor. The president was appointed by government. The vice chancellor was elected annually by senate, and must either be or have been a professor of or in the university. The powers of the senate were very extensive, and affected curriculum, teaching, examinations, degrees, duties of chancellor, vice chancellor, professors, salaries, etc.; and it nominated, also, candidates for professorships, from among whom the government was bound to make an appointment. Its acts were subject to governmental veto, if exercised within two years. Under the senate was the caput, consisting of the president, deans of faculties, and one representative of convocation. The caput had delegated powers over all ordinary discipline and government of the university, and control, also, of the acts of the president and vice chancellor. It was charged to report annually to senate, and had besides the duty of preliminary report to senate on candidates for professorships. The vice chancellor, under the senate, had power to maintain observance of statutes by the president and faculties, but had no powers over students. The president, under the caput and senate, exercised general superintendence over students, members, officers and servants, studies, lectures, examinations, and literary pursuits, except certain privileges of deans of faculties. The faculties elected their own deans, and made by-laws not contrary to the charter or statutes of senate, subject to veto of the senate. Finally, an endowment board of five members, appointed severally by government, senate, caput, college council, and Upper Canada College, managed property and reported to senate, the property being vested in the university corporation. The organization effected by this act was very complete. Each part had a definite and logical relation to each other part, and as a whole it provided for every detail of university administration.

In 1853 a new university act was passed. The teaching faculties of law and medicine were abolished, and the institution reorganized after the model of the University of London, as was said, into two practically independent parts, (1) an examining and degree-conferring body, with the name of "The University of Toronto," and controlled by the senate, and (2) a teaching body with the name of "University College," controlled by the president and professors. Appointments were henceforth under direct control of the government, which continued to exercise veto power over legislation of senate and college council. This act left the organization essentially as it now is, the fundamental principle being a division into teaching and non-teaching bodies.

In 1887, however, an act was passed with the object of uniting the various denominational universities of Ontario with the University of Toronto. Under this act Victoria University (Methodist), St.

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Michael's College (Roman Catholic), Knox College (Presbyterian), and Wycliffe College (Anglican) have entered into federation with the University of Toronto, which latter has also, under this act, a teaching faculty in arts and medicine. Latin, Greek, ancient history, English, French, German, oriental literature, and ethics are taught both by University College and Victoria University. Certain optional subjects allowed to theological students are taught by Victoria University and the other colleges above mentioned, while St. Michael's College co-operates in teaching modern history and philosophy. By this arrangement (largely one of convenience) all other subjects in arts and all subjects in medicine are left to the teaching faculty of the University of Toronto. Various institutions, such as the school of practical science, the agricultural college, etc., have entered into affiliation with the university and enjoy representation on the senate; which, in turn, prescribes their curricula and examines their students.

This preliminary sketch will, it is hoped, facilitate the description of the functions of the various bodies given in the following paragraphs:

1. *The Crown.*—The supreme authority in all matters is vested in the crown, represented by the government of the province. The property is vested in the crown in trust, and is managed by the bursar, a crown officer. Annual appropriations are authorized by the crown, as also expenditure of endowment, subject in the latter case to the legislature. The crown exercises veto power as to statutes of senate and councils, and makes all appointments in the university and University College.

2. *The Board of Trustees.*—This board consists of chancellor, vice chancellor, and president, five members appointed by senate, and two by University College. It advises the crown, through the bursar, as to conservation, increase, and expenditure of endowment and income, and management of property in general.

3. *The Senate.*—This body makes curricula, examines, grants degrees and standing, but does not teach. It has sixty members (nine *ex officio*), namely, the minister of education, the president of University College, the president of each federated institution, the chancellor and vice chancellor, and all past chancellors and vice chancellors; twenty-six appointed members from various educational bodies, and nine members appointed by the crown; twenty-three members elected by graduates, and two elected by the high school teachers.

4. *Convocation.*—This consists of the whole body of graduates, and elects representatives to senate in arts, medicine, and law. It has also deliberative and advisory functions, seldom exercised.

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5. *The University Council.*—This body consists of the president and professors of the university in arts, medicine, and law. It is intrusted with teaching and discipline of students.

6. *The University College Council.*—This council consists of the president and professors of University College, and has parallel duties and powers to the university council.

7. *Federated Universities and Colleges.*—These assist in teaching the arts curriculum, and they control their own students.

I may now be permitted to add some observations regarding the organization, embodying the main points of criticism of it which from time to time have been expressed by educators familiar with its working. The most general objection to the organization as a whole is taken with regard to its complexity, and the opinion has sometimes been expressed that only the most complete harmony and co-operation between the different parts can render the administration of the university possible. In this connection, it should be remembered that the consideration of the whole question of organization has never been undertaken by the legislature since 1849. The act of 1853 was evidently a makeshift, consisting of a more or less crude adaptation of the London University system, which, whatever may be said regarding its application in England at the time, could not reasonably be expected to meet fully the circumstances of Canada. The various amendments to the act of 1853 have been of the nature of adaptations suggested by expediency.

Among the more special considerations affecting the system, one of the most fundamental is undoubtedly that of government control. On this point there is a wide divergence of opinion. It will be observed, that, theoretically, the government of the province controls ultimately the whole administration. Practically and directly, however, this control is exercised in two matters, namely, in the finances and in the appointments. Expenditures are made only on the authorization of the government, and all appointments are also so made, after such inquiry and report as may be considered necessary. Among those who advocate a complete separation of the university from governmental control is Dr. Goldwin Smith, who recently expressed himself as follows on this question:

> The most important of the suggestions which I have to offer and which I believe will meet with extensive concurrence is, that the university should be separated from the political government of the province, and placed, like the English universities, under a government of its own, subject only to the law of the land and to any external check on its legislation which it may be deemed expedient to impose. The reason for this is general, and involves no disparagement of the intentions or of the actions of the Ontario Government. * * * Amidst the chances of party warfare and the necessities imposed upon leaders of party in the distribution of political offices, it is not likely that a cabinet will often, much

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less that it will always, contain a member fitted by his turn of mind and by his experience of academical matters to regulate a university. Fear of political influence has operated in one instance at least to deter a Canadian college from coming into university confederation. It is well known also that connection with government operates as a bar to private benefaction. The government would lose little by the change, while it would be relieved of some embarrassments. * * *

I would venture to suggest, therefore, that the estate should be made over to the university, to be managed by its trustees or through a committee of the senate, perhaps with the vice chancellor in the chair, and, of course, with a professional bursar. The nominations to the presidency and the professorships I would give to the chancellor, but require him to submit them for acceptance or rejection to the senate. I would require him, before sending a name to the senate for a professorship, to communicate it to the president of the university and hear what the president has to say. * * * Legislation would be the function of the senate, which, in any case involving a draft upon the revenues, would, of course, consult the trustees or its managing committee. At Oxford and Cambridge, such of the university and college statutes as have been framed or ratified under parliamentary authority can be amended only with the consent of the privy council, which in England is not a political body. Submission to the lieutenant-governor might form a similar safeguard here.

These remarks of Dr. Goldwin Smith express so fully the point of view of those who advocate such a change that nothing need be added. On the other hand, it is urged by many that, as the endowments of the university are vested in trust in the government for the benefit of the province, the ministers of the crown should be responsible to the legislature and ultimately to the people for the administration of this trust, as for any other branch of the public service.

As to the board of trustees, little need be said. It consists at present mainly of gentlemen of large experience in business and high financial standing, who give their services gratuitously to the university. The opinion seems to be general that this board is well suited to the work intrusted to it, and that it discharges its functions in a highly satisfactory manner.

The most remarkable feature of the organization consists, undoubtedly, in the division of the whole academic work of the institution, introduced in principle by the act of 1853, between the senate, the councils of the university and of University College, and the federated institutions. Each of these bodies is entirely independent of the control of the others. The senate prescribes the curricula in the various faculties, conducts examinations, and grants degrees and standing, as stated above. The councils and federated institutions undertake the work of instruction and discipline. The most general exception taken to this arrangement is that it is illogical and impracticable, on the ground, that, in the nature of things, no proper line of division can be drawn as between prescription of studies, instruction, discipline, and examination. When the constitution of the senate is

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examined into, the grounds for the objection become more apparent. This body consists at present of sixty members, with indefinite possibilities of increase through new affiliations. Of these about one-half are not directly connected in any way with academic work, and of the remainder only three represent the university council, and one the council of University College. Since the legislation of the senate mainly affects the work of the councils, determining, as it does, the nature of the teaching by the prescription of the curriculum in arts and medicine, it is held by many to be unreasonable that a body practically independent, and lacking in technical knowledge of the matters on which it passes judgment, should, legally and theoretically at least, determine the nature of the academic work of the university. As a matter of fact, however, it should be explained, that, in practice, the curriculum is revised according to the recommendations of the professoriate in arts and medicine, and by this amicable but anomalous arrangement the difficulty is largely overcome, although instances have occurred in which the senate has overruled the recommendations of the professoriate.

The argument used in favor of the present arrangement is, that it secures additional broadness in the work of the university, inasmuch as it removes, in theory at least, the determination of the curriculum and the standard of scholarship from the teaching body. Some persons even maintain that professors should be entirely excluded from the senate. As supporting the opposite theory I might again quote Dr. Goldwin Smith, who recently, in suggesting improvements of the system, expressed himself thus: "In any case, it will be most reasonable and necessary to give all the university professors, who constitute the working body of the constitution, seats in the senate, their representation in which is manifestly inadequate." At one time, in extreme application of this principle of division, it was customary to debar professors from even acting as examiners under the senate. This restriction, however, was found to be impracticable, and at present most of the senate examiners are chosen from the teaching faculties.

To the constitution of the councils, objections have been urged, somewhat analogous to those mentioned above, regarding the division of academic work between the councils and the senate. The councils, it will be remembered, are the teaching and disciplinary bodies, independent of each other, but concerned in the teaching and discipline of a body of students who come for the most part under the authority of both the councils. This arrangement has been shown in practice to have given rise to difficulties evidently not foreseen by the federation act of 1887, which, to quote from the report of the recent university commission of inquiry, "contains expressions so vague as to obscure the distinction in jurisdiction and control of the senate, the uni-

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versity council and the University College council." For instance, it has been found difficult to determine whether certain student-societies were amenable to one council or the other. Moreover, when the question of responsibility was settled, it became doubtful whether effective discipline could be exercised without the co-operation of the council not concerned, or whether, this point being determined, effect could be given to disciplinary measures without the co-operation of the senate. Besides, it still remains undetermined whether or not the university council has powers of discipline as regards Victoria University student-societies and those of other federated institutions. A similar confusion of authority has been experienced in the powers of the two councils as to control of buildings, grounds, the admission of outside lecturers, the allotment of rooms, the preparation of estimates, the compilation of the time-table, and the control of the college residence. A further anomaly has been pointed out in the fact, that, in the university council, which is responsible for discipline of students both in arts and medicine, the majority of the council are professors in medicine, who for the most part are occupied only incidentally in academic work.

On the whole, the organization of the university may be fairly described as tentative. The work of the institution has undergone very considerable expansion during the last few years. It now numbers upwards of 1,200 students, and at commencement in 1895 conferred degrees on 366 persons. Its circumstances have also been very materially altered by the operation of the federation act, necessitating at least three bodies of instruction and discipline instead of one as before. To such an extent have these factors affected the question of organization that an early revision of the act, taking account of all the altered circumstances, is generally considered to be desirable. In undertaking such a revision the inconveniences arising from the illogical principle of division of academic function introduced by the act of 1853 would demand serious consideration, and an effort to secure something of the unity and cohesion of the act of 1849 should undoubtedly be made.

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THE FUTURE ORGANIZATION OF THE HIGHER EDUCATION IN THE UNITED STATES.

BY RICHARD T. ELY, Ph. D., LL. D., DIRECTOR OF THE SCHOOL OF ECONOMICS, POLITICAL SCIENCE, AND HISTORY, IN THE UNIVERSITY OF WISCONSIN.

The title of the present address suggests at once the question, What do we mean by the higher education? Roughly speaking, educational institutions may be divided into three classes—primary, secondary, and higher. The higher education in this country at the present time includes the college and the university and excludes everything below the college. Probably no one will deny that this is what is generally understood by the expression "the higher education."

A careful observer, however, cannot fail to note the fact, that, in our higher education, we have to do with two quite distinct kinds of instruction. The college, in its old and strict sense, is concerned with disciplinary studies; the purpose of the college is general culture. The college carries forward the work which the high school or the academy has begun, and carries it forward in much the same spirit. The chief difference consists in the larger and better equipment of the college, the broader and more catholic spirit, and the advanced character of the disciplinary studies pursued. They have, however, in many respects, the same methods. There is the same general supervision of the students, the same enforced attendance upon exercises, secured by roll-call and penalties for absence; the same regular examinations; nearly the same amount of routine work, with a large number of hours for the professors. This is the college, as the expression has been used in the past and is still generally used. The essentially similar nature of the work of the college and of the high school can be seen in the fact, that, in Germany, the two are not separated. The German gymnasium combines both, and the pupil passes from what we call high school studies to the college studies without any break. The German gymnasium may not include some of the studies which are ordinarily embraced in the college curriculum, but other studies are carried further, and its thoroughness is so admirable, that, ordinarily, its graduate is better prepared for the more advanced work than is the graduate of the American college. There may be a few lines in which this is not true, but in other lines—as for example, the classics—the difference is decidedly in favor of the graduate of the German gymnasium.

The university, strictly speaking, begins where the college leaves off. University work is advanced special work, and not work pur-

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sued primarily for general culture. University work has some definite aim. It is, in the widest sense, as a rule, professional work. It may be work preparatory for the professions of law, medicine, theology, or the teaching profession, or the public service as a profession. There are, in fact, many new professions which are not included in the three so-called liberal professions of earlier times, but which are equally liberal in their character. The work of the true university includes, further, a large amount of original investigation. Its aim is, not only to diffuse education but to carry further forward the bounds of knowledge. This is one of the chief and one of the most beneficent functions of the university. In a university worthy to be called such, original investigation, research, and authorship constitute a very considerable part of the professor's work. Time is given him for work of this kind, and the elaborate apparatus and costly collections of many sorts which he requires are provided.

It is not only the professors but students as well who engage in original research and investigation. Work of this kind calls out and helps to unfold latent capacities in the talented youth of the land, and also affords the best preparation for a liberal profession, elevating the entire standard of professional life. University education, furthermore, is distinguished by its broad and liberal spirit. The pursuit of truth in the university is free. Every guarantee for free and untrammeled inquiry must be afforded. The true spirit of the university in this respect has perhaps never found nobler expression than in the words of a committee of the regents of the University of Wisconsin, in a report unanimously adopted by that body. These words, which deserve to become classic, are as follows:

> We cannot for a moment believe that knowledge has reached its final goal, or that the present condition of society is perfect. We must therefore welcome from our teachers such discussions as shall suggest the means and prepare the way by which knowledge may be extended, present evils be removed, and others prevented. We feel that we would be unworthy of the position we hold if we did not believe in progress in all departments of knowledge. In all lines of academic investigation it is of the utmost importance that the investigator should be absolutely free to follow the indications of truth, wherever they may lead. Whatever may be the limitations which trammel inquiry elsewhere, we believe the great State University of Wisconsin should ever encourage that continual and fearless sifting and winnowing by which alone the truth can be found.

What has been said brings out the fact that the higher education in the United States is in a confused condition. The high school is not separated from the college by any clearly defined line, and there is no uniformity of practice in regard to the point at which the line is drawn. On the other hand, the line which separates college from university is still more uncertain. There is not infrequently an attempt to attach to the closing years of a college education uni-

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versity work, while in our universities much college work is included, and often included under the name of "university work." The result is, in every grade, a lack of thoroughness in preparation, and correspondingly a failure to reach that excellence which the capacity of those receiving the instruction would warrant. It is probably safe to say, as the result, that no thoughtful person is entirely satisfied with our present situation.

When we turn to the professional schools, so-called, a still worse condition of things confronts us. A college education is required preparatory to beginning such studies only in the rarest instances; in fact, in instances so rare that they need hardly be considered. Not even a high school education is ordinarily required. On the contrary, the professional schools are often a sort of dumping ground in which students are thrown when they cannot maintain themselves in the other departments of the university. As a further result, there is a general unwillingness on the part of the authorities of our universities to regard the studies of law, medicine, and theology as ranking with true university studies; that is, post-graduate studies. There is generally a provision that our fellowships cannot be held by those carrying on legal, medical, and theological studies; although there is no reason why these studies are not in the United States as worthy of high rank as are any post-graduate studies. They do not rank differently in any German university. One great difficulty with us (apart from other difficulties which limited time does not permit me to mention) is the absence—and, under the circumstances, the necessary absence—of a liberal university spirit in these special schools.

The future organization of the higher education in the United States, if its development is to be satisfactory, will bring order out of confusion in the particulars named. We can, indeed, see already promising beginnings in this direction, although we cannot say that anything more than a beginning has been made. Probably we must concede to the Johns Hopkins University the most efficient service in the separation of university work from collegiate work. President Gilman of that institution, as early as 1876, drew a sharp line between the two, and the success of that institution—the more remarkable when its limited means are considered—is to be attributed as largely to this clear distinction as to any other one thing. Recently, in the establishment of its medical school, it has placed medical education upon the same footing with post-graduate study; that is to say, university studies, in the strict sense of the term. It would be interesting, if time permitted, to speak about the valuable services rendered by Harvard University in the establishment of higher standards in medical and legal schools. It seems to me, how-

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ever, that, in the academic department, as it is usually called,—or in what the Germans would call the philosophical faculty,—the authorities of Harvard have not drawn so clear a line as might be desired between collegiate and university studies. Time, however, is too brief to allow further mention of the services of Harvard; and other institutions like Columbia and the University of Pennsylvania can be merely mentioned with the statement, that they deserve praise for their efforts to improve the organization of the higher education.

The expression, "the higher education," suggests a part of a larger whole, and it must be so conceived if it is to bring the greatest success. The importance of unity in our educational institutions cannot well be overestimated. Probably those most familiar with German education will attribute no inconsiderable part of its achievements to the fact, that the education of the youth who enjoys the advantages of a higher education is a unity of harmoniously adjusted parts. American students in the German universities are frequently at a disadvantage, owing to the lack of any clear, distinct aim which has dominated their previous intellectual training.

The Eastern States of the American Union are less fortunate than are the Western States with respect to the unity of their educational institutions. In the Eastern States the higher institutions are private foundations, and the primary and secondary schools are for the most part public, although there are numerous private preparatory schools and academies. The result is that we have parts of a whole not closely related and adjusted. Every state in the Union, however, west of New York has a unified educational system in process of development. The primary and grammar schools lead to the high schools, and the high schools lead to the university. The full advantages of this unity are not yet generally perceived, because the West is a new country; but they are becoming apparent to all close observers. It is clear, that, in the higher education, the West is to become more and more influential.

But even the West has, outside of its complete educational systems, a very large number of private foundations, mostly denominational institutions. Almost every city of any size in the West has its college, and some have more than one, while denominational academies are increasing in number. We have, thus, in this part of the country two classes of institutions developing side by side.

Those who would shape wisely our higher education in the United States must reckon with the existing situation. It is not what would be desired, but what exists, and it must be made the foundation of better things.

It is apparent, first of all, that we are to have a different organization of the higher education in one part of the country from that

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in another. In New England, and for the most part in the Middle States, we can scarcely look for organic unity in our educational systems beyond secondary education. The private colleges and academies and the public schools controlled by different kinds of authorities will develop such a unity as may be compatible with more or less conflicting aims and purposes. There can be no doubt, however, that progress will be made in this direction because it will be found to be to the mutual advantage of all parties concerned.

Cornell University, in New York State, offers valuable suggestions in its publicly controlled scholarships, over 500 in number, which are open to graduates of the public schools in the different assembly districts of the state. As is well known, these are awarded competitively, and form a close tie between Cornell and the secondary schools.

But as time goes on, the West must mean more and more, both absolutely and relatively. The West will, in the next century, embrace the great bulk of the population of the United States, and with its activity, energy, enterprise, and trained intelligence will control the destinies of the country. Youth is always most interesting, and it is this developing part of the country that deserves special consideration.

It is most fortunate that the whole education of the citizen has been conceived by the entire West as a public function. The West has adopted the best thought of the greatest American statesmen, like Washington and Jefferson, concerning the educational functions of the state. This cannot be emphasized too strongly. Any educational system which does not embrace the university is incomplete and radically imperfect.

The subject is such a large one that it is not easy in any short time even to indicate the advantages which result from the state university. These advantages are both direct and indirect. The state university is the best expression of democracy. The whole people, organized collectively, act together for the noblest aims, and this cannot fail to have an uplifting influence on the entire life of the state—an influence which in our West will be felt more and more strongly with each succeeding year. The state university represents all the people, and no class or section of the people. Like other parts of the educational system, it represents the principle of self-help on the part of the people. The state university is not dependent upon the bounty of rich men, but, supported by the entire state, accomplishes its aim in the fearless pursuit of truth. While it gladly receives the gifts of the rich, it can live and thrive without them. It has no antagonism to the wealthy, but quite the contrary, for it seeks to promote all social interests. It stands no

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more for the poor as opposed to the rich than for the rich as opposed to the poor.

All those connected with private foundations know that there is a solicitude on the part of their managers in regard to the views and feelings of possible benefactors, and an uneasiness if these views and feelings are supposed to conflict with the views and sentiments inculcated in these universities by the instructional force. I myself have heard the president of a great private university say, before a table full of people, in speaking about the conflicts between workingmen and capitalists, that he was "with the capitalists every time," because it was from them that he looked for endowments. This may not have been said with full consciousness of what it implied, and I do not claim that other presidents of private universities would repeat these words; but the incident at least indicates a danger from which the state universities are free. Of course, it will be readily admitted that all state universities do not live up to the full measure of their freedom—although most of them deserve high praise on account of their large and free atmosphere. On the other hand, the fearlessness in the pursuit of truth in many private institutions will be cheerfully acknowledged.

But the West has the problems indicated in the beginning of this paper. Here, as elsewhere, there must be a separation between the college and university instruction, and professional schools must be raised to the university level. How shall this be accomplished? It is manifest that the standards of the high schools must be raised. The state universities are everywhere year by year lifting up all the schools of lower rank. It is especially the inspection of high schools by universities which has accomplished this purpose; but will the high schools grow until they include all that education which is designed simply for general culture?

It is evident that it will, at any rate, be a long time before they reach this level. But there are other public schools which may in some states fill the intervening gap between the high school and the university. In Wisconsin we now have normal schools which already partially fill the gap between the high school and the university. It would seem to me, that, in Wisconsin (and I presume the situation in Wisconsin is like that in many other states), the normal schools can be developed much further and become colleges in the strict sense of the word, as well as normal schools. This implies, of course, a still further development on their part and a large increase of their funds. But as our commonwealths grow in wealth they will be quite equal to this expenditure. It would be beneficial to the normal schools and to the cities in which they are located. It would also give more time for their true work to the state universi-

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ties, by reducing the number of students in their lower classes. Where there are in a state two or more public schools of the higher grade, as agricultural college, mining school, and state university, the more advanced university work should, of course, so far as possible, be centralized in one of them. At this time and place simple suggestions can be thrown out.

But we have the private colleges of which mention has been made. Some of these are doing fine work and deserve generous support. Their work will improve more and more as they place themselves in connection with the public educational systems of the West. They should not attempt to do university work. In fact, at the present time, with the increasing expensiveness of such work, it should hardly be attempted by an institution with less than a quarter of a million dollars a year, while to do full university work requires at least a million dollars a year. But these colleges, to which the academies and high schools are preparatory, can do excellent college work. They can develop special characteristics and render most valuable public service. They can not only prepare students for the state university but also relieve the state university of a great burden of college work. Such co-operation would be far better for all concerned than is the unseemly antagonism between public and private institutions which we have often witnessed in the past. Those connected with the private foundations must remember that they are citizens as well, and have a duty to public institutions, which, as loyal citizens, they must desire to see flourish.

But for all the states in the Union—those in the East, and the West, and the South—the University of the State of New York offers valuable suggestions. Founded over one hundred years ago and fostered by men of the stamp of Alexander Hamilton, De Witt Clinton, and John Jay, it has developed an admirable activity within the last few years under the secretaryship of Mr. Melvil Dewey. The University of the State of New York includes the high schools, academies, colleges, and universities of the state. Its object, as defined by law, is "to encourage and promote education in advance of the common elementary branches. Its field includes, not only the work of academies, colleges, universities, professional and technical schools, but also educational work connected with libraries, museums, university extension courses, and similar agencies."

The regents have the power to control the charters of all educational institutions above the grade of those engaged in imparting instruction in the common elementary branches. It supervises examinations in the entire higher and secondary work of the state. It is not a teaching institution, but a federation of over 500 institutions of higher and secondary education, suggesting, in the words

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of one of the official publications of the university, "the form of the English universities of Oxford and Cambridge made by the union of their various colleges." No charter is granted for a college or other institution of higher education in the State of New York unless the regents are satisfied that it is able to do creditable work. A college of arts must have as a minimum $100,000, besides provision for suitable buildings, furniture, and apparatus—a minimum which, in my opinion, is too low rather than too high. It has now been settled in New York State that the high school course must be required as preliminary education for entering the professional and technical schools. Law, medicine, dentistry, and veterinary medicine are already included in this requirement, and it is expected to add the other professional and technical schools rapidly. In a letter recently received from the secretary, he expresses further hopes in the following words:

> Another point that I am deeply interested in is the admission to the colleges of any graduate of any registered high school, regardless of whether he has taken the traditional preparatory course or not. I consider this vitally important. You will find my statement of the case in the proceedings of the College Association of the Middle States and Maryland, held at Swarthmore two years ago. * * * Another great feature is to make the library, museum, extension courses, and other allied educational work an integral part of our educational system.

It is thus that New York State is trying to bring harmony into its educational system, and to unite effectively all forces both public and private. I most earnestly recommend to the careful consideration of all educational authorities the New York system, and would recommend that the powers of the New York regents be added to those already possessed by the regents of other states, especially the Western and Southern States.

We have reason to anticipate, that, in future, private effort will co-operate to a larger extent than previously with public effort in the higher education. It is especially important that broad-minded men of means should give of their wealth to public schools of every grade, including the state university. It is the office of the private individual of insight and large resources to go ahead of public opinion and to enlighten it. I claim without hesitation that no money given to educational institutions accomplishes more than that given to those which are public. In our state universities there is a large field for private work in endowing scholarships, fellowships, and in the endowment of original research and investigation.

A further opportunity for private persons of wealth is to surround the higher education furnished by the state with religious influences, according to the wise plans of Jefferson. It is desirable that religious denominations should establish at the site of the state university halls and colleges and theological seminaries, furnishing

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homes and religious instruction for the students; in short, supplying those needs which, according to our American ideas, it is not the function of the state to satisfy. There is already in progress a movement in this direction which must not be neglected by those dealing with the future organization of the higher education in the United States. One prominent religious denomination will establish in the coming fall a hall of this kind in connection with the University of West Virginia, and it is planned to establish halls or colleges under the auspices of this same religious denomination in Wisconsin, Minnesota, and South Dakota. Several denominations have made a beginning of this kind in connection with the University of Michigan, although it is scarcely more than a beginning.

It is in following out these lines of development that we may hope to combine the advantages of public and private effort. There are great advantages in private effort, and many private schools furnish rare opportunities and unusual safeguards to those enjoying their advantages. On the other hand, we should not overlook the efficiency of the public schools in the development of manliness in those trained in them. Those acquainted with our best state universities cannot help noticing the virility displayed by their students, coupled with a sound democratic spirit. Public institutions naturally keep in touch with the people. The advantages of public education must be borne in mind, as well as those excellencies that may be secured by private effort. It must always be our aim to combine all these advantages, as far as it is possible; and to a very high degree I claim that it is possible.

I must close abruptly with many things left unsaid; but I want to leave with you, in connection with my topic, "The Future Development of the Higher Education in the United States," these words of the late Professor Huxley:

> I believe no educational system in this country (England) will be worthy of the name of national, or will fulfill the great object expected of it, unless it be one which establishes a great educational ladder, the bottom of which shall be the gutter, and the top of which shall be those universities of which we are justly so proud.

DISCUSSION.

D. R. Boyd, President of the University of Oklahoma.—The portion of Dr. Ely's paper that alludes to the affiliation of denominational institutions should be especially enforced, and is of especial interest to the states west of the Mississippi river. In those states the denominational schools are not generally well endowed, and depend for support on tuition, while in the state institution the tuition is free

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to students. It is here that the field for affiliation is most open and available. It seems entirely practicable to erect "Houses" or "Homes" about state universities, where sectarian or denominational instruction and the means of religious culture may be given, while the students may attend those classes of the university in which the subjects are only slightly religious or entirely non-religious or non-sectarian. This would be greatly to the mutual advantage of the denominations and the universities.

PRESIDENT WILLIAM O. THOMPSON, Miami University, Oxford, Ohio.—I am heartily in sympathy with the paper of Professor Ely, and desire to emphasize one point made, namely, that of the necessity of honesty. One great evil in our country is the desire for bigness, as if bigness were a virtue and littleness a vice. I am glad for the distinction between the college and the university, and hope it may be still further emphasized. A just criticism has been made upon our denominational colleges for attempting what they could not do, and upon our state universities for not being willing to be what their names suggest. They have been willing to have on their roll students who ought not to be in college at all. I shall hail with joy the day when our catalogues may be read by all with the assurance that they mean just what they say. Let us encourage our colleges to be strictly colleges and our universities to be universities.

H. H. FREER, Cornell College, Iowa.—It is perhaps unkind to criticise a single point in so excellent a paper as that to which we have just listened, but there was one incident related which I wish had been omitted. I refer to the story of the college president who stated, that, in all the contests between labor and capital, he was on the side of capital because he obtained donations from capitalists. If this president was not jesting, he was unworthy his position. The implication that denominational colleges are subservient to capital is not true, as donations to these institutions come largely from farmers, professional men, and working men. Such institutions are, above all others, free to teach and manage as their faculties see fit. If they are ever hampered by wealthy friends they are no more restricted than state schools that depend on politicians for annual appropriations. Those of us in denominational or private colleges will say the kindest things concerning the state universities, and ask that those connected with the universities do not accuse us of being the creatures of capitalists.

PROFESSOR ELY.—Colleges supported by farmers and professional men are very advantageously situated so far as freedom of discussion is concerned. I think the classes which President Freer mentioned will generally be found to be disposed to insist upon the largest freedom in instruction. I have in mind one college in the state from which President Freer comes which is a conspicuous illustration of a college managed in a large and generous spirit. I do not mean to imply that all private foundations are on the side of the capitalists because they expect from them money. Nevertheless, the quotation which I gave from the president of the university was one which illustrates a danger not to be lost sight of and one from which the state universities are comparatively free, as they are dependent upon the whole people and not upon any one individual or class of individuals. The words which I quoted I can assure you were not spoken in jest.

In conclusion, I would like to say, that, so far as I have been able to observe, the best universities are not hampered by dependence on politicians for annual appropriations. These universities—I speak now of the better class of state universities—are supported by tax laws which operate continuously. Many suppose that each year a state university depends for its life upon what the last legislature granted. This a great mistake. In the second place, politicians have learned to keep their

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hands off the state universities. I know from experience that there is no interference from politicians in my department at the University of Wisconsin, and that is the department which would be most likely to have such interference. The atmosphere of the University of Wisconsin is delightful because it is such a large and free one, one worthy of the noble commonwealth whose name it bears.

PRESIDENT A. A. JOHNSON, University of Wyoming.—I rise simply to indorse the most excellent paper of Dr. Ely, and the broad and generous spirit which permeated the address. We must remember that the subject which Dr. Ely discussed was "The *Future* Organization of Higher Education in America," and he has surely and truly given us the trend of this age towards a better organization of our institutions of higher education. As one who labors in the West, I desire to say that Professor Ely has correctly stated the tendency in some of our Western States to lay the foundations of higher education upon the broad principles outlined in his address.

I do not believe a denominational college will ever be founded in Wyoming. The churches are rallying around the State University, and are erecting halls to take care of the home and religious life of the students. I believe this is a good thing for the churches, and a most excellent thing for the university.

PRESIDENT W. H. BLACK, Missouri Valley College, Marshall, Mo.—The paper on the organization of the University of Toronto, together with Dr. Ely's suggestions concerning the University of New York, should receive more consideration on account of the fact, that, taken together, they outline a plan by which the private schools, which do sixty-five per cent of the higher educational work of the nation, can be made a part of the national or state scheme. As it is, the private schools are chartered to do everything, and no requirements made of them except in New York and Michigan. These should be made to conform to recognized standards of work or surrender their charters. The colleges should confine themselves to undergraduate work.

DR. B. A. HINSDALE of Michigan University.—I wish to direct attention to two points. First, is it a profitable expenditure of time to attempt a definition of the term "university" that should be of universal value and application? There was a time when that could be done; but it is well known that the German universities, the Italian universities, the French universities, and the English universities have developed each along their own lines of movement. The definition that Professor Ely has formulated applies well to a German university, in a less measure to a French university, and to an English university hardly at all. In America we have grossly abused the term; but, in the attempt to rescue it, it is very questionable whether it is wise to adopt a definition, that, at the present time, will apply to the German universities alone. Certain it is, that, no matter what type of university may be finally established in the United States, we are not going to rob the English institutions of higher learning of the name that they have borne for centuries. Still further, it is more than questionable, in my opinion, whether the typical American university of the future will be an institution that will answer to Professor Ely's definition. The second point is closely connected with the first one. It is presented in the question, whether institutions that shall do graduate work, exclusively or characteristically, in the German sense, if they are to be developed at all, can best be developed out of our state universities. They are creatures of the state; they are dependent upon the state legislatures and upon public favor. American institutions and American society are democratic, and the question arises whether it will not be necessary indefinitely to keep these institutions in close and vital touch with the commonwealths that maintain them. Cer-

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tain I am, that there is no American state in which you will find at the present time a public opinion that would support the establishment and maintenance of a university of the German type. Do not the very facts that constitute the environment of these institutions compel them to be, and will they not compel them to be, popular institutions, that shall touch the life of the commonwealth at other points than those that are embraced in what our German-American friends call university work? I have often questioned whether a foundation private in its character, like Harvard, Yale, Columbia, or Chicago, does not offer peculiar advantages for the development of an institution that shall devote itself to graduate teaching exclusively. I neither affirm nor deny, but I have often thought about the question. So saying, I wish to add, that I belong to a state university, that I believe in the state universities, and that I allow no man to question my loyalty to the institution to which I belong.

PROFESSOR ELY, taking up the suggestions of Professor Hinsdale, spoke as follows: "I have not presented a goal which I thought the state university could reach at once, but rather an idea towards which it should work in order to bring harmony out of our chaotic educational situation. The state universities have continually raised their standards, and have met with the approval of the people in so doing. The fact must not be overlooked, that the policy which I have outlined would bring new support to the state universities. I see no reason to doubt that the state universities will be able to undertake advanced special work, and will meet with support from the people in so doing. It seems to me that anyone who studies our educational history may expect this with confidence. What we are now doing in the state universities would have seemed impossible, and I think was declared impossible by many, a few years ago. There is no reason why the state universities should, on account of the advanced character of their work, separate themselves from the people."*

In reply to the question of Prof. J. H. Paul of Utah Agricultural College, in regard to the agricultural college, which seemed to him to carry on university work according to the definition given in the paper, Professor Ely replied, that, of course, some work of a university naturally would have to be done in other institutions than the state universities in those states in which the agricultural college, schools of mines, etc., were separate and distinct institutions from the state university. The thought of the paper was, that the resources for the most special and advanced work should, so far as practicable, be centralized at some one point in the state..

* It may be remarked that no departure on the part of the university has been received with more favor than the establishment of the School of Economics, Political Science, and History three years ago, although it was openly said at the time that it was designed especially for graduate students. The movement received only warm praise from newspapers in close touch with the people.

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A CONSERVATIVE VIEW OF COLLEGE ELECTIVES.

DISCUSSION.

DR. JAMES E. RUSSELL, Professor of Philosophy and Pedagogy in the University of Colorado.—The American college is an outgrowth of English university ideals modified by comparatively recent German influences. Its early growth was determined by conditions inherent in American life. Even the largest institutions could not maintain a variety of courses. As wealth increased and public demands became greater additional facilities were offered, until the curriculum contained too much for any one student to take. Selections became necessary. At about this time men trained in German universities became influential in shaping courses. The German ideal came to the front, and, consciously or unconsciously, it has increasingly dominated American progress.

What is the German ideal? The German student enters the university after a nine-years' prescribed course of study—prescribed not only in subjects and amount but also in order of development and general treatment. So well organized is the German secondary school system that its graduates have a remarkably uniform mental equipment. The university teacher knows precisely what he has to work on; the student is well aware from tradition what to expect. Thus, up to his eighteenth or nineteenth year, the student follows a definite course of study, and all (with few exceptions) have the same course of study. The university, however, makes its work elective, but elective only in definite lines. Whatever freedom a student might have is lost sight of in the uniform practice of preparing for definite ends. The German university is essentially a group of professional schools; its students are almost to a man engaged in professional study, be it philosophy, science, law, medicine, or theology.

In following the lead of Germany, whether intentionally or not, it behooves us to consider carefully the German ideal. At bottom, that ideal is, that every student should first receive a liberal training before advancing to professional work. The German student upon entering the university is probably in most respects the equal of the average American student at the end of the sophomore year. At that point the Germans consider the student capable of profiting from special lines of study; special lines of study, I say, rather than indiscriminate choice. And here, I believe, is the vital point for us to consider. A system of election which amounts to license is not worthy of consideration. A rational selection based upon a deep interest in certain lines of work already partially developed and prepared for in a broad course of liberal study is not only desirable but necessary to our American colleges.

Theoretically we are bound to provide for some system of electives. Practically, too, we must accede to the demands of the times for more and better training in special lines. The very fact that we are unable to agree upon a particular course of study either for our secondary schools or colleges suggests uncertainty as to whether we are capable of giving precisely that liberal training in our schools and colleges which we may consider essential to future success. So long as we are ourselves in doubt, we can scarcely expect our students to follow blindly our lead, or to convince the world at large that there is no better or

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broader way. From the practical point of view I apprehend little danger from an elective system—even from one as liberal as that prevailing at Harvard; provided, always, that the standard of admission is high and faithfully adhered to. As a matter of fact, under any system, it is the personality of the instructor which is of most worth. The elective system puts every professor on his mettle, makes all feel that success is to be found in leading rather than in driving. There is little danger, too, that students will select those lines of study which present least resistance. The reports given out from Harvard University finally settle that question. Again, in conclusion, I urge that the vital points for discussion are: First, at what stage in our educational system can we say that the student has attained a liberal culture—such culture as fits him to pursue professional study with profit to himself and safety to others; second, how shall we best promote rational selection in courses of study that the student may secure depth of insight and power of application within his chosen sphere?

PROF. EDWARD CHANNING of Harvard University, being called on, said that he had listened with great interest to the able and suggestive paper presented by Dr. Russell. His own knowledge of the elective system related more to its workings and results than to its pedagogical foundations. This knowledge was derived from experience, first as a student, and later as a teacher, in Harvard University, during the twenty years from 1875 to 1895. In 1875 about one-half of the work demanded for the degree of bachelor of arts was elective; the remainder of the work was prescribed. The freshman year was still wholly prescribed, and various odds and ends of history, economics, philosophy, rhetoric, and physics were combined with practice in writing English to occupy about one-half of the sophomore year, one-third of the junior year, and one-fifth of the senior year. At the present time the course is entirely elective with the exception of work in rhetoric and in writing English. Experience gathered during these years shows, among other things: (1) That the establishment of the elective system led to a great improvement in the work of both teachers and students; (2) that it brought about a complete change in the relations of a teacher to his class; (3) that the so-called evil of "soft snaps" does not exist; and (4) that the establishment of the elective system does not mean that the students are given complete freedom of choice.

There has undoubtedly been a great improvement in teaching in what may be described as the "prescribed-curriculum-colleges" and in the secondary schools in the last twenty years, and the difference between the two kinds of teaching are probably not so great now as they were then.

At Harvard College at that time there was a great difference between the spirit of the teaching and results accomplished in prescribed and in elective courses. The teachers of the freshman year appeared to know about as much of their subjects and to take about as much interest in their work as the teachers in the earlier fitting school. The college teaching was certainly less effective than the school teaching; but this was no doubt due for the most part to the peculiar difficulties besetting the college teachers and not to the teachers themselves. School methods applied to the solution of college problems produced disheartening results. In the sophomore year the two systems were brought into sharp contrast, as in that year courses on the same subject were pursued side by side, and, as a matter of fact, under the same teacher. The prescribed course was the most unprofitable expenditure of time while in college. The elective study, on the other hand, aroused an interest which altered the whole course of one student's life. In the one study the instructor listened with a bored look to the recital of a text-book; in the elective course he stated the results of his own researches; he required large amounts of reading in very hard books; and he gave out small jobs in research. In one case

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the time devoted to the study was wholly wasted; in the other case the discovery was made (of considerable importance to a young man) that there was at least one branch of learning worthy of further investigation. The elective system is certainly of great benefit to teachers, and leads to improvement in the mode of teaching, both of which things must inure greatly to the advantage of the students, and, therefore, to the cause of sound learning in our country as a whole.

Another benefit resulting from the adoption of the elective system has been the change for the better which has come over the relations of the teacher and his student, bringing about a marvelous improvement in the atmosphere of the class-room. Under the prescribed system a student is with a particular instructor in a particular study because the regulations place him there. Under the elective system a student places himself under the guidance of a particular teacher in this or that study. He elects a certain study either because the subject matter interests him or because the teacher is a man of reputation. Some persons seem to think, that, under these circumstances, an instructor will be tempted to let down the bars to attract men from other subjects and to increase the number of students in his own particular field. But this does not appear to be the case at all. On the other hand, an instructor soon learns that the best way to build up his course is to make it hard (not unreasonably so, of course); to make the students feel that they are really learning something. The teacher in an elective study demands far more than the teacher in the same subject demanded in the days of prescription. In those old days it was unfair to exact of the unwilling and uninterested student the same amount of time and application that one feels justified in demanding of those who come voluntarily to him to study in their chosen field. He can also insist on more courteous behavior on the part of every one of his students, and can request—nay, insist—that any student who is not willing to do the work demanded and to act as a gentleman should take the first opportunity to seek some other study and instructor. At the present time the elective system is apparently understood to apply only to subjects. It might well be extended to include a choice between several instructors in the same fields. The resulting competition, judging from the past, would be sure to bring about a still further improvement in these regards.

The idea that any considerable body of students elect easy courses because they are easy, is not borne out by experience. Of course, there are shirks even in a great university as there are in a "prescribed-curriculum-college;" but the proportion is very small. Nearly every man seems to find something that appeals to him sooner or later, and having found such an opening the shirk often becomes a most energetic student. Many of the easiest courses at Harvard are among the smallest; and, on the other hand, two of three of the largest elective courses are regarded as distinctly hard courses. The students take these two courses because they deal with two most important and interesting subjects (always provided for in a prescribed curriculum), because they are conducted on most energetic lines, and because they are the gates leading to other courses in the same fields. On the other hand, among the half-dozen largest courses are two of the reputed "snaps." But are these courses large because they are easy, or is there not some other way to account for their size? They are given by two men who stand at the head of their respective professions; two men of national—nay, international—reputations; of great force of character and power to stimulate young men. One instructor, at least, advises every young man who honors him by seeking his advice to listen to these two lecturers while at the university. In short, there is little or no evidence to show that students select courses because they are easy; there is an abundance of evidence to prove that they select courses which seem to be best adapted for compassing some particular end in life.

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It is a common error to suppose that an elective system means the offering to a student a large list of courses, some three hundred or so, and telling him to take his choice. Some persons have even supposed that the making the freshman year elective meant the placing within the freshman's reach the whole resources of the university. Now, the elective system means simply, that, of the courses offered, a student will be admitted to such as he is competent to pursue. Not even the "third-year graduate"—the most considered student in the institution—can elect any study he sees fit. He must first prove his competence. The number of possible electives is therefore not three hundred nor one hundred for any ordinary student. The freshman is further restricted to a list of courses printed in the regulations. This list comprises courses in the subjects usually pursued in the freshman and sophomore years in an ordinary curriculum college, with a few additions, such as a course in Italian or in design. The tendency at the present time is to enlarge this list, and there would seem to be no good reason why a freshman should be debarred from electing any study which he is competent to pursue simply because he is a newcomer to the college. It is desirable that he should not specialize so early in his college career, and hence he is properly forbidden to take more than two courses in any one department of study. He is also obliged to secure the approval of his adviser before his list of studies will be accepted by the proper officer. In the president's report for 1884-85 the choices of two college classes for the last three years of their courses are printed at length (the freshman year was not then elective). A study of that table convinces one that the students, with rare exceptions, exercise care and intelligence in laying out plans of study, and that in forming these plans they have almost invariably some definite purpose in view. Three years of experience as a freshman adviser confirms this view. The adviser is seldom obliged to interfere, except in a friendly way to point out how the purpose a student has in mind can be best accomplished.

The gravest objection to the establishment of the elective system is the great increase of expenditure it necessarily involves. Many more instructors are necessary, some of whom will teach very few students. A complicated and extensive plant is required, much of which can be of service to a very small number of persons. These are very grave objections to its introduction in a small college, too often starving under an insufficient endowment. Probably the interests of American education are best served by confining the elective system to the larger and wealthier institutions, like Harvard, Chicago, and Columbia. Let the real reason be given, however,—frankly and freely given,—and not concealed under a false gloss of "soft snaps," "absurd choices," and the like.

DR. KING, Cornell College, Iowa.—First, What system of advice have you at Harvard? Second, How do you assign students? Third, Has the result of the system shown that the students under the adviser's care trend to the adviser's department?

PROFESSOR CHANNING.—The freshmen are assigned alphabetically to the members of a large committee, composed mainly of instructors in the freshman courses —about twenty students to an instructor. There is no reason to suppose that the students under an adviser's care trend to the adviser's department.

DR. RUSSELL.—For what reason is this freedom given so early in the course?

PROFESSOR CHANNING.—Because it is better for the students.

DR. HINSDALE.—What is the nature of the work freshmen are required or permitted to take in Harvard? Is there as much difference, then, between Harvard and Yale as at first thought would appear?

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PROFESSOR CHANNING.—The freshmen, as a body, pursue about the same studies that were prescribed for the freshman and sophomores twenty years ago. These studies are probably not unlike—so far as the subject-matter is concerned—the prescribed work of the freshman and sophomore years at Yale. Probably the principal difference would be found, not in the subject-matter studied but in the methods of study and the use made by the students of their opportunities, as library facilities, laboratories, etc.

PROF. W. R. ROTHWELL, William Jewell College, Missouri, expressed himself as greatly gratified that the paper read historically developed the fact, that we are, in the United States of America, by a growth springing out of the needs and means of our people, forming genuine universities. As in Germany in 500 years there had developed the German university, and as in England in like manner had arisen the English university, so in 250 years in America, since the founding of Harvard, and Yale, and Princeton, and Brown, we are historically developing the American university. And as the German university is a growth in Germany and is best suited to Germany, and as the English university is a growth in England and meets English wants and character, so the American university is a growth from our colonial days, has developed with our great country, and we have and are to have in yet higher perfection the American university. It will best suit the American people who are forging to the very front of the Christian civilization of the nations of the world. The unprecedented growth of the wealth of this country will supply the means of providing the best possible facilities for university education. Such gifts as founded Leland Stanford University and the University of Chicago are peculiarly American.

PRESIDENT RICHARD H. JESSE, University of Missouri.—The elective system was established in 1825 by Jefferson. Jefferson was the greatest pedagogical thinker of his century. If he had not been a politician he would have a much higher place in higher education.

DR. A. B. HYDE, of the University of Denver.—The teacher is far more competent to decide than any student what should be his course of study. The line of collegiate study has for centuries been the result of care and experience on the part of "lords of the human mind," and is effective as preparatory for all special attainments, and so it still remains. Therefore, electives must be carefully kept to the closest limit, and discipline be chiefly gained by studies which teachers must not hesitate to prescribe.

STANDARD OF ADMISSION TO PROFESSIONAL SCHOOLS.

BY J. N. HALL, M. D., SECRETARY COLORADO STATE BOARD MEDICAL EXAMINERS, DENVER, COLO.

My experience in the study and practice of medicine, in teaching medicine, and in six years of work in the examination of candidates for license to practice medicine in Colorado, has led me to study closely the standards of admission in various medical schools, and also, in a more general way, the matter of the best preliminary education for professional study. With characteristic haste, we early de-

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parted in this country from the older method of granting the professional degree only after the attainment of a bachelor's degree in arts, not only in medical but in other professional schools. Since the taking of this step many modifying circumstances have arisen, so that the whole matter is upon a very different footing from that of two or three generations ago.

In the first place, the collegiate course has gradually been added to until now the degree of A. B. is not attained before the average age of twenty-two years in our best colleges. The schools of law, theology, and medicine now require three or four years of study, instead of two, as formerly. In my own profession, the crying need for practical clinical work after graduation leads many of the best men to take a year or two in a hospital as interne. If thereafter he goes abroad for a year, as is getting to be very common, the physician's age is brought up to nearly thirty years before he is really prepared to earn his own living. With the growing competition in the work, it is likely to be several years yet before he is fairly upon his feet, financially speaking.

Two grave objections exist to this condition of things. The physician comes to his work only after so expensive a training that he is burdened with debt if responsible for his own education; and, more serious still, he has lost some of his best years so far as the practice of his profession is concerned, during which he should have been coming into closer contact with those amongst whom he must earn his living. There is certainly danger of educating one away from his work, so that, although better fitted professionally to treat the sick, the physician is less thoroughly adapted to—and, worse yet, less adaptable to—the work before him. One should come to his life-work before age has so fixed him that he cannot readily adapt himself to the different conditions which prevail in private practice as compared with school and hospital experience.

This leads us directly to the study of the standards of admission for professional study. To our disgrace, it must be said, that, up to about twenty-five years ago, there were practically no such standards, and they are still lamentably low. Evidence upon these points is too abundant. In registering somewhat more than one thousand physicians in Colorado, I have seen scores of affidavits presented, setting forth that the affiants had received the degree of doctor of medicine from some medical college spelled with two "d's" in the word "medical," or an extra one in the word "college." We have rejected upon examination many of those holding the degree mentioned, but from schools so low in their requirements as to fail to be "recognized" by the board, whose papers, so far as the proper use of the English lan-

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guage is concerned, would absolutely bar them from admission to the ordinary high school.

The place to prevent the study of medicine, or other professional study, by such students, is at the very beginning of the work. An efficient preliminary examination would have prevented them from having wasted years in a vain attempt to master the deeper sciences before acquiring a mastery of the rudimentary branches.

Much improvement has been made in these matters within a few years past, partly because the American Association of Medical Colleges has raised the standard of admission, and partly because by the concerted action of the various state licensing boards, led on by the Illinois State Board of Health, steps were taken to refuse recognition to the medical graduates of any school not requiring a proper preliminary examination. If sufficient power could only be granted to the authorities mentioned, the matter would be easily settled.

But the standard is still too low, and, from the best information that I can obtain, I judge that it is no higher in the other professional schools, if the average be taken. The real secret of the matter lies in the fact that many of the schools in question depend largely for their existence upon the fees received from students, and, unfortunately, teachers are apt to look with great leniency upon any shortcomings as to preliminary education in applicants who are able to pay lecture fees. Johns Hopkins University, with a boldness born of large endowments as much as of high aims, requires the equivalent of the B. A. degree for entrance to her medical school. To the best of our knowledge, few other schools require more than the equivalent of the ordinary high school diploma, and more than ninety per cent of the American medical colleges require much less than this; and, as a whole, the condition regarding the schools of law and theology is but little better.

As regards the holding of the bachelor's degree as a prerequisite for admission to professional study, it should be understood upon the threshold, that, if any great proportion of those studying medicine are to meet such a requirement, it can be only by such a shortening of the course for the bachelor's degree as shall enable students to enter upon medical study at nineteen or twenty years of age. The constant falling off in the proportion of college-bred men in the medical department of Harvard University during the past dozen years teaches us that this must be so, if we would attract these desirable candidates to our ranks.

The time has certainly gone by, in my opinion, when we can reasonably ask of candidates for professional courses many years' study of Latin and Greek. Before the present development of science there were fewer studies demanding the student's attention, and these

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branches undoubtedly filled an important place in education, as did the higher mathematics. Not that, in any way, these things are objectionable now, but it is obvious that they cannot all be required without making the start in the business of life too late; and, to most of us, this is most important.

Concerning all mathematics beyond the ordinary college course in trigonometry, if we except something in the way of astronomy, we may speak as we have of advanced Latin and Greek, for, however valuable they may be, there is not time for them in this age.

The plan suggested some years since, by the faculty of Harvard Medical School, of granting the degrees of A. B. and M. D. after a combined course lasting seven years, thus saving a year to the student, is, I think, a good one, but not sufficiently radical. Even this modification met with no support from the university authorities.

My own suggestion would be, that, for medical study at least, the preparatory course, regardless of the degree to which it may lead, should contain not over two years' study of either Latin or Greek, and no mathematics beyond the point indicated. A portion of the time saved could be much better spent in the acquisition of a speaking knowledge of German and French, which are of infinitely more importance to the physician than the studies indicated, and, I think, equally valuable as elements of proper training. Natural sciences, and especially general chemistry, which will soon be required for entrance to the better medical schools, will also need attention beyond the point reached at present.

Such a course as indicated, which would furnish a really liberal training, whether it led to the degree of A. B., S. B., or otherwise, might be finished by the age of nineteen years, and would, I believe, meet the present requirements better than anything we have. As it is now, many students, discouraged at the time taken to obtain the college degree, leave after one or two years of study to enter the medical schools. The plan proposed is meant to be a step toward leading these men to complete their college work by offering a course equally valuable for professional study, which may be taken without the sacrifice of time incident to the present arrangement. Whatever the advantages of the latter, we cannot afford to assume a position which drives many of the best college-men from our ranks, because of the time consumed in getting ready for the work of a lifetime.

I have the honor of being a member of the American Academy of Medicine, the prime object of which was, at the time of its foundation, to encourage the taking of the degree in arts or its equivalent before entering upon the study of medicine. I do not wish to appear in the light of attempting to oppose such an end, for I am heartily in sympathy with it. I wish, rather, to try to indicate what steps we must

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take, in my poor judgment, to avoid driving from our medical schools, and hence from our profession, many excellent men who cannot afford to study medicine as things are at present arranged, and who would, provided they did take up the study, come too late to their life work to make the best practitioners of the healing art. It is to be understood that we wish to train scientists, but that the thing of first importance in our labor is, that we shall so train them that they shall be able to work in harmony with their surroundings, to the attainment of the greatest good for the community, and not to the end that they shall be able to accumulate the greatest amount of abstract knowledge.

THE RELATION OF A COLLEGE COURSE TO THE PROFESSIONAL SCHOOLS.

BY T. R. BACON, UNIVERSITY OF CALIFORNIA.

The subject of which I have undertaken to speak is one of the most perplexing problems which is now vexing those who have the interests of the higher education at heart. It is so complicated that I can hardly hope to do more than state it, and perhaps state one or two more principles which must govern its solution without undertaking their complete application. It may be said that the problem involves the whole theory of education; certainly in that phase of the theory which is just now engrossing attention, viz., the relations of liberal culture and specialization.

In order to understand fully the present conditions, it is necessary to recall some facts in the history of the higher education in America, the purpose for which our earliest colleges were founded, and how the first professional schools came to be. Without such knowledge in mind, it is impossible for us to apprehend the terms of the problem.

Our first colleges were founded for purposes of liberal culture; not for technical or professional education. While the orginators of Harvard and Yale had especially in mind the provision of an educated ministry, the curriculum was not molded with special reference to theological training, but rather with a view to such learning as would produce cultivated men, who might subsequently build up their professional training upon the broad basis afforded by the college course. The aim was to produce cultivated men without reference to their subsequent pursuits. On this principle the curriculum

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was constructed. It consisted in the main of the ancient languages, mathematics, dialectics, and so much theology as was then considered an essential part of the education of a gentleman. When we consider the aim and the conditions of time and place, no one can think that the curriculum was ill-conceived.

The student, having graduated in the arts, then set himself to the study of his profession. Whether he chose theology, medicine, or law, the obvious, and, in fact, the only feasible, plan was to put himself under the tuition of some successful practitioner of the profession. A man who was distinguished both for his professional eminence and for his skill as a teacher would gather around him a little group of students, which really constituted a professional school. Such was the theological school that grew up at Bethlehem, Conn., whose pupils sat at the feet of Joseph Bellamy; such was the famous law school at Litchfield, opened in the latter part of the eighteenth century by Judge Tapping Reeve, and carried down well into the nineteenth by Judge James Gould. Such schools, of a more or less formal character, dotted the hills and valleys of New England at different times for parts of two centuries. Commonly they grew with the fame and power of a single teacher, declined with his declining years, and died with his death. The school at Litchfield was an accidental exception as regards permanence. What was thus true of New England—the cradle of American education—was true in varying degrees elsewhere, the variation being in a ratio to the general interest in education.

As these earliest professional schools were purely private, the terms of admission varied with the judgment or whim of the instructor. It was universally admitted that a college course constituted a proper basis for professional studies, but there was no power which could possibly restrain any man from receiving pupils who had not this qualification. The judgment of the instructor was the sole power which could determine the fitness of an applicant for professional instruction. If the applicant could not satisfy the instructor as to his fitness, it was easy for him to find another who was not so squeamish. The preliminary college course was rarely dispensed with in theology, somewhat oftener in law, very commonly in medicine. But whatever might be the practice, the theory was held with tenacity, that the proper training for a professional man was four years of humanistic study in college and a technical training of such length as circumstances might favor or require.

The rise of the professional schools from such beginnings was natural and easy, as was also their establishing of organic relations with the colleges. From an ephemeral school with a single instructor the transition was inevitable to a school in which two or more should

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associate themselves to divide the work and the profits; and in this increase of the teaching force the principle of permanence was almost necessarily involved, as it was unlikely that the whole faculty would die on the same day. It was inevitable, also, that such schools should gravitate toward the colleges, and at last enter into close relation with them. This is what happened. Some of the professional schools which are a part of our older universities were originally started as more or less private enterprises, and were adopted by the institution on whose doorstep they were left by their parents. Others were organized in connection with the college. In either case, they carried over into this new relation the old characteristics, and in many of the professional schools of our own time we may trace some of the faults of their remote ancestors. For a long time after the professional schools were brought into these new relations, the requirements for admission were almost as vague as in the old days of the independent instructor. Indeed, the policy was commonly adopted of admitting any person who showed a pious desire, and allowing him to take his chances of profiting by such instruction as was given. It is only of late years that we have begun to see a considerable degree of strictness in the requirements for admission, and the steady tendency is toward a high standard in this regard. As we glance over the catalogues of some of our Eastern universities we find that some of the professional schools (a very few) require a college course, or its equivalent, as a condition of entrance. Such are the Harvard Divinity School and the Johns Hopkins Medical School. Others require a high school course or its equivalent, and others are satisfied with a preparation requiring much less time. It is but right to say, however, that these last-mentioned stand frankly upon the principle that it is well to take anyone who comes, and let him make good his position, if he can.

A good deal might be said for this principle were the means of ascertaining the pupil's progress in the school at all adequate. Unfortunately another inheritance of the professional schools from their forebears was an almost total lack of examinations worthy of the name. When professional students were private pupils, living under the eye, and often in the household, of their instructors, formal examinations were entirely unnecessary. When formal examinations were introduced with the full-fledged professional school, all the emphasis was laid upon the formality and none upon the examination. The older ones among us can remember the time when examinations in a professional school were regarded as a farce. This is a condition of things which is rapidly passing away. In our best professional schools, especially those which are attached to the leading universities, the examinations are of great and ever-growing strictness. It

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must be confessed, however, that there are some schools which seem still to have for their aim the graduation of pupils without any special reference to abilities or acquirements.

Another characteristic which was essential to the old private schools, and which in large measure passed over into their successors, was their dependence upon the reputation and power of a single individual. When I first remember, the Yale Law School depended for its reputation and success upon the teaching of Governor Dutton, and the Yale Divinity School upon the teaching of Dr. N. W. Taylor. With the passing away of the two men, the two schools collapsed, and had to be slowly and painfully reconstructed upon other lines, so that they should not owe their value and prosperity to the life of an individual. One of the most conspicuous, and one of the latest, illustrations of this characteristic is found in the history of the Columbia Law School under the regime of Theodore Dwight. The school was conducted practically as a private enterprise, although nominally a department of Columbia College. The extraordinary powers of Professor Dwight made it the leading law school of the country, but he was really all there was of it. There might be other professors, but his attractive powers and rare gifts as a teacher made it what it was. His retirement shortly before his death and the assumption of real control by Columbia mark, as exactly as any one event can mark, the end of an old order and the beginning of a new one in the professional schools of the United States.

The pertinence of the present discussion is due to changed conditions in the educational system of the country, and to certain propositions which have been put forth by prominent educators in view of these changed conditions. What the changes are in reference to the professional schools themselves has perhaps been sufficiently indicated already. These schools have become, or are becoming, more strict in their requirements for entrance and for graduation. Moreover, they are organized like any other schools, without reference to the peculiar gifts of any individual instructor and without depending upon the life or death of any one man.

The changes in college education have been even more important. The raising of the standards has had the result, that now a student at the end of his sophomore year in college has had as much general culture in school and college as had the graduate of fifty years ago. Probably he has had more. His age has correspondingly increased. He used to graduate at eighteen or twenty; now he graduates at twenty-two or twenty-four. The great increase of human knowledge, especially in the natural and social sciences, and the discovery that the modern languages and literatures, as well as the ancient ones, are worthy of attention, have so enlarged the possible scope of liberal

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culture as to force upon the colleges—even upon the most conservative ones—the allowance of some choice of studies to the undergraduate student. In the exercise of this option the student who has already decided upon a profession is pretty sure to choose those which have some direct bearing upon his future career, and such he will easily find among the undergraduate courses offered by his college. There are many such courses which in themselves are liberal studies if pursued for their own sake, and which may become technical studies if pursued with reference to the student's chosen vocation.

These changed circumstances have brought forth certain suggestions, some of which have been put into operation. Although these suggestions are different in form, they are the same in essence. They all look to the shortening of the preparatory work of the professional man. The simplest form of suggestion is, that studies taken as undergraduate work, which have direct bearing on the profession, should be accepted by the professional school as fulfilling part of the requirements of its curriculum. For instance, if the student who intends to study law should devote a large part of the last two years of his college course to such subjects as constitutional history, Roman law and jurisprudence, he should be given credit in the law school for one year's work, thus reducing his time in the law school from three to two years. In the same way, a student who has spent a good deal of his time in college in studying biology, zoology, chemistry, botany, and physiology should be permitted to finish his medical studies in less time than one who has had no such scientific preparation. I do not know that any such suggestion has been made concerning undergraduate studies which may bear on a theological course, but they are equally pertinent. A year or two devoted to such subjects as Semitic philology, philosophy, Hellenistic Greek, and comparative religion, will certainly give the student in a theological seminary an immeasurable advantage over his classmates. Why should not that advantage be recognized officially? Not only have such suggestions as these been made, but in some cases they have been reduced to practice. There are universities where work done in the undergraduate courses is recognized and accredited in the professional schools. President Eliot's famous and much misunderstood proposition to reduce the college course from four to three years, in some cases, was really a proposition to reduce the whole university course of the professional man from seven or eight years to six or seven years. Recently a very distinguished educator, who is president of a large university, has advocated the plan of bringing the whole professional training of the lawyer inside of the academic curriculum. This proposition differs in degree, but not in kind, from the others.

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These suggestions are all supported by a single argument. There are other subsidiary reasons brought forward in support or justification, but the main one is, that the time occupied in preparation for professional life is too long—far longer than it used to be, and longer than it ought to be in consideration of the normal length of human life. At nineteen, or later, a young man enters college; at twenty-three he takes his first degree; at twenty-six or twenty-seven he takes his professional degree. If he thinks best, as many do, to spend a year or two more in further professional study, he is nearly thirty before he can so much as begin to wait for business in his chosen work. In view of these considerations, suggestions have been made which, if put in practice, would result in reducing the length of this preparation one, two, or even three years.

It is certain that this argument is one of very great weight from the point of view of the individual student. He is anxious to get on, and get to work in the business of his profession. There are many reasons for this anxiety, not the least of which is the pecuniary one. Every pitiful soul must feel sympathy for this hurrying zeal of the youth who is strenuous to begin his work, but every pitiful soul ought also to abstract itself from individual considerations and feel some sympathy for a suffering world. There are a great many young men, many of great worth, who are earnest to be up and doing just as soon as possible in the ranks of the learned professions. But it must be borne in mind that there is no corresponding yearning on the part of the world for any more preachers, or lawyers, or doctors of the same average ability and worth as those it has at present. It seems to be aware that there are enough half-baked professional men already,—possibly, more than enough,—and does not desire that the supply should be increased by inventing short cuts into these callings. Especially is it to be deprecated that men should come into these callings with all the prestige of university training, but less perfectly prepared than they are now. The world does need some better trained men in all the professions; it also needs fewer pettifoggers, and quacks, and mountebanks. To this end, it is desirable to make the approaches to professional life harder rather than easier. The whole series of suggestions has its rise partly in a weak and mistaken compassion for the desires of the individual student for whose sake it is proposed to sacrifice the welfare of the world; partly to a sad confusion of many eminent minds which leads them to desire to adapt to the uses of American universities certain incongruous features of European education. I mean that these suggestions are nonsensical, and that so far as they have been put in practice they are a step in the wrong direction.

It may be asked whether a student should not devote much of his time in college to studies in the general line of his life-work? My

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answer would be a very emphatic "Yes," provided such studies be general rather than narrowly technical in their character. Such studies will be at once liberalizing and professionally useful. A student has ordinarily a far better opportunity of mastering the philosophy and history of law in college than he can have in the law school. The professional course has to be occupied mainly with technique. Such undergraduate study is none the less valuable because it is only indirectly available in the practice of law. It is rather the more valuable. So it is with many studies which lead up to professional courses in theology and medicine. Here is enough to do in these years of college life, and this will make better men and better lawyers, doctors, and ministers.

The whole system of American education, from the primary school to the highest development of university training, is a growth out of the soil, and a growth of a very healthful and beneficent character. Yet a great many persons are continually quarreling with it because it is not something else than what it is. Especially because our universities are not German universities are they the objects of much carping on the part of a certain kind of critics. Such criticism would not be worthy of notice did it not often come from men of great weight and ability. The proposition to pluck down the growth of centuries, which has bent to every need of our peculiar national conditions and has in turn influenced our civilization continually toward better things, and to put in its place a structure imported from beyond the seas which has done the like for an alien race, is so strange that no weight of distinguished names can make it seem sane. Yet beneath these suggestions of a change in the relations between the college and the professional school there is, I am sure, just such intention. It is not advanced as an argument, but it is present as a cause. Because professional education is acquired in one way in Germany, it should be acquired in the same way here, however different our circumstances and antecedents! Such feeling is quite without justification. We should always be docile to learn good things from any quarter (and Germany especially has much to teach us in educational matters); we should never seek to alter the essential nature of institutions which have sprung from the needs and character of the people.

I may be criticised for treating my subject narrowly, in that I have taken into account none but what used to be called the three liberal professions; but time fails me to speak of others, and especially of those which have arisen from the application of natural sciences to human affairs. Moreover, I have understood that the subject was not intended by those who selected it to have larger scope than I have given to it.

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DEPARTMENT OF NORMAL SCHOOLS.

SECRETARY'S MINUTES.

FIRST DAY.—WEDNESDAY, JULY 10TH, 3. P. M.

The Department of Normal Schools held its first session in the West Denver High School building, with President James M. Green, Trenton, N. J., in the chair.

In the absence of the Secretary, Mr. C. C. Van Liew, Normal, Ill., James H. Hays, Vice President Colorado State Normal, Greeley, Colo., was chosen Secretary *pro tem*.

On assuming the chair President Green made interesting and valuable remarks on the increase of normal schools, and brief suggestions as to some of the real problems of these schools.

"Psychology in Normal Schools" was discussed by Dr. Z. X. Snyder, President Colorado State Normal, Greeley, Colo.

The discussion of the same subject was continued by Prof. M. V. O'Shea, State Normal, Mankato, Minn.

"The Real Province of Method" was then discussed by Prof. Howard Sandison, State Normal, Terre Haute, Ind.

In the absence of President James M. Milne, State Normal, Oneonta, N. Y., on motion, his paper, continuing the same discussion, was ordered to be printed as a part of these proceedings.

The following committee on nomination of officers of the department for the ensuing year was announced by the chair:

Dr. W. N. Barringer, Newark, N. J.; President Edward T. Pierce, Los Angeles, Cal.; President H. H. Seerley, Cedar Falls, Iowa.

The general discussion of the several papers then ensued, the following persons taking part: President Cook of Illinois; President Snyder of Colorado; President Norton of Nebraska; President A. R. Taylor of Kansas; Dr. Barringer of New Jersey; Professor Shoemaker of Minnesota; Miss Sutherland of Columbus, Ohio; Mrs. Sudborough of Omaha, Neb.; Vice President Kleeberger of San Jose, Cal.

On motion, the department adjourned to meet Friday, July 12th, at 2:30 p. m., in the Principal's room of the East Denver High School.

SECOND DAY.—FRIDAY, JULY 12, 1895.

The department met pursuant to adjournment, President Green in the chair.

The first subject of the session, "Organization of Training Schools and Practice Teaching," was discussed by Miss Kate D. Stout, State Normal School, Trenton, N. J., and Prof. J. N. Wilkinson, State Normal, Emporia, Kan.

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At the suggestion of President A. R. Taylor, Emporia, Kan., the general discussion of these papers was postponed until after the reading of the remaining papers.

"Concentration or Co-ordination of Studies in the Normal School" was taken up by State Supt. N. C. Schaeffer, Harrisburg, Pa.

President John W. Cook, State Normal University, Normal, Ill., read a paper on the same subject.

At the close of Dr. Cook's paper a general discussion was begun.

Prof. Louis H. Galbreath, Winona, Minn.; Dr. A. R. Taylor, Emporia, Kan., and Professor Kleeberger, San Jose, Cal., asked questions of Dr. Cook.

Dr. Cook replied to each at length.

Dr. Z. X. Snyder, Greeley, Colo., thought that no two persons entertained the same idea of the term "concentration" as applied to psychology.

Dr. Cook could not agree. He thought that Dr. Snyder's different definitions were simply different applications of the term.

Dr. Schaeffer continued the discussion.

The order of business was next taken up.

Dr. Z. X. Snyder, Greeley, Colo., offered the following resolution, which was adopted:

Whereas, We deem it necessary for the development and the efficiency of the Normal Department,

Resolved, That a committee of five be appointed by the President to meet during the year and formulate a report, to be presented at the next meeting, upon such educational topics as directly concern the department.

In pursuance of the resolution, the following committee was announced:

Dr. Z. X. Snyder, Colorado; President E. T. Pierce, California; President H. H. Seerley, Iowa; Hon. N. C. Schaeffer, Pennsylvania; Miss Lillie A. Williams, New Jersey.

Chairman Seerley of the nominating committee made the following report of officers for the ensuing year:

For *President*—John W. Cook of Illinois.
For *Vice President*—Geo. R. Kleeberger of California.
For *Secretary*—A. G. Boyden of Massachusetts.

On motion, the report was unanimously received, and the Secretary was instructed to cast the ballot of the department for the officers nominated.

Dr. Snyder presented the President-elect.

After brief remarks, President Cook assumed the chair.

On motion, the department adjourned.

JAMES H. HAYS,
Secretary pro tem.

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PAPERS AND DISCUSSIONS.

PSYCHOLOGY IN NORMAL SCHOOLS.

BY Z. X. SNYDER, GREELEY, COLO.

HISTORY.

In all times there have been teachers who have, consciously or unconsciously, based their work upon some notion of mind and its relation to the external world or the future, or both. It mattered not the end in view—if it were knowledge by which to make a living; if gaining intellectual power by which to overcome his competitors in mental combat; or if attaining a culture which should result in the highest happiness for himself and others—there was always some no tion of the relation of the mind to these ends implied.

Socrates' method of teaching was based upon the innateness of ideas. The teacher's function was to call them into consciousness by questioning. His was the metaphysical doctrine of maieutics. He did not know how near he was to the modern doctrine of apperception. Through the power and influence of the knowledge possessed by the learner and its operation upon what was being learned, he lost sight of the latter and declared that everything is already in the mind. In the Socratic doctrine of the innateness of ideas is found the root of the idealistic philosophy. Many writers have drawn inspiration from him and have enlarged upon this conception. Bacon's method, called the inductive, was based upon the senses. In the Baconian doctrine of empiricism is found the root of the realistic philosophy. Many are they who have become his followers. Out of this doctrine has grown most of our progress in elementary education, through Ratich, Pestalozzi, Comenius, and Frœbel. Darwin's method (the scientific) was based upon experiment, observation, and induction. His doctrine of evolution, based upon natural selection, has changed the method of thought in all departments of learning. In the Darwinian doctrine of natural selection is found a solution for many problems that previous to its recognition remained unsolved.

To many these doctrines have been vague; by many abused; by many thought and rethought. They have been refined and defined. They have been subject to the crucible of investigation for years and ages; and as chemistry has grown out of alchemy, astronomy out of astrology, medicine out of hocus-pocus, law out of mythology, civili-

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zation out of savagery, so has modern psychology grown, and is growing, out of metaphysics and the various philosophies that have existed from the earliest times to the present. There may yet remain traces of alchemy in chemistry, astrology in astronomy, hocus-pocus in medicine, myth in law, savagery in civilization, and philosophy, metaphysics, and nonsense in psychology.

It seems that every department of learning, in its evolution, has passed or is passing through the three stages—myth, philosophy, and science. Psychology may be said to have passed the first, is passing through the second, and has in some respects entered the third.

A scientific psychology cannot be had until it has largely entered the third stage; and until there is a scientific psychology there cannot be a scientific pedagogy. Scientific agriculture is based upon the science of chemistry. It is the application of certain chemical principles found true by experiment. The practice of surgery is based upon a scientific knowledge of anatomy; the science of medicine on that of physiology, both normal and abnormal. Mechanics is based upon physics. It is the scientific application of certain physical principles found true by experiment and observation. So the science and art of teaching—scientific pedagogy—must be based upon scientific psychology.

The normal school, of all institutions, should stand for a scientific pedagogy. To stand for such it must stand for a scientific psychology. The purport of what follows in this discussion will be, largely, what is meant by a scientific psychology and its relation to the teacher, especially the public school teacher.

A teacher should have a knowledge of, and an insight into, the triple nature of the child as a living, mental, and spiritual reality, that he may work intelligently and efficiently in his profound mission. He should have a knowledge and a keen sense of the interdependence of body, mind, and spirit—the body as a phenomenon of life; mind as a phenomenon of body and spirit, manifested entirely through the body; and spirit as a part of God, the intelligent and personal Ruler of the Universe. This requires a pedagogy founded in—

1. A knowledge of the body, its systems, its organs, their functions, and the laws which regulate physical growth and development, nervous and muscular action, and their relation to mental processes.

2. A knowledge of mind, its nature, its functions, the laws which regulate mental growth, development, and culture, and the relation of the conscious process to the nervous process and to movements.

3. A knowledge of the spiritual nature, its relation to body and mind, and of the laws which regulate spiritual growth and development.

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4. A knowledge of the dependence of all these natures, their relations to externalities,—earth and man,—and their consummate blending and uniting in adjusting the individual to his surroundings, and their united effort to interpret the universe.

A scientific pedagogy must contain some such conception. Such a conception cannot grow out of or be founded in the speculative or rational psychology alone. It must come out of a scientific investigation and interpretation of human life, as made up, on the one side, of body, mind, spirit, and, on the other, of externality, with all its manifestations of force as comprehended in earth and man.

Rational psychology has had its place in the development of psychological study, and still has a place. It has been descriptive rather than investigative. In its richest form it gives a view of mental phenomena only from one standpoint—the introspective. Because of its insufficiency to give a broad and scientific view of mental life, it is making room in a large measure for other methods—the genetic, the physiological, the observational, the experimental, and the comparative. In the investigation of a psychological problem, it may be that no one of these methods can be relied upon alone, but all of them may be necessary.

In illustrating the meaning and use of these different methods the scope of work that a normal school should do will be developed.

I.—GENETIC PSYCHOLOGY.

That a biologist may understand the history and development of an organism, he must understand the doctrine of organic evolution, and *vice versa*. The relation of the individual to the species is so close that it requires a knowledge of both to understand either. That a psychologist may understand the development of a human being,—physical, mental, and spiritual,—he must understand the development of the race in the same directions. If this statement be construed to mean the primary evolution of mind, it would involve a study of genetic psychology—the evolution of the individual and the race mind. If it means the unfolding of a mind *in potentia*,— that is, where all the internal conditions are present for the making of a mind (present by heredity), this mind to correspond to the great race mind as revealed in history and literature,—it involves a study of child and race psychology.

II.—CHILD PSYCHOLOGY.

The study of child psychology is the study of a natural science. It is based upon experiment and observation. Psychology is indebted to science for this innovation. Note, however, that, while data are gotten by experiment and observation, we use somewhat the compara-

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tive method to interpret them through our own mental phenomena gotten by introspection.

The child's body stands for life, for mind, for spirit. Whatever life is in him, whatever mind is in him, whatever spirit is in him, the body expresses them. The child is studied through his motor activities. Out of these come four species of movements—the impulsive, the reflexive, the instinctive, the ideative. These movements express what is going on in the organism, or in the organism and mind. They complete the circuit of physiological process.

Either the organism itself or some externality stimulates the nervous system, and it ends in movement affecting the organism or externality, or both. There is no line of psychological investigation that bids so fair to be fruitful to the teacher. Considerable importance is already being attached to the subject of child study. This importance is growing. Teachers on all hands are inquiring about it—what to do, how to do, what books will help them, etc.

A child study based on close observations of the activities reaches further, and wider, and deeper than the mere notion how to help his intellectual nature. It regards the child's physical growth, his health, his exercise, his life; the relation of these to his intellectual, moral, and spiritual growth and training. A power also attained by the teacher grows out of what we would call the psychological spirit. The result of a study of children does not always depend upon a definite amount of knowledge gained, but upon the spirit of investigation that becomes a part of the individual who is really in earnest in his work. Experience shows that the teacher who is an unconscious student of child-life; who knows intuitively the right thing to do at the right time; who does not formulate anything to guide her; who cannot tell you why she does the right thing—is the teacher who fashions the school spirit after the home spirit and whose heart is near the heart of the common people. This same spirit will follow more intelligently when the individual has made this work a part of himself.

The universal study of child-life will make the teacher a greater spiritual influence. She will become a greater leader and inspirer through sympathetic guidance. A great deal of aptitude in this world goes to waste for want of a little help or direction. It becomes the duty, then, of those who are preparing young people to go out to teach to lead and inspire them to have a pleasure in coming into close contact with the life of little children and in studying that life. It is imperative, then, upon the normal schools to recognize this phase of psychological study and prepare to make it an essential part of the course.

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III.—RACE PSYCHOLOGY.

That the race repeats itself in the individual is a fact accepted by biologists. This is an outgrowth of the doctrine of evolution. Psychologists having a biological turn use the same principle in regard to the human mind—that the race mind repeats itself in the individual mind. Out of this grows the pedagogical maxim, that there are in the unfolding of an individual human mind stages which correspond to historic epochs in the evolution of the race mind.

The race life or character is the expression of the race mind through its motor activities. The common stages of correspondence between the individual and the race are wonder, courage, hunting, barter, and reflection and sentiment. Literature pertaining to these historic race epochs seems necessary to the development of the corresponding epochs in the individual. This is a favorite notion of the Herbartians.

The race mind is the integration of the minds of the past working out according to the laws of racial development. In it are the mental elements common to the individual—thought, sentiment, choice, hope, faith, and love. These are embalmed in the history and literature of the ages. To know this race mind requires a study of race evolution as a natural as well as a civic organism, through its natural history and its history and literature. Because of the relation existing between the education of an individual and the development of the race, the study of race psychology should become a substantial part of the course in the scientific psychology of the normal schools.

IV.—PHYSIOLOGICAL PSYCHOLOGY.

The very close relation that exists between the nervous system on the one side and the muscular system on the other of the conscious process in every deliberative act, has led to the physiological method in the treatment of psychology, or to physiological psychology. The application of the principles of physics and physiology to the interpretation of psychical phenomena is scientific, whatever may be true of the doctrine of the parallelism of the nervous and conscious processes. It would seem that an individual born without a sense organ, special or general, would never have an idea. He would never have a movement. He would embody the possibilities only of a human life. He would be a veritable *persona incognita*. Hence, it would seem, that, at the very outset in the development of a human mind, an understanding of physical and physiological processes is necessary. Eliminate the cerebral portion of the nervous system and the individual would never have an idea. He would never have a deliberate movement. There would be only such movements as are organic necessities. It would seem that the upper brain is a necessary condition, at least, in the

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conscious processes. Here physical and physiological processes perform an indispensable part with consciousness.

Eliminate or subject to slight pressure the posterior part of the third frontal convolution of the left hemisphere and there is a loss of oral speech. Many other motor centers have been found until there is what is known as the localization of functions in the nervous matter. It means that definite areas of nervous matter control and regulate particular motor activities.

The only satisfactory and scientific explanation of the retention, association, and reproduction of ideas is given by physiological psychology.

Biology and physiology only are competent to explain the appearance of the race element in the development of the individual.

Only physiological psychology can explain that mental phenomena consist in adjusting the organism to its environments—these being physical, family, political, and religious. "In this," says Mercier, "the physiological function of the nervous system is to adjust the parts to one another; the psychological function is to adjust the organism as a whole to its environments. Physiology deals with movements; psychology, with acts. The co-ordination of movements to an end constitutes an act. The co-ordination of acts to an end constitutes conduct. The nervous system effects both of these co-ordinations." Running parallel to or with these nervous processes is consciousness.

The development of the motor activities from the central to the peripheral movements, from the development of a series of nervous centers in a like order, is one of the unique results of experimental and physiological psychology. Out of it has come some very wholesome pedagogical doctrine.

The psychological unit in the development of the motor activities is the nervous process; when transmitted to muscles it results in a movement accompanied by a mental state. This brings, according to Mercier, physiological psychology under three heads for treatment —nervous process, conduct, and consciousness.

The importance of a study of physiological psychology becomes apparent from the foregoing. It enables the teacher to know more of the organic and the mental life of his pupils and to treat them more rationally. It should become a part of the normal school course.

V.—EXPERIMENTAL PSYCHOLOGY.

While in child, race, and physiological psychology experiment is used more or less, there is a line of work that does not belong directly to either of them. It is a distinctly experimental work, aided by introspection, observation, and comparison. It is the experiments upon the students themselves by themselves and others. The application

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of experiment to the senses and to all the mental processes is a fruitful line of investigation. For this work, as well as for that falling under other methods, there should be a laboratory especially fitted up. This is not only coming,—it has come in a number of the progressive normal schools of this country.

From the foregoing it would appear that an individual to be properly prepared to start out as a teacher of children should have such a training in psychology as will make him familiar with child-life in the widest sense. It requires a working knowledge in child, race, physiological, and experimental psychology. Such a knowledge cannot to be gotten in the time usually devoted to the subject. Upon the part of normal school students it will require two years.

Scientific psychology is the Blackstone of scientific pedagogy. To make an intelligent, thoughtful, and practical teacher in this subject requires time. The mental maturity and discipline of the juniors and seniors of the normal schools are quite sufficient to comprehend and appreciate the subject through the new methods. If they cannot get hold of the subject by the methods of the new psychology, and its application of teaching, they cannot from the old.

To what extent the normal schools are up to the requirements set forth, we shall consider for a moment. Thirty of the leading normal schools of the United States devote, on an average, twenty-nine weeks to the subject. One devotes sixty weeks; one, fifty-three; one, forty-two; seven, forty; four, thirty; four, twenty-five; nine, twenty; one, twelve. Many of the normal schools that have not been taken into the reckoning devote from twelve to twenty-five weeks to the subject. No normal school student can get a working knowledge of the subject in the average time given to it. The time is too short, it matters not what the method may be. This is one of the reasons why the normal school does not have a higher professional standing. Here is where we want to commence to raise our standard.

Again, the method used by students and teachers has been, and is yet, largely a process of learning words and then thinking they know something about psychology. Out of these thirty schools eleven use an eclectic method. They use the rational, with a little of the physiological psychology. The time they give to the subject is insufficient. To read only about child, race, physiological, and experimental psychology is as profitless as reading the old. Seven of the thirty use the rational exclusively; three, the physiological almost entirely; nine, the rational supplemented by the physiological. Three out of the thirty have laboratories fitted up to do work in scientific psychology.

By a careful examination of the reports received from these thirty normal schools of the United States, and taking into consideration

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the time devoted to the subject, the method or system used, it is apparent that there is a large per cent that adhere to the old psychology and its accompanying methods.

The general conclusion drawn from this discussion is, that the normal schools of the country have not a high standard in the subject of psychology, neither from the standpoint of quantity nor quality.

PSYCHOLOGY FOR NORMAL SCHOOLS.

BY M. V. O'SHEA, MANKATO, MINN.

I.—AIM.

While it seems, that, in our own country, the normal school must continue for some time yet to provide opportunities for general education and culture, still it properly belongs to the class of professional or special schools, as does the school of medicine, of law, of civil engineering, or of any of the arts and professions; and its particular province must be to lead its students to become acquainted with all that body of information, both as to theory and art, that is directly related to the work of instruction, so far as this is undertaken in the public schools. Since instruction is the process of consciously stimulating and developing aright the mind and character of pupils, it follows that the one who proposes to teach must know what agencies are best adapted to accomplish this aim and how they may be used to the greatest advantage at every step in the pupil's education. This implies that the teacher must comprehend: (1) The psychology of the learning mind—how it learns, whether the learning of special subject-matter confers general or only special power, whether the activities of the mind may be reduced to one fundamental principle, or whether each faculty, so-called, has laws and methods peculiar to itself, and so on; (2) she must understand the office of school government and discipline and of intellectual training in the development of emotional and volitional characteristics and tendencies—that is, the formation of character; (3) if she would deal most effectively with each individual under her charge, she must understand the limiting and determining influence of heredity and environment and of physical types and conditions upon the mind and character of school-children; and (4) at the completion of her study of psychology she should be able to discover with some skill and accuracy the intellectual, emotional, and volitional factors

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that have made her pupils what they are and that determine their present capacities and dispositions; and she should know how to deal with each factor if she would develop or change the personality as she finds it.

In the opinion of the writer this indicates the aim and character of psychological study in the normal school. The statement made recently by one of the most distinguished psychologists of this country that tact, interest, and sympathy are of greater worth to the teacher than all the psychological laboratories in the country may be true in a measure in reference to laboratory psychology, but it does not seem to be true of psychological study of all kinds. It must indeed be true that interest and sympathy are primary requisites for successful teaching; but native tact may be made much more keen and efficient by special study of the nature and problems of teaching. In so far as undisciplined tact gives perfect insight into the nature of the child-mind, the method of its development, and the manner of adapting material of instruction to it,—psychological study would seem to be unnecessary; but these conditions do not exist in the case of most teachers. The old maxim, that teachers are born not made, seems not to be wholly true; and believing this, the modern educational world has provided elaborate means for the making of teachers, or at least for improving upon what nature has done for them. Perhaps one may teach those things which he has been taught without ever thinking of their effect upon the intellect and character of pupils, or of their peculiar value in certain cases and lack of it in others. One may perhaps teach in this way and do much good, but his power must be vastly increased if he be able to tell, from his understanding of the nature of the mind, the effect upon pupils of the different kinds of stimuli in the form of material of instruction. There are probably kinds of psychological study that are of little direct value to the teacher; but the psychology of the learning mind cannot fail to give her clearer and deeper insight, and hence greater skill in dealing with the problems of the schoolroom.

II.—SCOPE.

In a paper of this length it is impossible to indicate with sufficient detail and clearness the scope of psychology for normal schools, so only the barest outline may be attempted. To begin with, the conditions which exist in most schools will not admit of a comprehensive study of formal or pure psychology. For the present, at least, there are not many normal schools in which the study of psychology, apart from its applications in general and special methods, which will not be regarded here, can be pursued for longer

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than one year of fifty minutes each day; and, in many cases, not more than one-half of this time can be given, especially in the elementary courses, in which the great majority of students are to be found. It is imperative, then, that the scope of psychological study should be limited to the psychology of school education, other phases being touched upon only in so far as is necessary to give the teacher an appreciation of the influences that are always at work outside of the schoolroom in determining the personality of her pupils. It should be said here that there is no intention to disparage the culture and disciplinary value, and, perhaps, in a general way, the practical value, of the study of pure psychology; but the problem is simply to determine what is best for the prospective teacher under the limiting conditions that are necessarily imposed upon her. Students in the normal schools have not that breadth of philosophical training and culture that will make them intelligent and ready in the application of the general principles of pure psychology to concrete instances of classroom instruction; and there has, no doubt, been much study of psychology in the immediate as well as more remote past that was so far away from the problems and conditions of the schoolroom that the work of instruction was not affected materially one way or the other thereby. Psychology is such a comparatively new science, however, although a very old subject, that it is a matter of no great surprise that it has not yet become very extensively applied, as a science, to the determination of the nature and method of teaching.

At the risk of seeming dogmatic the following brief outline of topics is suggested as adapted to the capacities, needs, and conditions of the most of normal school students:

1. The relation of mind and body, to the extent that the teacher may comprehend how physical types and conditions limit and determine the capacity of the individual for intellectual, emotional, and volitional activity and development. No one can deal wisely with pupils who cannot discern in particular instances the influence of the physical over the spiritual. Yet this subject seems not to receive in many schools the attention which it manifestly deserves. The reason is, no doubt, that it has been generally believed that mental conditions and activities, so far as these are of concern to the teacher, are independent of any determining influences from physical causes; and even now the majority of teachers, perhaps, never attribute any intellectual and emotional phenomena, whether these be favorable or unfavorable, to physical causes, which, were they keener observers, they might easily eliminate. It should be said in this connection that the dependency of intellectual, and hence, in some degree, emotional and volitional activity, upon the keenness

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and accuracy of the senses in responding to all the stimuli in the classroom and environment should be thoroughly understood, and the teacher should be able to ascertain whether keenness and accuracy are possible in particular cases. She should understand the relations of mind and body from the standpoint of the connection of physical expression with corresponding mental phenomena. It seems that the study of physical expression as a reliable index to the activities of the mind has been neglected in the normal schools to the great disadvantage of apprentice teachers. The training and discipline of the classroom can never be of greatest worth until the teacher is keen in noting constantly the effect these have upon the intellect, emotions, and will, as portrayed through the various avenues of expression.

2. The normal school should lead its students to appreciate the influence of race, heredity, and environment upon intellectual and emotional personality in the classroom. There may not be a large amount of established knowledge upon this subject in such form that the pupil-teacher can be made familiar with it; but this is probably because there has not been a great amount of attention given to the subject by teachers. However, we are not entirely destitute of information along this line, and if the prospective teacher can become familiar with what little is already known and can be led to observe the influence of these factors in concrete cases during her psychological study, she will be able, at least in a general way, to estimate their influence in her own schoolroom.

3. Students should study in detail the nature of intellectual activity and the method of its stimulation by the work of the schoolroom. The factors of perception, apperception, memory, imagination, and reasoning should be understood in detail as to the nature of each, its importance in determining intellectual personality, its office in the various kinds of work in the classroom, when it is capable of working at its best, what conditions will interfere with its proper activity, and so on.

In speaking of the factors of perception, apperception, memory, etc., it should not be understood that these are entirely different processes bearing no relation to each other; but rather they should be regarded as different phases of one fundamental process of the learning mind. The writer believes that great care should be taken to preserve the essential unity of all intellectual activity, and the dependency of faculties, as perception and reasoning, upon one comprehensive principle. The history of psychological teaching shows, that, at first, the mind was regarded as a composite of faculties of the nature of compartments, each more or less independent of the other in character and activity. This view has given place to the

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one now prevalent that faculties are but ways in which the mind manifests itself, yet they are radically different from each other. Both of these views are apt to lead to confusion in the mind of the young teacher, and there is a failure to appreciate the intimate relation between all the activities of the learning mind. This is not the time for an exposition of a psychological system; but it will not be out of place to say, that, for the purposes of the teacher, the various faculties—perception, apperception, memory, imagination, conception, judgment, and reasoning—may be regarded as phases of the one process of apperception, to supply the conditions for which along various lines is the whole business of instruction. At all events, it is but just to say, that the analytic study of mental phenomena is incomplete without the final act of synthesis; and it is believed that in this synthesis there may be found unity in the midst of apparent diversity.

4. The emotions and will should be studied in the same manner as the intellect, especial regard being paid to the influence of intellectual training and of school discipline upon emotional and volitional tendencies. The influence of experience in and out of the schoolroom, and of the "circle of thought" in creating and determining the pupil's interest, should be carefully considered. The teacher should be made to realize that the material of instruction has emotional and volitional as well as mere intellectual value; that ideas have a shaping influence upon character. Unity should be seen in emotional and volitional as well as in intellectual life; and it should be made emphatic that instruction of whatever kind affects, not simply one faculty but the whole child—intellect, emotions, and will.

5. And finally, the teacher ought to comprehend in a general way the psychology of individual and social life as it exists in the world about herself and her pupils. The public school must prepare the pupil for the conditions he will meet when he leaves the schoolroom, and for this reason teachers should be students of the life around them, and should apply their psychology to the interpretation of social phenomena.

III.—METHOD.

It seems that a great deal of psychological teaching in the normal school does not illustrate the principle that beginnings in every science should proceed upon concrete experiences, and that generalizations should be derived from the examination of particular examples. In the formal study of psychology, which is still followed in many places, the mind is regarded as a lifeless object composed of parts or faculties, each more or less independent of the others, and which may be described in some such manner as can the parts

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of a plant or of any organic body. Such study must be based almost wholly upon text-books, and students gain from it what may be called a logical knowledge of the mind, somewhat as in the study of text-book chemistry a logical knowledge of the composition of substances and the deportment of elements under various conditions may be gained. In either case, since the study has been divorced from concrete examples, the knowledge acquired is of very little practical value, because its connection with common affairs has never been traced by the student. Many teachers can remember how little of everyday value they gained from the study of pure or formal psychology, because this was not illuminated and explained by reference to things that came within their experience. It is only after long and careful training that one is able to apply the theories of formal psychology to the manifestations of mental phenomena occurring in the schoolroom every moment; and in most cases there is an appeal almost wholly to the verbal memory, without understanding of what is being memorized, because the generalizations are far above, and, for the young student, entirely divorced from, the particular instances by which they are made intelligible. It seems strange, that, in the study of educational psychology, the specific purpose of which is to relate and describe the movements of the learning mind, the very fundamental principles which it declares should be observed in all instances are violated in its own case.

The study of this subject, then, should begin with analysis of the learner's experience. Every individual who is ready for the study of psychology has the whole science, so far as it is related to education, within his own experience; and it is the duty of the instructor to guide him in the observation and study of that experience so as to discover the common truths and laws to be found in it. It is as pertinent in matters of the mind as in other things that we do not observe essential characteristics until we have been led to do so by one who knows what they are, and who by wise questioning has directed our minds to intelligently examine what has always been within our environment, but which has not really become a part of our experience. Most normal school students have at first little apperceptive knowledge that will enable them to observe and study mental phenomena; and it is really the business of the teacher to create this body of information, so that when his students undertake the work of teachers they will have some basal knowledge for the observation and interpretation of mental phenomena occurring in their schoolrooms. Now, this aim can never be accomplished by the study of principles of psychology without first, or at least finally, studying concretely instances from which these principles may be derived.

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These instances may be found: (1) In the pupil's own life. (2) They may be observed in the lives of those with whom the student associates. (3) They may be gained from the observation of pupils in the process of responding to the stimuli of the classroom. (4) They may be studied in history and literature of every form and description. (5) Lastly, they may be gained from text-books in which concrete instances of the various kinds of mental phenomena are given. The most important of all these ways are, in the opinion of the writer, the analysis of personal experience; the observation and study of pupils in performing the regular work of the schoolroom; and the investigation of types and conditions of life in the environment of the student. The wise instructor may guide any teacher to a complete and comprehensive study of educational psychology through these means, for surely the material is unlimited in abundance and always at hand. In such study the pupil is made eye, ear, and thought-minded to manifestations of mental phenomena, and by the aid of the instructor is enabled to interpret correctly what he has observed; and this is the *summum bonum* in the teacher's study of psychology.

It may seem desirable in most schools that students should use a text as a guide, this to be constantly illustrated and amplified by the concrete study of the subject. When such a text is used, it is certainly important that its subject-matter be of the nature of educational rather than of general or pure psychology; and its method of treating the subject should be such as will stimulate the pupil to investigate for himself, rather than to give him examples and principles to learn, even though these are directly connected with educational work.

Finally, the ability to observe and interpret correctly mental phenomena in the schoolroom can be most serviceably acquired by the study of children while under the influence of school training. It is perhaps true that study of this character cannot be intelligently and profitably undertaken until the student-teacher has, under the guidance of the instructor, acquired some skill and readiness in observing and interpreting mental and emotional phenomena from analysis of her own experience; so that child study (or perhaps objective study) may not be most profitably begun until the teacher has acquired some body of apperceptive knowledge for psychological phenomena. In the analysis of her own mental life the teacher should be led especially to review the experiences of her childhood so as to discover intellectual, emotional, and volitional characteristics of that period which she may now have outgrown, but which are common to all children, and upon which the matter and method of teaching must depend. In the study of children in the normal school

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it should not be the purpose to establish new facts concerning child nature so much as to lead prospective teachers to see in all childhood illustrations of principles already well known, and to be able to always observe these in their teaching, as well as to deal wisely with those who may diverge in any way from the normal or perfect type. This does not imply, however, that the normal school should not add to the body of information already established about childhood; indeed, the contrary is more true, for the sympathetic study of children by anyone who is constantly in contact with them must at least tend to illuminate and verify what is now but imperfectly understood.

In summary, then, it may be said: (1) That the aim of psychology in the normal school should be to lead students to become acquainted with the nature and laws of the learning mind, and of the effect of various kinds of material of instruction and discipline in the schoolroom, and of influences in the environment upon the intellectual, emotional, and volitional nature of children. (2) The scope of the work should include a study of all those conditions that will enable the teacher to use the material of instruction, and to organize her government and discipline in the classroom to the best advantage in training the intellect and developing moral character. To accomplish this there should be careful study of the following principal subjects: The influence of physical types and conditions upon intellect, emotions, and will; the relation between mental conditions and activities and their physical expression; the determining influence of heredity and environment upon child nature in all its aspects; the nature of and connection between perception, apperception, memory, imagination, and reasoning, and the desirability of regarding all these as phases of the one general process of apperception; the influence of interest upon intellectual activity, and the tendency of experience to create and determine interest; the nature and kinds of emotions and will, and the connection between intellectual training and emotional and volitional activity; the relation between the circle of thought and character; finally, the psychology of individual and social life in the environment of teacher and pupils. (3) The method of study should be concrete—in the analysis of experience, in the observation and study of individuals in the student's environment, and of pupils while engaged in the regular work of the schoolroom. A text may be used as a guide, and to aid in stating principles that have first been observed concretely, or that may be illuminated and verified by reference to facts that can be observed. Finally, there should be much definite, practical work in the study of children, so that the teacher may better understand child nature, and may be able to determine the capacities of each pupil for the work of the classroom.

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THE REAL PROVINCE OF METHOD.

BY JAMES M. MILNE, ONEONTA, N. Y.

That to-day and yesterday are never alike cannot be better shown than in the changed and changing educational horizons. The facts of yesterday are the fancies of to-day, and yesterday's nebulous reveries are to-day's richest revealings. The ebb and flow of changing conditions, more exacting demands, and coming requirements are washing to our shores of thought all the educational salvage of the centuries. This wreckage is being carefully overhauled and scrutinized to find parts to fit into the educational theories and practices of to-day. The terrestrial battles of a few years ago on educational practices have been transferred to the upper air, and there the contests are now raging on educational theories intrenched in the beliefs of rival schools of philosophy. However the antagonisms may appear when viewed from the different points of vision in the upper air, the educational foundations remain unmoved, and the activity generated only lends truth to the aphorism of Wendell Phillips, that education is the only interest worthy the deep controlling anxiety of the thoughtful man.

No new factor has been introduced into the educational problem. No broader view of the purpose of education has been given since the Greek philosophers stated that a good education consists in giving to the body, mind, and spirit all the perfection of which they are susceptible. In teaching, we recognize—

1. The being to be educated.
2. Knowledge—means or material to be employed.
3. Method—the process or plan used.
4. The teacher—the master of the process.

The teacher must have knowledge of the being to be taught—his physical, intellectual, and moral capacities and activities; must know the law of this triune unfolding. The teacher cannot direct the mind of the child, nor can he change its order of development. Nature marks out what is the order of the mind's development; the teacher studies the facts and gets his method. Nature is first as a teacher; the schools occupy only second place in the mind's development. Education changes, not the kind but the quantity.

The teacher must have, as well, a knowledge of the subject-matter to be taught. His scholastic accuracy will largely prefigure the method employed, as scholarship is used as a means of securing a method. Method is the process employed in education, or is the

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tool used in the fashioning. The what to teach is the scholastic limit; the how to teach is the method outlook.

Methods of education and methods of teaching are frequently confounded. Methods of education belong to the centuries, and are the product of their growth. They are principles of processes that are common to all subjects. They are deeply rooted in philosophical axioms and psychological verities. Of slow growth, they are of necessity difficult of modification and change. Methods of teaching draw their nutriment from general methods of education. They belong to different times, are modified by application to different subjects and individuals, and are capable of change. Methods of education direct attention to educational beliefs; methods of teaching to educational practices. From that standpoint it can be apprehended that the true method of teaching leads to the true method of thinking. Methods of teaching must not alone know the mind and its processes, but must know how to summon them into activity —must know how to reach and stimulate the self-activity of the mind. While the principles on which methods rest are common to all subjects, the details of the process will be colored by the individual genius and aptitudes of the teacher.

Method is not the arbitrary dictum of an individual, nor do long established forms or plans necessarily measure method. A plan rises to the dignity of a method when it rests on psychological principles. Systematic instruction and methodical teaching are different both in aim and result. The one is scientific in its process; the other natural. The one seeks to link together the nexus of truth—to establish truth; the other seeks to apply the truth found to the natural aptitude of the child, to apprehend it, and transmute it into strength. The stress in method falls, not on the system but on the mind to be developed. A device belongs to the mechanism of method, but is not method. The much boasted "my method" will generally be found on the plane of the plan, or device, or mannerism. Methods are much alike, only the applications differ with differing individuals and differing conditions.

We have already claimed that method, for its best apprehension, presupposes accuracy in scholarship, but it is not allied with it. Scholarship is the material; method the tools. The product is what is fashioned or arranged for the apprehension. To be educated, material is necessary, tools are useful. A training in wood-working needs not alone a knowledge of the grain of the timber and the powers and peculiarities of the wood in its different states, but as well a knowledge of tools and how to use them. In like manner is training in teaching. Many can fashion forms out of wood with a jack-knife, but have no knowledge how to use other tools to accom-

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plish the same ends, at a great saving of time and effort. Now, at best, they are but jack-knife artists. If you will permit the comparison, it may be as truly said that many teaching in our schools never rise above the dignity of jack-knife teachers. At great sacrifice of time and toil, with an extravagant waste of effort, their pupils whittle out the years in school; and, so far as the schools are concerned, are left to carve their way through life with simply a jack-knife training.

Let it not be understood in this connection that methods without knowledge have power. Methods without knowledge are barren formulas. Principles of methods have no power unless apprehended. Master methods, and they multiply the strength of the teacher manyfold; be mastered by methods, and professional suicide is at hand. He has mastered method who can show the relations of his practice to the fundamental principles of education; whose theories are bedded in truth, and whose practices are power producing.

Thus far your attention has been directed toward marking the confines of method—its limitations, its powers, and its processes. Such an outlook was needful for the clearer apprehension of our claims of the real province of method. Method has as its province the development of the pupil toward highest strength, and the development of the teacher toward a clearer and broader comprehension of the educational problem. This real province of method as outlined can be measured by the attitude of the child toward the acquisition of knowledge and the ingathering of strength. Is the attitude of the child hopeful and the work pleasurable? Does the process appeal to the child's powers; the task bring eagerness to repeat the pleasure? Is darkness or gloom at the end of the child's perspective? Then lack of interest pronounces sentence on the pseudo-method. Ability to pass grade requirements is not an absolute test of whether method is within its real province. The trouble may be with the requirements or the latency of the child's powers of development. Unfortunately the true test of method lies in the years beyond the schoolroom. The best method only gives direction to the powers that the varied experiences, activities, and divinings of life shall bring forth to the rarest fruition.

It is the real province of method to reveal to the teacher the limitations in the teaching process and mark the essentials from non-essentials. Says Dugald Stewart: "What is the whole business of education but a practical application of rules deduced from our own experiments, or from those of others, on the most effectual modes of developing and cultivating the intellectual faculties and the moral principles?" De Quincey says, that a man who takes up any pursuit without knowing what advances others have made in it

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works at a great disadvantage. He does not apply his strength in the right direction; he troubles himself about small matters and neglects great ones; he falls into errors long since exploded. The large success in life is in a great measure due to the power to grasp the gathered thoughts of the ages and turn them to profitable account.

It is as well the real province of method to develop the individuality of the teacher. The claim that method is an absolute form for carrying out an educational process arises from a wrong apprehension of the term. As before stated, there are no letters patent on method. It is as broad as humanity and co-extensive with eternity. Its beginning and ending center in Him who is without beginning and without end. Its limitations are only revealed to him whose vision is limited. Man's horizon does not measure the unfathomable. On the other hand, man distinctly individualizes himself only as he separates himself by placing on his works the coinage that has the stamp and superscription of his own personality. The wider the range of vision, the greater the possible height to be reached, and the more clearly will the individuality stand forth. Method makes greater individuality possible by giving greater opportunity for its growth and its expression. It invites effort and marks out its path. To individuality method is continually saying, "This is the way; walk ye in it."

The real province of method is to direct and strengthen the teacher in the adaptability of knowledge to varying capacities. The process of presentation demands on the part of the teacher an inquiry into the capacity and power of comprehension of the child. It compels a continual modification of man's plan on the basis of the child's plan, and a modification of the typical child's plan to fit the case of the individual child's need. The varying capacity at different ages and different stages of work must ever be a consideration in forming the basis of the teacher's method. Reaching of capacities is shown in the methodical mechanism of the lesson; in questioning, in stimuli, in development of motive, in the strengthening personality, in the accuracy of acquisition, in the enlarging desires and ambitions. The teacher's plan is wrought on the child's plane, and the apprehension on the part of the child will be the directing and controlling force in guiding the teacher's future efforts.

The real province of method is to add to inspiration, multiply enthusiasm, and give greater power to the life-giving and life-creating factors of the teacher. As the relations of knowledge are made more evident to the teacher and their adaptability to the child's comprehension is more clearly revealed, the teacher's outlook is broadened, his opportunity and responsibility are lifted to a higher

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plane. Personal bias is weakened; individual eccentricity modified. The God with us is translated into the God in us, and then the teacher has reached the altitudes of enthusiasm. "Teaching is such a grind," said a teacher to me a little while ago. So it is when the work lies between the millstones, but not when we are above them. With ripening experience; with widening knowledge of child nature, its capacities and vagaries; with the ever-changing values of subject-matter to the child's powers and the child's needs, method keeps the teacher out of the desert land of grind and on the heights of enthusiastic service.

The real province of method as regards the teacher leads to the correlating of studies and to developing concentration of attention on the part of the child. In the province of method, the time element and the effort element and the accruing strength must ever be the considerations. The grouping power and the grasping potentiality are great factors in the time element. The comprehensive sweep of vision, the focalizing power, are the richest products of the perceptive faculties. The repeating process is not of necessity the strengthening process. The dictum of the repeating element as laid down in the answer given to Wesley by his wife, when he asked why she had the child repeat an answer twenty times, and she replied because nineteen times was not enough, is false in theory and vicious in practice. Correlate the fact to the child's experience or acquisitions, and you abridge time without loss of strength. A child does not necessarily grow skillful in picking apples because he goes down the ladder to carry separately each apple picked. Gather all within reach before moving and move only when all within reach are gathered, is the more practical way, is the more rational process. In the mental-gathering process, the true method will always detect the waste brought about by changing and multiplying of subjects. When the teacher is skillful in reading into a study greater riches than the subject seems to possess, it is by the suggestiveness of the subject and the correlation of thoughts and ideas in the teacher's mind; "That reminds me," is always summoned into existence, and the greater the frequency the stronger the correlation. This outlook that must come to the teacher, not of necessity as a new discovery in pedagogy or a new utterance of philosophy, will be found within the confines of the real province of method as a practice and the creation of a theory of true method.

Method is not of the man, but is in the man; resting on principles that shall direct processes; and such direction shall abridge effort, add pleasure, increase strength, widen opportunity, and emphasize truth. The province of method is such that it shall widen the horizon of the child's knowledge, concentrate his effort, illumine

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his purposes, and direct his doings; and to the teacher it shall be, not alone a way of life but as well a light in the way.

Method, in brief, rests on the assumption that life is fragmentary unless connected with the past. Knowledge of the way,—whence its coming and whither its going,—knowledge of failures, is needful; for even failures are partial successes, and ultimate success is simply crowned failure. Rediscovery is not so needful as to know the limits of discovery, and our investigations must reach back to first principles. In the language of Phillips Brooks: "If the teacher's art be in any sense a high art at all it must have a philosophy behind it. If you would not allow it to sink into a mere set of rules, and depend for its success on certain mere tricks or knacks, it must forever refresh itself out of the fountain of first principles, and inspire itself with the contemplation of ever-unattainable ideals."

THE REAL PROVINCE OF METHOD.

BY HOWARD SANDISON, TERRE HAUTE, IND.

In this case the mere title is itself significant. It implies that the boundary line between the realm of method and that of something else is indistinct. That something else may be scholarship; it may be the realm of means, of external appliances, of devices. In the title there is the implication that method is, or has been, occupying an unreal, fictitious province. This fictitiousness may arise from the fact that scholarship is wanting, and that the attempt to determine a set of principles to control in that given realm in which scholarship is wanting results in an unreal province for method. Outer doing, devices, external means, with little or no attention to the truths that underlie them, may be pressed to the front as method. This would constitute a fictitious province for method. Scholarship alone may be exalted, as if it were all in all. In that case method would not possess its real province. Of all these things the mere title is significant. It means that an indistinctness prevails as to the true realm of method. To remove this indistinctness is the problem of this discussion.

It is but natural that a certain indefiniteness—that a given degree of indistinctness—should prevail as to the real province of method, in distinction from that of both scholarship and mere external means. The reason for this is that activity is the one thing to be found in the universe. Sometimes one speaks of a thing, and of activity upon it. But what is the thing itself other than activity? A block of the most

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compact steel seems perfectly motionless; yet every atom in it has a space of its own, and exists in a continual dance. Thus it is with every atom in the hardest granite. It seems that only activity is. This activity rises from its most passive form in space until it becomes an activity that can become aware of itself, as in consciousness. Scholarship, then, concerns itself with activity, and with activity only. Method, too, must deal with activity, and with that alone. The realm of device, of external means, is also one of doing—of activity. In this fact—that device is activity; that method deals with activity; that the subject-matter of scholarship is activity—rests the source of the indistinctness as to their respective provinces. The activity that scholarship investigates appears in ever-recurring types. This activity may, therefore, appropriately take unto itself the term method. Every branch of study investigates activity as type or law; and law is method, and method is law. The past makes us its debtor by handing over to us this thought in the very term method itself. The word method signifies "according to a way." But what is it that is according to a way? And what is meant by a way? If the thought above presented, viz., that there is nothing in the universe other than activity, be true, then it must be activity that is according to a way. And, moreover, the way itself is necessarily an activity. Then it becomes clear that the past transfers to us this thought which it had garnered from the fields of experience: A method is an activity according to, or in harmony with, an activity. The first activity mentioned must be the real one, the one actually occurring—the one exhibiting itself in some product. The second activity referred to must be the ideal one, the typical activity, the norm; it is both the end and the criterion of the real activity, of the one that is actually occurring. A method, then, is a real activity according to, or in harmony with, an ideal activity. It now becomes somewhat more clear that close thought only will render distinct the provinces of scholarship, method, and devices, and likewise their unity.

Every branch of study has for its subject-matter certain particulars, certain phenomena that are essentially its own. These phenomena may appear in other branches of study as well as in this one, but they do not appear in those other branches in the same aspect that they do is this. The cotton plant appears as a fact in geography. It is also present as one of the phenomena considered in botany. As a geographical fact, however, it is not identical with itself as a botanical fact. If in this sense each branch of study has its own set of particulars, the activity that produces any one of these particulars must be typical. Why does one, in looking at a piece of sandstone, say, "This is not a good specimen?" It is because the activity that produced it was not according to the type, to the ideal. The activity that pro-

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duces the facts in history or in geology must be an activity according to the type, according to the ideal. Hence, in this sense, activity is a method. The activity that produces a grammatical fact, the activity that produces a geographical fact, the activity that produces an historical fact is a method, because it is an activity which has as its end and criterion an ideal. Identity with this ideal must be the end of the activity, and the ideal is its criterion. It is with such a thought in mind that one says: "This is not truly a geographical fact; that is not really a grammatical fact; that ought not to be termed an historical fact." There is, then, a method in the subject, and this method is the activity that produces the individuals composing the subject-matter. Such activity is in the realm of scholarship.

The problem in a given branch of study is to investigate the nature of the activity that produces its facts; to determine the various phases thereof and their relations to one another. For example, the noun is a fact in grammar. The activity that produces it is different from the activity that produces the lily of the valley. Grammar must investigate the first activity, botany the second. Each branch of study is, however, an investigation of the method that creates the individuals in its subject-matter. This activity may be termed the objective method.

Every branch of study, therefore, has its objective method. By this is meant the method, the activity, the force, the energy that produces the different individuals composing the subject-matter. For example, the subject of reading has what may be termed its objective method. This is the energy, the force, the activity required to produce the various individuals in the subject-matter, such as "Thanotopsis," "Evangeline," "The Burial of Sir John Moore," "The Legend of Sleepy Hollow," etc. Grammar has its objective method. This is the activity, the energy, the force that creates the various individuals included in the subject-matter of grammar, as the noun, the adverb, the preposition, etc. History as a branch of study has its objective method. This is the activity, the energy, the force that created the various individuals in the subject-matter, as "The Battle of Bunker Hill;" "The Hartford Convention;" "The Secession Ordinance," etc. The investigation of such activities and their products is within the realm of scholarship.

When scholarship has revealed the essential nature of this activity—this objective method of the subject—it has grasped the true basis from which may be inferred two important things. One of these is the scope of the subject-matter. It is the function of scholarship to determine this; to decide which facts belong within the range of the subject, and which ones are excluded. The other important thing that may be inferred is the divisions within this subject-matter. Scholar-

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ship takes upon itself the determination of these. In any branch of study, therefore, scholarship is to seek out and make clear the essential nature of the creative activity that produces the individuals of the subject. It is then to infer from the nature of this activity the scope, the extent of the subject-matter, the boundary lines of the subject.

Its third great line of work is to determine from the nature of this activity the divisions and subdivisions belonging to the subject-matter, carrying such down to the particulars.

It is then, in the fourth place, to investigate these particulars, marking their unities and distinctions. Such in any branch of study seems to be scholarship's province.

In such investigation the subject-matter is assumed to be a fact distinct from the examining mind; but there constantly arises a peculiar set of questions, such as: What is the relative value of this division compared with that? of this subdivision compared with that? of this particular compared with that? Then it at once becomes evident that there is a factor to be considered over against all this with which scholarship has seemed to concern itself, and this factor is the mind which is to do the investigating. When one says: "What is the relative value of this fact as compared with that?" he evidently means the relative value to him, the investigator, arising from making subjective—from making an element of his consciousness—this fact, as compared with doing the same with that fact. When this inquiry arises, one begins to pass from the realm of scholarship over into the real province of method. For, in such inquiry, what is it hinted? A second activity; a new activity. The activity that produces any fact in the subject of botany may be termed the objective method in botany. But here is another activity—the activity which renders this fact of botany subjective to the inquiring mind; the activity which transmutes the external fact of botany into self, into consciousness. This activity is distinctive; that is, the act of consciousness which transmutes a fact of botany into self has distinguishing marks that set it off from the activity which renders a fact of geology an element of consciousness. The activity that produces a fact, an individual, in the subject of physics is the objective method in physics; but the activity of the inquiring mind necessary to make this fact of physics subjective—necessary to make it an element of self, of consciousness—is the subjective method in physics.

Every branch of study, therefore, has both its objective method and its subjective method. The objective method is the activity, the energy, the force that produces the various individuals that constitute its subject-matter. The subjective method is the activity of mind necessary to transmute into the self any one of these facts of the sub-

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ject-matter. The investigation of this subjective method, this activity of the self necessary to make its own any one of the facts of the subject, is within the real province of method. For example, the activity that produces the various facts in the subject of botany is the objective method in botany, and is within the realm of scholarship.

The scope of the facts determined is also in the realm of scholarship; as are likewise the divisions, the subdivisions, and the distinctions and unities of the particulars. But the nature of the activity that the mind performs in mastering any one of these facts, and the relative value of the divisions, and subdivisions, and facts because of the nature of this mental activity—these things are in the real province of method.

When method, working in its own real province, has determined the essential nature of this conscious activity put forth by the inquiring mind in mastering a fact of the subject, it is able to make two important inferences. These inferences belong also to the real province of method, and the examination of the things inferred falls likewise within that province. What are the things to be inferred from the nature of the mind's activity in mastering a fact of a given subject? The first is the effect produced upon the mind by thinking this fact, by identifying itself with it. This effect appears, first, as a definite mental swing—a certain habitude of mind which the given subject alone is fitted to establish. For example, in language the definite mental swing begins with the conceiving of an object. The mind may first seize the object in sense-perception, memory, or imagination; but it ends by conceiving it, by generalizing it. The next movement in this definite mental swing is the forming of a purpose to express the object to another. Thereupon, the mind conceives or images the expression, and then contemplates the harmony, the correspondence, between the object to be expressed and the expression. No subject other than language is fitted to establish just this habitude, just this mental process. This may be termed the language act. There is also the historical act. In such an act the mind first conceives the disposition, the mental condition of the people. This is succeeded by the consideration of the event or object produced by this condition of the minds of the people. In the third place, the mind becomes aware of the new disposition, of the new mental state, belonging to the people as produced by this event. In the historical act, then, any event—as, for example, the Civil War—appears as the result of a certain state of mind in the people, and as an active cause producing a succeeding result in their minds. To conceive a certain state of the public mind, to apprehend this taking shape in some event or statute, to seize the new state of the public mind as an effect of this

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event or statute, is the peculiar mental swing in the subject of history. This central effect, this essential process belonging to every subject, is one of the effects to be studied. The determination of the exact nature of this effect in relation to any given subject belongs to the real province of method.

In addition to this, under the head of effect, is to be noted the emotional response. In history there arises an interest in the state of the public mind, in the event to be produced thereby, and in the reflex influence of this event. Just the nature of this, the various opportunities that life affords for its play and its value, compared with the knowledge of specific gravity and other ideas and emotions—the discussion of all such things belongs under the real province of method. It would pertain to the real province of method to determine the main and the subordinate emotions to be awakened by the study of Dickens' "Hard Times," by the study of "Evangeline," by the perusal in Dante's "Divine Comedy" of the lines setting forth the condition of the angry and the sullen. The occasions in life affording opportunity for the exercise of these feelings, and the relative value of such mental states compared with a knowledge of cube root, with a knowledge of the surface of the United States, etc., would belong under the realm of method.

A third thing to be noted under effect is the volitional development—the tendency to a prompt and decisive choice, and to persistence in that choice. It would belong to the real province of method to determine just what tendencies toward choice and toward perseverance in a given course would be awakened and stimulated by a study of the condition of the inhabitants in the vestibule to the Inferno; by a study of Tito, shown in George Eliot's "Romola," as an example of fixation of character; by a study of David's action as exhibited in Browning's "Saul;" by a study of Taylor's persistence in the Mexican War, and Grant's in the Civil War. The real province of method would claim as its own the determination of the various occasions in life that would call for prompt choosing and persistence, and the weighing of the value of such mental traits along with those arising from the study of book-keeping, compound numbers, etc.

Method, then, takes unto itself the examination and valuation of the entire realm of effects produced upon the self in its mastery of the facts of any subject. Herein is seen the value to the teacher arising from a study of such subjects as æsthetics, ethics, logic, psychology, and philosophy.

A second thing to be inferred from the subjective method in any subject—that is, from the main mental process in mastering a subject—the second thing to be inferred from this is the relative educational value of the subject; its value as a subject compared with

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other subjects; the relative value of the divisions and subdivisions under the subject; the relative value of the different individuals of the subject. The consideration of all these things pertains to the real province of method.

There is a third thing to be inferred from the main mental process employed in mastering a given subject. This is the means, the devices, the instrumentalities appropriate to the direction and stimulation of this main mental process—appropriate to the awakening and fixing of the mental effects naturally belonging to the subject. This includes a consideration of the teacher himself; of the range of his scholarship, of his disposition, of the trend of his sympathies, of the harmony of his character, of his industry, of his quickness of insight, of his ability as a questioner, of his spirit as an inquirer, and of the relation of all these qualities to the stimulating and directing of the mental process in the learner. Under this third head would be included, not only the determining of the devices but also the deciding of the order of their employment and the grounds therefor. Under the real province of method would be included all these things.

It seems, therefore, that to every branch of study belongs an objective method, or the activity which creates the individuals of the subject-matter, a scope or range of the subject-matter determined therefrom, and various divisions, subdivisions, and attributes of distinction and unity in the particulars likewise determined therefrom; and a subjective method, viz., the mental activity involved in mastering any fact of the subject-matter, together with the effects, relative value, and instrumentalities to be inferred therefrom.

The real province of scholarship includes all that pertains to the objective method and its inferences; and the real province of method includes all found in the subjective method and the inferences essentially involved therein.

ORGANIZATION OF TRAINING SCHOOLS AND PRACTICE TEACHING.

BY MISS KATE D. STOUT, TRENTON, N. J.

In speaking of the financial difficulties of our country, President Cleveland made this remark, "It is not a theory but a condition which confronts us." So it is with the young teacher when first he enters upon the duties of the schoolroom. For the time being, the theory of teaching, mastered to a degree by his previous training, retires to a place in the background of his thoughts, and the art of

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teaching and of managing rushes to the foreground and commands his undivided attention. However correct his knowledge of the child's mind, however clear his understanding of the principles of teaching, he is a failure in the schoolroom if he cannot secure and hold the attention of his pupils and make clear the difficult problem of the lesson. In recognition of this fact—that is, that teaching is not only a science but an art—a system for the training of teachers has come to include some definite means of learning the art, under competent and sympathetic supervision, which shall spare the teacher much wasted time and energy and save his pupils from many of the evils attending undirected experimentation. This means we know as the practice school. Here the teacher-in-training may exhibit his power to make use of principles learned in his psychology and method classes, and test his skill in controlling and directing pupils by actually teaching—under guidance careful of his success and watchful of the interests of his pupils.

The organization of the practice school has taken three general forms: First, there is the school which is wholly under normal authority. The course of study is laid out by the principal of the normal school, and the methods used in teaching are subject to his supervision. This form is often known as the model school. Second, there is the school in which the normal and city divide the authority. The course of study is planned by the city, though some liberty of variation is allowed for the sake of experiment, and the expense of the school is shared by the normal authorities, in return for which the normal students enjoy the privilege of observation and practice. Third, there is the school which is independent of normal authority. The course of study followed and the methods employed are of city origin, and the normal students practice as assistants to the city teachers.

Doubtless much may be said in favor of each of these forms of the practice school. The circumstances of every normal school are different from those of every other, and time is an important element demanding consideration; hence, the difficulty in attaining the ideal in the organization of practice schools. In this discussion, however, I may be allowed to favor a system which has been found to be practical under our own conditions. It includes training under both the first and third forms of organization; that is, first, a course of practice in the model school entirely under normal supervision; and, second, a period of a month or six weeks' practice in the city schools which are independent of normal supervision.

The practice school which is under normal supervision seems to be the field for beginning teaching under the most favorable circumstances. Here the pupil-teacher finds that harmony of theory

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and practice which is so essential to his clear understanding. When the school is located near to the normal school another feature conducive to the success of the young teacher is found in his familiarity with some of the pupils. He has watched them with interest on the play-ground, in the halls, and in the classroom, and daily has recorded some observation for use in the psychology class. And again, he has frequently seen them in classes, when called by his his method-teacher to observe some concrete illustration of theoretical instruction. Under these favorable conditions, the pupil-teacher is more likely to succeed in his new and, at the best, difficult undertaking than if he were plunged at once into these difficulties under strange authority and among strange children. His training is practical, for his classes are of average size, such as he will meet in a school of his own, and the lessons he teaches are of such a nature as can be adapted to his own classes in a district or city school.

The chief objections which have been raised to this type of practice teaching are, first, that the perfect harmony between the theory of the normal school and the practice of the training school causes the children to respond with unnatural readiness to the pupil-teacher's efforts, and so he is apt to make the method, not the child, the center of his teaching; and, second, that the organization of the school gives too little room for the development of the governing power.

Those who have had anything to do with the training of teachers in such a practice school no doubt will agree that these objections contain some truth. But I believe that the advantages more than balance the disadvantages at the beginning stage of teaching. However, the power to meet unforeseen difficulty in teaching and skill in management are elements of success too important to be slighted. As Mr. Russell has said, substantially, scope in teaching is desirable as well as precision, and ability to control is a necessity. Hence the advisability of supplementing the practice in the model school by teaching under conditions which shall still further develop the pupil-teacher in the directions above referred to. In our own experience, we have found these conditions in the city schools independent of normal authority. Here the pupil-teacher acts as an assistant to the regular teacher. Fortified by his model school practice, he is ready to adapt himself to the differing personalities of the schoolroom and the variation in the course of study and methods, and he is generally a success.

Having thus reviewed the general organization of the practice school, it will be my purpose to speak of the supervision of practice teaching there. Here again, as with the general organization, the varying conditions of normal schools have occasioned a variety

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in the form of supervision, and for this reason it cannot be said that any one form is the best for all schools. We have, first, the system under which all the teaching in the school is by novices, who work under the direction of a general critic having absolute authority. Second, we have the supervision by department critics; the head of the department of English in the normal directs all the practice teaching in language, and so in the other departments. Third, the planning and criticism of work are found in the hands of grade teachers, while assignments and transfers of pupil-teachers are made by the head of the normal school. A fourth variety is a combination substantially of the first and last; each class in the practice school is in charge of a teacher selected for superior merit in her profession, who acts as critic of the practice teaching in her room, while a general critic from the normal side assigns all practice-work and has general oversight of practice teaching in all rooms.

While each of these forms of supervision has its virtues, and no doubt meets the necessity out of which it has grown, I think it may fairly be said that some are open to much more criticism than others. One of the purposes of the practice school, as has been said, is to save children from the evils of experimentation. Now if all the teaching is by novices and no one competent teacher is responsible for the progress of the class, it would seem impossible for the children to escape much harm that might be avoided by a closer supervision. As for the young teacher himself, under this system he works at a disadvantage and loses valuable time, as many of his efforts are unwitnessed and therefore unaided. When the training class is small the danger in both directions is less, as the general critic is able to give more time to each pupil-teacher and his class.

Arguments in favor of the plan of supervision by department critics are evident, but it has this serious drawback: However broadly a method-teacher may present his subject, the suggestions have gone out to the student stamped with the teacher's authority and have been received by him with little if any question. If he continue under the same supervision, there is danger that his view of the subject will be narrow, and that he will imitate rather than originate. It is desirable to arouse in him a healthful skepticism, and this can be done best by placing him under new though harmonious direction.

When the supervision of practice-work is entirely in the hands of different grade teachers it is exceedingly difficult to develop the pupil-teacher to his highest ability. For to accomplish this end it is necessary to know the pupil-teacher as he began and as he has improved. His weakness must be converted into strength and his strength increased. In passing from one critic or grade teacher to another it is possible that he may lose the ground he has just won

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unless there is some one who has known him from the beginning to encourage, to advise him, or to give him special work; and, in so doing, not only to hold him to the point gained but also to urge him forward. In a large normal school it is impossible for the principal to give this general direction with any degree of satisfaction. Out of these conditions has grown the position of general critic. It is not difficult to conclude by inference from all that has been said that the writer considers the last-mentioned form of supervision, that by the grade teacher and the general critic, the best form. It is unnecessary to recapitulate at this point all the advantages which I have intimated, but I may be permitted to emphasize by repeating just two points. First, the supervision of the grade teacher secures the interest of the children on one hand, and, on the other, it impresses the pupil-teacher with the important truth, that one of the tests of his success is the progress of his class. Second, the supervision of the general critic enables the pupil-teacher to advance steadily along all lines, and, at last, to develop in that line of work for which he has shown special adaptation.

It is objected that the presence of the grade teacher in the room prevents the rapid growth of the disciplinary power. This is true as regards self-dependent discipline, but it is believed that the above advantages compensate for the loss at this time, and that the power will be strengthened later in the city schools, as was indicated in the early part of this discussion.

I have already intimated something of the order of development of the pupil-teacher, but of this point I will now speak further. There are two ways of learning any art, each incomplete without the other: First, by seeing how to do, and, second, by doing; in other words, by observation and practice.

Before the pupil-teacher, then, begins to practice, he should observe many lessons in different grades, in different subjects, and by different teachers. Of the several plans which suggest themselves to the general critic for conducting this observation, the best way is that which presents superior teaching under the most practical conditions. This plan would seem to be observation of the regular grade teacher of the model school. The general critic should be present during the lesson, and should discuss it with the training class afterwards.

At first the class should be directed to look for only one point; as, How was the attention held? or, What was the relation of this lesson to others? Later, the class may be given an outline for complete criticism, including teaching, training, children, and teacher. The early work in observation should be thus carefully directed for two reasons: First, the more skillful the teaching the less apparent has been the method, especially to young observers; second, it

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is true that we see only what we are trained to see, therefore the pupil-teachers will see little more than they are directed to see, either by question before the lesson or through discussion after it is given.

As a result of the directed observation and criticism of lessons a pupil-teacher should be profoundly impressed with at least two points—the unity of subjects in a course of study, and the variety in the application of the same principles of teaching and training in the hands of different teachers. It is plain that the young teacher's pedagogical horizon must have widened, and he should begin his actual practice with a broader intelligence and a greater depth of purpose.

Having seen how good teaching is accomplished, he is ready now to "learn to do by doing." It has been found profitable to have him begin with what has been termed the mechanics of teaching. By superintending seat work, preparing and distributing material, calling and dismissing classes, and performing other mechanical duties of the schoolroom, the young teacher becomes accustomed to move among the pupils in the attitude of a leader. His self-consciousness grows less apparent, and when a class is given into his hands to teach, the lesson is much more likely to be given smoothly in consequence of this preparatory training.

The next step in training should be the teaching and managing of regular classes in the model school. The progress of the pupil-teacher and the class in his charge demands a certain watchfulness over his preparation at first. An ounce of prevention is worth a pound of cure on both sides. Hence the custom of requiring a written plan for every lesson during the first four or five months' practice. This plan should be subjected to the criticism of the grade teacher and general critic, who, working in harmony with each other, should make suggestions to the pupil-teacher and inspire him with faith in himself and the possibilities of his pupils. The plan should not be over-criticised, for freedom in teaching is thus made impossible, and it is as essential to the success of the beginner as freedom of speaking is to the five-year-old child in his first language lessons.

At the end of four or five months, or when the pupil-teacher exhibits an appreciation of the importance of faithful preparation, and shows considerable ability in classification and adaptation of subject-matter, he may be relieved from formal plan-writing with benefit to himself and without detriment to his class. This independent work develops a real sense of responsibility for results; the pupil-teacher becomes self-reliant and original; and, what is perhaps best of all, he grows in power to readjust both matter and plan to meet the unexpected needs of his class. On the other hand, the presence

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of the grade teacher prevents any serious harm coming to the children.

The general critic should visit the pupil-teachers frequently. She should also receive written reports of their work from the grade teachers. She is thus in a position to see the practice teaching as a whole and to look at each individual's work as a whole. She should see that all pupil-teachers have practice in most of the primary and grammar grades. All the essentials of the art of teaching may be learned here, and an opportunity is afforded to discover the special weakness or strength of any pupil-teacher.

The general critic should make it possible for the older and more capable pupil-teacher to receive a broader training than the less mature or slower could compass. This can be done by giving special work under her own supervision, or by promoting out of regular time from one grade to another. This is an important duty of the general critic which should not be neglected.

The city school practice completes the regular training course as I have outlined it. When there is opportunity for a short term of special attention to one department of work, so much the better for those who can embrace it. This should come properly toward the close of the course, either just before or after the city school practice. I have already spoken of the value of the independent city practice as a factor in the development of the pupil-teacher. The general critic should visit each pupil-teacher at least once during his practice, and reports of the work should be sent to the normal school at the close of the period. During this time an opportunity should be given the pupil-teacher to report his failures or successes to the general critic, and he should feel as much confidence in approaching her for advice and suggestion as he felt in the days of model school practice.

This leads me to speak of the last point which I shall consider—the nature of criticism. I am not of the opinion that it should cover the ground of mistakes. Detailed advice, especially if it take the negative form, is apt to bewilder the novice and deprive him of all freedom in teaching; or, as some one has said, in a better way, "Though fault-finding may keep down the weeds, it tends to produce sterility by chilling the soil of courageous endeavor."

With a course of training in teaching such as has been outlined I feel convinced that the average pupil-teacher goes out to take his place in the ranks of public school teachers fairly, and even generously, equipped for his work. He himself should feel a wholesome dissatisfaction with the degree of excellence which he has attained, and knowing wherein his weakness lies, he should be alert to use every opportunity to reach the standard of his highest capability.

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THE ORGANIZATION OF PRACTICE TEACHING IN NORMAL SCHOOLS.

BY J. N. WILKINSON, STATE NORMAL SCHOOL OF KANSAS.

The wording of this subject is not designed to include the city training school. The organization of practice teaching in a school whose students have all been taught in the same system of city schools, in the same subjects, by the same methods, and who are expecting to teach in the selfsame system of schools the same subjects and by the same methods, is not the organization suited to normal schools in general.

Practice teaching is not understood to mean such experience as a student may obtain by conducting the recitations of his classmates. If the subject studied is such as to extend the field of knowledge for all the class, and thus lies partly beyond their present vision, then, in teaching done by one of their number, we have "the blind leading the blind." A presiding officer whose decision of points under discussion is liable to be reversed by the adverse opinion of the majority is not a teacher, and it should not be imagined that he who leads a class under similar circumstances is getting practice in teaching. If one is giving sham instruction to sham pupils in subjects far below their actual attainments, he does not come in contact with the real difficulties which he should learn to master. Playing school is not learning to teach school. Genuine practice in teaching is not to be found with equals as teacher and pupils.

The practice department may be said to include observation as well as actual teaching. It is not necessary that all of any one pupil-teacher's observation in this department precede all his attempts at teaching, but it is important that he begin his observation and teaching with a basis of pedagogic philosophy. He should be able to settle all questions as to the methods he observes and the methods he uses by referring them to the fundamental principles of scientific teaching. If he can do this, he can observe with profit the teaching of persons who are not experts, and can get therefrom courage to take up the work himself while learning what errors to avoid. He will take, in challenging questionable methods, liberties that the novice cannot be led to assume with the work of a regular model teacher. Under the proper guidance of critic-teachers he can spend a short time with each of several pupil-teachers, analyzing their work with less danger of copying their errors than there would be of his imitating the foibles which may be the most striking characteristic of a so-called

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model teacher. Normal schools could not easily keep an observation department distinct from the practice department if they would; and there is at least one normal school in this country that would not if it could.

The course of study laid down for the guidance of pupil-teachers in teaching their classes should be minute enough to prevent a teacher from covering ground that is located elsewhere in the course, and yet should leave much freedom to the teacher and the observers in outlining lessons for the approval of the critic-teacher. The plan for presenting each subject should be worked out by the pupil-teacher according to the best light he has been able to obtain, and then should be improved as much as possible in a conference with the training-teacher before the subject is taught. Even after all this has been done the pupil-teacher should feel at liberty to depart from this plan as far as unforeseen circumstances may require, but he should give good reasons for so doing. This plan of shaping work for the classes will not create an elaborate organism of devices to be fossilized, but will allow as much variety of philosophic method as may be consistent with the healthy mental growth of the children who are taught by the pupil-teachers. The city training school may perhaps be content with a drill as automatic as that of the soldier in the regular army, but normals training for general school work should develop the power of self-direction and wise adaptation.

The pupil-teachers do not all need exactly the same course to fit them for the profession of teaching. In many state normal schools, most of those who enter the training department have already had such experience as comes from teaching a district school, and have, because of their real or imagined success, thought it worth while to make some further investment in the business. These teachers show, when they study pedagogy, a more intelligent appreciation of educational principles because of their experience, but they do not necessarily have greater success in the training department. Such as have formed good habits of teaching should be allowed to shorten the usual term of practice; others will need, in order to break their bad habits, more training than those who have never taught.

The training needed may differ in direction as well as in extent. Some need most of all to increase their power of discipline by acquiring more system, greater firmness, and warmer sympathy. Others should learn, in giving instruction, such arts as holding attention and at the same time holding their own tongues to the specific work of giving concise and clear explanations. Many lack adaptability to the work of certain grades, and wish to take their practice in grades to which they think they are suited. Later, when seeking positions, they do not make so great objection to the distasteful work if the

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salary which attaches is more inviting than any other in reach. The frequency of such cases shows the need of giving practice along the lines of greatest weakness. The pupil-teacher in a training department should be assigned and firmly held to such a course of experience as he needs.

Not all who complete a course in a training department should be allowed to attempt every grade of its work. The task of general supervision, for instance, and of representing the school in the settlement of misunderstandings with parents is a kind of practice to which only those who may hope to prepare for positions of such responsibility should be admitted. Among those who attain this distinction might be found teachers who would do such work as is intrusted to the over-teachers in the training school at Jena, Germany; but, as normal students, unlike those in this German University, usually decline to do teaching work that does not count in time and credits toward graduation, it is not likely that mature men will here, as in that school, devote to teaching almost their entire time for months without some special recognition beyond the diploma given to those completing a course that requires only the minimum of practice teaching. Training departments can, with benefit to themselves and increased benefit to the cause of education, provide at least two grades of practice and give distinctive certificates or diplomas for each grade.

In conclusion, it is conceded that the organization of practice teaching as here outlined is not easily maintained, and it is suggested that the most ample and capable force of training, critic, and model teachers will find their full time and strength necessary to sustain and enforce even the most thorough and efficient organization.

THE CORRELATION OF STUDIES IN A NORMAL SCHOOL.

BY N. C. SCHAEFFER, HARRISBURG, PA.

In discussing the course of study for a normal school it is necessary to bear in mind, on the one hand, the difference between a high school and a professional school; and, on the other, the difference between a normal school and a college.

The normal school is not a high school, and a curriculum of study properly co-ordinated for a high school necessarily differs from a curriculum adapted to the needs of students in a normal school. Both in aim and method the high school differs from the professional

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school. The military academy and the naval academy aim to educate officers for the army and the navy. Every other interest is subordinated to that of making soldiers and mariners. When the interests of the individual are in conflict with this primary aim, he is expected to resign his cadetship and to sever his connection with the school. The same is very largely true of the law school, the medical college, and the theological seminary; and it should be more largely true than it is of the normal school.

The whole question of preparing courses of study is very much simplified as soon as we adopt the theory that it is not the function of the high school to prepare teachers. Who ever heard of a high school trying to fit its pupils to practice law or medicine? Equally absurd is it to expect a high school to perform the functions of a training school for teachers. For years Philadelphia tried to combine a normal school and a girls' high school in one institution, but the experiment was at last given up to make room for a better plan. From the nature of the case it could not succeed. Many pupils who are not fitted either by talent or by temperament to become teachers, are nevertheless greatly benefited by a course of high school study in which the interests of the individual are not subordinated to professional aims. The teacher in a high school can be well satisfied if his pupils acquire a knowledge of the branches adequate for more advanced study. The normal school, on the other hand, must aim at the thorough and exhaustive knowledge of the branches which the learner needs in order to teach. A model school designed to furnish observation and practice to the pupil-teacher may rise to the level of a high school in its more advanced classes; but it is a pedagogical sin in the training of the average high school pupil to emphasize preparation for a vocation at the expense of that general culture and discipline which are calculated to make the most of the God-given powers and possibilities of the individual.

The high school aims at culture; the professional school aims at preparation for a specific vocation, which implies special skill and special training based upon a general education. In one respect the college is like the high school. Both aim at general culture, at the complete development of the student's powers. College studies differ from those of the high school in their adaptation to minds of greater maturity, and from those of the normal school in not subordinating the interests of the pupil to a specific calling. Here, then, we uncover the first difference in the principles of co-ordination in the studies of the high school and the college as compared with the studies of a professional school. The studies of the high school and the college must be co-ordinated so as to beget the fullest development of the individual's powers and talents. Any shaping of the studies with

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a view to some special calling is justifiable only in so far as it does not interfere with this complete development. In the professional school the arrangement of studies proceeds upon the assumption that the interests of culture are subsumed in the interests of a specific calling; that the individual is to be trained as means to an end. The culture of the individual is not complete without a knowledge and appreciation of classic literature, but since a knowledge of classic literature is not essential to the practice of medicine, the faculty of a medical college cannot afford to spend time upon the imparting of this kind of knowledge. The mastery of the details of anatomy and materia medica may involve the worst sort of memory cram and seriously interfere with the harmonious activity of the other faculties. Nevertheless, the medical school must lay stress upon these details, because without them the practitioner cannot be successful. In like manner, the course of study in the normal school is shaped by the necessities of the calling to which the graduates are to devote themselves.

The nature of the profession is, therefore, the central idea which regulates the selection and arrangement of the studies in a professional school. In the normal school this central idea is the practice of teaching. Here we must not be misled by narrow or exaggerated notions of the value of mere practice. Let me put my thought as concretely as possible. Two brothers grew up under the influence of the maxims, "Practice makes perfect," and "We learn to do by doing." Both entered upon life with exalted notions of the value of practice. One became a city superintendent, and found no peace until he had established a practice school for the training of teachers. Those in training practiced, not only upon the immortal minds of growing children but also upon one another, while going through the motions of hearing and teaching lessons with which all were familiar. It was a veritable summer school of methods continued all the seasons of the year. The other brother became the superintendent of an orphans' home. For the purpose of giving the orphans practice in the art of mastication, he furnished them copious supplies of chewing gum. But the orphans grèw lean in spite of all their practice in the motions and methods of chewing gum, just as the pupil-teachers under the care of the first brother grew intellectually lean in spite of all their practice in methods of teaching. The orphans need daily supplies of nourishing food if they are to grow strong, and healthy, and vigorous; the pupil-teachers need daily supplies of intellectual food gathered from the realms of science, mathematics, and philosophy, of history, geography, and literature, if they are not to grow lean during their years of training. Many people cherish totally wrong conceptions of professional schools, especially professional schools for teachers.

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Theological seminaries spend far more time in teaching what to preach than in teaching how to preach. Law schools, instead of spending their strength upon the details of practice, aim chiefly and primarily to give the learner a knowledge of the law. A medical college would soon cease to exist if it gave the students nothing except clinics and practice in diagnosing and in prescribing drugs. Equally absurd is it to expect that the student in a normal school shall devote the major portion of his time to the study of methods and to actual practice in teaching. The normal school faculty cannot be satisfied if the student simply gains a knowledge of the branches adequate for more advanced study; they must aim to impart a thorough and exhaustive knowledge of the branches to be taught—a knowledge enabling the pupil-teacher to see the subject-matter of instruction in all its bearings and relations. Dr. Harris called the late Helen Shafer the best teacher of algebra he ever knew, because she knew exactly what formulæ and principles and operations were most frequently required in all subsequent study of mathematics. Here evidently is a fundamental principle of correlation. The best teacher of geography is (other things being equal) he who knows what the pupil will need in his subsequent career, either as a student or as a man of affairs. This holds true of every branch which the candidate-in-training may be expected to teach. The instructor who lacks this broad outlook may cause the pupils to waste their time and strength upon non-essential details.

Alongside of this correlation which looks into the future is another of equal importance, calculated to economize the intellectual effort at different stages of progress. When a pupil is studying the history of Greece under one instructor it is wise at the same time to concentrate study upon the geography of that country in the geography class. When a pupil-teacher is giving lessons in the fundamental operations of arithmetic, what a flood of light it throws upon his work if he is taught to read and write numbers and to construct addition and multiplication tables on some scale other than ten! While it would be a criminal waste of time to require the average pupil to learn the duodecimal arithmetic, it pays any teacher to familiarize himself sufficiently with the scale of twelve to think in the symbols and terminology of the duodecimal scale. He will then appreciate the problem before the child, which, in addition to acquiring the ideas of number, must also learn the manipulation of the symbols of the ordinary scale. How much easier it is to teach the demonstration involving incommensurable quantities in geometry when the teacher has investigated incommensurable quantities in arithmetic! What a flood of light the algebraic equation throws upon many questions of arithmetical analysis! Some of these days a genius will construct a

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text-book on elementary mathematics to show pupil-teachers the inner nexus between arithmetic, algebra, and geometry, and how this inner connection may help in economizing the efforts of the average boy below the age of fourteen. If teaching is to be a profession, those who follow it must acquire much collateral knowledge in addition to the subjects they profess to teach. Just as a physician is expected to know many things of which other people can well afford to be ignorant, so the teacher should know many things in science, mathematics, history, and language of which the average man or woman can afford to be ignorant as having no bearing upon their specific life-work.

All practice in teaching a given branch should be correlated with observation of the best teaching in the same line of work. Mere practice never makes perfect. We learn to do, not by blind or careless doing but by intelligent, painstaking doing. Hence, all work in the practice-rooms should be carefully correlated with intelligent observation of similar work by model teachers. The normal schools which combine a department of observation with the department of practice in the model school have shaped their policy in accordance with one of the most important principles of correlation in professional training.

A more important principle of correlation remains to be considered. Said a keen observer not long ago: "I have noticed, that, when by accident a rich man's daughter is led to take a session or two at a normal school, she returns home with the conviction that teaching is the noblest calling in which a human being can engage. Even if she is afterwards persuaded to exchange this vocation for that of matrimony, she never loses her estimate of the dignity of teaching; and so long as she lives she is never satisfied unless she has charge of a class at Sunday-school." The professional spirit which students imbibe in the atmosphere of normal schools, the zeal which these schools infuse, the stimulation which they give, the interest in childhood and the love for children which they create is worth more than scholarship and practice combined. The most pitiable sight on the face of the earth is a college professor who has read all the classic Greek ever written; who knows in his line all that is to be known; who, having lost his interest in Greek, has also lost his power to stimulate others; who is gradually sinking into innocuous desuetude; and whom, in view of former usefulness, the trustees finally put upon the emeritus list, as the most decent form of burial ever invented for a living human being. The specimens of this sort which our college faculties contain show the need of something additional to scholarship and practice in cataloguing the elements of success in teaching. Church history reveals to the student of theology the achievements

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of gospel in the two great missionary periods of the past, and helps to give him an adequate conception of the calling in which the apostles were engaged. The history of education brings the normal school student into contact with the great teachers who have revolutionized the world's life. A proper co-ordination of the curriculum requires due regard to the studies which beget the professional spirit.

Finally, the solution of the problem of co-ordination is found, not in the program but in the individual. The conflicting claims of the home, the church, and the state present a problem which finds its solution in the life and personality of the individual who is a proper exponent of the home, a faithful member of the church, and a loyal citizen of the republic. The conflicting claims of the several principles of co-ordination find their reconciliation in the concrete life of the student. Observation and practice, scholarship and training, professional zeal and wise self-control must be so correlated that the quintessence of each and all of the studies may be subsumed and sublimated in the new product of nineteenth century development—the professional teacher.

CONCENTRATION OR CO-ORDINATION OF STUDIES IN THE NORMAL SCHOOL.

[A DISCUSSION OF THE PRECEDING PAPER.]

BY JOHN W. COOK, NORMAL, ILL.

It will be admitted, of course, that the curriculum of the normal school is to be determined by the necessities of the calling to which the graduates are to devote themselves. It is only thus that an institution comes to be a normal school. Since, as has been said, preparation for the practice of teaching is the central idea, the course of study and practice must be adjusted to the accomplishment of this particular end.

In the face of these propositions, however, it is difficult to understand (and here I quote from the paper) how "it is absurd to expect that the student in a normal school shall devote the major part of his time to the study of methods and to actual practice." What is a method but the organization and presentation of a body of knowledge in accordance with the laws of mental assimilation? And what is practice-work but one aspect of method-work? I confess my inabil-

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ity to understand the slighting reference to practice-work, and am quite wholly unable to see the application of the interesting incident of the two brothers. The old maxim, "Practice makes perfect," implies some distinctive activity which has been consciously selected, and it is absolutely true that perfection in that particular act comes only through repetition. To attempt to separate practice from theory is, to my mind, to attempt an absurdity. Practice without a clear and explicit notion of what is to be practiced is quite unthinkable.

It seems to be the doctrine of the paper that the chief purpose of the normal school is (again I quote) "to impart a thorough and exhaustive knowledge of the branches to be taught." With this proposition I wish to take clear and unequivocal issue. So far as the normal school devotes itself simply to that work it usurps the work of the high school or college. That it must deal with the knowledges I am not only willing to admit but will insist, but the peculiar spirit of the treatment makes such work essentially professional. As the medical and theological schools demand a general education as a prerequisite, so should the normal schools.

But what correlations are insisted upon?

1. A correlation of the elements of any given subject, so that it shall become an organic unity.

But is this treatment in any sense peculiar to a normal school? Should not the various topics of arithmetic be so presented that the pupil shall discover the relations of dependence subsisting between them? Is not this one of the salient features of the reform for which the "Correlationists" are pressing so vigorously? So far as the normal school presents academic phases it should conform to the highest requirements of academic instruction. In its theoretical discipline it should press the same principle. Its system of pedagogy should assume the same closely organized aspect, so far as it is possible to achieve such a result in the imperfectly developed condition of that science.

2. The paper also recommends the correlation of related subjects, as geography and history. Of course, this should be accomplished so far as possible; but in what respect should this correlation in the normal school differ from that of the elementary or secondary school?

3. I quote: "All practice teaching should be correlated with observation of best teaching in the same line of work." Doubtless the pupil-teacher should derive the greatest possible assistance from his observation of the work of the critic-teachers, but I had not thought of that as a phase of correlation, as the term is used in this discussion.

4. Again I quote: "A proper co-ordination of the curriculum requires due regard to the studies which beget the professional spirit." The case of the rich man's daughter is given as an illustration of the

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point suggested. Are we to understand that studies are to be pursued simply for the purpose of arousing a professional spirit? If that temper of soul shall not appear with the pupil's growth in professional knowledge and skill, no adventitious help will be of much avail.

5. "Finally," I quote, "the solution of the problem of co-ordination is found, not in the program but in the individual." He is to correlate himself as a representative of the home, the church, and the state, as they have conflicting claims. But is this correlation in any sense peculiar to the teacher? Is it not alike incumbent upon all good citizens? Let us hope that the teacher may be included under that category.

"The conflicting claims of the several principles of co-ordination find their reconciliation in the concrete life of the student. Observation and practice, scholarship and training, professional zeal and wise self-control must be so correlated that the quintessence of each and all of the studies may be subsumed and sublimated in the new product of nineteenth century development—the professional teacher." I cannot quote the foregoing from the paper of the distinguished speaker without yielding it my approval; yet I may be pardoned, perhaps, if I fail to see its full application to the discussion. If I might assume the constructive rather than the critical attitude, I should suggest that we should have a clear understanding of the terms used. Dr. Harris has suggested that concentration and correlation are not synonymous terms, but are rather opposite in meaning. The latter implies certain distinct unities which are supplementary, while the former implies a synthesis of these unities into a higher organic unity. I have no desire to quibble, however, in respect to the meaning of terms, but will assume that what is here meant is that somewhat thoroughgoing synthesis by which each feature of the curriculum is brought into close and sympathetic connection with every other. In a professional school the professional idea must determine the main line of movement and the center of correlation, so far as there shall be a center. As the practice school is the focal point of the work of a normal school, it would seem that it should reveal in an especial way the principle of concentration at work in the solution of the problem which the school has set for itself. All of the theory of the normal school is supposed to find its application and crucial test in the actual work of the pupil-teacher with the children. The aim which is set up in that department, consequently, ought to furnish the key to the whole process of concentration. If the purpose of the school is declared to be the production of a clear and distinct personality, in which the ethical will is to determine the life, then all the work of the school is to be organized upon that distinct purpose.

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It should be kept in mind that the practice school should be exceptional only in its excellence. It should be a typical school in which the pupil-teacher can anticipate the tasks that await him in the public school.

It seems to me, therefore, that the first correlating idea of the normal school is its function as a professional school. Its aim is the preparation of men and women for the practice of the art of teaching. All of the effort of the institution must move toward the accomplishment of that supreme purpose. But as this aim is general rather than specific until the aim of education itself is determined, the really practical working principle must await determination until that important question is settled. If the formation of good moral character be the conscious end and aim of education, then a touchstone is furnished, it seems to me, by which subjects may be tested, and a fundamental and correlating principle is at hand.

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DEPARTMENT OF

MANUAL AND INDUSTRIAL EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—WEDNESDAY, JULY 10TH.

The meeting was called to order in the Manual Training High School, at 3 p. m., by E. R. Booth of the Cincinnati Technical School, President of the department.

President Booth delivered the President's address on "The Philosophy of Manual Training."

The discussion of this and the following paper was deferred until all the papers of the session had been presented.

Charles H. Keyes of the Throop Polytechnic School, Pasadena, Cal., addressed the department on "The Modifications of Secondary School Courses Most Demanded by the Conditions of To-day and Most Ignored by the Committee of Ten."

A paper on "Industrial Education a Necessity of the Times" was presented by Albert R. Robinson, Principal of the English High and Manual Training School, Chicago, Ill.

The papers of the session were then discussed.

The President appointed the Committee on Nomination of Officers, as follows:

J. E. Hoyt of Wisconsin, J. J. Smith of Colorado, W. H. Magruder of Mississippi, Miss Anne Murray of Illinois, and Miss H. M. Chamberlain of Connecticut.

Adjourned.

SECOND SESSION.—THURSDAY, JULY 11TH.

In the absence of Superintendent Search the Secretary, Charles D. Larkins, presented a report on the "Effects of Manual Training."

Miss M. A. Pinney, New Haven, Conn., presented "A Plea for the Systematic Extension of Industrial Work from Kindergarten to Grammar Grade."

Supt. R. H. Pratt, United States Indian School Service, Carlisle, Pa., addressed the department on the subject of "Industrial Training as Applied to Indian Schools."

The discussion of the afternoon's papers was then taken up.

The Committee on Nominations made the following report:

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To the Officers and Members of the Department of Manual and Industrial Education:

Your Committee on Nominations would report the following names for the offices for the ensuing year:

For *President*—President Chas. H. Keyes of Throop Polytechnic Institute, Pasadena, Cal.

For *Vice President*—Prof. W. H. Magruder of Mississippi Agricultural and Mechanical College.

For *Secretary*—Miss Abby L. Marlatt of the Manual Training High School, Providence, R. I.

Respectfully submitted,

J. E. HOYT.
W. H. MAGRUDER,
JOHN J. SMITH,
ANNE MURRAY,
Committee.

The report of the committee was unanimously adopted.

The meeting then adjourned *sine die.*

CHARLES D. LARKINS,
Secretary.

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PAPERS AND DISCUSSIONS.

PRESIDENT'S ADDRESS.—THE PHILOSOPHY OF MANUAL TRAINING.

*BY E. R. BOOTH, PRINCIPAL TECHNICAL SCHOOL, CINCINNATI, OHIO.

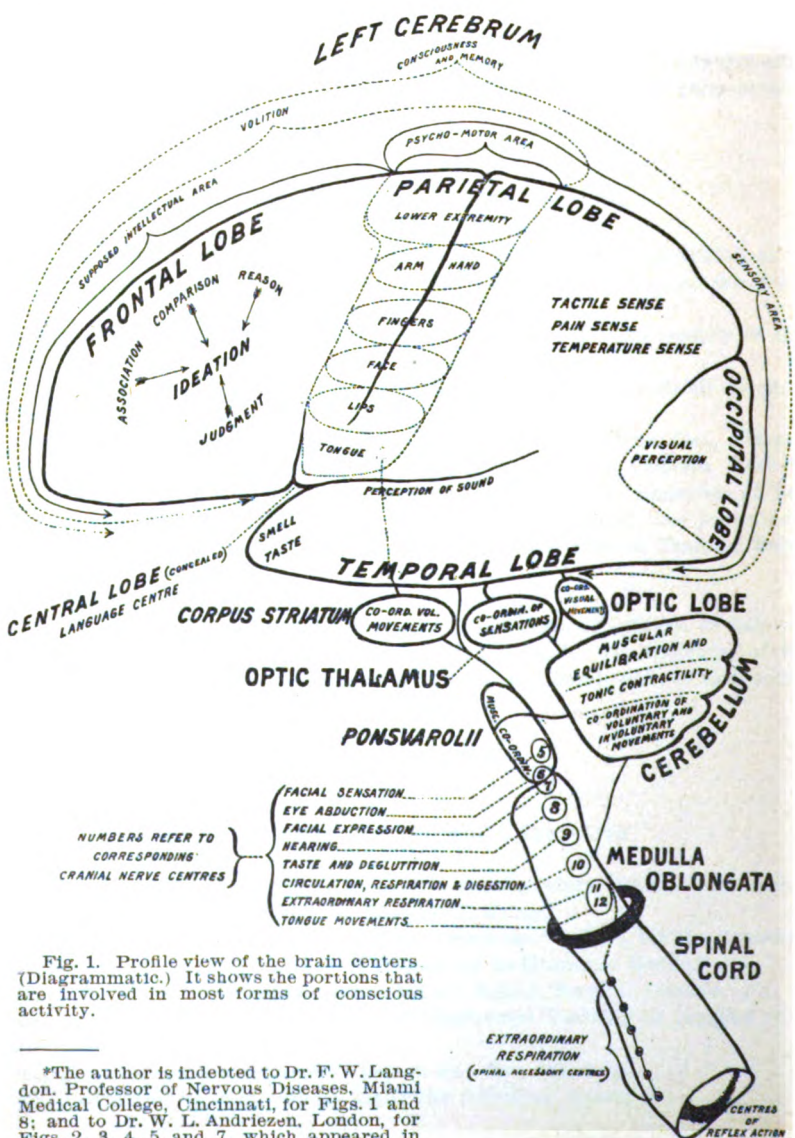


Fig. 1. Profile view of the brain centers. (Diagrammatic.) It shows the portions that are involved in most forms of conscious activity.

*The author is indebted to Dr. F. W. Langdon, Professor of Nervous Diseases, Miami Medical College, Cincinnati, for Figs. 1 and 8; and to Dr. W. L. Andriezen, London, for Figs. 2, 3, 4, 5, and 7, which appeared in "Brain." Fig. 6 is modified from "Brain."

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It is my purpose to deal only with the simplest truths in this paper. I accept the well-established facts of science and philosophy. The following statement is my creed: Mind unfolds with, and manifests itself through, the nervous system.

It is very important at this stage of the discussion of manual training to have clear ideas as to what is positively known of the organism through which the hand and the mind work. The location of the functions of the brain, substantially as shown in Fig. 1, is no longer questioned by any scientist. But back of this, other facts have been discovered which are even more important to the educator. These have been so completely presented in an article in "Brain" for the last quarter of 1894, by Dr. W. L. Andriezen of London, that I will summarize those parts of it bearing directly upon my subject.

The neuron is the unit of all nervous functions considered from the standpoint of anatomy, physiology, pathology, embryology, or psychology. It is the ultimate element involved in all animal functions. The sensitive neuron is the simplest nervous structure, and the one first to appear in the evolution of the animal kingdom. Ascending a little higher the motor neuron appears. The sensitive neuron is connected with a sensitive surface (Fig. 2) by an afferent nerve fiber; the motor neuron, with a muscle, or other contractile tissue. These two forms constitute the whole of the nervous system of the higher invertebrates, and are the fundamental elements in the nervous mechanism of all vertebrates, including man.

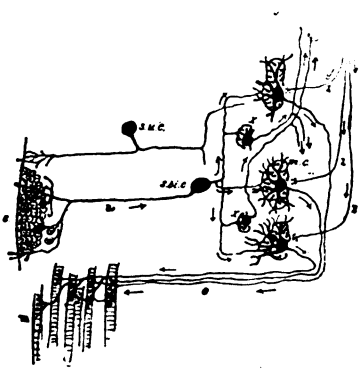


Fig. 2. Highest reflex type of neurons, such as are found in the spinal cord of fishes, amphibians, reptiles, birds, and mammals. s—Sensitive surface. a—Afferent (sensory) nerve. s, u, c—Sensitive unipolar cell. s, bi, c—Sensitive bipolar cell. m, c—Motor cell. e—Efferent (motor) nerve. m—Muscular tissue. x—Other nerve cells with fibers going to y—*i. e.*, other parts of the nervous system. z—Nerve fibers coming from other parts, as the brain.

Leave out the parts represented by x, y, and z, and we have the higher reflex type of neurons as found in the higher invertebrates and the lowest vertebrates.

There are also found in vertebrates two other types of neurons with their nerve fibers. One kind called association or connective cells, form a linear series extending the entire length of the cord. (Fig. 2, x.) The other, called commissural cells, connect opposite sides. These four groups of cells, the sensitive, the motor, the association, and the commissural, are necessary constituents in a vertebrate spinal cord. The mechanism thus found is so complete that a great variety of reflex actions is possible without involving more than the spinal cord and the nerve fibers issuing from it laterally.

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But in higher animals, especially man, the spinal cord and its appendages form the lowest level of the nervous system. The cerebral system, *i. e.*, the brain, is dominant. The portion of this organ of most importance in this discussion is the cortex or outside layer of gray substance. This layer is itself composed of several clearly defined, yet closely connected layers. (Fig. 3.) The first on the outside (Fig. 4) is the part of the brain where the several kinds of sensory nerve fibers coming from different parts of the body discharge their energy. Many of the fibers from it extend down through the second layer into the third. The second (Fig. 5) contains cells with processes extending upward into the first and downward into the third. The third layer (Fig. 6) contains cells with still longer projections outward than those in the second layer. These cells in the second and third layers are the sensory cells of the cortex. They are aroused into activity simultaneously by the excitation of the first layer. The fibers connecting different parts of the brain begin to appear with the development of the third layer.

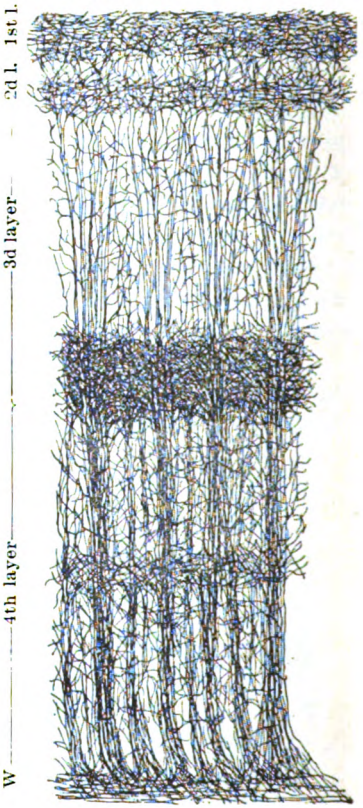


Fig. 3. The nerve fiber system and plexuses of the cortex, or gray outer portion of the brain. The four layers are shown approximately. W —is the outer part of the white substance. Amphibians have only the first two layers; reptilians, the third also; and mammals all four.

The distinctive features of the first layer are present in all parts of the cortex, not only of man but of lower animals. It is therefore an early development in the process of evolution. In reptiles the second and third layers appear, but they are not clearly separated from one another. Furthermore, the processes or projections from the cells of the third layer in the lower types of brains and in the brains of the young of the higher orders are undeveloped. But in the higher animals and in adult human beings the connections formed by these developed cells with their projections suggest the possibility of functions far more complex than those of the lower classes of animals and children. But they are powers of sensation and reflex action only.

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But this complete development of the second and third layers is not the climax. A fourth (Fig. 7) is found in the highest mammalian brain to have reached a wonderful complexity. It increases in thickness as well as complexity in a series of mammals as the animal or-

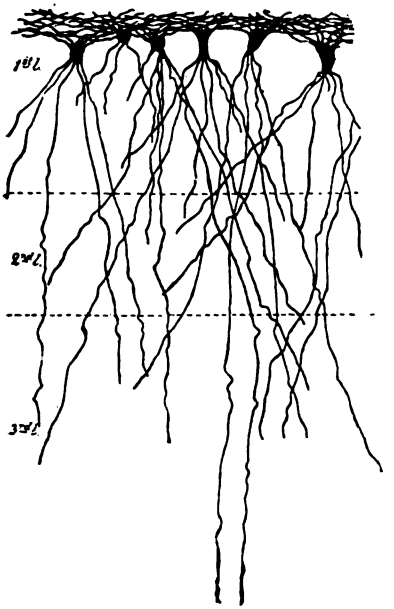


Fig. 4. Fiber cells of the first layer of the brain cortex. The dotted lines show the limits of the layers.

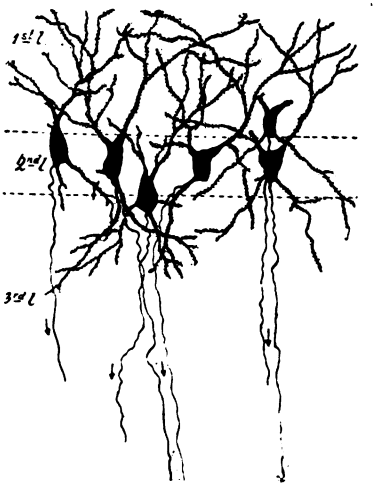


Fig. 5. Cells of the second layer.

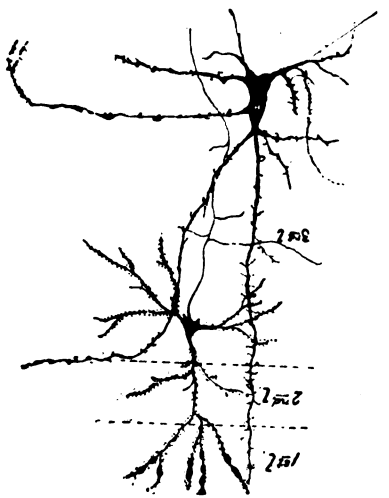


Fig. 6. Cells of the third layer. The enlarged portions of the fibers extending into the first layer show the first stages of softening and swelling due to alcoholic poisoning.



Fig. 7. Several varieties of cells of the fourth layer. b—Bundles of sensory fibers passing directly to the first layer.

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ders ascend. In the monkey it is about one-fourth and in man one-third to one-half the whole thickness of the cortex. (Fig. 3.) With the development of this layer, the commissural and association fibers which we have found to exist in the spinal cord and the brain of reptiles connect all parts of both sides of the cortex of the brain. Besides, "the whole system of association and commissural fibers grows in accordance with the degree of brain evolution, and these, together with the cell elements of the fourth layer, attain their highest relative and absolute development in the human brain."

Let it be remembered that a nerve cell is a place in which energy is elaborated and stored, and from which discharges of energy may take place. Now there are three fundamental causes for the discharge of nervous energy: "(1) As the result of direct excitation by incoming nerve currents; (2) as the result of its own (rhythmic) nutritive activity, apart from the influence of incoming excitations; * * * (3) as the result of the revival of previous nerve activity which may be caused by the transmission of the molecular effects of an excitation elsewhere in the brain."

The number of cortical cells in the brains of most animals does not increase after birth, but the differentiation and integration continue, and the individual neurons go on developing. The cell increases in mass after birth, but very soon reaches its maximum as to size. This accounts for the great strength of an infant as compared with its weight. Its energy is exerted *en masse*, but it shows lack of skill in every movement. But new and more complex connections are made, apparently, till the adult condition of the animal or the child is reached. This accounts for the continual growth of general brain power as shown in greater skill, and for the increased power of perception, of will, and of judgment. This is the meaning of the whole process of education. By exercising the motor and sensory areas along new lines structural changes are made in them, and by the intimate connection of these, through the association fibers, with each other and with the special psychical area, all are, in turn, stimulated to their proper action. The movements become more varied and accurate, the sensations more acute, the ideas clearer, and the judgment more correct. Thus "we can come to faintly realize the potentialities and capacities for the various forms of sensorial, psychical, and psycho-motor life which the active brain is capable of during a healthy and well-trained life."

But sensory, motor, and even psycho-motor life is not all of the mental life of man. Attention and will power are more important. Any conscious action of a sensory center produces a certain degree of attention which, therefore, has its seat in the sensory center so affected. Now, attention differs from complete volition, yet the two

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are very closely allied. Volition proper, as applied to motion, is "a specialized and intensive discharge from the sensory to the motor side. (Fig. 1.) It is thus the passing from attention to execution." Its location in the brain is the fourth layer of an area underlapping the psycho-motor sphere on one side and the sensory on the other. As volition, properly speaking, is a late step in the process of evolution, we would naturally expect it to be located in the fourth layer, where, indeed, it is found.

A percept involves the association of the ideas of an object obtained through the several sensory channels. Two or more sensations produced by the same object must be unified before a percept of the object is evolved. Furthermore, the conjunction of sensations produces in the mind a corresponding combination of perceptions; and the sequence of sensations produces a sequence of perceptions. Hence the association of ideas, one of the most potent factors in education.

The ideas and thoughts which were at first associated with sensation may become causes which react upon the sensorium, produce new combinations and new sensory experiences which, in their turn, produce new motor experiences. These give the child something new; it is constantly, figuratively speaking, striking against something to it hitherto unknown. In this way it reaches the stage of apperception, *i. e.*, perception of itself; a knowledge of itself as something else than its environments. This ego, or self, grows with every obstruction it encounters, and with its growth the highest nervous mechanism is being adjusted to the changed and changing conditions. Mental as well as physical traits are becoming fixed.

We must therefore readily see that running, leaping, throwing, wrestling, sparring, and most of the common movements are useful, natural, and practically unconscious modes of activity bequeathed to us by inheritance, or acquired by us in early childhood. Such movements do not require a high degree of intelligence or a decided effort of the will. When they are once acquired the lower nerve centers with their nerves of transmission do the rest. Upon the other hand, the constant effort to devise and carry into effect new and untried movements require the exercise of neurons whose functions have not become established, and therefore subject to conscious effort; that is, to a direct application of will power.

But mental activity does not end with the application of will to the control of the muscles. In order that muscular activity may be effective in securing results hitherto unknown to the individual through inheritance or previous conscious effort, a definite aim must exist in the mind and a new and intelligent co-ordination of movements must be secured which will produce these new results. In

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these we have the highest function of which the mind is capable. They make man more than a machine. He must act on rational principles. He becomes a creator. But so long as he moves at the beck and call of another, or by mere impulse, he sinks his rationality and becomes a machine or an automaton.

The motor areas represented in Fig. 1, if well fed, are surcharged with energy, which must dissipate itself through the regular channels leading from them, *i. e.*. the motor nerves. If motion only is required to satisfy the inclination of these centers, running, jumping, shuffling the feet, shaking the desk, upsetting chairs, or a good rough-and-tumble, go-as-you-please romp, fulfill every want. Then the child will subside into that complete state of indolence which is so familiar to all who have observed the habits of the lower animals. But motion of the arm as a whole is not sufficient in a state of high physical development. The shoulder, the humerus, the forearm, the wrist, the hand, and the thumb and fingers must be trained to perform myriads of movements, in every conceivable direction and with ever-varying force, in order to do work that taxes the skill of the expert workman. Hence it is that these larger areas which in general preside over the larger, or massive, movements of a coarser and more general nature, are subdivided as indicated in Fig. 1. Manual skill has invariably accompanied every advance in civilization; and every stoppage or decline in civilization has been accompanied by a stoppage or decline in the arts requiring such skill. Therefore civilized man is possessed of a set of highly differentiated nervous centers, capable of correlating the most varied and delicate of muscular actions. These, as well as the coarser and more general motor centers, must, if properly nourished, have their appropriate exercise, which will appear through the delicate movements of the hands especially. Therefore, it is impossible for a normal civilized child to subside into complete inactivity during its waking hours.

If the cerebrum has, by inheritance, centers that are adapted to the great variety and delicacy of movements, to which attention has been called, they must find some outlet for their activity, or they must soon cease to act. The inclination to act causes us, if not otherwise employed, to whittle sticks, to draw or carve pictures, to play with a string, to drum with our fingers, or to do one or another of a thousand little things that may, to say the least, be annoying. 'Tis true these actions may be checked by restraint. But restraint only is annihilation; unintelligent direction is automatism; the only thing gained is the dissipation of surplus energy in the brain centers.

Activity being the function of nerve cells, they cannot be content to be at rest, except when recuperating from fatigue. If unemployed there must be a feeling of uneasiness prompting to activity. Satis-

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faction is demanded. This activity may be brought about in one of two ways, viz., by giving them natural employment and by stimulation. Their natural employment is found in receiving sensations, combining these sensations into conceptions, and executing ideas through the psycho-motor powers or abstract thought. Unnatural stimulation is generally effected by the use of narcotics or alcohol.

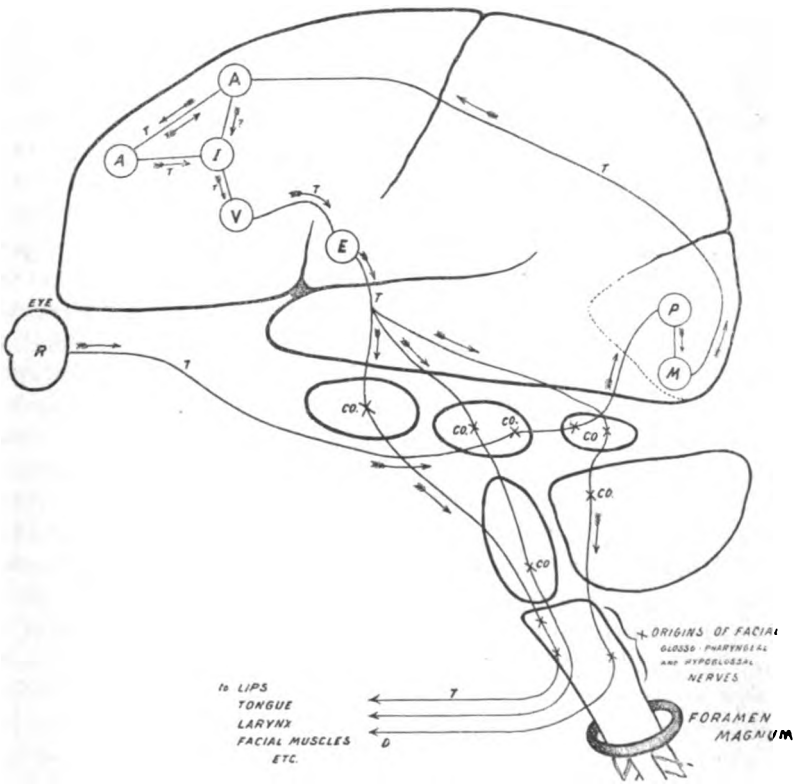


Fig. 8. Diagram to illustrate the anatomy of a train of thought and its expression. R—Receiving end organ (eye). T—Transmitting fibers. Co—Co-ordinating centers, or cells. (I doubt the propriety of representing these as separate cells.—E. R. B.) A—Association cells (comparison, reason, judgment). I—Ideation cells. V—Volition cells. E—Expression cells (center for articulate speech). Arrows indicate direction of nerve currents.

Work is natural, hence healthy; stimulation by any other means is unnatural, hence destructive. Both are followed by a period of relaxation. One is the sweet sleep of childhood or of honest toil; the other is the unrest or the oblivion of dissipation. Both produce permanent results. One produces nerve cells of improved quality; the other, stunted if not diseased cells. Both in turn tell upon the mind. One makes it powerful and energetic; the other weak and vacillating.

Let the significant fact be kept in mind that man is the least instinctive of all animals, but the most intelligent; that each child

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starts out to acquire the knowledge and the skill of the race, and not simply to exercise his instincts. The first movements of the limbs doubtless are instinctive or merely reflexive; but they are almost useless for accomplishing any definite results until controlled by intelligence. This control brings into action all the higher mental powers of the child. The results attained, as shown in the vast store of knowledge and skill that the child acquires in two or three years, leads us to believe that the mind of the child up to the age of three or four years is working at its full capacity. It is evident, also, that every part of the brain has had its appropriate exercise. Each of the six senses, the more general and coarser movements which are necessary to a reasonably high order of physical existence, and the intellectual (not instinctive) power to control these movements have all been trained. Here, alas! this perfect harmony in education often ceases; and unless the child is trained in the kindergarten, or a home akin to it, or by a cruel fate is driven to the performance of duties requiring greater variety and exactness of movements, the differentiation of the motor functions is not secured. The child remains a clumsy automaton; its work is of a coarser nature and becomes play or drudgery, never accompanied by the pleasure of creating. It has reached the stage of advancement characterizing a fairly well-developed animal. If the process of development is not continued, the animal propensities become more prominent, self-gratification, indolence, or movements purposeless or with evil intent control the life. The child is no longer the angel it was in infancy, when all its powers were at work at their highest tension; but it is the torment of the home and of the school, in danger of becoming also a curse to society. Most of its actions have become reflex; that is, they are induced by sensation instead of mentation. The result is, as you can readily see by reference to Fig. 1, the great exercise of the spinal cord, the cerebellum and the several ganglia at the base of the brain, slight exercise of the back and sides of the cerebrum, and little exercise of the front.

It is pretty generally conceded that most children learn more before they are six years old than in all their subsequent lives; that few make any very great progress in knowledge, or culture, or skill after reaching their majority; and that he who continues to progress after middle life is the exception. This is not to be wondered at when we consider the life the child must lead. But it should not be so. Mental progress should not cease with infancy, or with childhood, or even manhood; but should continue to old age, and fill the whole life with the happiness of youth, toned down but widened by richer experiences.

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After a careful study of the foregoing facts, I believe you will accept the following conclusions. Some of them are simply corollaries depending upon what has already been said; others are susceptible of further proof by other lines of argument:

Quality, not quantity, of brain determines mental power.

Exercise improves directly the quality of the part exercised, and indirectly the parts most intimately associated with it.

Exercise of the brain within reasonable limits is conducive to its growth in power, and a great variety of exercise is absolutely necessary to the growth of all its parts.

Constant or oft-repeated exercise of one kind produces automatism in the part of the brain exercised. Disuse produces atrophy of the parts not exercised.

Stimulation to sensation may give knowledge, but not power to do.

Often the child receives no sensation because the nerve cells of the second and third layers are not developed.

If the sensation is received, the child may be powerless to perform an intelligent act because the cells in and fibers connected with the fourth layer may not be developed or educated. We are liable, therefore, to over-rate the young child's power of feeling and doing. Its natural impulses are its guide. It can be trained, but not forced.

The psycho-motor area is the executive part of the brain relative to all movements, and through it only are the thoughts of one person transmitted to another. By it also the physical world is transformed.

The cultivation of motor power is the cultivation of will power. By cultivation, I mean the development or increase of power, and not merely the exercise of a power already acquired.

Physical training is the cultivation of will power only so long as a conscious effort to control the actions is made. Therefore education of the will ceases as soon as the power to do is thoroughly acquired.

No portion of the brain should remain unexercised; hence training to ambidexterity and in great variety of movements is more educative than skill of movement resulting in automatic actions.

Educative work should stop short of skill in movement, except in those cases where the movement is simply a necessary means to an end. For example, speaking and writing are necessary means to the high purpose of expressing thought, and should become automatic.

The school should be so planned and so administered as to develop all the higher functions of the brain as well as the mind, so as to enable both brain and mind to act in harmony. Through this cultivation of nervous power the body is made the willing tool of the mind.

In schools in which the motor and sensory areas are not systematically trained, much mental power must remain undeveloped.

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By using all the powers of the mind and the brain more can be done than if only part of them be used. Hence, schools which utilize the sensory, the motor, the intellectual, and the volitional powers in work may—yea, should—do more work than those using only part of these powers.

The capacity for improvement is practically unlimited so long as the physical organism, especially the brain, is in its normal condition. The normal condition being a tendency to activity, it must be exercised; if not, it will crave something that will excite it to activity artificially, as a stimulant; or something that will suppress its yearnings, as an opiate; or something that will do both, as a narcotic.

Learning, being simply the exercise of the functions of the part involved in learning, is a pleasure to every healthy chid.

Work involving a variety of acts is man's natural activity. It is more pleasant than play, because it involves the natural use of a greater number of powers.

Play is activity along lines already well established; hence, but slightly educative. It must also soon become automatic. But its importance in the child's development should not be overlooked.

Physical exercises cease to be educative—*i. e.*, cease to develop mind power—just as soon as they become automatic or reflex. Simultaneous action on the part of a great number of persons is almost *prima facie* evidence that such a point has been reached. Calisthenics, gymnastics, and military drill cease to be educative as soon as they become a means of attractive display.

The performance of unusual or hitherto unperformed movements requires the creative influence of the higher psychical functions and the exercise of the higher psychical brain areas.

All movements that must become automatic in order to be effective, as in eating, walking, speaking, etc., should be learned very early, when the nerve elements are susceptible; but they should be learned correctly, or the work of eradicating a habit acquired and establishing a new one becomes necessary, thus wasting much energy.

The child must think in the concrete; all that which seems to be abstract thought by the young child comes through an inherited condition of the brain.

The custom, well-nigh universal, of helping the child at every turn, and especially when it first encounters a difficulty, is ruinous to a pleasant and a vigorous growth.

Character is not built up by allowing a pupil to follow his own impulses. No one can become strong except by exercising the power of inhibition; *i. e.*, by making his higher psychical powers control the physical and the lower psychical powers.

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Ideas that are constantly associated with the physical powers are low, and if indulged in will sooner or later determine the individual's character. Sensuality is found first in the mind, not in the body.

The moter area acts as a result of some stimulus. This generally comes from the sensory area, but the higher psychical area may, through the direct application of will, bring about motion.

All conscious mental effort to control the body so as to make it perform definite, predetermined acts, is an exercise of the highest psychical powers.

The person who has not learned to control his powers is not educated mentally. His animal powers only may be developed, but the impulse controlling them may be almost entirely on the sensory side of the psycho-motor area.

All education, whether of the hand, the head, the heart, the spirit, is a unit. Education of a certain kind means that the training accompanying education has taken a certain direction.

A study of man as a physical, a mental, a social, or a spiritual being leads to the one conclusion, that a broad education is pre-eminently the demand of the age.

THE MODIFICATIONS OF SECONDARY SCHOOL COURSES MOST DEMANDED BY THE CONDITIONS OF TO-DAY, AND MOST IGNORED BY THE COMMITTEE OF TEN.

BY PRESIDENT CHARLES H. KEYES OF THE THROOP POLYTECHNIC INSTITUTE, PASADENA, CAL.

The chief modification of the secondary school curriculum which is demanded by the conditions that surround us to-day is the general introduction of industrial education.

Industrial education includes both manual training and technical instruction. By the former is meant training the mind to use hand and eye in connection with other sense organs in acquiring knowledge from well-planned and graded contacts with objects, in giving expression to the thought stimulated by these contacts, and in transforming, by tool and machine, crude matter into forms of beauty and utility. Its aim is the development of conscious, skillful energy and the subordination of every other power of body and mind to the action of the will. Its chief product is never the accurate drawing, the beautiful sketch, the well-made garment, the well-cooked dinner, the exactly fitted joint, the perfectly adjusted

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machine, the intricate and ornamental iron-work, the thing of beauty which seems to speak to us from wood or clay; but it is the self-controlled, self-centered young man or woman, who "has learned how to live," and prepared himself to easily learn "how to get a living." It is the boy who is to be a man rather than simply a machinist, a citizen rather than simply a carpenter. It is the boy who aspires first to the high estate of right living, and afterward to the successful following of the calling for which he has, in his training, discovered his adaptability. The girl trained in such a school will come to honor the demand of society and home as an intelligent, careful, noble woman, who can be, when occasion demands it, the true friend, the helpful wife, or the worthy mother.

The teachers in manual training schools must be not simply expert carpenters, designers, blacksmiths, machinists, draughtsmen, seamstresses, dressmakers, milliners, or cooks, but all should be artists in one thing, and that one thing is teaching. Their chief study should be "How boys and girls grow." The average intelligent blacksmith is no more fitted to manage and teach boys in the iron shop of a manual training school than the average book-keeper is to teach arithmetic and writing in a good grammar school.

Technical instruction, on the other hand, is demanded in the trade school. Dr. Balliett of Springfield, indicating the difference in function between these schools, says: "The muscular movements involved in the handling of tools are made at first by nerve energy which comes from the brain; but after these movements become automatic by practice the brain relegates them almost wholly to the spinal cord. Such movements cease to be of much educational value when they are no longer directed consciously by the brain. Any process in manual training ought to stop when it ceases to be brain work. Here we have the difference between the manual training school and the trade school. The manual training school stops when the point mentioned is reached. Its purpose is purely educational. The trade school continues the training in skill, even after the process is relegated to the spinal cord, in order that the person may develop the power of producing as large a quantity as possible of goods of high grade of finish in a given time for the market. Its purpose is economic."

Both manual training and technical instruction should find a place in our scheme of secondary education for reasons which I shall briefly endeavor to set forth. In justifying this position I shall keep in mind that the burden of proof as to the desirability and practicability of any reform is always with its advocate. I shall keep ever in mind the criticism, which I admit to be well founded, that our high schools are already attempting more than they can

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do well. I shall also accept for the manual training high school the commission of fitting any of its pupils who may desire it for entrance to college.

1. I believe it is desirable to make manual training a part of the high school curriculum, because I believe in body culture, and because almost all the traditional high school work is in the direction of bodily destruction. In most instances our highest aim is to give our boys and girls a high school education and bring them out at the end of four years with bodies no weaker than they were at the commencement. And when I think of our alarmingly numerous failures to do even this, when I recall such reports as that of the imperial commission on eyesight of German school childhood, I do not wonder that the poet in a moment of disgust with our civilization should make the hero in "Locksley Hall" determine upon the alliance of barbarism, where his children should be reared:

> Iron-joined, supple-sinewed, who should dive, and who should run,
> Catch the wild goat by the hair and hurl their lances in the sun,
> Whistle back the parrot's call and leap the rainbows of the brooks;
> Not with blinded eyesight poring over miserable books.

We can obviate this by doing all that is valuable in the present high school courses in fewer hours and devoting those remaining to that which shall train both bodily powers and mental faculties. Make respectable manual training a feature of every high school curriculum and the bodily improvement of the students will more than keep pace with their intellectual growth.

2. I believe it is desirable to incorporate manual training in the secondary school curriculum, because it will bring into the high schools a vast army of boys and girls who now leave at the end of or during their grammar school course. A portion of these leave because of the general impression that what follows has no practical bearings, and is neither a fitting for living nor for getting a living. Where manual training has been introduced scores of these pupils enroll and take with great zest, along with their manual training, the very subjects lack of interest in which drove them out of the regular school. Another class, largely boys, leave because it really has no interest in the major fraction of that which occupies the high school student, an admission that by no means implies that the deserting students are dullards.

3. Manual training should constitute a part of every high school curriculum in order to prevent the wicked waste of time now indulged in and to stimulate pupils to intellectual concentration. For four years pupils devote their energy for five or six hours daily in preparing for college or completing an equivalent course of study. The manual training high school, on the other hand, gives practically

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half of each day to hand and eye culture, and sends its graduate out prepared for the best colleges of the country, even when tested by standards that ignore all efforts save those of the traditional lines. Certainly any modification that enables students to do a given work with thoroughness in half the time usually allotted to it is "a consummation devoutly to be wished." To one who has not had opportunity to compare both modes of secondary education this conclusion, that we could do all that is worth doing in our present high school courses in one-half the time now devoted to them, seems paradoxical. And yet it is not so strange when we pause to give proper heed to two important considerations. First, we spend too much time in our high schools on that which is neither preparation for life nor for college, judged by the standards of either. We may have ceased to teach our boys and girls—

> The royal genealogies of Oviedo,
> The internal laws of the Burmese empire,
> By how many feet Mr. Chimborazo outsoars the Teneriffe,
> And what census of the year 5 was taken in Klagenfurt,

but when the Browning of another day shall sing the "Aurora Leigh" of ours there will be no dearth of facts on which to base this self-same plaint of wasted time.

The second consideration—the time limit to mental receptivity through ordinary class or study methods—is so aptly set forth by the experience of the English Child Labor Commission of 1883 that I desire briefly to call your attention to it. This committee, with the eminent Sir Edwin Chadwick at its head, was appointed by parliament to inquire into the condition of child labor in the factories. It discovered that for many years thousands of children had been employed twelve hours per day, and thus kept from all school advantages. A population was rapidly growing up which, by its intellectual and moral degradation, must sooner or later become a dangerous menace to the whole social structure. The commission, to remedy this condition, recommended and secured the enactment of a law compelling factories to require of each of their child employes a certificate from a competent teacher in a fitting school to the effect that the child had been under instruction every school day of the preceding week. This was subsequently modified so that children were working in the factories in two shifts, one in the morning while the other was at school, the other in the afternoon when the morning laborers became the pupils. Within a few years eminent medical authorities were testifying to superior physical growth; police authorities and philanthropists to improved moral tone; and employers to higher grade of work. All this was to have been expected. But the surprise came, says Mrs. H. M. Plunket, in her admirable

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article on the "Kindergarten and Manual Training," when, after twelve years of careful study of more than 12,000 children involved, Mr. Chadwick was able to report and demonstrate, not only that half-timers were doing better work in school than whole-timers, that they were characterized by superior mental activity, but that the full-time scholar in the board school found himself at his fourteenth year three years behind the half-timer from school and factory. What wonder then that Mr. Chadwick should say, in 1882, after having given fifty years to the study and observation of the elements of this great problem: "Unfortunately the primary principle of education—the capacity of the recipient; the mind—is not understood or regarded. The receptivity of the minds of the great mass of students for direct class teaching is less than three hours, and when these limits are undistinguished and disregarded the consequences are displayed in wearisome efforts to get quarts into mental capacities of pints and gallons into quarts, with prolonged sedentary detentions for this foolish purpose and with grievous bodily as well as mental injury."

4. The student who has taken a regular course in a good manual training school will, at the end, have mastered the tools, machines, and underlying principles of over a hundred callings, and will be able to determine with some degree of wisdom the calling of his liking; and, what is more important, will have banished many early illusions as to his own adaptability.

5. Manual training should have a place in our secondary schools because it will teach boys and girls to entertain real respect for honest labor. We live in a day in which the conflict between labor and capital is taking ominous form; in a day in which the struggle between the masses and the classes warns us of impending danger. All is born of the fact that two lines of false education prevail. The illiterate voter is being taught by the professional political agitator that the intellectually or financially more favored classes have entered into a conspiracy to inthrall labor; that for it they entertain no regard. And again, the masses of good citizens who are giving their boys and girls any but the most elementary education are doing so under the conditions that beget no sympathy for labor and no respect for the laborer. During each succeeding political campaign we go out and cheer to the echo the sonorously eloquent declaration of our stump speakers concerning the nobility of labor and the special love and regard which the party entertains for the horny-handed son of toil. We go home to realize in a cooler moment that we have been deluged with torrents of rhetorical bluebosh.

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We appreciate, when too late to rebuke, the insincerity of the man who simply talks in that way to win votes, but we go on educacating our boys to prefer to associate with any quack of a doctor or shyster of a lawyer rather than to fraternize with him who has honestly earned the right to existence even at the expense of smutting his hand or browning his face. Deny it how we will, our sons and daughters, too, are being educated to believe that true gentility and manual labor are incompatible. What wonder then that the American boy more easily becomes an agent than an artisan? For fifty years parents have been urging boys and girls to study hard in school that they might not be compelled to work for a living when they grow up. The advice did not contemplate that the young people should fit themselves "to beat the world out of a living." It was born of two convictions; one erroneous, the other well founded. The small class who urged diligence in school on this basis had in mind the avoidance of manual effort, because they believed it harder than other forms of exertion, and naturally desired careers of comparative ease for their children. The large class, however, appreciated, that, not only the prizes of life fell to those in the professions but that the world had small respect for the laborer. What wonder, then, that, under these conditions, we should speedily reach the day of importing our skilled workmen, our master artisans, and directors of manual effort from foreign lands? What wonder, then, that so many of our American boys grow up to join the army of the dissatisfied—the unemployed? We have not trained them to live otherwise. The remedy that alone can save us from becoming

> The land to hastening ills a prey,
> Where wealth accumulates and men decay,

is to give our boys and girls some such experience as the manual training school offers. There will be no occasion for such to be taught that labor is honorable in just the degree that it is intelligent. This sentiment will have become a part of their natures and a large element of their self-respect. No boy who has, with his own hands, used the tools of the woodshop, the pattern shop, the smithy, and the machine shop, has known what it is to earn directive intelligence by the sweat of his brow, can ever fail to recognize in every honest toiler a brother man. No girl who has, along with her Latin and her mathematics, mastered the elements of the arts that invite her to the clayroom, the carving-room, the sewing and the dressmaking-room, or the kitchen of the manual training school will ever grow up to be the woman who dreads association with working people, or the mother whose sons are naturally dudes. She will be less apt to furnish long letters for the Sunday newspapers on "What is the

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matter with the servant girls of to-day?" But she will, because she recognizes that these poor, dissatisfied creatures have not lost their right to be known as sister women simply because they toil, be better able to make them see the necessity for being artists in their humble calling. She will be better able to appreciate the lesson of that wonderful picture of which William Cullen Gannett tells in "Blessed be Drudgery." He found it in one of the galleries of the Louvre. It was the interior of a convent kitchen, and there were busy at work, not slatternly women in slovenly old dresses but beautiful white-winged angels, with a little cherub running here and there, getting in the way and trying to help. Each seemed to have idealized her real, if not realized her ideal, so that, in some way, you forgot that pots were pots, kettles were kettles, and pans were pans, and only thought, "How beautiful kitchen work is; just the thing the angels would choose to do, of course."

6. Manual training in our high schools will make respectable science work, which is now almost unknown in such schools, both possible and easy. The difficulty of all science teaching in high schools to-day is that there is no real laboratory work. When even meager opportunity is provided, the absence of all collateral training of hand and eye makes the pupil so bungling in manipulation and inaccurate in observation that the teacher is tempted to the miserable "showing, illustrating, and expounding method," that makes a farce of so much of our science work. When pupils are constantly trained to use hands and eyes they can be trusted to use them in the scientific laboratory. Again, the presence of the shops and their equipment makes individual apparatus possible without large cost. The training in drawing makes it possible for the young science student to see twice as well and to submit to his instructor twice as speedily accurate evidence as to what he has seen. So greatly does manual training improve the opportunity of the science teacher and student that it does not seem to me unreasonable to require of manual training high schools double the accomplishment in natural science lines that is possible in the traditional secondary schools, a fact which alone should be enough to determine the modification in question.

7. Manual training in our high schools is desirable because it will give boys and girls the highest kind of moral culture. In the manual lines of work a sham of any form or dishonesty is so certain to reveal itself that the pupil not only learns that virtue is its own reward but that dishonesty advertises itself, and by its very form invites the rebuke of teacher and classmates. Defects in the effort at preparation of the lesson in history, or mathematics, or English may escape the vigilance of even the experienced teacher; but

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the doctored exercise of the shop cries aloud "Behold my deformity!" Thus honesty is made easy and dishonesty painful, and the correct habit is formed.

The moral nature is strengthened, too, by such training because it plants the habit of industry, the chief barrier to idleness, which is the beginning of crime. The pupil who learns to labor at his books has, of course, acquired this habit in large degree; but when he has also learned to labor with his hands, he has come to feel the necessity to be ever doing. He knows "the devil never comes when he hears the anvil ring." His heart is full of the sentiment which George Eliot puts upon the lips of her hero in her poem "Stradivarius." She makes the old violin-maker, whose instruments are now worth their weight in gold, say:

> If my hand slacked I should rob God,
> Who is fullest good, leaving a blank
> Instead of violins; for He could not make
> Antonio Stradivari's violins without Antonio.

8. As urged heretofore, manual training tends to break down class distinctions and to teach the universal brotherhood of man. These distinctions exist to-day not alone because of the attitude of the wealthier and more fortunate class, but the lines of demarcation are strongly emphasized by the position taken by the vast army of illiterate hand-workers who assume that the man who wears a white shirt and a black coat necessarily desires to hold himself aloof from common toilers. You know how difficult it often is to induce working people to attend a church having a large membership among the well-to-do class. It is due to the same mistaken notion that all who do not toil with their hands are necessarily antagonistic to the hand-workers. When the son of the poor man works side by side with the son of the rich man in the manual training shop, and each discovers that the other has increased his self-respect and his respectability by the efficient, faithful performance of the labors assigned, there will grow up a mutual, spontaneous sympathy that will never ask, "Master, who is my neighbor?" that will never cry out, "I am not my brother's keeper." There will grow up a class of working people too intelligent to be misled by the cheap agitator and demagogue whose chief stock in trade is a copious supply of denunciatory adjectives generously used in the abuse of every one more fortunate or more industrious than himself. There will grow up a class of capitalists whose experience will have made them genuine respecters of all intelligent effort, whether of head or hand.

9. Manual training in our secondary schools will help us to give every student the desire to be, not simply good but good for something. The duty of society to itself is but partly discharged when it

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has provided means whereby its youth may be trained to live. It is also important that young men, and women, too, shall be trained to earn a living. This must be the function of the special secondary school, or trade school. The training school has laid broad foundations and given general development to all powers of body and mind. If upon these foundations safe character is to be builded, then must follow special training which will fit the citizen to help himself; which will equip him to support and educate his posterity; which will put him in the category of those who not only strive to do something perfectly, but in the list of those who aspire to know that which is perfect and him who is perfection. The colleges and universities of our land furnish ample training for the professions. Nearly every commonwealth sustains at public expense its schools of law and medicine. Almost all our higher education to-day is aimed at the professional, literary, non-mechanical, or industrial classes, which constitute less than thirty per cent of our population. For the remaining seventy per cent little or no technical training is provided in this age with its intense demand for specialists—trained men and women—everywhere. Thus our young men and women are coming up without being trained to any calling which will permit them to be honest. Think of the army of young men who go into merchandising simply because they have never been specially trained to any service. Do you wonder, then, that thirty-two per cent of all who embark in mercantile lines fail? Think of the army of men who, for no better reason, seek to practice law or medicine, and then wonder why two of the noblest professions of earth are cursed with a contingent of dishonest and disreputable followers whose presence in the social body is a constant menace to the advancement of our common civilization. Think of the thousands of men and women who, for want of special training in any line, undertake to teach the young, and no longer wonder that in every state and every county of our land whole schoolhouses full of children are being crippled physically, morally, and intellectually. Think of the vast array that, with no better reason, invade the pulpits of our churches, and no longer wonder why so many preach to empty seats. Think of the greater army of men, and women, too, who, for want of special training, drift idly out into the world to find an easy way to lives of vice, and shame, and crime. Remember, then, that society has made all these; that by our neglect to provide means whereby, in early youth, they might have discovered their adaptations, and later might have given themselves the special training that would make independence and integrity possible, we have merited the fate their present condition has inflicted. How much cheaper for the average state a dozen schools each calling for a million of dollars to found and equip

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and a hundred thousand annually to sustain than the maintenance, toleration, or defense against half the worthless, dangerous classes just enumerated! Do you doubt that industrial education would remedy this? Have you ever investigated the training of a body of tramps or vagrants? If so, have you ever found a tramp blacksmith, a tramp machinist, a tramp carpenter who was really a trained and sober man?

Even in this present period of widespread depression the great itinerant army of the unemployed is an army of untrained men. The demand of the hour is for trained men, men who can do some one thing well, and it is time for us to stop our half-hearted paltering with the question of souphouses for these unfortunates of the present day, or the question of furnishing them work which they cannot or will not do, and address ourselves, in part, at least, to the graver question of educating the tramp out of the civilization of the next generation. The physician who, for a distemper of the blood disclosing itself in cutaneous eruptions, would simply apply lotions or poultices to the cicatrixed surface, would meet the derision which his procedure would merit. So, too, if we would escape the well-merited ridicule of posterity we must stop our endeavors to cure too deep-seated distempers of the social body by the sole applications of any such sanctified and deodorized iodine as free soup. Industrial education is the remedy for our children. Have we the intelligence and the devotion to administer it, and thus get at the seat of the disease?

10. Again, the relation of woman to new economic and social conditions calls strenuously for this industrial education, if either ethics or religion are to be conserved.

(a) A vast body of young women in this country go annually to lives of shame and vice solely because they lack the training which would give them an honest living and keep them out of the environments which eventually work their ruin. California to-day cannot find enough trained young women for any line of service from the kitchen to the college classroom at more generous wages than obtain in almost any other part of the Union, and yet annually this state contributes its full contingent to this fallen untrained army.

(b) Young women are to-day entering on marriage alliances in order to have a home and because they lack independence—because they are without industrial education. They are ordaining themselves to be miserable wives and wretched mothers; they are preparing to meet that brute of a husband in the divorce court; they are condemning their children to an environment both pitiable and degrading. Shall not all this be saved when woman is trained to stand alone, if need be? so trained that if she take a husband's hand she

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goes to him a true help-meet? And just here I would have you think of no narrow range of training, but one that would reach down to the humblest girl or give free play to the aspirations of the most ambitious woman.

(c) Still other girls are starting out in life loving and loved, with every prospect bright for all the happiness that the ideal home may have in store for her who holds its destinies in her well-trained hand. A few short years, in which she can neither serve herself and her own nor train others to do it, and all is changed. Sorrow and misery begin their inroads on the home, from which, a little later, a sad-eyed women and a cynical man depart forever, each vowing that "the times are out of joint! Oh, cursed spite, that ever I was born to set them right!"

The wife of the future will need more and more the training which our schools do not now give. Is the integrity of the home of sufficient moment to society and to religion to warrant our striving to put such training within the reach of every girl?

For these reasons, thus hurriedly set forth, I believe it to be the education the youth of our country demands; the education which, as George William Curtis has said, "shall, with one hand, point the young American to the secrets of material skill and fullest intercourse with all mankind, while with the other she shall point to lofty thought and commerce with the skies."

INDUSTRIAL EDUCATION A NECESSITY OF THE TIMES.

BY ALBERT R. ROBINSON, PRINCIPAL CHICAGO ENGLISH HIGH AND MANUAL TRAINING SCHOOL.

Some wiseacre has said, "The first necessity of man is to live; his first duty to work."

At no period in the history of the human race has this problem of living and working been brought face to face with so many emergencies as at the present time. All "isms" and every "ist" the world over seem to be indulging in a "free-for-all fight" over the life and labor of the people who do the work of the world.

The last fifty years have been years of social revolution; years of invention and progress so unexpected and unparalleled that new industries had to be discovered and new economic adjustments brought about to meet them.

Human nature does not adapt itself easily or rapidly as a whole to new conditions. Enforced change more than once in the history

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of the race has driven whole peoples into the oblivion of extinction. Our sighs for the good old days when "Adam ploughed and Eve span;" our yearly retreats to the mountain where we may indulge our inclinations to hunt, fish, and roam in the forests—inclinations inherited from far remote ancestors; our belief that cool shades, murmuring streams, and fresh air are far more agreeable than stuffy offices, hot, dusty streets, and the noise and bustle of trade, indicate that we are not fully adjusted to what we are pleased to call civilization, progress, and business.

Let us take a brief view of the economic and social conditions that surround us and see if we may not aid in the solution of the problem.

Not many years back of the present (indeed, many of us who are not yet rated as old can remember the time), American men and women were masters of many trades that are now under the control of great consolidations of labor and capital. At home the household duties made it necessary for the men to know at least the elements of carpentry, blacksmithing, harnessmaking, shoemaking, coopering, etc., in order that the products of the farm might be properly cared for and spare hours employed. The women carded, spun, wove into cloth, and planned and made into garments the wool and flax produced on the farm; they learned to dry, pickle, and preserve the fruits of the orchards and gardens; they were noted for their cookery—and good home cookery is an "open sesame" to palates that still retain their unspoiled youthful vigor.

At that time the greater part of the population lived in the rural districts, where the industrial training mentioned above was the rule, while in the towns and cities the apprentice system was still in full force, so that anyone whose parents were so disposed or who had the inclination himself could acquire all the skill the times demanded in some useful handicraft. The small shops of that time had a tendency to develop the independent manhood of the mechanic, as in most cases he had to be the planner, the architect, or the engineer of the work he accomplished. As a character-builder the little shop of the cross-roads was far superior to the great factories of to-day, where piece-work tends rather to stultify than to elevate those who are compelled to follow it.

At the present time the home duties of the boy brought up in town are almost nothing. There is no wood to cut, no water to carry, no fences to build, no axes to grind; nothing to worry him but school and play. No wonder he falls into evil ways. No greater truth ever was written than those old lines,

> Satan finds some mischief still
> For idle hands to do.

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The nimble-fingered pickpocket, the expert dodger of the police, the skillful burglar, and many vices that are the pride of the vicious, are but types of misdirected power. The good and useful did not take them and train them, and evil stood ready offering them an easy place and full pay from the start.

The boy's school duties employ but one-fourth of his time, and the time not necessary for eating and sleep is absolutely at his own disposal. His nature demands something to do, while his school work offers only something to think about, and that thing suspended in the realm of pure abstraction.

The few fortunate ones who are preparing for a profession, if they survive the environments just mentioned, may take a course in a technical or professional school later on, and thus prepare themselves for their chosen work.

The girl has the same abstract education as her brothers; but when her school and social duties and music are done but little time is left for learning the practical questions of life. She may snatch a few moments to embroider a motto, like "God Bless Our Home!" (a thing which our homes are beginning to need sorely); but aside from being a place to hold social functions, to sleep, and to eat (if the hireling deigns to prepare the meals), the average woman of to-day has but little idea of what a home truly is.

There is nothing in a girl's education that offsets what the boy designed for a profession must have. By her nature she must be a home-maker, but her education never mentions things of that character. She knows that there is a thing called money, which will hire cooks and servants, which will buy dresses and pay dressmakers' bills, will pay nurse girls and tuition charges at the kindergarten; but of the real power of money to make home healthful, beautiful, economical, and consequently happy, she knows less than the birds of the air; for, indeed, they know the kind of a home suited to their needs.

The records of our divorce courts are filled with the recital of troubles that would have never materialized had the woman been as able to manage the economics of the household as the man was to earn a support for the family.

As the founder of Pratt Institute says: "The man who earns ten dollars per week will have a more attractive and happy home with a wife trained in household economy than a man who receives twice as much whose wife has had no training in domestic economy and thrift."

The changes in general industries have been greater if possible than those arising out of social conditions.

The segregation of manufacturing interests into large shops is a thing of recent date. Under the old regime it was possible for any-

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one desirous of learning a trade to find an opportunity to learn it. The influx of foreign labor, attracted by the promise of more lucrative employments, with prejudices formed in countries where competition was whetted to its keenest edge, where the possibility of earning a living depended upon reducing the number of workmen in a given trade to a minimum, had not yet rendered so barren the field of mechanical industries as it is now. At that time the apprentice system was in full force, and though it was, as a whole, a poor makeshift, yet it did not amount to total prohibition as the present lack of method does.

The number of apprentices in almost every trade now is very small. It is next to impossible to find an American workman in the cities who has learned his trade in the city. Such as know the trade have acquired it in the country, or stolen it, so to speak, by learning it from some friend or relative, or have taken it up through natural aptitude and with but little practice.

This condition of affairs is one that fills the minds of those who have the responsibility of shaping the future of our youth with no little dismay. One father who wished his sons to be trained in hand as well as in head threatened to have them enrolled among the criminal classes, in order that they might have the mechanical training that our prisons afford. This man was no empty boaster, but a man who, as a prison inspector, was able to judge of the effects of hand training by seeing it elevate, if not ennoble, many criminals brought under its influence.

It seems that something must be done, or, in accordance with the theories of evolution, the hands of the children of men will wither and in time drop off as useless appendages.

Where shall we seek the remedy? The schools are made for the people, and why not seek it there?

I do not believe with a certain learned "specialist" of the bureau of education, who, in a report on the subject of industrial education a few years ago, said, "The place for learning the facts and forces of the world with which the child is brought face to face is the school of the world, and not the public schools."

Would it not have been much wiser to have said that anything not having as its solid base "the facts and forces of the world" should be relegated to its own sphere, until such a time as in the order of nature it may become one of the "facts and forces of the world?" Effete forms and dead customs can give us but few intimations of truth compared with what may be learned from the broad, throbbing, rushing stream of everyday life by which we are carried along. A study of the reign of Cambyses will not elucidate the social problems of the reign of Cleveland, nor do the agrarian laws of the ancient Ro-

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mans offer a solution of the communistic and labor troubles of the present day. How much more in touch with the spirit of the times are the words of the secretary of the Massachusetts Board of Education when he says: "Here are the visible, tangible, constructive sides of this great throbbing world—houses, stores, and churches; factories, machines, and processes; streets, waterways, and railroads. Why should not a system of education hold some close and carefully thought-out relation to important sections of the world's activity as it does to those other sections where law, medicine, scientific attainment, and literary culture play each its active part? Then, too, there is the boy himself who must work for his living. Should not a part of his training, at least, recognize more fully than at present the primal law, that by the sweat of his brow he must earn his bread?"

Life soon would not be worth living if we continued to spend the most fertile years of it in learning what would never be of any possible use to us during the remaining portion. It comes to me more and more as the years go on that the first duty of the school is to equip its students for life—productive, active, and aggressive. The education that best fits its recipient for earning a comfortable living, respectably and honestly, insures to the family the best parents, to the community the best citizens, and to the country the best patriots. Endow an anarchist with property and he becomes a law-and-order man; decorate a whig with titles and he becomes on ardent tory; give to nine out of ten criminals the opportunity to earn an honest livelihood and they will take it and thereafter live as honest men. Our streets are filled with loafers, our roads with tramps, and our prisons with criminals largely because no fitness for earning bread honestly was present at some critical period of life.

Holmes, in his "Autocrat," says: "If there is any improvement in modern theology, it is getting out of the regions of pure abstractions and taking the everyday working forces of the world into account." This is as true of our schools as it is of our churches. We must get rid of the old monkish traditions that ever since the middle ages have rested like a cloud of incubi upon our schools. Pure mental attainment was deified. An accusation that anything on a school curriculum was useful met with an immediate rejoinder that the school was for mental training. The useful was considered degrading. Labor had no dignity. The clerk, the lawyer, the doctor were extolled above the artisan whose work was an evidence of the training of both mind and hand.

We need the introduction of the studies that pertain to life,—human life, I mean,—rather than the cadaver-like studies in dead languages of dead nations and dry-as-dust customs. We need teachers who will be willing and able to place their pupils at the apex of hu-

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man progress as it is to-day, and with the momentum of the past behind them push the "flying wedge" of truth through doubt, and error, and opposition to a more commanding relation to the "facts and forces of the world." We need schools in every community where the young of both sexes may learn the practical things of life blended with the theoretical; where the abstract theory which is the basis of everything shall have its demonstration in the concrete object; schools where, as one of our journals lately said, even genius may be taught to earn a living; where all shall learn that a successful life should be measured by its value to the community and not by its heaped up gold; where it will be taught that addition to me should not mean subtraction from my neighbor; where the boy shall learn how to earn a proper support for the home which by the right of nature is his, and where the girl who is to inherit this same home shall learn her responsibility as a copartner of that home; where patriotism shall be taught, not in the empty form of hurrahing for the flag but in being an honest, self-supporting member of the state, ready to take a share in bearing the burdens of the body politic and in doing everything possible to make our nation loved, honored, and respected the world over.

DISCUSSION.

PRINCIPAL CHARLES A. BRADLEY, Manual Training High School, Denver, Colo. —Industrial and manual training as a part of the public school system is a growth of so recent date that its real purpose is but little understood or appreciated by many outside of the teaching profession; and, indeed, I may say, by some inside of that profession, also.

The reasons for this kind of training becoming a necessity have been so well set forth by Principal Robinson that I shall only touch upon a few of the practical features suggested by his paper.

When studying the subject of industrial education, we naturally turn to Europe for information, because there the whole matter has been so fully and maturely considered and elaborated. Trade and industrial schools in European countries are renowned for their thoroughness and comprehension of detail. And yet, after surveying that field, so admirable in system and completeness, we turn to our own surroundings with the feeling that we must elaborate something entirely different to suit American needs and characteristics. While European school systems are no doubt admirably suited to the communities in which they exist, we cannot, nor do we wish to, transplant them to our own soil without great modification in plan and detail.

In this country the problem of public industrial education is still unsolved; we are still in the experimental stage. Each community is striving independently to work out a system suited to its own needs and wishes. The expressions of opinion

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which we shall hear from the body of workers here represented will be helpful, I am sure, to unify our work and furnish new material for thought and action during the coming year.

Since the advent of manual training schools in this country, the boys have received the greater share of thought and attention; but the girls cannot be longer ignored. They must, and should, receive equal advantages with the boys. It is to this matter that I wish to call especial attention. What kinds of industrial and manual training are best suited to American girls? Shall we give them the same kind of work that we give the boys, or shall we provide a different line of work? If we begin with the same kind for both, at what time shall we provide for different kinds, if this seems desirable? These and many other similar questions must be met and answered. Doubtless some of our number have already found more or less satisfactory answers. I trust that we shall hear from them at this meeting.

After all, the most important consideration is the character of the instruction, rather than the quantity or kind of work. We must have systematic and scientific training and cultivation of all of the perceptive faculties of the child. Manual training should be provided through all the grades of the public schools, from the kindergarten up; and in the higher grammar grades and high school especial attention should be paid to developing executive and constructive ability.

It is within the power of this department to do much to secure this desired result, by shaping and directing public opinion.

Along with this training should go physical culture, conducted upon common sense lines, and aiming to produce erect and graceful carriage and complete control of the muscles of the body.

As a nation we Americans have paid too little attention in past years to the training of the body. We are just beginning to awaken to a proper recognition of the subject. Manual training and physical culture are closely related, and should be so recognized and treated.

PRINCIPAL CHARLES D. LARKINS of the Brooklyn Manual Training High School. —For many years the advocates of manual training have been called upon to give a reason for their faith, and to show cause why manual training should be given a place in education. To-day three papers have reversed the condition of affairs. If the three papers read are true, and they seem to be incontrovertible, manual training is no longer upon the defensive, but its opponents are. The methods of the psychological laboratory, or, rather, that of the brain anatomist, have clearly demonstrated that manual training is not only an element in complete brain development, but that such development is impossible without it. Hence, manual training has a place in education, and cannot be kept out. I should like to have been present at the meeting of old line high school principals where President Keyes asserted that of two boys, equally endowed by nature and equally well prepared, the one going to the manual training high school could be prepared and ought to be required to pass an examination in mathematics one-fourth harder, and in science one-half harder than his fellow who entered the high school not having manual training. He might with equal confidence assert that the same boy could be made and ought to be made to pass an examination one-third harder in English and modern languages. Manual training, when properly correlated with other lines of work, greatly increases the power of the student. It is an additional method of intellectual expression, and contributes as much to his power as any other method of expression. Again I wish to say that the opponents of manual training are to-day put upon the defensive.

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THE EFFECTS OF MANUAL TRAINING.

BY PRINCIPAL CHARLES D. LARKINS OF THE MANUAL TRAINING HIGH SCHOOL, BROOKLYN, N. Y.

Manual training is an outgrowth of a mixed desire on the part of both the educational and the general public, born of dissatisfaction with conditions existing a dozen or fifteen years ago and a craving for more useful training than the schools of that day gave. Like an exploring expedition, the effort to found a manual training school was a plunge into an unknown region, and was made in the dark. The whole matter was an experiment. With a desire to determine the effects of the training and the results obtained by means of it, the president of this department sent out a circular letter to all schools known to him in which manual training was a part of the course, asking replies to the following questions:

	Favorable.	Unfavorable.	Neutral.	Blanks.
1. What grade of work have you in mind while answering these questions?				
2. Age of pupils				
3. Effect upon general health	31	0	0	3
4. Effect upon physical development	31	0	1	4
5. Effect upon eyesight	15	2	9	8
6. Effect upon personal physical habits, such as regularity in eating, use of narcotics, etc	18	0	6	9
7. Development of the perceptive powers	33	0	0	1
8. Power of forming concepts	24	0	3	7
9. Cheerfulness in work	27	0	1	2
10. Incentives to work	33	0	0	1
11. Persistence in the performance of duty	25	0	3	5
12. Self-reliance	32	0	0	2
13. Discipline in the school	29	1	3	2
14. Effect upon the imagination	22	0	5	8
15. Effect upon the judgment	28	0	3	3
16. Interest in mathematics	21	0	4	9
17. Interest in science	23	0	2	9
18. Interest in language	9	3	10	12
19. Interest in history	7	1	13	13
20. Interest in literature	6	2	12	14
21. Continuance in school	29	0	2	3
22. Chances for success while in school	24	0	1	9
23. Chances for success after leaving school	30	0	0	4
24. Inclination to go on with college, university, or professional work	18	1	7	7
25. Standing in higher work	19	1	4	10
26. Demand for services	27	0	0	7
27. Generosity	12	0	6	16
28. Unselfishness	8	1	6	19
29. Regard for truth	16	0	6	13
30. Appreciation of beauty	21	1	2	10
31. Moral purpose	17	0	4	13
32. Sentiment among the people as to manual training schools	28	0	2	4
33. Sentiment among teachers who have given the subject attention	31	0	0	3

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The answers obtained have been tabulated and are before you. In this report they will be combined into groups, so far as is possible, and the general opinion to be gleaned from them will be given.

Thirty-six schools, covering all grades from the primary to the college, made replies. Of this number, twenty-eight are high schools or colleges, thirteen represent only grades below the high school, and five cover both high school and lower grades. The pupils represent all ages from five to twenty-six, the greater part being from fourteen to nineteen years of age. Some schools admit as students boys only; others both boys and girls, and all either had a complete course in book work and drawing or were connected with schools having such a course, in which schools the pupils did the book-work. The report will close with a discussion of the present status of the subject, and does not necessarily express the opinion of either the president or secretary of this department, but, on the contrary, is intended to be a summation of the opinions expressed in the replies obtained.

So far as the effect upon the health is concerned, the answers place no small stress upon the fact that the effect of manual training is very beneficial. Not one person expresses a contrary opinion. It is admitted, that, at the beginning of shop-work, the result is sometimes overwork, lameness, blisters, bruises, and other small bodily discomforts; but these pass away quickly. All agree that the effect is to improve the general health, increase growth, and more fully develop the body. This is particularly noticeable in the second year, and the graduates are generally large, strong, and healthy.

There are two adverse opinions regarding the effect upon the eyesight. In all others the report is favorable, and the concensus of opinion is that the improvement of the general health reacts on weak and defective eyes to their advantage. These two adverse reports lead one to wonder whether the injury to the eyes is not a result of the particular exercises used, or of the conditions regarding light that surround the student.

Although the amount of physical exercise obtained from the shop-work is slight, it is regular in both time and quantity, and tends to fixed bodily habits. The bodily organs perform their functions with regularity. This tends to do away with unnatural cravings of appetite. For example, the smoking of cigarettes is comparatively slight in manual training schools. It may also be said, in passing, that the work in such schools is usually destructive to school athletics. Indeed, it is a rare thing for a manual training school to maintain a baseball or a football team that is a credit to the school as such. Indeed, little in the way of athletics, or anything else, is thought of outside of the regular school work.

It is the universal testimony of the answers obtained that the

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work of these schools as a whole produces an unusually beneficial effect upon the purely intellectual processes. By it the power to command and concentrate the attention is greatly increased. Accuracy of observation is secured, the perception is enlivened, and the generalizations are quick and accurate. The effect upon the imagination is very marked. The reproductive imagination is stimulated, and its images are clear and correct. The work in literature and design gives unusual opportunity for the cultivation of the constructive imagination. This culture is almost entirely absent in other schools. No one thing impresses itself upon the mind of one visiting a manual training school for the first time so much as the power shown by the pupils in original work. The training also results in great good to the pupil's judgment. He learns not only what to do and how to do it, but he learns to decide quickly and accurately. The forge-work is specially valuable in this respect.

The fact that it is necessary in nearly every manual training school to make a rule requiring the pupils to leave the school promptly at the close of the session, to prevent their working after school so long as to retard the next day's work, is an evidence that manual training is a great incentive to work. It is to be specially mentioned that all who are engaged in the work agree, that, when once a pupil has become interested in any single line of school work, his interest will usually spread to all other lines. He is cheerful and enthusiastic; considerate of his fellows; helpful to others when necessary; sympathetic, generous, and unselfish; persistent in the performance of his duties; self-reliant; keeps himself in order without restraint, and takes pride in the good name and good work of his school. Since only one person declares that manual training tends to destroy discipline in school, we are again led to question local conditions, and to suspect that it is not the manual training but something else that pulls down the discipline.

The testimony that the training is very beneficial in case of mathematics and science is unanimous, but there seems to be a difference of opinion as to the other scholastic subjects. Three to one who give an opinion assert that the effect is increased interest in language and literature, and seven to one that such is the case in history; while a large proportion contend that there is no perceptible effect upon these subjects. In the Brooklyn Manual Training High School the effect has been to increase the interest very greatly in all language and literary work, as well as in history. The possibilities of making the drawing and shop-work contribute to the work in these branches are great, and full advantage has been taken of them. The writer has the impression that some schools are not making the best of the conditions.

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The economic advantages of manual training are clearly brought out in the answers. The first great gain is a longer school-life on the part of the student. This is an advantage to both the student and the state. The chances of his success are greatly increased, both during his school-work and after his leaving school. He more readily obtains employment, and nearly, if not quite always, secures greater remuneration for his services than those who have not had such training. The concensus of opinion seems to be that the course usually urges a student on to a higher training, and enables him to maintain a high standing in advanced work; but there is one person who expresses a contrary opinion, and several think it makes no difference. Local conditions may again account for the contrary opinion.

The answers regarding questions 29 and 31 surprise the writer most. Less than half of the replies recognize the good effect of the system upon the moral nature of the student. No one asserts that it is bad, but many either see no effect or they express no opinion. In the writer's many years of experience he has never met so potent a factor in ethical culture as manual training. He finds it a rare thing for a pupil who has had much of this training to be dishonest or untrue in anything that those words imply.

Whether the training increases the love for and appreciation of the beautiful seems to depend upon the course of studies in the particular school. In some schools great stress is laid upon æsthetical culture; in others it receives no attention. Some schools have pride in the fact that nothing is taught in them except what is practical. Freehand drawing, modeling, and kindred work is eliminated. Other schools make those subjects a part of the course. This may account for the great diversity of opinions expressed. It is evident that twenty-one out of thirty-six give some attention to æsthetics, and it is to be hoped that all will do so in the near future. The danger, if any exists, is that manual training will be wrecked upon the rock of practicality. If manual training has any excuse for a place in school work, it is a factor in general education.

Probably the term "manual training" is the most misunderstood term in educational science. By it not only the uninformed public but some teachers as well include everything from the mere learning of a trade to an elaborate technical education. A school principal, endowed with the right to be called "Doctor," told me that he had four boys who had failed to pass the necessary examination for graduation from the grammar school, and who were so dull that they could never do the book-work of the high school, and asked that I should violate the rules of the board of education by admitting them to my

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school, because, he said, they were just the kind of boys I wanted; and he assured me that if they did not learn a trade they would never amount to anything. From this complete and persistent misunderstanding the cause is suffering; but it is a subject for congratulation that the best informed educators and philosophers of the time have placed themselves squarely on the side of manual training.

Within the past year the writer has heard Professor James of Harvard, Professor Sargent of Yale, Dr. G. Stanley Hall, and several others of almost equal prominence contend that manual training is not only a necessity in education, but also that it bears promise of being one of the most potent factors in the working out of the great educational problems of the day.

Perhaps there can be no more fitting conclusion to this report than the following verbatim extract from the letter of W. A. McAndrew, director of Pratt Institute High School, Brooklyn, when replying to the above questions. Mr. McAndrew says:

In general, I should like to say, that three years' careful observation of the influence of manual training upon young men and women has convinced me thoroughly that it is the nearest to the ideal scheme of American education yet discovered. I was graduated from the classical course at college myself, and I began my teaching as an instructor in Latin and Greek; was then the principal of a public classical school in Hyde Park, a suburb of Chicago, and after a short experience in the employ of a railroad company, returned eagerly to the pursuit of teaching, as I had an opportunity to ally myself with an academy where art and manual instruction were essential parts of the system.

The aim of the manual training school, I think, should be the same as that of any academy—to fit for useful, industrious American citizenship. It is the business of the directors of such a school to select the subjects of instruction which seem most likely to develop the powers needed by the ideal citizen. Almost every subject taught in any school seems to me to have training and strengthening powers, but there is not time for all. Every course of study must be a compromise. In our course we have endeavored to select those things which combine the largest possibilities for a board education with the subjects most likely to work directly and pertinently towards strengthening the will, the feelings, and the intellect.

The senior boys in this school (and our course is but three years long) are quicker, readier, broader, more enterprising, as a class, than the seniors at the end of four years' classical instruction in the other schools with which I have been connected.

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A PLEA FOR THE SYSTEMATIC EXTENSION OF INDUSTRIAL TRAINING FROM THE KINDERGARTEN TO GRAMMAR SCHOOLS.

BY MISS MARY A. PINNEY, NEW HAVEN, CONN.

The kindergarten, a link between home and school, has for its aim development of character and ability; growth through self-activity in all powers of body and mind.

The processes of the kindergarten increase the accuracy of sense impressions, and through them render the child observant, executive; induce mental and creative effort; cultivate the moral nature. Systematic development is resultant. Its methods are economical and progressive; its spirit is cheerful and truthful.

In its plays the kindergarten deals with symbols. By means of these it gives ideas of the problems of life, which bring consciousness of individual responsibility in society. Through its occupations it stimulates the will as a power over matter, thus converting material to use and making it representative of ideas; and, in so doing, develops faculties of mind by deftness of hand.

The child's world is one of things. By observation he recognizes their qualities; through sense perceptions he gains a partial knowledge of their physical properties, their practical use and relations. By the process of construction, by making or reproducing, he acquires, not only knowledge of things, not merely creative skill, but that confidence in self which in later years will enable him to master circumstances and make success of life.

The child at home has educated himself through spontaneity of will. His doing has been freely expressed, but his discoveries and experiences have been generally accidental, his observations too brief to be fruitful.

In the kindergarten directed effort has carried forward the child's education by opening new fields for the exercise of the faculties, thus giving definiteness to desultory action. Observation caused by curiosity and concentrated by interest has given him clear and permanent conceptions.

When the symbolic stage is passed; when increased intellectual activity demands those educational factors of human learning,—the acquiring of the thoughts of others by reading, the expressing of thought by writing, the recognizing of facts of number and science,—then the child enters school.

Here is a transition from play to work, from voluntary effort to duty, from arbitrary will to will subjected by reason.

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In the school learning to do by doing has a stronger meaning than in the kindergarten, for with added years comes increased activity, requiring work such as shall satisfy the growing brain and firmly fix right habits of mind.

When one imagines a kindergarten without its industrial elements, robbed of its power to express objectively, possibly then can be gained a perception of the loss in the first years of school life.

Upon work depends all social progress. The work of the world must be done. The most willing laborers most truly serve their fellow-men. Hence, children should be taught to love work because it is right and brings real happiness to the cheerful doer.

Manifestly the child has grown away from the form of instruction in the kindergarten, but the spirit of its methods should remain to actuate the work of every succeeding year of study. Frœbel tells us, that "education, to be worthy of a human being, must be continuous; must proceed upon the same plan from the beginning through a progressive sequence." An eminent American educator justly remarks that, "the school should utilize the development which the child has obtained in the kindergarten." Unfortunately for childhood, the general school concerns itself chiefly with the three R's, those "tools of intercourse," giving greater time and placing far more stress upon their attainment than upon the unfoldment of mind and soul.

The school deprives the child of much of his natural activity. It lessens the education that comes through the senses. Ignoring the natural inclination of the child to employ himself through his hands, the school insists upon knowledge of facts rather than things, and forces instruction for the value of which the child has little comprehension; hence, often little interest. He is made a recipient of knowledge which has no present relation to his thought or desire. The school seems to forget that it cares for the same child who was in the kindergarten; for whom the benefit of the all-sided natural training there given is equally imperative and equally his right to receive in every grade of instruction. Because of unattractive or poorly adapted work, may not the formation of habits of inattention, idleness, dislike towards effort begin, by which the child's powers will weaken instead of strengthen? Is there not danger of forming, not alone bad school habits but bad habits of life? for to know that one can do and yet leave undone is to produce moral degeneracy.

The purpose of education is the gain of power for living and learning; to bring the child to man's estate with clear, true knowledge of life's great need,—the common, universal need of labor,—the well-doing of which is its glory, and in whose perfect execution is full reward; to make a man of character and ability, possessed of valuable information, skillful execution, and moral stamina.

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The endeavor of the school should be to render a child observant, accurate, truthful, self-controlled, self-reliant; able to do thorough, exact work. But only by providing such work as a child will love and cheerfully perform, and which has most happy variety of repetition, thus making the best and most permanent effect upon the memory, will he become such a worker. To do this, material capable of transformation must furnish a means whereby present knowledge and skill may be employed in new creations, which may be compared and combined with previous productions. Thus is the child helped to make the transition from sensuous to intellectual knowledge, judgment and reason are acquired, and use of material gives visible test of power.

It is self-evident that the child must gain ideas, not only of relations of quantities but of the arbitrary symbols of their expression, for commercial purposes, the demands of social and business interests, the needs of life.

The elements of natural science must be obtained that the child may enter the world of nature and have sympathy therewith; and it clearly follows that he must learn to read, for reading is the gateway of literature, giving him entrance to the inner world of man.

Drawing, as a general discipline, as introductory to all arts and trades, as a means of expression in all sciences and of æsthetical taste, must be acquired.

But to acquire the mechanics of number, music, written and printed language; to comply with the requirements of penmanship, coupled with our unphonetic spelling, obligates the child to strive for the mastery of abstract and arbitrary signs, the frequent recurrence of whose unreasonable arrangements implies drudgery. The necessary training of memory is irksome to the small reason of the learner. Intellectual effort, however desirable in itself, if too long continued, wearies and disgusts, and defeats its own object. How shall we elevate—aye, transform—this drudgery?

By the study of things before facts. By presenting in variety objects structurally typical, yet familiar and enjoyable—such as are suited to the child's faculties and appeal to his emotions; objects which, through their indefiniteness, may be widely suggestive. By supplying material adapted to the production of definite things. By permitting every mental impression, as far as possible, to have its manual expression. Then may intellectual drudgery become mental pleasure.

Let the child handle those objects he would know. This includes a study of solids, of planes and their boundaries, as leading to drawing and mathematics. Let him handle plants, animals, and minerals as a foundation for the study of science; type and script symbols as leading to a knowledge of letters, and through them, of literature.

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From the beginning let knowledge of things and knowledge of how to work be co-ordinated, so that the requirements of delicate neatness, accurate amount, good workmanship, dispatch, will teach economy of time and material, and react beneficially upon all literary work and general behavior.

When work helps children to a higher plan in thinking and acting, when it impresses more powerfully the memory than any other means, it becomes a valuable and necessary auxiliary of the intellectual processes of the school. If in changing material into forms of will children gain patience, steadfast purpose, careful doing, reliability, then will moral development be added to mental and manual development.

Interdependence of study can avail as a time-saving agent; science and study of form may aid in interpreting language and arithmetic; reading, language, and art teach, not alone of external things, of nature and human life but may interpret the higher life of thought and spiritual living.

Analytical processes, the observation of things by which discoveries are made, should give intellectual development. The converting of material to use should cause creative power by application of knowledge obtained. What the mind conceives, the hand should execute; how the hand executes impresses the mind, and for good or ill molds the moral character.

How shall this be effected? How shall the ideas of children be put into concrete form?

By use of the hand, that God-given mediator between the outer and inner world; that restless, asking hand, imploring in no unmistakable way for education by manual contact. Let the child know of life and living things, seeing beauty, and goodness, and wisdom, and finding power of expression by creative skill.

With hand and eye, at first unaided by tools, let the child observe, investigate, experiment, test; learning of natural forces, concrete quantities, chemical changes; of measures, of position, direction, and space. So he gains ineffaceable impressions.

Let him collect specimens, care for plant and animal; let him represent form by modeling; let him illustrate orally, pictorially, or by arrangement; let him build and construct, and thus find expression.

The first industrial work should be that which gives faith in self, confidence in present endeavor, assurance of success in future efforts. It should be fundamental in essence, enjoyable in kind, simple to the comprehension, progressive in scope.

As power increases and knowledge enlarges, let organs of sense, including the sense of measurement by aid of that master tool of

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labor, the hand, examine more complex objects; record impressions by pen, or pencil, or brush; construct larger models; deal with more difficult material.

To aid the hand, tools common to the home may be used at school to render work permanent. Later, tools of specific measure may be added for the gain of perfect accuracy. Use the fewest and simplest tools possible. When tools are used, let them be the best of their kind. Never let a poor tool excuse poor work.

If by the use of suitable tools delicacy and precision of touch be cultivated, an advantage is gained which will be useful in any line of work that ultimately may be adopted.

Material subjective to many changes or inventions holds most charm, most cultivating efficacy. Plastic material—notably sand, clay, or wax—develops conscious ability, gives recognizance of power from within and without. By its aid, form is studied as a whole, and solids in nature and manufactures are represented. It is a basis for mathematics and geography, because clear ideas of dimensions are gained. With use of clay begins graphic construction or drawing. Were children permitted to draw what they see, what they make, what they imagine, they would give visible demonstration of knowledge by manual expression.

Frœbel declared that "drawing develops in the child observation and attentiveness, a conception of the whole, memory and thought, the power of combining and inventing, imagination. In general, it opens the way for the corresponding use of the creative power of man, enriches the spirit, the mind, and the soul with clear notions, true thoughts, and beautiful ideas."

Textiles teach much of natural science and industries.

Work in paper and cardboard gives instruction in space, perception of measures, of parts. By its use geometrical surfaces and solids, harmony of color and elementary decoration may be studied. A working drawing is involved.

No material is so wholly to the child's liking, none so fully teaches carefulness and truthfulness as wood, and whenever feasible its early use in the workroom, united with many industrial exercises in the schoolroom, combines most happiness with most discipline. Work done in wood is not perishable. The child can make an article whose use is appreciated by himself. "This arouses and sustains interest; helps the child understand reasons for careful actions." If what he makes is for another, unselfishness is developed; and generosity of spirit is a rich heritage.

Since continuity of educational effort is logical, reasonable, desirable, and productive of best results, should not the work of the kindergarten be carried forward into every grade, and the work of

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each grade be related to a higher one, as are now reading, number, and music? Might not outlining with needle upon cardboard be related to cording and chain-stitching upon cloth, at last merging into the work of the sewing supervisor? Might not paper folding and cutting show multiples of simplest measures? Might not testing of objective measurement with use of ruler lead to construction in paper sloyd, and paper sloyd by use of knife and compass lead to wood sloyd? Cannot "baby" wood sloyd become the beginning of work done in manual training high schools? Ought not industrial work in every grade to have such manual elements that training—systematic, pleasurable, valuable—be given, and each grade's work build unto the grade beyond?

Demonstrating that this is done, and showing the importance attached to work for primarians, may be cited a few typical reports:

In Liege, Belgium, 4,700 children in 1891 attended the kindergarten, thence passing through a transition class to primary schools which extended Frœbel's manual exercises by simple forms of hand labor with clay, pasteboard, and paper. "The results were reported very satisfactory."

At Armentieres, France, the kindergarten gives one hour daily to hand work, and aims directly to prepare the way for further instruction by all its methods. "The children seem to take the greatest interest in what they do."

In Göteborg, Sweden, in one primary school, 240 pupils receive a graded course of wood sloyd from the kindergarten upwards. "The children never weary of their work."

At Geneva, Switzerland, the primary schools follow the studies of the kindergarten through every grade till trade schools are reached, deeming uniform advancement indispensable to complete education.

To defer industrial occupations till a child can attain to a technical school is to deprive many of hand skill. This is proven by the fact that the elementary school affects a much larger proportion of the community than can higher grades, for its ratio of enrollment is five to one. It is estimated that nine-tenths of all pupils enrolled leave school to enter upon business pursuits before arriving at high school age. These children must depend largely upon manual dexterity for their livelihood. Therefore should not training for ability in manipulation, delicacy and rapidity of touch be begun and continued in early youth—for skill acquired is useful in every occupation of life? The older a child, the more difficulty to acquire new phases of manual skill, the less the love for labor; and unskilled labor is proven to cause crime and pauperism, to menace national as well as individual safety. Nine-tenths of all criminals arraigned and convicted are persons who have no technical instruction.

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It has been well said that "Solicitude for childhood is one of the signs of a growing civilization." The most important question of any generation is, What education should be given to the succeeding generation? Do we not agree with Edward Everett Hale, that "the great duty of the state is to make the most of every child born in that state?"

Emanuel Kant tells us that "children ought to be educated according to a better possible condition in the future; that is to say, according to the idea of humanity and its completed destiny."

It is demonstrated that industrial work quickens perceptive faculties; requires exact seeing of form, position, and change; demands exact arranging, making and decorating, coupled with neatness and perfection of finish. This demand includes, obviously, wide-awake, attentive senses. It teaches self-denial, patience, and self-control; it calls for purpose in effort, truthfulness of execution; it advances science and art; it is invaluable to the needs of life; it benefits humanity. Should not its value as an educational factor be acknowledged and adopted? for both nature and philosophy declare the necessity of acquiring individual experience through exercise of the creative powers.

The present general scheme of primary education now furthers mental development with much success, yet is its tone too theoretical. Technical aptitude is not developed. We plead that the training of the hand be added to its every part; that there be given to the child's environment every impelling force to persuade him to his best effort in joyful response to the daily life in school, causing him to progress from suitable impressions to worthy habits. Thus shall the mind and soul receive for time and eternity the knowledge and training that fits the child of nature to be an inheritor of the kingdom of heaven.

INDUSTRIAL TRAINING AS APPLIED TO INDIAN SCHOOLS.

BY CAPT. R. H. PRATT, SUPERINTENDENT OF THE UNITED STATES INDIAN SCHOOL, CARLISLE, PA.

No system of American training or education is right that does not seek to enlarge and develop all the abilities and open the way to widest opportunities for the individual, to remove prejudice against labor, and to give the courage to compete. The school can be just as potent an engine to create prejudice, stifle ability, and narrow opportunity as it can be to extend these qualities. This needs no argument.

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We have an Indian problem because the Indian is ignorant of the language of the country and industrially untrained to take his place among our other people. The problem will remain as long as the Indians are continued in masses apart from our other people, because by such massing they are held to their industrial inability and their ignorance of our language. Having for generations failed to induct them into the nation by our attempts to educate and train them separately in tribes, and having fully demonstrated that that method only leaves them tribes, we should now make all our future attempts at education and industrial training for them positive influences to bring them into the nation through giving them the full use of the language of the country and the full ability to meet and compete industrially with the other inhabitants.

In justice to itself, the Indians, and all the people, the government should have but one aim in all it may do for them, and that aim be to transform them individually into worthy, productive American citizens. The Indian is a man like other men. He has no innate qualities that condemn him either to prolonged separation from other men or to generations of slow development. He can acquire all the qualities of good, useful citizenship in about the same time that other men acquire them. He is hindered or facilitated in acquiring them only by conditions and environments that would equally hinder or facilitate other men in acquiring the same qualities.

If the Indian has not had the chance to acquire industrial knowledge and the language of the country, he is not to be blamed for not having these qualities equally with us. If he is not acquiring these qualities now as rapidly as he might and ought, it is because the contrivances we force upon him hinder. In all we do for him, we must necessarily consider first, the English language quality; for without that he is condemned to perpetual disability. How is a usable knowledge of any language to be quickest and best gained? Manifestly through association with those who use it. Neither books nor a special teacher are necessary. The subject, placed where he can hear the language constantly in use, gets the language.

Wise American parents desiring their children to learn a foreign language, send them into the foreign country or into constant association with that language. Why not, then, when the school is so wide and free, contrive that the Indian have this same opportunity to learn the almost universal language of the country in which he lives, and which he must learn in order to be at one with the great body of its people?

Upon his having a usable knowledge of the English language hinges all his success in his industrial training. Ignorant of the language, he is walled out industrially and in every other way.

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Successful industrial training follows in the same line. His industrial needs are nothing more and nothing less than sufficient skill in some industry to enable him to successfully compete with other people. How is this competitive skill to be acquired? There seems no other proper way but to follow exactly the same lines indicated to be necessary in acquiring the language. The best agricultural school is the agriculturalist on his own farm, where the daily pressure of necessity to get the work done, and where the living and something more hinge upon industry, skill, and intelligent management.

In the same way, to make a blacksmith or a carpenter, the blacksmith shop and the carpenter shop, with a competent head and surrounded by competent workmen, is the true place. Working with the farmer and the mechanic, the Indian learns what a real day's work is, and becomes in every way a part of the situation. He acquires another most essential quality, seldom or never taken into consideration in estimating his needs, and that is the courage of civilization, the courage of language, the courage of industry.

At his home in his tribe, he measures himself and his needs only by the conditions of progress there, simply because he has no other experience or observation to guide. Gauging his needs by these weak examples, he is in no sense prepared for competition with the more skillful, aggressive, and productive race. This is why he goes to the wall when brought into such competition. The courage and ability for the higher competition are only to be acquired by actual experiences in that competition. There is therefore all the greater need that every part of the education of the Indian should be carried forward under the association and competition indicated. The tribe and all tribalizing influences are the enemies of the individual if he is to become American and a citizen; for, immersed in the tribe, how is the individual to take on anything foreign to the tribe?

We have failed in our efforts for the Indian in the past, and are not materially successful now, because we have not recognized that the Indian is to be merged into our American system. The Indian is to save his life by being consumed and lost in America, which is comparatively a simple matter. In other words, the best way to get civilization into the Indian is to get the Indian into civilization; *ergo*, the best way to get industry and industrial skill into the Indian is to get the Indian into industry and industrial skill. Attempting to get civilization into the Indian by keeping him out of and away from these is the cause of all our failures.

The Indian system, or an Indian system, is the real barrier to the Indian's progress towards becoming a civilized useful man and citizen. When we established the reservation system we got out the Indian's coffin, and every plan we adopt which makes him a specialty

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crowds him into that coffin. If there were no Indian reservations, no Indian bureau, no Indian annuities, no Indian schools, and the Indian had had to "root, hog, or die" like the rest of us from the start, there would be more live Indians to-day than there are, and we should not be confronted with an Indian problem. We, and not the Indian, are to blame for his being a burden. The seven to ten millions of money spent yearly in the Indian service is an expenditure of our own creation, and very much more in the interest of the white man than the Indian.

But to my subject. We must not depend too much on industrial training in Indian schools, however practical or however promising the conditions. The best Indian industrial school can only inaugurate the industrial idea and give a smattering of industrial usefulness. The bone and sinew of real industrial worth come only through actual competition with the real industrial bread-winner. In order that we may not in our industrial training of the Indian get too far away from this vital principle,—the most practical real mechanics and farmers are our best industrial school instructors,—all the school shops should be like the shops of regular every-day mechanics. The best division of time is half day at industries and half day at books. One recompenses the other and saves from weariness.

The subject should generally be held to one trade, so that there may be something of the old apprenticeship system through which the greatest skill will be reached. The largest results that may be secured through industrial school training for Indian youth will only be obtained through locating the schools in our civilized and industrial communities, so that the examples of our own industry and skill may be always before the pupils. There need be no limit to the variety of industries taught. Distribution of occupation will aid to distribution of Indians, and the consequent breaking up of Indianism and tribalism.

The question is often asked, "Can the Indian acquire mechanical skill and habits of industry?" and too often is answered in the negative by self-constituted judges who are without experience and generally with little or no observation. A man of sixty, born and raised on the borders of an Indian reservation in Western New York, who had seen Indians almost every day of his life, on visiting Carlisle, said to me: "You may be able to do something with the Western Indians, but the Indians of New York are utterly worthless and incompetent. They can pick a few berries, dig a little sassafras root, make a few beaded articles and some baskets to sell, but that is about the extent of their industries. You cannot educate them, nor can you train them to trades." The man was a jeweler. He had been on the educational board in the large town in which he lived for thirty-five years. I said to him: "Has there ever been any attempt in your

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town to take young Indians into your public schools to try and find out what they are capable of in a contest for knowledge with the children of your town?" He said that he did not know of any young Indians ever in the public school system; that the state had given them a public school system of their own on their reservations, and paid the teachers; that the great difficulty was to keep up the attendance in these schools. I asked if there was any prejudice against Indians attending the public schools. He said he thought not, but that the state had been paying to keep up these Indian schools, and they were conceded to be failures. I said: "You have no right to judge of the possibilities of Indian education until you have given the young Indians the same chance to get an education that you give the white youth. Now, you are a jeweler. You have had many apprentices in the years in which you have carried on business. Did you ever take a young Indian as an apprentice to see whether, if he had a really good chance, as he would have in your store, he might not learn to be a jeweler? Have the other business men of your town taken young Indians into their shops and business, and attempted to teach them as they do white youth?" He admitted that no such attempt had been made by any of the artisans or business men of his town, and that he himself had never once thought of doing such a thing. "Then," I said, "You have no right to condemn the young Indian as incapable. He is entitled to just the same opportunity to acquire an occupation that the young people of our own race have, and if he then fails, there may be some show of justice in sending him to the rear."

Greater thoroughness in teaching and more prolonged effort may be justly considered as necessary when the individual has had a bad start. Very little is to be conceded to generations of savage ancestry. Weaknesses do come from associating in the beginning years of life with a savage ancestry. But these acquired weaknesses are not insuperable, and those who have reached maturity under savage environments, if properly handled, may be made of some industrial worth. Heredity of birth has not much to do with it. Heredity of of environment is the potent factor. Carefully raised and well civilized white men, through savage and worthless environment, easily become degraded, savage, and worthless. So, too, savage born and rudely raised red men become civilized, enlightened, useful, through well-civilized and enlightened environments. It is but a step either way.

From long experience and wide observation I have come to have little patience with the science or ethnology that consigns any man or race of men to generations of slow development. The world is full of evidences to prove the contrary. To make an independent and industrious individual man, the individuality and personal responsibili-

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ties of the subject must be recognized in every part of his preparation. He must not, because of birth or for other reason, be tied to any set of individuals.

Thank God for the American principle which recognizes the independence and individuality of every man and does give to so many of our diverse and vast population such individual opportunities; and, also, for that great typical American and poet who so quaintly and truly stated it all when he said:

"The great American idea is to make a man a man, and then to let him be."

DISCUSSION.

MR. H. E. WILSON, United States Indian Service, Kansas.—The best way to civilize the Indian is to get him into industrial civilization. Labor combined with intellectual improvement will accomplish more in the civilization of the Indian than both religion and the school proper. I have not been able to discover any natural difference in the intellectuality of the Indian child and that of the white child. The difference, if any, arises as the result of many years of inactivity of the Indian intellectually and industrially. Stimulate him to labor by teaching him the value of money, which can be done by teaching him the use and application of money. The educated Indian youth must not be compelled to return to the reservation life of idleness. We must establish industries suited to their taste and capabilities. The public must be educated to employ the Indian as it would the white man or woman. The Indian is not naturally an agriculturalist, but is mechanical. The Indian girls make fair domestics, but, like the men, are mechanical.

PROFESSOR BAKELESS, Indian Industrial School, Carlisle, Pa.—I cannot let this discussion close without adding a word of testimony to the capability of the Indian child. He is just as capable as any white pupil I have ever had. With regard to industrial training, I would say, that, after years of work in school, where no attention was given to this subject, comparing results secured in the training school with results by the old academic plan, preponderance is greatly in favor of the training school. I am thoroughly convinced that the feature of manual training is a needed feature to make our American schools a success, and our boys and girls cannot be considered educated in the true sense of the word until they all receive this systematic training in addition to their academic work.

MR. ZALMON RICHARDS, Washington, D. C., asked Captain Pratt if he thought the aptitudes of the intellectual faculties of the Indian are essentially different from those of the white race.

CAPTAIN PRATT answered that he did not think they were, as his experience did not prove it.

MR. RICHARDS then said, that, if Captain Pratt's method of training Indians is correct, as he believed it to be, why is it not the correct method for training in our white schools? He said he believed that one-half the time of our children for the first six years of school-life is worse than wasted, because of unnatural methods of training. Captain Pratt's methods begin with making the young Indian master of the English language. This is one of the secrets of his success. The value of industrial training in our elementary schools depends upon the ability which the children acquire in using the language of the employments and professions of life. We are educated only as we have a command of our language.

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DEPARTMENT OF MUSIC EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—WEDNESDAY, JULY 10, 1895.

The opening session of this department was called to order at 2:30 o'clock by the President, Mr. N. Coe Stewart, Cleveland, Ohio.

The Male Principals' Quartette of Chicago sang a very pleasing number and responded to a hearty encore.

Prayer by Rev. J. W. Ingram, pastor First Christian Church.

The President then gave his annual address.

Mr. F. Treudley, Superintendent City Schools, Youngstown, Ohio, read a paper on "The Purpose of Music Study in the Public Schools."

The audience was next favored with a double number, "From Grief I cannot Measure" (Frary) and "The Snowflakes" (Cowen), by Miss Elizabeth Dodge, Boston.

Mr. C. H. Congdon, St. Paul, Minn., read a paper on "How the Average Child Learns to Know and To Do in Music."

Mr. A. J. Gantvoort, Cincinnati, Ohio, next presented a paper on "A Course in Music for the Public Schools."

Miss Sarah L. Arnold, Boston, Mass., delivered an address on the subject, "The Relation of Music to Other Branches of Study."

Mr. W. J. Whiteman of District No. 2, Denver, conducted a class in song-singing. The children did some excellent work in vocalizing and in intervals. The obligato and chorus work done by the young soloist and the children was very attractive, and deservedly so.

SECOND SESSION.—THURSDAY, JULY 11, 1895.

The meeting was called to order at 2:30 o'clock, and was opened with prayer by Rev. W. S. Priest, pastor First Baptist Church, Denver.

The President next named the Committee on Nominations, as follows:

Herbert Griggs, Denver; P. C. Hayden, Quincy, Ill.; A. J. Gantvoort, Cincinnati, Ohio.

The first paper of the day was "Children's Voices," by Miss Linn M. Hawn, Saginaw, Mich.

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Miss Fannie Arnold, Omaha, Neb., next read a short paper on "Children's Songs," and illustrated her paper by singing several beautiful little songs for lower grades.

Mr. Theodore H. Johnston, Cleveland, Ohio, then gave a paper on "Mind and Music."

Mr. Griggs, Denver, next gave an exercise showing methods in music. The children did some excellent work in reading, singing intervals, and in part-work; but their ability to read and sing intelligently at sight was shown when they sang without hesitation and without a blunder some exercises in two-part music given them by Mr. Gantvoort.

Mr. H. E. Holt, Boston, Mass., next gave a paper on "Vocal Harmony--a Plea for an Oral Language With Which to Express Our Thoughts in Music."

The Committee on Nominations reported as follows:

For *President*—C. H. Congdon, St. Paul, Minn.
For *Vice President*—P. C. Hayden, Quincy, Ill.
For *Secretary*—Miss Linn M. Hawn, Saginaw, Mich.

The Secretary was instructed to cast a unanimous ballot in favor of the nominees.

Mr. N. L. Glover, Akron, Ohio, next gave a lesson in "Time and Tone Lengths," showing method of teaching and drilling.

Mr. Glover next made the report of the Committee of Twelve, on "Children's Songs." He said, that, contrary to the expectations and intentions of those who appointed this committee last year, the songs had not been written and sent in, so there could really be no report.

Miss May Acton, Chicago, Ill., sang, very beautifully, "First Aria" from "Lucia di Lammermoor."

Mr. Glover sang one of his songs to words published in "Primary Education."

Mr. Hayden sang an Arbor Day song.

After considerable discussion as to the usefulness of the committee and the use to which these songs shall be put when written, Mr. Hayden finally submitted the following motion, which was carried, viz.:

Resolved, That a committee of three be appointed to receive the songs offered by this committee and other members of this association, Mr. N. Coe Stewart to be chairman, and Miss Fannie Arnold of Omaha and Mr. H. A. Griggs of Denver his associates; the committee to report at the next meeting of this section.

Mr. Weeks of Ottawa, Ill., thought sufficient time was not given to discussing the papers read. He suggested that next year fewer papers be read and more time given for discussion.

Mr. Griggs of Denver said the experiment had been tried of discussing papers in public, and had failed. A round table or question box brought out discussion.

Mr. Bach of Colorado Springs moved that the Executive Committee be asked, next year, to grant an additional meeting for a round table. Carried.

Adjourned.

MARY A. GRANDY,
Secretary.

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PAPERS AND DISCUSSIONS.

PRESIDENT'S ADDRESS.

BY N. COE STEWART, CLEVELAND, OHIO.

Ladies and Gentlemen; Members of the Department of Music Education of the National Educational Association and Friends:

It becomes my duty, and it is a great pleasure, to greet you; to welcome you to this council; to wish for most abundant success to the purposes of this department; and to wish for the individual members the greatest professional uplift and enjoyment from our annual gathering.

I now declare our department open, and ready to begin the prosecution of its advertised program.

The work which has been done in music instruction in the schools of the United States and elsewhere during the past few years has demonstrated most clearly several things. A number of these things it becomes my duty to state to you, not only as a matter of information to some but as indicating imperatively the work to be done, for this is a national organization to which is deputed the management of the Music Education Department of the National Educational Association.

To place before you in as forcible manner as I may be able as many of these things as can be crowded into the brief time I must occupy, I merely state the several facts or things, only hinting at the reasons in some instances and giving only the statement in others, for subsequent papers of these programs and well authenticated experience will prove and has proven them. In other cases, the reasons are obvious.

The matter of learning music is no longer a mysterious and uncertain affair, but may be reckoned upon as certain and positive; for people learn music both as a science and as an art precisely as they learn other things, viz., by seeking and following the laws which nature has given. God is true in this as in all things, and compliance with his terms invariably brings the promised results.

It is reasonable to conclude that the study of the science of music, from its first principles clear through to a complete knowledge of and the ability to write its most complex forms of composition, will do as much, at least, to develop the mind, to give facts which may be classified and made ready for use, as will the study of any other sciences.

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For music has its real objects or things which of themselves and in their many relationships, in the almost endless variety and combinations of musical thoughts or ideas, are to be comprehended and by much repetition are to become familiar or worked into the "very warp and woof" of the mind before the subject is comprehended and mastered.

Again, acoustics, which is a part of music study, is valuable to the mind as a mathematical study. The study of music may be said also to be a practical application of mathematical study.

Another branch of music study is musical history. This gives to the mind the value in acquirement and drill of any historical study. In addition to this study of objects and their relationships, like other sciences, the fact, that, coming through the ear, music is gone to the senses, or vanishes as soon as it is heard, gives music study additional value as a disciplinary agent; for the impression made when music is heard must be retained and held ready for use in the process of assimilation which builds up the musical structure in the individual. It will thus be seen that memory, concentration, and judgment are all developed in a peculiar and admirable manner.

Again, the thorough understanding of the science of music requires considerable proficiency in its art, which demands that the performance shall be in measured time. Thus the mind is trained to act quickly, surely, and steadily, and because several things are to be comprehended at the same time and decisions made instantly, breadth and development in various ways are given to the mind as no other study gives so well.

These results are, of course, premised upon right study, and not upon the desultory and meaningless repetition of songs, the parroting answers, and time-killing indulgence in various things commonly called musical study.

Music is peculiarly useful in developing the æsthetic nature; for in melody, harmony, and counterpoint it is replete with beautiful forms or creations, which, when understood and appreciated, both of themselves and in their suggestiveness, awaken and cultivate a sense of the beautiful and excite the purest emotions. This is true to a degree in all who listen attentively to music, whether they understand it or not. But when music is studied from a mental standpoint rather than a sentimental (the only true way to study), these beautiful forms coming through the ear, evolved through mental consciousness, accepted by the judgment, appropriated by the feelings, and retained by the memory are a present and continual source of beauty and of satisfaction. This shows also that music is a powerful and legitimate agent in developing the emotions and nobler sentiments. Especially is this the case when music is associated with words, the sen-

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timent of which must be appropriated by the singer and sung with earnestness and feeling, and it be well sung. In fact, it argues that music is the proper medium for the growth and development of the nobler virtues; and, also, that music should be rightly studied.

It is a fact that all intelligent young people may understand and may master the fundamental principles of music so they can learn any written vocal music, can sing new music of ordinary difficulty readily at sight, and can write correctly music which they may hear and musical thoughts they may have in their minds, thus preparing them to enter upon and to master the entire field of part songs and choral compositions and to perform well the musical demands of life.

It is a fact that pupils in school may learn to use their voices intelligently and with absolute correctness, and may have them trained until they can perform well, in beautiful tones, the demands made upon the voice by ordinary musical compositions.

It is a fact that melodies and contrapuntal forms may be so well understood and mastered that children can phrase their songs well and sing them with correct expression and with proper spirit.

It is a fact that music is a universal language; since it enters into and will continue to enter into all social life. It is heard everywhere. Not a day and scarcely an hour passes that its strains do not fall upon the ear. It is heard intelligently or unintelligently. To hear it unintelligently is, in a sense, demoralizing and vitiating. Hence, music should be taught rightly.

It is a fact that the right study of music in school is also the best preparation for the study of other things; and at the same time it is so different from other work as to make it a positive rest and create in the schoolroom an atmosphere of cheer.

It is a fact, that, as a rule, school people, boards of education, superintendents, teachers, music teachers in school, professional musicians (outside and inside the schools), and the people generally do not know and do not appreciate that music study has the aforementioned and other real and necessary values, and that each intelligent child in the schools may thus learn the science of music and become proficient in its art.

People do not seem to comprehend that God has made laws for the acquirement of all these things, and that we have but to seek these natural laws and follow them and the results are certain; thus saying that there is a positive method in music study by which children and young people may as certainly learn to sing as that they can learn anything else, or that things grow or decay according to natural law.

After these considerations it becomes easy to say that the important work of this organization is to raise the educational and profes-

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sional world and the people generally up to appreciation of the foregoing facts, to show them the educational lines along which the work should proceed, and then to arouse them to activity, that proper legislation may be made, that the teaching force may be properly educated and trained, that place shall be made in the curriculum and ample time daily shall be provided for music study and drill; and thus inaugurate, cultivate, drill, and persevere until right music study with its attendant benefits shall everywhere prevail.

The task of lifting people from an imperfect and wrong conception or plane which they occupy and which they conceive to be correct, or with which they are satisfied, up to a correct and higher plane or standard is a very difficult one. It is an Herculean task. It is to create in them a belief that another, and an infinitely better country than the one they inhabit has been discovered, which it is their bounden duty to seek and to possess; then to quicken this knowledge and desire into activity until the start shall be made, the journey shall be prosecuted, and the goal reached.

The labors of Balboa, Columbus, and Livingston were easy compared to this. But it can be done. It must and shall be done, because the best education of the race depends upon it. By applying the same principle which is applied in actually going to any given place, viz., "Take the right road and keep going," we shall surely get there.

This is, in brief, the important work of our department. Other departments and the great national organization itself must be informed of our purpose and must act with us, as must also the organized educational forces elsewhere.

The program for the present session was formed upon a scheme which had the above things in mind; as, for example, "The Purpose of Music Study," "How Children Learn," "A Course of Music Study," and related topics, by persons from various educational fields, capable to discuss the several themes and to awaken thought in the right direction. Subsequent programs should be made along schemes which have in view the entire field which is to be covered and not merely to entertain, nor alone to edify and instruct. By constantly planning the annual program to lead systematically and surely to the accomplishment of this great work; by agitating the matter in the various educational journals, in school gatherings everywhere; by teachers and music directors striving, to know, to become, and to do better and better work; and by putting all the agencies into intelligent activity, the high plan of musical development, musical appreciation, and musical uses will eventually be reached.

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THE PURPOSE OF MUSIC STUDY IN THE PUBLIC SCHOOLS.

BY SUPT. F. TREUDLEY, YOUNGSTOWN, OHIO.

I present this paper with a due degree of diffidence, because I am conscious of my own relative unfitness to discuss subjects partaking of a special character before a body of people in whose minds all phases of it lie, presumably, clear and complete.

A superintendent's interest as well as insight must necessarily be general, and the only object which I can hope to accomplish is to present to you, who are students of and specialists in this divine art, a brief statement of the way this work is viewed by others, and the considerations which appeal to us and persuade us to stand with you in promoting its more thorough and widespread study and practice.

We may not express ourselves in terms of philosophic language, but all of us—at least, all of us who are fit for our work—are not wholly unconscious of the melody of music when sung by children's voices and interpreted in childhood's heart, and we are not unobservant of the fact, that, as an accompaniment, wonderfully fitted to heighten the charm, is the grace of perfect innocence and simplicity, reflection of the soul's harmony, as yet undisturbed by days of unmastered evil, as face and form, and glowing color, and changing attitude, and radiant beauty reveal the simple pleasures of this art and add their melodies to the melody of song.

I, for one, do not say that music should have a place in the curriculum of the public schools. I say, rather, that it ought to be a matter of wonder that any question about it should arise at any time.

I speak here as a disciple, not as a teacher; with blundering tongue and crude thought. But if the purposes of a noble creation, of whose glories even yet "eye hath not seen and ear not heard," are best served by filling its sounding halls with music; if the visible music in the procession of the stars or audible music as in the notes of the wood-robin, dropping down like silver bars from her high perch, or the possibilities of music lying along the silvery strings of the piano or involved in the depths of some great organ, to leap forth into embodied form when the master touches the keys, or to rise even like mist from the slender fibers over which sweep the obedient fingers of a Paganini or a Remenyi, as the matchless artist bends in submission to his art; if there be implanted in the very structure of the voice that chord which you, versed in harmony, call the "dominant seventh," only satisfied in its production of unrest

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and expectancy by what the tonic chord gives utterance to;—all these are but signs and symbols of what are fit agents in the development of the soul.

Of course, this matter is complicated somewhat by what we may regard, in the terms of Aristotle, the "final cause" of education.

I like ability to endure hardness and the quality of an abiding faith. I know that Ulysses was no exception to the seeming law which levies upon the powers that be, to thwart, apparently, high purpose and noble ambition.

I recall the rather utilitarian definition of Edward Everett as to what constitutes a liberal education, and I know, as you know, that generations will yet pass in strife with nature before the reign of the Muses shall be so established in our land, and bees shall touch the lips of our babes in cradles, and Parthenons shall crown the summits of our hills. But better times than Greece ever saw are coming, and sweeter strains than Apollo ever struck from his lyre are receiving audible expression, for "humanity sweeps onward," and far above the classic beauty of ancient art is what the world is coming to realize, though dimly as yet, in the "beauty of holiness."

Now, briefly, a man appears to me well educated in proportion as he has made himself responsive to these subtle influences, messengers from the powers that be, which come, appealing for courage, for love, for sympathy, for help.

Their name is legion. They spring from everywhere. They are, like the quality of mercy, "twice blessed."

As the lips of the statue of Memnon were said to burst into music or the petals of the pond lily, as Thoreau most delicately observed, to open to their fullest bloom with the first touching of the sun's ray, so ought man's soul to become, as it were, sensitized to whatever comes of worth, be it clothed in whatsoever form of delicacy or with feet shod with whatsoever fabric of finest wool. So came the gods in olden days, and suppose they come but once!

Socrates was truly educated, but not Alcibiades. Aristotle received a profound education, as is shown by the sweep of his thoughts. Pestalozzi was nobly educated, as his life proves. The late Earl Shaftesbury was educated, as was shown by the countless banners that lined the streets down which the funeral procession moved, for they bore the motto: "I was an hungered, and ye gave me meat; thirsty, and ye gave me drink." These were educated men because they had been trained to believe in the glowing words of Balfour, in his "Foundations of Belief:" "That somewhere and for some Being there shines an unchanging splendor of beauty, of which in nature and in art we see, each of us from our own standpoint, only passing glances and stray reflections; whose different aspects

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we cannot now co-ordinate; whose import we cannot fully comprehend; but which, at least, is something other than the chance play of subjective sensibility or the far-off echo of ancestral lust."

I am not wandering from my theme, for only as each one determines for himself what the true end of education is can he ground the argument for any element of training.

We know perfectly well that the only real disorder in the world is moral disorder. We know, as sight gives way to insight and the subtle deeper harmonies of creation become revealed, that what we call order, rhythm, symmetry, are expressions of the same central Being, and become known by the same general processes, and are under the control of the same general laws.

We know that what we call the fine arts are but different forms of expression of the same thoughts, emotions, perceptions of harmony. Goethe used to say that he loved to dwell amidst "permanent relations," and here alone you find them.

The line of Pindar which drove the sense of time from the experience of Emerson is kindred to that form of marble which crowned the Acropolis of Athens, whose surpassing beauty only those can describe who have seen.

We call Raffaelle great because we read him in the Madonnas of his creation. We group him, because we must, in that Italian hierarchy of genius, strange flowering of a corrupt age, which reflected the innocence of heaven with the stern justice of an avenging Deity; which, with equal skill, made the canvas glow with aspiration and marble represent invincible determination, and which proved, in that "Medieval Miracle of Song,"

> What agonies of heart and brain,
> What exultation trampling on despair,
> What tenderness, what tears, what hate of wrong,
> What passionate victory of a soul in pain,

are necessary to the deepest insight into the mysteries of life.

Passing to things fundamental, I hold that the supreme purpose of music study in the school is to educate our youth to keen perceptions of this order, harmony, beauty, and thus to drive away care and bring in peace, which is in itself a sign of moral order; to create aspirations for ideal good, and to make them more receptive to all that is of approved worth. Have you ever known a genuine lover of music without natural or acquired refinement?

> How sweet the moonlight sleeps upon this bank!
> Here will we sit, and let the sounds of music
> Creep in our ears; soft stillness, and the night,
> Become the touches of sweet harmony.
> Sit, Jessica. Look, how the floor of heaven
> Is thick inlaid with patines of bright gold.

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There's not the smallest orb which thou behold'st
But in his motion like an angel sings,
Still quiring to the young-eyed cherubim;
Such harmony is in immortal souls;
But whilst this muddy vesture of decay
Doth grossly close it in, we cannot hear it.

Jessica. I am never merry when I hear sweet music.

Lorenzo. The reason is, your spirits are attentive:
For do but note a wild and wanton herd,
Or race of youthful and unhandled colts,
Fetching mad bounds, bellowing, and neighing loud,
Which is the hot condition of their blood,
If they but hear perchance a trumpet sound,
Or any air of music touch their ears,
You shall perceive them make a mutual stand,
Their savage eyes turn'd to a modest gaze
By the sweet power of music; therefore the poet
Did feign that Orpheus drew trees, stones, and floods;
Since none so stockish, hard, and full of rage
But music for the time doth change his nature.
The man that hath no music in himself,
Nor is not moved with concord of sweet sounds,
Is fit for treasons, stratagems, and spoils;
The motions of his spirit are dull as night.
Let no such man be trusted.

But further, and by virtue of this close relation between various fields of art, the worth of music is enhanced by its influence upon interpretive power along other lines of inquiry—literature, architecture, painting. Introduction into the realm of its principles and canons of taste means introduction, not only into "permanent relations" but into universal relations.

And more than this appears the truth to me, viz., that no other training can take its place.

When we consider the subtle power of music in the tones of the voice, or as favored and expressed by the widespread use of musical instruments of rare delicacy; when we consider the organs and function of hearing; when we add to this the ease with which the masses may be reached and trained; when we further consider the real intellectual value of this training; and when, finally, we take into account the peculiarly powerful influences capable of being exerted over the soul, to which philosophers and poets have testified from the days when the "morning stars sang together, and the sons of men shouted for joy," we are bound to say that no room can be left for question. Not in vain are we told that Ulysses filled the ears of his sailors with wax to shield them against the strains of music from Circe's isle, but Orpheus drew strains yet more beautiful from his lyre.

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Nay, from the beginning of life to its close; from the days when the restless babe is nestled to sleep by the sweet lullaby of its mother's voice, until, as with Mirabeau, old age may desire to go out amidst the sounds of sweet music, its power is confessedly the same and its empire embraces every created thing.

If we turn now to an examination of the human mind and make a survey of its powers, from it spring the same convictions. We find, not technically speaking, a mind that thinks, and feels, and wills with the strength of personality and possessed of intellectual powers bearing the names of observation, imagination, memory, reasoning, judgment. We find springing up under the activity of these powers what we call sensibilities, in the form of emotion, of fear, hate, love, joy, sympathy. And still further we find, on analysis, that, under the influence of the emotions, the will moves swiftly to its choice.

Analyze, if you please, a masterful speech, such as Demosthenes could make or Antony delivered.

The highest tribute that can be paid to eloquence is, not that it moves us to conviction but that it inspires us to action. We all know the wonderful influence of those triune forms, one face of which bears upon it the word truth, the second, good, the third, beauty, for whenever you see one you see the other; for nothing is truly beautiful which is not good, and nothing could be good which is not true.

Truth appeals to the intellect and is accepted. Embodied in practice it becomes the good. Out of the good springs the sense of beauty which appeals to the sensibilities, and awakens that passionate desire to attain it which will not rest.

Many a Mount of Transfiguration has been ascended by earnest souls and many a shining form has been disclosed to weary eyes, to be wrapt away by unseen hands, for "we see as in a glass darkly," but sometime "we shall see face to face."

But these shining ones constitute the world's ideals. They people the "Isles of the Blest." Their footfalls even may now and then be heard upon the far-off boundaries of the world of sense. Socrates heard them as he sat in the midst of the Athenian youth discoursing upon justice, temperance, courage, or defending himself in that immortal speech, some sense of which we catch in the "Apology" of Plato. Augustine, by the favor of heaven, moved by the prayers and tears of Monica, heard them ere "The City of God" fell from his hands. To Pestalozzi they appeared as he bent over the sleeping forms of his little ones in those immortal days at Stanz. Francis of Assissi trod a cruel earth in rags, but the birds saw in him a kindred soul, and over his dead form they sang the "Te Deum" of their kind.

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Is not music good? Is it not beautiful? Is it not true? Is there an utterance of truth possible without music constituting a component part? You have read the "Idyls of the King," and remember "The Passing of Arthur:"

What statelier music ever came from master's hand than this:

And slowly answered Arthur from the barge:
"The old order changeth, yielding place to new,
And God fulfills himself in many ways,
Lest one good custom should corrupt the world.
I have lived my life, and that which I have done,
May He within Himself make pure. But thou,
If thou shouldst never see my face again,
Pray for my soul. More things are wrought by prayer
Than this world dreams of. Wherefore, let thy voice
Rise like a fountain for me night and day.
For what are men better than sheep or goats
That nourish a blind life within the brain,
If, knowing God, they lift not hands of prayer
Both for themselves and those who call them friends?
For so the whole round earth is every way
Bound by gold chains about the feet of God.
But now, farewell! I am going a long way
With these thou seest—if indeed I go
(For all my mind is clouded with a doubt)—
To the island-valley of Avalon;
Where falls not hail, or rain, or any snow,
Nor ever wind blows loudly; but it lies
Deep-meadow'd, happy, fair with orchard-lawns
And bowery hollows crown'd with summer sea,
Where I will heal me of my grievous wound."

So said he, and the barge with oar and sail
Moved from the brink, like some full-breasted swan
That, fluting a wild carol ere her death,
Ruffles her pure cold plume, and takes the flood
With swarthy webs. Long stood Sir Bedivere
Revolving many memories, 'till the hull
Look'd one black dot against the verge of dawn,
And on the mere the wailing died away.

Then from the dawn it seem'd there came, but faint
As from beyond the limit of the world,
Like the last echo born of a great cry
Sounds, as if some fair city were one voice
Around a king returning from his wars.

Thereat once more he moved about, and clomb
E'en to the highest he could climb, and saw,
Straining his eyes beneath an arch of hand,
Or thought he saw, the speck that bare the king
Down that long water opening on the deep
Somewhere far off, pass on and on, and go
From less to less and vanish into light.
And the new sun rose—bringing the new year.

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Nay, music, rather, is the fundamental basis of the fine arts. Architecture has been beautifully called "frozen music." We speak of "The Psalm of Life," and the first words are "Tell me not in mournful numbers."

Truth comes into the soul upon the wings of music under its most subtle and persuasive forms. In our crude thinking, we speak of it as appealing to the emotions. So it does, but only as it appeals first to the intellect under the forms of truth.

What did I hear when once I heard Albani sing those strains in "Il Trovatore," which, when once sung by such a voice, are not to be forgotten? What were my thoughts when one day I stood above the grave in Oak Hill Cemetery, Washington, where reposes the dust of the author of "Home, Sweet Home?" What was that communication which came to a friend of mine who once told me of hearing the assembled hosts of Sherman, more than 100,000 men and a hundred bands of music, peal forth that stirring war song, "We'll Rally Round the Flag, Boys," ere they swung on their southward march to Atlanta? "Eye hath not seen, and ear hath not heard," and voice cannot express, either in melody or speech, what the soul is capable of in its most receptive moments.

This is my thought: That music is the chief handmaid of beauty, of goodness, and of truth; and if so, what excuse can be alleged for her neglect? I have not gone into details, for I am incompetent. I have even trespassed upon your time beyond a reasonable limit. I have spoken with indirection, I fear, and in feebleness. But I join you in the devout wish, that, if much has been done, it may sometimes appear to have been but a mere beginning. But when Music shall have come to her kingdom, earth will no longer be earth, for the shadow, as Plato would have it, will have passed into its substance, and in the world of light all creation will join in her language to render appropriate thanks for the gift of her—God's highest gift to his creation.

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HOW PUPILS LEARN TO KNOW AND DO IN MUSIC.

BY C. H. CONGDON, SUPERVISOR OF MUSIC, ST. PAUL, MINN.

Now that the purpose of music study in the public schools has been so masterfully set forth, there is no longer any doubt as to its utility, and the question "How pupils learn to know and do in music?" naturally follows. It is the great problem of music education to-day. We have given us the child, and on an average fifteen minutes each day during his school-life in which to accomplish the wonderful results claimed by the ardent advocates of music in the public schools. We have also the musical literature of the world at our command; for, in music, we are not limited by the confines of mother tongue. Music is a universal language. The staff notation is used in every civilized country in the world, and its printed page is found in every cultured home. Let us first consider the child, and doing so we may inquire as to the extent to which the music faculty exists in the human mind. Horace Mann says: "The preadaptation of the human mind to seek and find pleasure in music is proved by the universality with which the vocal art has been practiced among men. Each nation and age steps forward as a separate witness to prove the existence of musical faculties and desires in the race." It is a narrow life, indeed, that has no desire to express its feelings and emotions in song. The ability of one to sing before an audience, small or great, is but one of the manifold ways in which the individual may "seek and find pleasure in music" and shed abroad its mysterious influence. Repeating the words of President D. B. Hager, "The mother's lullaby, the merry glee that scatters joy amid the social gathering, the serenade, the thrilling song that fires the patriot's soul, the solemn hymn that soars to heaven wherever Christians meet—all reveal the mighty power of music," and prove that the music faculty is universal and music is a universal language of the soul. It is not, therefore, the province of the public school to cultivate prima donnas nor to develop the clever few to the neglect of the masses. We have, then, the average child, endowed with musical faculties; a musical literature that is almost inexhaustible; the machinery and teaching force of our public schools; and, as before stated, an average of fifteen minutes per day to devote to instruction in this branch. The question is, how the average child learns to "know" and "do" in music.

The music faculty is manifest in most children at an early age. In a few, however, tone imitation must be cultivated. Experience

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shows that those who are tone-blind, or, if you please, tone-deaf, at the beginning can, as a rule, be reclaimed before they reach the age of seven. Such pupils, usually called "monotones," should receive special treatment until tone perception has been awakened. They should not be discouraged in their attempts to sing; but in case their voices become strongly discordant, they should be asked, for a part of the time, at least, to listen.

Many monotones, however, have voices that are pleasant in quality, and if they are required to sing softly their tones will not interrupt the current of melody that usually flows where good intonation has been established. It is necessary, furthermore, for the monotone to listen at times, for his own benefit. He usually sings with great enthusiasm, with a conception only of rhythm. He does not recognize pitch unless his attention is called to it and he is trained to listen. The mind must be open to impressions before it can receive them.

I shall not dwell at length upon this point, as undoubtedly our experiences have brought us all to nearly the same conclusions. Having in a way disposed of the monotone, we may now proceed to unfold a scheme for the development of the average pupil, who is able, as most children are from the time they enter school, to learn songs readily by rote and to sing the scale correctly. From now on I shall take for granted that pupils can do this much, at least.

Interest is the basis of all mental development. Without it no true progress can be made. To interest children in any subject is the great test of teaching ability. As I am supposed to discuss methods instead of teachers, I shall try to show some of the things, outside of the teacher's power, which I consider necessary to awaken interest in the study of music.

In the first place, I believe the true kindergarten idea of song should extend through all the grades. Children should learn to love and appreciate good music, and sing because they love to sing. To be always studying music without singing something will extinguish any spark of interest that may exist.

The new education demands that the song shall be held up as the ideal, and that the child shall be led naturally through thought and expression to the mastery of technique. The a-b-c method of teaching sight-singing cannot obtain so long as language is taught so successfully by other methods.

Ten years ago music obtained a foothold in many of our public schools because children could be taught in a short time to "sing by note" and make difficult leaps in the major scale. These performances seemed wonderful to the average educator, who, as a

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rule, was uneducated in music. To-day they are looking for a realization of some of the purposes outlined in the paper which has just preceded mine.

It is claimed that the moral influence of music sinks deeper and is more lasting than word or precept; that as an aid to school discipline it is invaluable, for its charms subdue the rebellious spirit and create a bond of sympathy between teacher and pupil; that music encourages social intercourse of the highest order, for the ability to sing is a passport to good society; and that the love of music turns the footsteps of many a young man from the saloon and gambling-room to the church and home.

These things are not brought about, however, by forever practicing the wearisome solfeggio. The small boy is often disgusted with such nonsense, and gets even with the stern wielder of the baton by yelling "Do, re, mi!" at him on the street. If any teacher present desires to weaken my belief in his veracity, let him deny any such experiences.

Regardless of the precautions of our worthy president to avert an onslaught against the Italian syllables by assigning me another subject, I take this opportunity to still have my say. I believe that I am one of only five supervisors of music in the United States who have abandoned the use of these syllables. If there are others I have not heard of their work. My argument against them is, that they add one more mental process to the act of reading music at sight and they encourage mechanical singing.

Mr. Kelsey of Saratoga Springs says that pupils trained with them "go lame" without them; and there is much truth in the statement. Our school curriculum is already crowded to its fullest capacity. The short music period necessitates the elimination of everything that is not absolutely necessary. Crutches are used to assist the lame in walking; but the average pupil is not mentally lame. The law of association is a legitimate aid to the memory; but it can be proved that the utilization of the number sense is more economical than the use of a senseless formula. We read staff distances, or intervals, by numerical calculation. We also contemplate the tones of the scale by a similar process. These tones find recognition in the mind through the notes upon the staff, and thus the number sense is brought into use in a twofold manner, making the law of association doubly strong. By this process the mind is not diverted to a useless syllable, calling for an extra mental process. Some claim, however, that there is something in the sounds of the syllables peculiarly suggestive of the character of the tones they respectively designate. This fallacy is shown by the fact that do and sol have the same vowel; as do also fa and la, and si and mi.

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A conception of a tone, or of an interval which involves the relationship of tones, is dependent, first, upon tone perception; and, second, upon the imagination and memory. The memory is aided by the law of association. A mental image to be recalled must first be designated. The tones of the scale are naturally designated by the numerals, and the numeral names furnish as good an opportunity for association as the syllables.

Professor Zuchtmann says: "When we use the do, re, mi, or any other vocalized or objective formula by which to read the staff intervals, we burden the process of thought by carrying in the mind an extra standard, slavishly used at every step to interpret the intervals of the staff, which, properly learned, need no such interpreter."

It is further claimed that the Italian syllables are needed for sake of euphony. Far from my door lay the charge of sacrificing sense to euphony. One cannot learn to sing in English by practicing Italian. In learning to ride a bicycle it is not advisable to practice first upon a tricycle because it is easier. Whatever pure vowel practice is necessary can be accomplished by using the syllables, ah, la, o, oo, etc. I suppose, now, that I am accused of wandering from my subject and of tearing down more than I build. I would remind my accusers, however, of the fact that instruction in vocal music consists largely in training pupils to avoid that which is objectionable or pernicious and to prevent the formation of bad habits. In trying to show how pupils learn to know and do in music, this is an important line of argument.

It is necessary for the teacher to continually use the pruning knife and pull the weeds. Vicious growths will spring up that must not be allowed to go to seed. It is a difficult thing to tell children how to sing; but we can easily point out defects that they can avoid. In singing children have the advantage over older people. While adults are studying how to arrange the vocal organs and "place the voice" properly, children just open their mouths and sing; the tone becomes an object of thought, and the vocal organs naturally relax to give expression to the emotions within. With children it is more mind training than voice training, and a cultivation of musical perception will lead them to form correct habits of voice production.

Many children, however, labor under congenital defects which are frequently absorbed by those with whom they are constantly brought in contact. This, coupled with a certain degree of carelessness on the part of both teacher and pupils, leads to bad pronunciation, throaty and nasal delivery, and indistinct enunciation. Words are swallowed, jerked out and run together in a most un-

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singable fashion, with no attention to phrasing, accent, or rhythm. All this is encouraged by shallow, imperfect breathing and improper positions of the body. The majority of children's voices, however, are beautiful, and possess the quality of extreme sweetness. The work in voice-training should be directed to developing and establishing this quality. Pattern singing, by the teacher, if she has the voice, or by pupils whose voices are pure and resonant, will wonderfully aid in overcoming the faults above described. A bad pattern is usually imitated as readily as a good one, and for this reason voices that tend to contaminate the tone of the whole class should be brought under subjection. It is best to seat such pupils in front where they will be under the constant surveillance of the teacher, and in a position to be influenced by the pure voices. The teacher having thus learned to pull the weeds, the growth of all that is desirable will be a natural result. She must remember that she is dealing more directly with minds than with throats, and hence the necessity for application of psychological principles in music as well as all other branches. Children may be taught by imitation to open their mouths properly and gracefully and to assume a correct position of the body, but devices for placing the voice are, as a rule, impracticable in the schoolroom. Move the soul with "concord of sweet sounds," and the voice will place itself. Soft singing is an important principle of voice training. Harsh, strident tones are usually the result of forcing the voice. This habit is altogether too prevalent in the schoolroom, and we should insist with all the power at our command that no amount of tone shall be allowed beyond that which the children can produce with perfect ease.

It must be remembered that enthusiasm does not always engender musical perception. Children in their enthusiasm often sing too loud and carry the broad open quality of the lower tones to the upper register, thus producing shouts instead of the beautiful head tones so desirable in all singing. As the voice ascends it should diminish in force but not in brilliancy. A ringing head tone can be made without the too violent use of the vocal organs.

Having awakened interest by the use of music that is fired by the soul of genius, touching a responsive chord in the hearts of the pupils and holding them like a magic spell, the question now arises. How can we take them down from this elevated position and teach them the mechanical side? How shall we teach them the art of reading music at sight? This most desirable accomplishment, like language reading, places the whole field of vocal music at the command of its possessor; but it is the result of diligent practice only.

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It should be observed here, that, while I have stated that the kindergarten idea should extend through all the grades, I have not advocated the teaching of songs by rote to that extent. Rote-singing has a proper place at the foundation of any correct course in music. It should be practiced, not only for recreation, moral effect, etc., but for the purpose of cultivating in the children a taste for music, and for furnishing them ideals of time and tune to which all subsequent lessons in sight-singing should point, and ultimately lead.

The ability to read music, however, must be developed by a process entirely different from the one employed in teaching songs by rote. Children learn to read language, not by memorizing selections of prose and poetry but by reading many simple, graded sentences. They learn to read by reading, and the same methods of learning by doing must be followed in teaching them to read music.

Superintendent Gove says that song-singing by rote is related to the regular work in sight-singing as is a special reading, declamation or oration to the study of language reading. Songs should be taught by rote more or less through the primary grades, but after note-singing is begun there should be gradually less and less of rote-singing until the former shall entirely supplant the latter, the children having acquired the ability to read the music of their songs.

In beginning the work in sight-singing I recommend the following plan: Teach by rote the major scale and the scale melodies,—trichords, tetrachords, pentachords, etc.,—with a few imitation exercises in passing key note. Practice both the scale and these melodies from the number ladder, the teacher pointing slowly. This is the first step in reading music. The teacher should not lead with her voice, for singing with children during their efforts to read music, either by note or by number, defeats the object of the lesson and converts the exercise into rote practice. The teacher may, however, add inspiration and brighten the pitch by lending her voice judiciously to certain notes without revealing the melody. The next step is to practice upon a blank music staff the work already outlined for the number ladder, taking different positions for the "one," or, if you will have it, the "do" place. It is quite important that this preliminary, and subsequently parallel, practice should be done from a blank staff. It is done for the purpose of teaching the pupils to read the staff. This drill work is usually done from notes representing the tones of the scale consecutively. In this case the staff cuts no figure, as far as the children are concerned, as an experiment will show that the same work can be performed from notes written conjunctively without the staff. Note

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reading should begin as soon as the pupils are able to understand the simple scheme of the staff notation and to think tones readily. It is a mistake to suppose that all the intervals of the scale should be taught before the work in sight-singing begins.

The graphic representation with notes, upon the staff, of the relative pitch of sounds aids the pupils to think tones relatively. The music staff is so simple and the reading of it can be so easily taught that there is no valid reason why it should not be used almost from the beginning.

Any child, however young, that can be taught to sing the major scale and a few scale melodies correctly—ascending and descending—can be taught in a few lessons to sing by note easy exercises in any key, and apply the words at the same time. Pupils even in the higher grades find it difficult to attend simultaneously to all the mental processes that go to make up sight-reading, such as recognizing notes, thinking the pitch and length of tones, accenting, applying words, correct phrasing, etc. It is necessary, therefore, that the songs or exercises for sight-singing practice should, at the beginning, be very easy, and so carefully graded that the pupils will scarcely realize that they are singing more difficult music as they advance.

Every music lesson should be prefaced with a short tone drill, given either orally or from the ladder or blank staff, and developing in advance of the note-reading the intervals which occur in the sight-reading exercises or songs.

It is desirable to be able to read in all keys equally well and to change keys readily. It is a delusion to suppose that remaining in one key for a long time is necessary to success in another key. In changing keys, with beginners, no explanation should be given further than to sound the key tone and to designate the key-note place.

By thus omitting the theory of keys and signatures with primary classes, the study becomes simply one of relative pitch and relative position, making the reading in all keys equally easy.

Owing to the length of my paper I shall be obliged to omit the subject of time. I will state briefly, however, that rote-singing and physical exercise develop to a great extent the sense of rhythm. I object to the practice of beating time by the pupil for the same reason that I disapprove the use of the syllables. The sense of rhythm must be made subjective. It is a mode of expression which, in singing, should be centered entirely in the voice. If the mind is able to conceive regular accent it can be expressed with the voice as well as with the foot or hand, and much more artistically.

You have now had a glimpse of my plan for unfolding the scheme of the staff notation. I must forego further discussion of details.

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The new education demands that every attempt at sight-singing shall point directly to and embody the spirit of song. For this reason the exercises should at first consist of short themes with words, leading very slowly to more elaborate music. Every melody, as well as every verse or couplet, should be a gem.

Parallel with this work should be the ideal school song preceding every lesson, ever holding the pupils in that realm of emotion from whence they can absorb the mechanical or master the technique with intense interest.

I have spoken of the parallelism of study and song, and it is a striking illustration of a case where parallels meet.

The soul of pure music, the united interest and enthusiasm of teacher and pupils, and the exhilarating effect of the ensemble of sweet voices are the vital carrying forces of music in the public school. The brief daily exercises devoted to music instruction is thought by some to be insufficient for practical results. But the human mind is like a camera. With a perfect exposure it will receive instantaneous impressions. The kinetoscope presents a series of such impressions blended together into a living picture. In like manner the properly developed child reveals a series of mental impressions taken under conditions of intense interest. They are spread out upon the ribbon of memory; revolving on the wheel of daily action, in the panorama of life, we behold a perfect living picture.

A COURSE OF MUSIC IN PUBLIC SCHOOLS.

BY A. J. GANTVOORT, COLLEGE OF MUSIC, CINCINNATI, OHIO.

The title of this paper is so comprehensive and so broad that it took me some time before I could make up my mind to accept the invitation of the president of this department to read a paper on the topic. However, I accepted, and will proceed to submit to you some of my ideas as to a course in music for public schools.

First, then, what is the purpose of a course in music? Has it any purpose similar to a course in reading or arithmetic, or other important studies?

We music teachers are a unit in answering this question by an affirmative, so strong and full as to be heard from one end of the educational field to the other. But do we always prove it in our work to the satisfaction of those teachers and superintendents who are skeptical on this subject, and who think music nice and pleas-

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ant in the schoolrooms; who even express their love for it in no unmeasured terms, and then proceed to prove their appreciation of its value by only using it as a recreation, a pleasure, a rest from other studies, overlooking its disciplinary powers?

A course in music should embody training or discipline for all the powers of man—the physical, the mental, and the emotional, including the will. If it does this, then a course in music may not only be an aid in the education of the child, but it may almost become an education in itself, as it was among the early Greeks.

The strongest power of the child when it comes to school is probably its emotional power; that is, it is governed more by its desires than by its reasoning faculties. It wants this or wants that, never mind why. It does not want to do this thing or that, being swayed entirely by its emotions.

A course in music should aid in bringing these desires or nondesires under subjection to the intelligent will, and it can do so if rightly constructed of the right kind of materials and rightly taught. Thus it will bring the child's original nature in subjection to its ideal nature, which is the true province of education.

A course in music should also provide for the development of some of the physical powers of the child. It should help to give him increased capacity and power of the lungs, which will induce the inhalation of more oxygen, and consequently will give purer blood and a more active brain. It should give him sufficient control of the organs of speech to enable him to give the principal vowels and consonants their true phonetic value, which can easily be done when ear-training is a part of the course.

For the mental powers of the child, a course in music should do as much as any other branch of study, and that it can do so is evident enough to all of us who are practical music teachers. But the point is, not to convince ourselves but to convince the regular teachers and superintendent and general public by our work, if we wish to have their full co-operation and sympathy. We must prove to them that the study of music cultivates the perceptive faculties, the memory, the mathematical side, the emotional side, etc. If we do that, we will have their full sympathy and co-operation.

So much, then, for the aims which a course in music should have—to develop in harmony and co-ordinately with other studies the physical, mental, and emotional powers of the child.

What should a course in music finally accomplish? For the emotional powers, it should bring the child in harmony with his surroundings, making him generous, patriotic, sympathetic; a lover of what is good, noble, beautiful, just, right; an ardent lover of music as a divine art, which will bring the best in him to the surface. That is, it

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will make the best in him become evident in his every action, which will always be governed by his feeling for others, etc.

For the mental and physical powers combined, it should make him a quick, accurate observer of the slightest differences and details of length and pitch of tones, the characters which represent the pitch and length, so that he may hear the tones with his eyes and see them with his ears. It should give him a concentration of mind far superior to any which he would have obtained without pursuing such a course in music. It should aid powerfully in making his judgment accurate, his sense of proportion almost perfect, a memory capable of remembering small details. It should give him in this way also the ability to read music at sight, intelligently, and with pleasure to himself and others.

Physically alone it should make him possess a healthy pair of lungs, with the knowledge how to use them to best advantage in keeping himself healthy and active. It should give him such a power of enunciation, by a knowledge of the phonetic value and construction of pure vowels and the cultivation of the tongue, palate, lips, and ear, as to make his speech and song equally pleasant to the ear, and thus enable him to take his part in all social and musical exercises, and thus become a more valuable member of any community.

Can a course in music accomplish all this?

It can and should do so. It can do so if the materials of a course of instruction, the songs, the exercises, and the teaching are of the best, based upon pedagogical principles and thoroughly in sympathy with child-life, its development, its joys, its hopes, its desires, its powers of understanding, etc.

A few words, then, about the materials of such a course in music:

First of all, a teacher of music who is a musician and a student, a lover of children as well as of music, and who can be a child among children.

Second, a series of exercises so carefully graded and arranged as to be nearly always very slightly in advance of the power of the child from the first year to the end of school-life.

Third, a series of songs about everything that a child loves, expressed in words that do not need explanation, thoughts that do not require diagramming, and whose tonal and rhythmical difficulties are so thoroughly adapted to the words as to be a natural expression of the thought conveyed by the words; songs which will establish a coordination of studies such as has not yet obtained anywhere in any school as fully as desired, because of the lack of a course embodying these ideas; songs which shall live in the heart and mind of the child long after he becomes an adult; songs whose emotional power will lift him out of himself, and bring his ideal nature in the ascendancy

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over his original nature; songs, in one word, that will never lose their power over him in bringing before him ideals of truth, nature, patriotism, moral life, and divine life.

Such a course in music will be hailed with joy by all educators and will be worthy of having applied to it the thought that—

> Music is the only art of heaven made;
> The only art of earth we take to heaven.

MUSIC IN RELATION TO OTHER STUDIES.

BY SARAH L. ARNOLD.

[ABSTRACT BY THE AUTHOR.]

Two strong tendencies in opposite directions may be marked in the education of to-day. One is the tendency toward separation of studies,—specialization,—as evinced by the new impulse in departmental teaching. The other is the attempt to centralize, to co-ordinate, represented in a high degree by the Herbartians. Both tendencies must force us to inquire into the interdependence of the subjects taught in our schools; and, in pursuing our investigation, we naturally arrive at the question, What is the relation of music to the other branches of study? A thoughtful observation of a complete exercise in music will convince us, first, that the study has a vital relation to the other subjects, through its effect upon the fundamental conditions of all study; and, second, that it reacts closely upon the specific work in certain branches, as reading, language, nature study, and literature. Observe a class in music. See how the success of the exercise depends upon their working together. Now they sing in unison—in perfect time and tune. Now they are learning the more difficult harmony, where the failure of one part brings inevitable discord to all—where the success of the whole rests with each individual. Estimate, if you can, the value of such unison, and, higher still, of such harmony, in the discipline of the school, where the great lesson to be learned is the power of working together, the talent of keeping step, the secret of co-operation.

Again, follow the pupils into the schoolroom, after a free noisy recess on a hot day. Watch the transition from the free and uncontrolled movement of the play ground to the quiet attention of the schoolroom, through the medium of a song. Differences are forgotten, quarrels are healed; license gives way to self-control, roughness to

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gentleness, under the influence of the music. Ah, if teachers but knew how to use the song, we should hear less of the rod! In the harmony of interests, begotten by music, willfulness and strife are forgotten. In both senses of discipline, the philosophic and the common school use of the term, music is of inestimable value, and good discipline is indispensable to all study. The inference is obvious.

Again, music develops in a marked degree the power of concentration and the habit of attention which are essential to study. Have we measured the achievement of the little child who successfully sings a strain of music? He must recognize shapes and relative position of notes, translating the characters into sounds of certain pitch and length. Later, he must in addition associate words with these tones, in proper measure and with true expression; and perhaps do this when others are singing other words to other tones. Compared with the attention demanded by simple reading, this exercise is very difficult. It demands attention of the highest order—a concentrated power of attending to one's own business which must inevitably tell favorably upon all other phases of work. But again, and quite as surely, music helps in special as well as general lines. Every lesson in sight-singing makes the sight-reading easier to the child, for both require the exercise of the same powers. But further than this, music helps, as no other agent can, in the expression of thought and feeling. I would plead, on this ground, for a closer association of music and nature study, and music and literature. The choicest songs should find a place in the nature lessons, and the thought in the song should be clearly expressed. Snow and rain, seed-time and harvest, flowers and bird, sunshine and storm, have their messages for us, which should sing themselves through our lives, so that we may make "melody in our hearts" unto the Giver of all life and beauty. And in like manner the exquisite gems of the poets, when set to sweet music, will echo and re-echo through the chambers of the soul in darkest hours of need, if their threads have been interwoven with our childhood experience. In the tumult of the busy street, amongst the clanging of machines, or in the more wearing clash of striving, clamoring passions and ambitions, the sweet old song is suggested to us by some wandering musician's strain, some boy's whistle, or some child's clear voice, and all unconsciously we become deaf to the clangor, the clashing, the tumult, and find ourselves quietly walking by still waters in paths of peace.

Bind fast together, then, the music and the poem, and let nature express herself through both. Make glad the heart of the child so that he grows happy as, all unconsciously, he grows wise, and so bid the fountain of the man's memory to pour forth the sweet associations of a well-taught and truly inspired childhood.

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DISCUSSION.

MR. HAYDEN, Quincy, Ill.—It makes no difference whether syllables are used or not if thought is not behind it. The way to localize tone is by using consonants to place tone. I use blank staff in teaching the reading of music.

MR. BACH, Colorado Springs, Colo., believed in judicious use of syllables. Used blank staff.

MR. H. E. HOLT, Boston, Mass.—A teacher who can teach music need not be confined to any routine. However, twenty classes can be taught to read accurately by using syllables where one can be taught without their use.

DR. SCHAUFFLER, New York City.—Syllables should be used; not abused. If used correctly and judiciously the child gains greater power than without them. Time-beating may be used to establish rhythm, and then done away with. I believe in harmony in primary grades. Syllables, if wisely used, are of great aid here.

MR. GRIGGS, Denver, Colo.—Teaching with and without use of syllables has been tried in the Denver schools, with the result that more and better work may be done using than without using them. Beating of time by children has been discarded.

MR. GLOVER.—We work in music by relationship. Use of syllables is most valuable in establishing relative pitch. Beating time is visible means to the teacher of children's thought.

CHILDREN'S VOICES.

BY MISS LINN MARIE HAWN, SAGINAW, MICH.

When the great Teacher of Life emphasized the dignified estate of childhood with love and attention, he establishd a precedent for every skilled, conscientious, truth-dealing member of our honorable profession. No apology is required in presenting the claim of the child for voice-training. It is an absolute necessity to the full symmetrical development of the child.

Necessity implies duty. If we regard the question through a lens of that power and quality, it wears its natural, honest aspect, and fully answers, "Why should we train children's voices?" A child's voice should be trained because it is as natural to sing as to speak. Should we particularize, we offer some of the various reasons in support: (1) Physical, (2) intellectual, (3) moral. As early as a child can speak, he can be taught elementary elocution, and so eminent an authority as Dr. Morell Mackenzie declares that the singing voice may begin as early as the age of three.

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A certain amount of simple vocal discipline may be administered and little airs of limited compass ought to be sung, that co-ordination of the laryngeal muscles with the ear (which is aptly styled the conscience of the voice) may be thoroughly established. The character of these exercises and songs should be adapted to the child's capacity, and intended to develop idea and sweetness of tone. Exercises for adults would be disastrous to the soft, sweet quality of the child-voice. We live in an age when hygiene is receiving merited attention. Hygienic consideration of the vocal apparatus makes us pause to consider this one fact among others: Training voices means, in some instances, cultivation; in others, restraint. Thorough voice hygiene does double duty, in that it develops and strengthens while protecting and preserving. All this requires skillful direction, for the larynx is a delicate organ, susceptible of great and lasting injury. The ear, "the conscience of the voice," is of even more delicate fibre, and requires great care also. We cannot dissociate tone-perception and voice in this instance. We need to emphasize intelligent tone-perception. The distance from piano to forte is an arc of truest curve, yet the ear of the child may be trained to the nicest discrimination in its rendering.

The teacher who presents the lesson should employ well-rounded tones, refraining from abnormal quality of voice, both in speaking and singing, because children are ready imitators, and appropriate defects as naturally as they copy merits. Their ear is, so to speak, in its nascent stage in early childhood, and develops so rapidly that oft-repeated tolerance of unnatural tone renders it less impressible to the clear, full, resonant quality. Therefore the children should hear frequently the proper songs sung perfectly,—that is, with right voice, phrasing, expression, and spirit,—that right ideals in this regard may be formed. An eminent elocutionist has said, "An octave in music will do more to nationalize our speech and destroy ill-toned dialects than millions of school-readers and years of reading."

Note the responsibility of the teacher. It is a lamentable fact that many voices are impaired in public schools by improper use in singing. Too little stress is placed in these instances upon quality of tone. We are all aware of the magnetic influence of the teacher's voice. In early childhood the throaty, nasal tones, if they be natural or acquired, may be overcome with less difficulty than in the adult age where these characteristics are embodied by long usage. Let us beware of radical measures. Emphasis of musical notation, vocal gymnastics, rote-singing, etc., to the exclusion of any one or of all others, is deplorable. Pure, sweet tone is the great desideratum. It is of paramount importance that the timbre of the voice precede all else. In this, the educated ear alone pronounces judgment. Mme.

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Seiler has said: "The most beautiful timbre possible is to be attained only by beginning the tone with a moderate expenditure of breath, and with a quick, light, elastic touch. A correct knowledge of respiration is required of the teacher, but the child cannot deal with technical terms, although he practices along the lines which those who do deal with them have marked out for him. He must be taught perfect respiration incidentally. The natural, unrestricted breathing of the child, sufficient for conversation, we ordinarily term correct breathing; but in its scientific application it is not perfect breathing, because the inhalation is faulty. He does not retain the breath properly; he is not naturally capable of economic exhalation.

Erect carriage means chest development. Chest development means nothing to the child's mind, but everything to his health. Correct singing is properly a form of physical culture. Regarding that phase of its character, it ought not to be combined with other modes of physical exercise.

Motion songs are of questionable utility. They direct the blood to the throat and lungs, and cause too much muscular action in connection with the process of vocalization. We need not tell the child this. Control of breath-exhalation and right direction of the vocal current may also be taught incidentally. The natural place for the child to sing is the middle register; therefore, in the infant department, from kindergarten to seventh year, and in the junior department, from seven to ten years, the vocal exercises and songs should be adapted to their limited capacity. As the work is pursued in the senior department, from ten years up, an individual test is necessary for the purpose of classifying for part-singing. The timbre of the child's voice decides whether he is to sing first soprano, second soprano, etc. This leads us to the subject of adolescence. To quote Guttman: "During the period of mutation, if the voice is to develop naturally and to advantage, the vocal organs should be spared, but it is not absolutely necessary that all exercise in singing should cease. On the contrary, even in this period, exercises for the voice are very advantageous for the development of the vocal cords. The exercises, however, must be easy, very moderate, and in no way forced nor long continued."

Facial expression affects quality of tone. The countenance is an index to the mind. If the child frowns while singing, it is probable that he is straining his voice. Rigidity of feature accompanies throaty, nasal tones.

Music has its psychological causes and effects. Culture of the voice trains for precision. It requires concentration of the faculties, and for mental discipline it is an urgent necessity. It refines literary taste by association and controls the emotions by its combina-

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tion of sentiment and sounds. The efficacy of the chant in fervent intonation; the lullaby for sweet, soft tone; the festival song for bright, happy tone; the dramatic song for artistic tone, express the emotions more forcibly than mere oral recitation can possibly do.

The child's lack of self-consciousness, his spontaneity and freedom of action, his highly developed imitative power, make him a delightful pupil-companion. If a doubt exists as to what the child's conception of his song may be, observe how the idea, "the image in mind," as Cady styles it, is translated by a very young child. His fidelity is astonishing; he feels the emotion. Melody, harmony, and rhythm are the a-b-c of his inner life. Character building is the end of all culture. The sentiment of the child's song ingrains itself into his moral fibre. Reverence is the heart-impulse in response to noble appeal of melody and thought. A child lives a pure life while he breathes a pure song atmosphere.

These influences are far-reaching and penetrating, and like the life-giving sunlight warm and develop the germ latent in every child's heart. Apropos of this, our beloved Frœbel says: "The most difficult and the most important part of the training of children consists in the development of their inner and higher life of feeling and of soul." The study of music should accomplish this. To continue: "This, then, is the object or purpose of our work; to purify the child nature, so that his voice is as sweet as he is sweet; to ennoble him by contact with the highest in thought and feeling that brain and thought can produce; to have him know that his fellow is his brother, and that God is his Father."

This is the use to which we put music, and measurably we accomplish our purpose.

SONGS FOR CHILDREN.

BY MISS FANNIE ARNOLD, OMAHA, NEB.

When Mr. Stewart, president of the Department of Music, wrote, asking that I contribute something about "Songs for Children," it seemed quite an easy task, looking from February beyond to July; but when I began to think over the matter I found I did not believe in songs, or many songs, for the intermediate grades.

The idea is to teach the scale, intervals, three kinds of time, and recommend about ten songs, one per month, for the first year, and reduce the number to four or five the second year.

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Music is a distinct language, represented by signs. Musical language is very positive, while words are vague, and frequently add nothing to that which is already complete. Children should become acquainted with the language of music, by singing exercises, "songs without words," written by composers who know how to write for the voice; not instrumentalists who may be able to score well and write a remarkably beautiful "piano fantasie," but one who can think music, through that most beautiful of all instruments, the human voice. Pupils of the third, fourth, and fifth year become greatly interested in writing melodies of their own in different keys and the simpler kinds of time, and while we may not find any great originality in their little tunes, who can doubt the knowledge of the representative signs of the divine language gained by this fascinating drill, and that many embryo creators of exquisite composition may get their first suggestions in the grades of our public schools.

When a melody of some merit is written, the little composer, who doesn't always happen to be a boy, goes to the blackboard, reproduces the inspiration, and is rewarded by the entire school singing the song without words.

When teachers pay more attention to the educational side of music, and disabuse their minds of the old-fashioned idea that children can be developed into good sight-readers, with a refined taste for only the best in musical compositions, by the frequent singing of vapid, inane songs, it is quite possible that the committee of fifteen will devote more than four or five lines to the subject of music, "the sister to reading, correct intonation, and enunciation."

Mr. Stewart has asked me to sing some of the songs we have been most successful in using in the first and second years, giving some little explanation as a preface to each.

"Hum, Honey Bee; Hum!" a delightful song, credited to my predecessor, Miss Lucia Rogers, is well adapted to placing tones forward, giving the sweetest of quality, and the sustained notes are conducive to the development of proper breathing. [Song.]

"Bye, Baby, Night is Come," a dainty classic from Wilson G. Smith, to be sung mezzo-voce, introduces octaves and intervals somewhat difficult for first year pupils, yet this song has been most successfully taught by our Omaha teachers. [Song.]

"Early to Bed," a bright, jolly song by our president, Mr. N. Coe Stewart, is doted on by our little people, and is always sung with great dash and spirit. [Song.]

"Going to London," by Arthur Foote, contains one difficulty in the sharp 2, and is sometimes misunderstood by first grade teachers; but the vision of the rocking-chair excursion makes it a song full of interest to the little folks. [Song.]

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"Going to the Fair," by Chadwick, is a song very fascinating to the second-year pupils, and while we have chromatic tones again, and the long, sustained effect on seven of the scale, it has a go and spirit about it that makes it a success always. [Song.]

"The Minuet," by Leopold Damrosch, is another artistic song for second year, and again come the chromatic difficulties; but it can be taught by scale names on the blackboard very successfully. [Song.]

The last, "A Song from a Child's Garden of Verse," by Stevenson (music by Nevin), finishes this impromptu song recital, and if, in singing these songs, I have suggested the simplest point that may be of value to any teacher present, the end is attained. [Song.]

MIND AND MUSIC.

BY THEO. H. JOHNSTON, CLEVELAND, OHIO.

The tie which in this life binds man to woman and knits together for eternity the souls which love is not more organic nor more vital than the natural union of mind and music. What God has joined together let no schoolman put asunder. But during 2,000 years music has suffered and deserved the calumny and humiliation of unnatural and demoralizing grass-widowhood.

The Greek was near enough Nature to feel her rhythmic movement and hear the quiring of her whirling orbs. For him music was a divinity, co-ordinate in rank and dignity with those who gave to men the wisdom of the gods. But the stolid, practical folk who forced upon Europe their laws and language had neither imagination nor sense of harmony. From what time Rome began to dominate music lost rank and has never regained it.

The man that hath no music in himself is fit for treasons, and he who has it within him and cannot utter it is, in his emotional nature, a dwarf or a cripple. The mystery of the world of sense, the high stirrings of the intellect, the longings of the heart, and the eternal underlying purpose of it all, music, and music alone, can harmonize. Like an echo of the invisible world, she gives to us the ground tone of that divine concord which the entire universe is destined one day to sound; she restores the counterpoint of life. Can I tell you what it is, this counterpoint? Have you listened to the ceaseless lapping of tiny waves against a boat keel; have you heard their silvery ripple over shoals, their purling through the pebbles of a brookbed, their sough and swirl against the tide rocks,

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their soft sobbing on the sea shore? Blend in these an obligato of human heart cries, and you have counterpoint — the tumultuous sweep of the most immeasurable force in nature.

Of all the arts seemingly so nearly akin,—music, poetry, painting, sculpture,—music alone has neither an historic past nor a master whose canons of criticism are universally recognized; no Homer to fix forever the laws of epic narration; no Phidias to give the world a changeless ideal in statuary; no Angelo or Raphael to set the utmost limit of the creative hand; no Shakespeare encircling, embracing, containing in his single cosmic soul the total of human experience.

Music has no such master, and cannot have. For every word of uttered passion, for every spoken sigh of love or hate, of high ambition or unholy greed, a thousand waves of passion have broken noiseless, unheard, unknown, against the unechoing cliffs of silence. What countless fears and hopes, what joys and griefs arise in us and die unuttered! Ceaselessly by day and in the dreams of night the heavy hand of life sweeps unresting across the harpstrung human soul, but how rarely the vibrations break the open air of speech. Not all the myriad stars which sang together at creation's dawn could voice them; no master's hand could grasp their various chords, even though he had the thousand fingers of Aurora. Here, then, a reason why music has no Shakespeare, no all-resounding voice against which the stormiest individual cry is but the thin chirping of a bird against a tempest. "Painting, sculpture, and poetry of necessity involve some reference to nature; music does not. They are dependent for their subjects upon material physical phenomena external to the artists; music is not. Music could exist if there were no world of nature. Raphael's Madonna may not be a copy of a beautiful woman, but unless there were beautiful women, it could never have been painted. Shakespeare did not draw his characters from life, but life must supply us with the facts through which alone we recognize them as human. Even seers and dreamers, like Shelley and Blake, whose thought is farthest removed from our everyday prosaic world, were yet compelled to weave their imagery from the rainbow, and storm cloud, and leaping flame. Take away from poetry the material facts of nature and life, and there would be nothing left but melodious nonsense." Separate these arts from the world of objects and they cease to exist; their basis and essence is physical. Music, on the other hand, is psychological. Given sound as a plastic medium and it asks nothing more. It lives of itself, and creates by spontaneous activity. It is in all and around all, like the ether out of whose movements the nothingness of primal chaos grew into the universe of worlds.

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We live and move and have our being in an all-environing sea of harmony. On this ocean floats our tiny life-craft, and at the end we but sink into it as the Buddhist into the all-composing Nirvana. In grief and in gladness, from the highest flights of fancy as from the dull business of bread-winning, we modulate with a few deft chords into the joyous major of universal harmony.

What shall it profit a man if he gain the whole gross world of sense and have not this language of the soul? if he catch not the key-note of life and accord not himself to the rhythm of eternity?

It is much to learn a foreign language; it adds to our own another world. But he who masters the keyboard possesses the secret things of the universe.

These coarse animal bodies of ours hunger and thirst daily for food and drink. We spend most of life to feed and clothe them. But there is a breath of the abiding God in us which daily hungers and thirsts for the eternal verities. Shall we feed the passing, the death-marked, the decaying, and feed not the deathless, the divine?

I hold with the Athenian that the father who educates not his child has in old age no claim upon him. It is a crime to beget those whom we cannot or do not prepare for a well-rounded life. To train a child in the three R's, to give him a trade or even a profession, neglecting that emotional side of his nature, which speaks the language of art and music, or else is dumb, is likewise criminal; like allowing him to enter upon life a cripple when a surgeon's hand could straighten his body.

With hardly an exception, the great musicians were masters of the keyboard at ten or twelve. In Germany this is accomplished by children of ordinary capacity. I need not tell you what every acrobat knows that the greatest dexterity can be gained in these early years only; but I may be allowed to emphasize the fact, that, with the keyboard well in hand at twelve or fifteen, the time of most rapid emotional development finds the youth equipped for its adequate and rational expression, and every year of ripening judgment broadens and deepens the maturing emotional nature.

I say nothing in this scheme of the child's wishes. When it is proven that the infant knows more and has sounder judgment than men and women of maturity, it will be soon enough to model our educational systems upon the views of babes and sucklings. It is the parents' most solemn duty to train the child, with his will or against it, to meet successfully the natural demands of body and soul. Music is not merely an exquisite delight—not alone the purest diversion of which our natures are capable. It is co-ordinate in dignity and creative power with the highest intellectual faculties; in truth, is inseparable from them. "The undevout astronomer is

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mad," say the fathers of the church, and I say to you that the uneducated musician is a monstrosity for the pickle jars of the museums. What here too often passes for education in music is mere manual dexterity with less soul than a well ground hand-organ. Do you remember that bit of savage humor in Du Maurier, the man whose "Trilby" is just now getting there with both feet, as one may say? Let me recall it. It was an evening crush, a "*sore-eye musicale*," they called it. The athletic daughter of the hostess, just returned from some great school, was pounding an innocent, helpless piano as you pound a tough steak. The lion of the occasion was a really great musician. The poor piano is still at last, and the hostess billows up to the artist. "Dear professor; what do you think of her execution? Isn't her execution wonderful?" "Mattam, dot was not oxegushun; dot was morrder!"

In the old French church at Berne some years ago, they were giving the final rehearsal of the "Messiah." The chief singer was a great queenly creature, with an ample snow-white bust which might have pillowed the head of Olympian Jove. Her full, generous voice was faultless. An orchestra of one hundred pieces and three hundred voices led up to that glorious aria, "I Know that My Redeemed Liveth," and she sang it in flawless style. She had "school," but it was like the unexpected touch of marble—as if that Juno bust was stone. Old Father Reichel popped out of the director's box in a frenzy. "Woman, do you know what you say—what you sing? Do you know that Christ was dead and now lives again, and that thus you will live again, and I shall live again? And don't you care a continental?" There was in her something of a child-like simplicity, without which no one was ever truly a musician. She put her hands on the old man's shoulders and faced him with her honest eyes. "Father Reichel, you know I am glad." "Well, then, feel it!—say it!—sing it!" The slender old yellow baton which had marked time for heart-beats in every court in Europe gave a sharp signal. The orchestra began with perceptible verve, and the chorus surged up like a wave. Then came the aria again, but no longer some one's school; no longer style, but the sweet tumultuous outflow of a glad soul, and there was hush upon that body as when a priest unveils the holy of holies. She moved to the old man as if to kneel. "I think this is a new life for me, Father Reichel." "I think it is, my daughter." And for a moment his withered hands rested upon that fair, proud head like a consecration and a benediction. That was school—the sharp impregnating impact of a master soul upon another.

Technique, style, school, have their legitimate functions. Accurate touch, pure tone are necessary, just as it is necessary for

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the carpenter to hit the nail head, rather than his thumb, and drive it home without splintering the word-work; but they are after all the husk. The genuine kernel, the soul of music, is something so different that one may have them all and still be no musician.

Nor is it all vague feeling, like a mild-eyed imbecile rocking to and fro on a water pillow. It is the crime of the American musician, that, with a physical organism singularly responsive to the demands of music, he persistently neglects the rigorous training of brain which would inform him with the achievements of the past and put him on level foot with the stupendous problems of this, the latest and most momentous of the centuries. Music is history. When our Germanic fathers accepted Christianity their cathedral pinnacles shot skyward like the northern pines. Their vast aisles were like the vistas of a pine forest, and as they changed the Roman basilica they revolutionized Roman music. The trim piping of emasculated eunuchs gave place to the full throaty exultant counterpoint of national harmony. That was your race and my race, the Germanic race which shall possess the kingdom, a great helpless giant which church and state and scholasticism have bound hair by hair in fetters which in our day first are loosening. Note for a moment the epic tone which marks the first, the earliest, effort to be free, a sound as ominous for the tyrant in church or state as the death rattle in the throat. Read Luther's hymn, or sing it:

Ein feste Burg ist unser Gott,
Ein Machtig Wehr und Waffen.

[A mighty fortress is our God,
A bulwark never failing.]

It is the iambic march step of an embattled nation.

Do you know how Cromwell's Ironsides marched? Read Milton. The murderous French and Italians were shedding innocent blood like rain, and out of his heart burst a cry which rings in Roman ears to this day:

Avenge, O Lord! thy slaughtered saints,
Whose bones lie scattered on the Alp Mounts cold.

Cromwell thrust his mighty arm across a whole continent, across the demoniac and fell purpose of Catholic Europe, to rescue a handful of mountain shepherds.

And once again you hear it when an indignant North marches out to preserve the only great union of human history:

We wait beneath the furnace blast—
The pangs of transformation.
Not painlessly does God recast
And mold anew the Nation.

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W. H. Riehl in his wanderings through Germany came upon some twelfth-century music, in its time highly prized. He tried it upon his dog. The poor creature went into spasms of agony, and almost tore the violin out of his hands; whereupon Riehl has this commentary: "If twelfth-century music throws a nineteenth-century dog into spasms, what would a twelfth-century dog suffer on hearing Wagner?"

Each age has its peculiar musical ear, and the gyrations of musical taste are as fantastic as women's fashions. When Francis I. was coquetting with the Reformation, Marot was paraphrasing the Psalms and setting them to music; and what music, think you? Jigs and rigadoons! And the languishing beauties of that virtuous court varied their debaucheries by singing the songs of David as they danced, and thought themselves fit for immediate translation.

It was not accident that the pregnant eighteenth century, beginning with Sebastian Bach and Handel, culminated in Mozart and Beethoven. It was an age of nation-building and broad philosophy. Winckelmann and Lessing set up canons of criticism in art and literature which time cannot materially change. It was an age of revolt in church, and state, and society—the hinge-point in the struggle for equality before the law. There will be nothing greater until the meaning of our age is comprehended. Music thus far has proclaimed our escape from the political flesh and devil; and now we front the world of nature. Rome, which, as some men fable, fell in 476, or 1453, or 1806, or surely with the Reformation, has in fact dominated the world of intellect and sentiment to our day. Now, at last, the tyranny of language, of logic, of metaphysics, of the book, is gradually weakening, and we are going back to nature. The critic in literature of this day must be capacious enough and many-sided enough to receive unto himself the aggregated impressions of the sum total of the age's intellectual activity. He must know not merely its literature, poetry, and philosophy; he must know as well its engineering, mathematics, and science. Out of such fullness alone dare he measure the relative achievement of any man's work.

Upon the musician of this age is laid a burden even more crushing. Not only must he know what men have thought and done; he must also voice their sentiments and emotions. And what is the moral of all this? Defile not the sanctuary!

I knew the greatest basso since La Blache. He never sang ordinary music. His unequaled voice was to him a gift of God. Singing with him was an act of worship. When so-called evangelists lend hand to such jigger music as defaces our modern collections, they blaspheme. What place has their inane tinkle, pinkle, winkle,

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our hoop-te-doo-de-doo, in such company as "Jesus, Lover of My Soul," "A Mighty Fortress is Our God," "How Firm a Foundation," "Nearer, My God," etc.? How came those back alley hoodlums among the elect? The movement which, under shelter and countenance of the church, began by displacing Lowell Mason and his school is a disreputable kind of slumming. It is a systematic debauchery of our noblest emotions.

If our clergy, like those of the continent, had been bred up on Sebastian Bach, Handel, Hayden, or even on Palestrina or Pergolese, they would have cast this indecent thing from the temple. True, the Good Book says, "Gather them in from the highways and byways," but it nowhere says, "Ye shall make of mine altars a dumping ground for the filth of ignoble sentiment."

At the beginning of this century the post-boys of Central Europe, with the inflexible old-time horn, heralded their coming with the staid and sober melodies of the great masters. The villages awoke to the sound of music's loftiest creations; but with the French horn, easy stops, and general flexibility, came the gay, vapid tin jingle of so-called popular music. A generation ago a few weeks of rehearsal produced easily anywhere in these villages the great oratorios. That heavy-visaged, stolid folk had music in their souls; music which in majestic might lifted even clods to heaven. Now they are dumb as their oxen; or, worse than the oxen, drip from their ham-like faces such ineffable exudations as "Tara boom de ay."

It is the religious duty of every music lover to resist this debasing tendency in church or out of it.

English is the speech of 150,000,000. It displaces every language with which it comes in contact. It must become the world language. But among these many millions not a single institution exists in which music stands on level foot with philology and the sciences. England has never been original or creative. The restoration of music to its true place, the development of works which shall voice the achievements of this mighty age, rests with the musicians of America.

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VOCAL HARMONY; OR, A PLEA FOR AN ORAL LANGUAGE WITH WHICH TO EXPRESS OUR THOUGHTS IN MUSIC.

BY H. E. HOLT, BOSTON, MASS.

There are three elements or conditions which must be present, and each enter into and form a part of all true objective teaching.

First—There must be an object of thought to be presented to the mind.

Second—There must be an oral name by which the object is known.

Third—There must be a written sign to represent the object.

Any teaching which does not recognize and embrace these three important conditions or elements cannot be called intelligent teaching. Before educational principles can be applied in teaching the invisible realities in music, a basis must be established which shall correspond to the basis upon which these principles are applied in teaching other subjects.

In teaching the subject of tune in music, there must be a definite and distinct musical object of thought to be presented to the mind. This object cannot be a single tone; because a single tone unassociated in the mind with other tones has no musical meaning. It is only when tones are considered in their relation to one another in the mind that any musical effect is produced.

The natural order of presentation in the study of every object in natural history is the following:

First—The object as a whole is observed.

Second—The parts of the whole are considered.

Third—The parts in their relation to the whole.

Fourth—The parts in their relation to each other.

The two tones forming the octave constitute the object or whole which contains within its limits the elements for all of the effects found in music in the study of tune. Each part of every natural object has its function, which it performs as a part of the whole to which it belongs. This principle applies in the construction and teaching of every natural object in the entire universe. When we are so familiar with any object and its parts, in all of their relation to the whole and to each other, that each part causes the whole or all other parts to be associated in the mind in their proper relation to that part, we may be said to be familiar with or to know that object. Without this definite knowledge we cannot be said to know an object thoroughly. The laws of the mind are fixed and unvarying. In

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teaching any subject we must present it in accordance with these laws, or we deceive ourselves if we think we are really teaching.

My laboratory for scientific investigations in the art of teaching music is the human soul. The instruments with which I make all of my experiments are the laws of the human mind.

Within this laboratory and with these delicately adjusted instruments I solve all of my problems. I find that the tones of our tonal system will adjust themselves in a fixed and harmonious relation to one another when mental activity is awakened upon them in the natural order in which the mind gains a knowledge of all things.

This furnishes a basis upon which an application of educational principles can be made in teaching vocal music, and it is the only foundation upon which to base a practical and scientific method of teaching the subject.

Music, from the pedagogical standpoint and for the purpose of teaching, must be considered as an object in natural history as much as any insect, animal, plant, or flower, if we are to find a basis for the application of the same mental laws in teaching the subject. This simplifies the teaching of music wonderfully, and furnishes a basis for the application of an oral language which makes the invisible realities in music as tangible and definite objects of thought as are colors or numbers, and as easily and successfully taught by the regular class teachers.

The importance of an oral language in teaching vocal music will never be appreciated until we realize how helpless we would be in teaching other subjects without such a language, and how little is known about the teaching of music on account of the absence of such a language. Take the teaching of numbers as an illustration. With no oral names or spoken words with which to express the ideas, what progress would be made in teaching numbers and their combinations? This represents the present condition of teaching music as compared with numbers, only in the one instance appeal is made to the eye and in the other to the ear. We should find ourselves working at the same disadvantage in attempting to teach colors without an oral language. To carry the illustration further, what progress could be made in teaching botany (or any other subject, for that matter) without an oral language? Does not each plant and flower have a name by which it is known? Are not the different parts studied and named? Are not the parts studied in their relation to the whole and to each other, and the pupils made familiar with these names by using them in talking about the subject? There is not in the whole curriculum of studies a single subject which has not had an oral language except vocal music. An old German teacher has said, "The naming raises the subject to the higher plane of communicability."

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This oral naming applied to vocal music, not only raises the subject to the higher plane of communicability but it brings the teaching of it within the reach and comprehension of every intelligent teacher, and makes his or her teaching power as avaliable for music as any other subject. This takes music out of the list of special studies, and places it within the reach of every child who has a right to demand from the public schools education and development in music, which is his most sacred birthright.

The opposition which this system of teaching has called forth from those who do not understand it and are criticising it from their standpoint shows the deplorable condition of things in the teaching of this noblest of all arts. The greatest hindrance to progress in teaching music in our public schools is the unscientific, unsystematic, and haphazard way in which we have learned what little we know of it ourselves. Never was the teaching of any other subject in such absolute confusion. What seems impossible to one is perfectly simple to another, and here I wish to say that the mere musical mathematician is entirely out of place in the schoolroom. Terms and expressions, which as simple names of definite things are readily understood by the little child, have an entirely different meaning to him. He cannot understand how it is possible to make use of names which are familiar to him as an expert in another branch of the subject, and which no one is expected to understand unless he has reached the upper strata of musical knowledge. Principles in teaching do not change, and results obtained by one teacher may be obtained by another. It is simply a matter of knowing how.

I have been, as is well known, contending in season and out of season, first, last, and always, for educational principles and their application in teaching music.

With a few fundamental truths established and acknowledged by all, the confusion and contentions regarding methods of teaching would disappear. Any method of teaching that cannot be successfully defended by the laws of the human mind is of little or no account in these days of scientific teaching. If little children can be readily taught to do what the average singer or musician cannot do, does it follow that it is wrong or difficult or undesirable simply because musical people as a rule cannot do it? Take for an illustration the application of this oral language in teaching tune which I have worked out. My former associate author, Mr. John W. Tufts, says "I *know* the *interval question* to be an *absolute impossibility*." The italics are his. Now, his ability as a musician is beyond question; but what are the facts with regard to the "impossibility" of teaching intervals? Simply that little children the first year in school are being taught all intervals, from the octave to the minor second, so that they

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will sing any one of them without hesitation when its oral name is spoken. These pupils sing themselves into any and all of the twelve keys from the pitch of C third space by these intervals. To illustrate, they are given the pitch of C upon the pitch-pipe and asked to go to the key of F sharp with the diminished fifth, and they go there. If they are asked to go to key of G flat with the augmented fourth, down they go there without hesitation, and actually read hundreds of musical exercises in the twelve different keys the first year of school-life. From this there would seem to be no limit to the development of the musical nature in children, for these results are not strained or unnatural; they are simply the legitimate results of skillful teaching, and any skillful primary teacher can be shown how to accomplish this. In the light of these facts, a man might as well say that he "knew" it to be an "absolute impossibility" to run the street cars by electricity, simply because he could not see the power which moves them. But it is an accomplished fact. The large, palatial cars are actually running by electricity, carrying thousands where only hundreds rode before, and we are not going back to the poor horses. So in the teaching of music in our public schools. The regular class teachers and educators are beginning to see the application of an educational principle in teaching music with which they are familiar in teaching other things, and ten thousand children are singing intelligently where only hundreds sang before, and we are not going back to the old inefficient ways notwithstanding a few—I am happy to say only a few—professional musicians are throwing up their hands in holy horror, crying, "Technical terms for little children!" and "Absolutely impossible!"

In the "London School Musical Review" of February 1st is an article by Mr. S. W. Cole, and a reply by the editor of the paper. I quote the following from the editor's reply: "It is easy to agree with Mr. Cole, that, if sight-singing from the staff could be taught to the masses without the use of sol-fa names, etc., it would be an agreeable relief. But what a tremendous 'if!' Experience is dead against the possibility." Again, the editor says: "It is also again easy to agree that the study of intervals after tonality is an indispensable crowning of the edifice. But this, as the writer fully admits, is generally a matter for academies of music and a study apart from the schools. Ordinarily school pupils seldom get so far; so, after all, we seem to be on common ground. Teach tonality, and add intervals if you can." This idea of "teaching tonality and adding intervals if you can," applied to the teaching of arithmetic, would mean, Teach arithmetic, and add a knowledge of numbers if you can. Now I claim that the teaching of intervals is the only proper way of establishing what is here meant as tonality; that it should be put at the very beginning

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as a foundation, and that there is no other proper or successful way of laying that foundation. Any system of teaching worthy the name must have the end in view from the beginning. I have taken this "indispensable crown of the edifice" and made it the bottom corner-stone in the foundation. Can you imagine anything turned more completely "top side down" than this? This capstone or "crown of the edifice" is now in its right place, and will remain there. It rests upon the solid basis of God's eternal truth and furnishes a foundation upon which all can build, and upon it will be erected a mighty edifice for the cause of music which never can be shaken.

Briefly stated, my position is this:

First—That music is of divine origin, and is the birthright of every human being.

Second—My system of vocal harmony is based upon the great truth, that the tones of our tonal system upon which the construction of all modern music is based have certain fixed, absolute, and harmonious relations to one another in the divine mind and are governed by divine law in their relation, as are the planets.

Third—That these tones will adjust themselves in the human mind (which is a reflection of the divine mind) in these fixed and harmonious relations, when mental activity is awakened upon them in the natural order in which the mind gains a knowledge of all things. Consequently, properly taught and under favorable conditions, people will no more sing out of tune than the planets will move out of their orbits.

Fourth—That each tone of the tonal system has its function, which inheres from its position in or as a certain part of the whole tonal system to which it belongs.

Upon this foundation I have built my new normal system of teaching called "Vocal Harmony," and I cordially invite the careful consideration of all musicians, educators, and teachers to a thorough examination of this foundation. If it is found to be immovable, the system of teaching based upon it cannot be shaken. If there is any one thing that the cause of music needs more than another at the present time, it is a scientific and progressive arrangement of the subject for the purpose of teaching. What I have said regarding an oral language thus far applies to the subject of tune. An oral language for teaching time was invented many years ago in France. To Luther Whiting Mason we are indebted for the arrangement and adaptation of this language to the staff notation. Such are the educational principles which underlie the correct teaching of all subjects that, in the nature of things, there can be no universally successful system of teaching the two ideas of tune and rhythm in music without an oral language which shall be universally applied in teaching these two elements.

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I have been told since I came to Denver that the world was not yet ready for my ideas of vocal harmony, and that I had better go carefully and slow. I have heard this kind of caution for the past ten years, and it has had very little effect upon me.

The fact is the little children are all ready for my ideas, and they are going forward, and the rest of the world can take its own time to swing into line. I mean by this that educational principles must govern our work; we must grasp the broad, universal principles in teaching and see their application in more than one study, or we are working in a very narrow and limited way. Every teacher should preserve his individuality; but we must unite upon a basis of presentation, oral naming, and written representation of the invisible realities in music before there will be anything like uniform success in teaching the subject. No one can consistently oppose an oral language in teaching music without opposing it in teaching numbers, colors, botany, and every other subject in natural history. Are we prepared to do this? I will simply say in conclusion: Find your educational basis, apply your principles, and the little children will lead you out of the muddle and confusion in which the teaching of this subject is at present engulfed.

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DEPARTMENT OF ART EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—WEDNESDAY, JULY 10, 1895.

The department was called to order at 3 o'clock p. m., in the North Side High School, Denver, by the President of the department, Mr. Charles M. Carter of Denver, Colo.

After the opening address of the President, a paper was read by Mr. Halsey C. Ives, Director St. Louis Museum of Fine Arts, late Chief of the Art Department of the World's Columbian Exposition. Subject: "How to Make Use of Museum Collections."

Mr. Montague Marks, editor of the "Art Amateur," New York, was absent. His place was supplied by Mr. Dana of the Denver Public Library, who read a paper on "Art of the Illustrated Press—Its Use Educationally," which he illustrated by a collection of pictures.

The papers of Mr. Ives and Mr. Dana were discussed by Mr. Henry G. Schneider of New York; Mr. Henry Talbot of Montgomery, Ala.; Mr. John S. Clark of Boston, Mass.; Mr. Walter Goodnough of Brooklyn, N. Y.

The following committees were appointed:

On Nominations—Mr. Jesse H. Brown, Indianapolis, Ind.; Miss Katherine Ball, San Francisco, Cal.; Miss Cora Z. Parsons, Youngstown, Ohio.

On Resolutions—Mr. Walter S. Goodnough, Brooklyn, N. Y.; Miss Emily H. Miles, Denver, Colo.; Mr. D. R. Augsburg, Salt Lake City, Utah.

Miss Wilhelmena Seegmiller, Supervisor of Drawing, Indianapolis, read a paper on "Pictorial Art and Light and Shade Drawing in Primary and Grammar Grades."

The meeting was then adjourned.

SECOND SESSION.—FRIDAY, JULY 12, 1895.

The meeting opened at 3 o'clock p. m., with Mr. Chas. M. Carter in the chair.

Mr. John S. Clark, Director of Prang's Normal Art Classes, Boston, read a paper on "The Aims of Art Education in General Education."

The paper was discussed by Col. Francis W. Parker, Cook County Normal School, Chicago; Miss Katherine Ball, Director of Drawing, San Francisco, Cal.;

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Prof. Walter S. Goodnough, Director of Drawing, Brooklyn, N. Y.; Mr. Ossian H. Lang, editor of the "School Journal," New York.

A round table discussion on "Methods of Teaching" was opened by Mrs. Matilda E. Riley, Supervisor of Drawing, St. Louis.

Miss Katherine Ball of San Francisco, Prof. W. S. Goodnough of Brooklyn, and Mr. Curran of Santa Fe, N. M., also took part in the discussion.

The Committee on Nominations submitted the following report:

For *President*—Prof. Walter S. Goodnough, Brooklyn, N. Y.
For *Vice President*—Mrs. Matilda E. Riley, St. Louis.
For *Secretary*—Miss Myra Jones, Detroit, Mich.

The report was adopted, and the above named persons unanimously elected officers for 1895-96.

The Committee on Resolutions reported the following:

Resolved, That the thanks of the Art Department of the National Educational Association are due to the Board of Education of School District No. 17 of Denver and to Mr. J. H. Van Sickle, Superintendent of Schools, for the use of the North Side High School building as a place of meeting, and for other courtesies extended.

Resolved, That it is the sense of this department that the Board of Education of District No. 17 and the citizens of this district are deserving of the highest praise for the part they are taking in advancing art education in this city and state, by providing the excellent art rooms and facilities which they have done in the North Side High School.

Resolved, That the Art Department does hereby commend the art exhibits made in the various districts of this city, and recognizes that the public schools of Denver are occupying front rank among the various cities of the country in the matter of art education in public schools.

Resolved, That the thanks of this department are due to President Charles M. Carter and the other officers for their untiring efforts, and to the various participants in the program for all they have done contributing to these most successful meetings.

Resolved, That the Art Department of the National Educational Association indorses most fully the suggestion advanced by Prof. Halsey C. Ives, that art museums should be more helpful in public art education by arranging for visitation of public school classes and teachers and explanatory lectures, and by providing loan collections for circulation in public schools.

Also, that the association indorses the recommendation of the President of the department, that art collections be formed in high schools for the better education of the pupils of all the schools, the teachers, and the public; and that, in cities where there are no museums, such collections be enlarged and utilized as fully as possible for the general education of the public.

It is also the sense of this department that the illustrated press should be utilized more fully as a means of art education in public schools, and of the general public, through the public libraries.

Resolved, That, in view of the fact that the important reports of the Committee of Ten on courses of study for the high school and that of the Committee of Fifteen on courses of study for primary and grammar schools so largely ignore the subject of art education in all the grades of primary, grammar, and high schools, a committee of three be appointed by the President of the Art Department to consider the subject of art education in its relation to public education, and to report in print at their earliest convenience.

WALTER S. GOODNOUGH,
EMILY H. MILES,
D. R. AUGSBURG,
Committee on Resolutions.

The report was unanimously adopted.

The meeting then adjourned.

WILHELMENA SEEGMILLER,
Secretary.

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PAPERS AND DISCUSSIONS.

PRESIDENT'S ADDRESS.—EXTENSION OF ART EDUCATION.

BY CHARLES M. CARTER, DENVER, COLO.

Ladies and Gentlemen of the Art Department of the National Educational Association:

From the north, the south, the east, and the west you have traveled many miles,—some of you thousands,—rising higher and higher, until you have reached the crest of the continent. All eyes have been directed towards Denver, the meetings of the National Educational Association, and the many attractions of Colorado's mountains.

We bid you the heartiest welcome. We have anticipated your coming, not only since Denver was selected but for years previous. We have been conceited enough to think that it was only a matter of time when you would succumb to our many attractions. Now that you are here, we beg to assure you that our people, both within and without educational circles, have rejoiced at your coming, and will spare no effort to make your stay one of pleasure and profit.

It is believed that the program offers subjects of the greatest importance at the present time. It may not be out of place to state that the first step in preparing the program was to invite the suggestions of several prominent art educators.

They were asked to name the subjects they considered it well to discuss, and to mention their relative importance. When the returns were in they were carefully compiled, and those subjects adopted which seemed most in favor. It may be interesting to mention some of the subjects suggested. For instance, one art director is evidently in an unsettled frame of mind, for he asks, "What Shall We Teach?" another, "Is Art Education Receiving the Support It Demands?" Several subjects are given in the form of questions, as, "What Should Supervision Consist Of?" "What Is Technical Drawing?" "What Is Drawing?" "Is Modeling a Part of Drawing or Manual Training?" "Art or Drawing for the Masses?" "Nature Study" and "Illustrated Drawing" are mentioned by more than one person, while several wish to have methods discussed. As an example of the latter, one wishes to know the best method of teaching light and shade, and another wishes to know when it shall be introduced. I can barely name other subjects mentioned, as "Teach-

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ing Outline So as Not to Interfere with Seeing Masses of Light and Shade," "The Possibilities of Artistic Treatment in District Schools," "Recent Psychology," and "Correlation of Drawing with Other Studies." Color is mentioned once only, and then with reference to its "Advanced Harmony." The programs are of an inclusive character, and will probably touch on many of the subjects mentioned.

All progress in art is of interest to the art educator, and it becomes us that we take a lively interest in the tendencies of the general public in art development. We should not regard ourselves as mere teachers of drawing, bound to follow a narrow path. With perfect propriety we may greatly enlarge our influence and field of usefulness. With such thought in mind, the program has been filled with subjects on a high and broad plain; subjects which it is hoped will be suggestive of a widening of the field of the art director.

It is not sufficient that drawing be formally taught as a subject, or used as an adjunct in connection with other studies. Let us have in the schoolroom the influence of artistic surroundings, as plaster casts and photographs of the finest products of the art world. Let us not ignore the fact that inexpensive pictures from the illustrated press are admirable in developing the art idea and adding to human happiness. Photography and the reproductive processes now make it possible for the illustrated press to mirror with accuracy much of the art of the past and present, and to directly or indirectly give us opportunity to convey ideas as to composition, light and shade, etc. True, we cannot present all of the subtleties of form and color of originals, but to a certain extent there are valuable truths of art that may be conveyed by the aid of the reproductive processes, with the great advantage of inexpensiveness.

Seemingly there has existed a lack of sympathy between artists and art teachers. To secure a greater advance of art education there should be unanimity. Happily the tendency is towards a unification of interests. Possibly one of the reasons why artists have not been more in sympathy with our work is because many persons who assume the position of art teachers are lacking in extended study. It is to be regretted that the limited training which will permit one to undertake elementary work is too often mistaken for general ability to be a director of art education.

Within a few years we have had the organization of the School Art League of America, which owes its existence to certain artists who have made definite attempts to furnish schoolrooms with artistic surroundings in the shape of notable artistic plaster casts and photographs; and have even gone so far as to advise regarding the color scheme of schoolrooms.

In this connection it has been noticed that pupils take a lively interest in details of classic architecture, and the historic interests

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connected with them. Indeed, it is true that interest in all art products is increased when some interpretation is given of their meaning and special attention is directed to the art principles illustrated.

Let such principles be once presented, and their recognition in other art products will materially add to the pleasure of our observations.

A phase of art education which I sincerely trust will associate itself with our deliberations is a consideration of means by which we may extend our usefulness as directors of art education. Is it not possible that we may exert a beneficial art influence in our communities outside of the schoolroom?

In this connection we are led to inquire if our towns and cities are making use of all of the means recognized in Europe as important in exerting a public influence in art matters. We soon discover that the art museum is one of the public institutions found in every town or city of importance abroad; that it has been established as an industrial necessity; that its influence is responsible for the artistic character of manufactured products, and for the high consideration given them in all parts of the world. Not only are they commercially influential, but serve to cultivate the taste, appreciation, and enjoyment of communities by calling their attention to the beauties of nature and art.

What do we find in this country corresponding to the art museum? Comparatively, almost nothing.

True, a few of our largest cities have art museums and connected art schools, but considering the immense extent of our country, its population, and the importance of our manufactures, their influence is very limited. That our people are highly appreciative of art is abundantly proven by the great interest it aroused in connection with the World's Columbian Exposition, and the heartfelt regret expressed by many a person that it could be regarded as little more than a dream, which, alas! passed away with even greater rapidity than anticipated. This love of beauty is inherent, and cannot be suppressed. We must have public art collections; we must have art museums. In their formation the art educator may be a public benefactor. But how?

Is it not possible to combine in some manner the interests of the schools and the interests of citizens generally? Are there not many towns and cities where the art department of the high school might be so developed as to not only benefit the entire school system, but so as to be of interest and benefit to the public generally?

Here are a few suggestions: It is understood that a properly equipped high school should have an art department, with rooms of generous proportions and appropriately lighted; that there should

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be a collection of plaster casts illustrating notable examples of architecture, the different styles of historic ornaments, and also notable details of sculpture; that, in addition, there should be more elaborate examples of sculpture than pupils are expected to draw, and photographic reproductions of the world's most famous paintings. Surrounded with such examples the pupils may get some conception of the master minds of art. Other art objects are sure to connect themselves with such a collection.

Those mentioned are fundamental. Of course, the rooms should be appropriately colored and the furnishings arranged as artistically as possible.

Art study requires all of this. Let it be noted that rooms and their contents as far as mentioned are absolutely necessary for instruction. They are also necessary for commencing an art museum. The rooms, their lighting, their contents, are all such as should be among those found in an art museum.

The question presents itself, "Why not unite the interests of the public and of the schools?" "Why not plan the art department of the high school so that it becomes the commencement of an art museum for the town or city?" The school authorities are bound to provide proper facilities for art study. Will not both they and the public meet with hearty favor such a scheme for double usefulness of public funds? By having such an end in view even a modest commencement may be in the right direction and capable of increasing usefulness; and if the time comes when the rooms of the art department are outgrown, we may expand by using the wall space of the various classrooms.

But it is not enough to provide rooms with suitable furnishings. The finest collections in the world are useful to the extent to which they directly appeal to, interest, and instruct the public. The art director must cultivate opportunities for bringing the public to the art department of his high school. In connection with various public gatherings at the high school an invitation may be given to visit the art rooms. Such invitations will receive appreciative response, while the occasional purchase of new works of art or loan exhibitions will furnish occasions for receptions. Occasional talks on art matters will be well received.

We may also greatly stimulate work in the lower grades by inviting them in sections to visit the art department and listen to talks illustrated by the art collections. This plan is feasible.

It might be suggested that the school board generally appreciate definite suggestions for which there are good reasons, and are willing to make expenditures in the direction indicated. While every art director should consider wisely the amounts asked of the school

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authorities, they should also bear in mind that a proposition to spend one hundred dollars is not likely to create more objection than the expenditure of ten dollars.

We should not lose sight of the great educational value of our work, but should have high ideals and the courage to try to make them realities. The money which would appropriately commence a combined museum and art department for a high school is meager compared with the great school expenditures in other directions. You have an opportunity to round out the education of the children cultivate taste in the home, and benefit the entire community. Truly an important work. The interest of parents in their children and the interest of children in their work will surely create enthusiastic interest in art, and may we not even venture to predict, that, in many a place, the modest commencement at the high school will result in increased appropriations and bequests, and a final home in a special building worthy of the great cause of art education.

ART IN MAGAZINES.

BY J. C. DANA, LIBRARIAN PUBLIC LIBRARY, DENVER, COLO.

I take it that the purpose of a work of art is to give us pleasure. You, as teachers of drawing, are, of course, largely concerned with other things, such as giving a child command over his hands, increasing his powers of observation, familiarizing him with the different kinds of technical drawing; but you are, as I understand it, not only teachers of drawing—you are the encouragers of art. As such, it appears to me, you are a little inclined to overlook the material for art education which lies immediately at your hand. If the purpose of a work of art be to add to the sum of human happiness (and it would be difficult perhaps to show that its field extends much beyond this), then you, as encouragers of art, should devote no small portion of your time to opening the eyes of the young people with whom you come in contact to the artistic things within your reach. Those emotions or feelings that we call artistic, or æsthetic, or what you will, are, it would seem, subject to cultivation just as the sensation of taste—not commonly considered an artistic sensation—is susceptible of cultivation. If a person at a certain period of his existence does not care for olives, and by continued practice acquires the taste for olives, then he has developed himself so far, and has added one to the sum of his possible pleasurable emotions. So a boy who does not

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care for the difference between a homely building and a pleasant looking building, and who afterwards, by a few suggestive words from his teacher, learns to get a touch of pleasure from the sight of a handsome structure, has added one to his sum of possible pleasurable emotions. And again, a boy or a girl who, at one time takes no interest, aside from the stories thereby suggested, in the illustrations of the current press, and afterwards learns to appreciate the difference between those illustrations, and acquires the ability to get a pleasurable emotion from the view of certain of them, has added one to his sum of possible pleasurable emotions. Each one of these persons has educated himself, or been educated, "artistically," to a certain extent.

Now, I find—to go outside for a moment of the field I am talking in—that the average young person, not to say the average adult, takes no interest in the architecture of the buildings of the town in which he lives. It seems not to occur to him that architecture, considered as an art, of which he may read in text-books on the subject, or which he hears alluded to by persons learned in such matters, has an exceedingly wide illustration in the structures that surround him every day. It seems not to occur to him, as he takes his daily walk through his native village or his native city, to compare this building with that; to consider why this one is pleasing and that one displeasing; to take note of the fact that the architectural critic approves of this building, not of that one, and to follow up his knowledge of this approval with any attempt to get at the root of it himself. The art of architecture seems to him to be confined to books, and, for actual illustration, to distant cities and ancient times. This same failure to take note of the art which lies just at one's hand is still more clearly to be seen in the attitude of the average young person, or even of the average adult, to the illustrated press. For instance, worthy women come into our library and announce to me that they propose, the next winter, to take up the study of art. They ask me what books we have on the history of art, what illustrations we have of the art of a certain period or of a certain country, what critical works we have on the subject, etc. That art must be studied through its history, by visiting art galleries, and by means of illustrations—reproductions—of things at a distance in space and in time, seems to be the one idea of the average art student. I sometimes venture so far as to suggest to persons who come with this request something of this sort:

"The art of Greece and Rome, and the art of Italy, or of any other foreign country, and the art, commonly so-called, of America, can be properly studied only by the direct observation of the works of art themselves. On the other hand, if it is an art education you wish,

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and not an art education of one specific kind, you can every day cultivate your artistic taste and add to the sum of your possible pleasurable emotions by opening your eyes to the supply of art that is furnished you by the illustrated press. Take, for instance, our publication called 'Life.' It includes each week reproductions of some of the best work in wash-drawing, in pen and ink, and other illustrative processes, that is being done in America (may one say, in the world?) to-day. Even such journals as 'Puck' and 'Judge'—exceedingly crude in the main, and devoted, as to the pictures, almost exclusively to story-telling—contain oftentimes artistic suggestions of value, and often include pictures by men who are masters of draughtsmanship in certain directions. If we pass on to such journals as 'Harper's Weekly' and 'Harper's Bazar,' you find in them wood engravings and the reproductions of pen and ink and other work which are most excellent examples of some of the best work this country can produce in these lines.

"It is unnecessary, of course, to call your attention to the artistic work of such periodicals as the 'Century' and 'Harper's Magazine.' The art in these magazines is by no means confined to special articles on that subject, or to such things as the reproductions, by Mr. T. Cole, in wood engravings, of the work of some of the great masters.

"The wood engravings, covering every character of subject, which have appeared in these magazines in recent years, have been, confessedly, the best work of the kind in the world. While it may be very well for you to know that Michael Angelo lived, and that Raphael painted some pictures, and that Donatello was something of a sculptor, it is much more to your present purpose to know that T. Cole is an excellent engraver, G. Kruell is a masterhand in portrait work, that A. B. Frost, E. W. Kemble, C. S. Rhinehart, and a score of others, are not simply story-tellers with their brush or pen, but artists.

"I would advise you, then," I might say to our supposed library visitor and zealous student of art, "to lay aside for the present any plans for diving into the past or for traveling, by pictures, to the art of foreign countries, and to devote yourself to the art which lies at your own door. Take note each week and each month of the engravers and draughtsmen, and their work in this, that, and the other periodicals. Learn to know their names; learn to know their characteristics; become accustomed to judging them; read such contemporary criticism of them as you can find, and thus open your eyes to one of the phases of art here and now within your power to observe."

When the public library was first opened, we, of course, took, for the reading-rooms, the "Art Interchange" and the "Art Amateur."

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These journals contain, each month, as you know, certain colored plates and sheets of design. We very soon found that these designs and these colored plates were wanted by patrons of the library to use in the several kinds of work to which they are adapted. We began to lend them to those who asked for them. When they were lent in the form in which they come with the papers, they were frequently torn or injured. It occurred to us then that it would be a good plan to mount each one of them on a sheet, either of cardboard or of heavy manilla paper. We chose manilla, both as being the cheaper and the stronger. It serves the purpose just as well as cardboard, unless the things mounted on it are used on the wall for decorative purposes. Accordingly we mounted the colored plates, and the large sheets of designs we cut into pieces as small as the character of the designs would permit, and mounted them in the same way. As the pictures and designs varied largely in size, we supplied ourselves with several different sizes of manilla, and found, after some trials, that the following sizes seemed very well adapted to the purposes: 18x24, 12x18, 9x12; each one just twice the size of the one next smaller.

We soon found that there was a demand, among people who were engaged in one and another kind of amateur art work, not only for pictures and designs found with the journals I have mentioned, but that they would often also be glad to get such pictures as appear in other illustrated papers. We accordingly extended the custom of mounting to selected pictures from journals such as "Harper's Weekly," "Life," "Harper's Bazar," the English illustrated journals, etc.

Several years ago the supervisor of art in the schools in our district, wishing to bring the pupils in the schools into touch with modern decorative work, put on foot the plan of cutting designs of all kinds from current periodicals and mounting them on small sheets. We had in stock in the library—the result of gifts, largely obtained through pupils of the schools—a great supply of illustrated journals and magazines. Numbers of these, such as the "Century," "Harper's," "Scribner's," and the "English Illustrated Magazine," were sent to the bindery and their backs cut off. This left them in loose sheets. Boys and girls from the high school then came into the library, on invitation of the art director, selected from these loose sheets such initial letters, vignettes, title pages, etc., as suited their fancy, cut them out and pasted them in groups on small manilla sheets, 9x12.

As time went on we extended our library subscription list to take in, occasionally, such journals as "Figaro Illustre," the "Paris Illustre," some of the German periodicals devoted to decorative designs, etc. After a very little experience we found that these journals, if

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carefully saved, put where the public could not well get them except on application, were very little used. If they were bound in quarterly or half-yearly volumes, they were almost as little used as if they had been hidden away. Consequently we instituted the custom of cutting up these journals, taking from them the best of the illustrations, and mounting them on sheets of manilla of appropriate size, and putting them with our already large collection. In this form they were lent to anyone who wished them. As this work grew we found that we had on hand an ever-increasing pile of illustrated journals of all sorts, out of which a large number of things could be selected and mounted. We now adopted this plan: We save these journals, and on a given evening, having ready an abundance of manilla paper, shears, and paste, we call in the young women who work in the library and a number of their friends, and hold a "pasting bee." This "pasting bee" generally lasts from two to three hours, and is very commonly wound up by some little refreshment at the library's expense. In the ways mentioned our mounted pictures have come to number several thousand.

If any of you take the trouble to examine our collection in the open gallery of the public library, you will find that it has many faults. In the first place, a great many of the pictures and designs do not present a very good appearance when mounted on manilla paper. In the next place, as it was impossible for me, or any one else who might know fairly well what it was best to select from illustrated journals, to supervise all this mounted work, there are included among the pictures a great many useless and perhaps undesirable things. In the next place, the collection has grown so rapidly that it has been impossible for any person with an adequate amount of knowledge of the subject to give the time to proper classification, and consequently you will find the classification scheme which we have adopted to be in many places very faultily applied.

These mounted pictures are contained in about fifty drawers, each drawer containing pictures having to do with one or more subjects or departments. These drawers are open to the public, both old and young, careless and careful. As the pictures contained in them have been lent, some of them not once but half-a-dozen times; have been freely handled, perhaps carried roughly, pinned on the schoolroom wall, they are now, in some cases, in a dilapidated condition. You will note, however, that while we are a little incumbered in our collection with material that is worthless, the material that is good is fairly accessible, and is not at all injured for practical purposes by its poor classification or by the careless handling to which it has been subjected.

Each one of these pictures is stamped with the stamp of the public library. To facilitate their classification and their rearrangement,

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when out of order, they are also stamped with the name of the particular class to which they belong. Lately we have had made a number of stamps, one for each of the classes into which we now divide these pictures, preceded by the words "Denver Public Library." With these stamps it is easy, as you see, to sort into piles any new batch of pictures and stamp each pile with the particular stamp of the class to which it belongs.

In the work that I have thus briefly outlined, we have not only been assisted by the library employes and their friends in the manner I have suggested, and by the pupils of the high school, and always by the supervisor of drawing; but very substantial aid has also been given to us by the teachers. You, of course, will understand that it is not easy to interest the average teacher in the kind of work that I have been speaking of. By no means every teacher takes an interest in art, and by no means every one takes an interest in drawing. We have found, however, that a good number of teachers are interested in this work and are very glad to learn of the pictures and to make use of them. Moreover, in many cases, the teachers have themselves been stimulated by the example of the public library to prepare collections for their own use. We have had in stock nearly all the time for the past two or three years a good supply of the manilla paper already mentioned and shown to you. When a teacher comes to us and says that she is endeavoring to increase the interest, in geography, for example, in her school; that she has heard of the plan of making a series of geographical pictures to illustrate the particular ground she proposes to cover in a given term, and wishes to know if we can assist her in doing this for herself, we show her our stock of old journals (and we always have a supply set aside for this particular purpose), tell her that she can help herself to these, supply her with as many of the sheets of manilla as she wishes (perhaps, with paste and shears), and she then either takes these to her home and makes her own series of illustrations or works at the library. The pictures which the teachers mount in this manner are commonly, though not necessarily, considered the property of the school district or of the public library. This kind of work has been done, not only for geography but for a good many other topics. As interest in the subject has increased and spread throughout the district, the habit has grown up, especially in the last year, of making special collections with more care and with a greater eye to beauty than ours. In the high school particularly, a gray cardboard has been secured in quantities, and certain of the teachers have taken the best illustrations in given lines from such journals as the "Century," "Scribner's," and "Harper's," mounted them in series, and put them loose in a portfolio. You will find examples of some of this work in room 10 of the high school, if you are interested to see them. Teach-

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ers in grade schools, moreover, have made like portfolios in other lines.

The standard text-books on literature, as well as those which are not standard; the writers of literary essays, the deliverers of literary lectures, and the good educational people who are always full to overflowing of wise advice on literary matters, are continually driving the beginner in reading back to the classics. It is not strange that this should be so. It is not only in accordance with custom but it is by far the easiest thing to do. In literary matters one can easily read a few volumes of the history of literature and literary criticism, can dip lightly into a few books of quotations and of approved selections, and he finds himself already well equipped with appropriate phraseology, and is ready to deliver himself of the soundest kind of advice in regard to literary matters. Nothing could be easier than to acquire the ability to tell a group of young people what are the best English authors to read. Nothing can be easier than for the alleged teacher of literature to pour forth an hour or two of platitudinous talk about authors who have long been accepted as the proper ones to know about.

This kind of stuff is easily delivered and is not worth the saying. I have a keen suspicion that the teacher of English literature is led to confine herself in large part to the praise of the oldest kind of literary chestnuts because she feels that she is utterly inadequate to pass any worthy opinion on the modern writer. It is entirely simple, for instance, to drivel along about Walter Scott, and Thackeray, and Fielding, and the like. The whole world is with you if you praise them; you feel that you are in good company and on safe ground. But what, for instance, about the modern man? How far shall you go in approbation of a man like Huxley? Do you think that E. S. Martin's little windfalls of observation are worthy of as high praise as the essays of Addison? Are the editorials in "Life" as clear cut and keen as anything Leigh Hunt wrote? Is Conan Doyle superior to Fenimore Cooper? And does Mary E. Wilkins really write a good story of New England life? Is her work as good in its line as has ever been done in the English language before? Questions like this the alleged literary man is rather slow to answer in the schoolroom.

You undoubtedly noted, in the last number of the "Forum," several articles having to do with the teaching of art to the masses. You will note that the whole tenor of these articles is, if not against, at least, not at all in sympathy with the ideas I have been endeavoring to express to you. The one idea of the writers and of the people who are carrying on the work they are outlining is, that the only art worthy of being noted by the populace is art of the most expensive kind.

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The Hull House people, for instance, give a little loan exhibition, in the slums of Chicago, of fine oil paintings. The Hamlin Garland plan is to give exhibitions in small towns of costly oil paintings and bronzes and statuary. Now, my contention is, that it would make far more happiness, it would be much more likely to add to the sum of possible pleasurable emotions, if these art enthusiasts would inform in some simple way the people of Chicago slums that they can cultivate themselves in an artistic way by means of the current, illustrated press; if they would show them, for example, that a handsome wood engraving, cut out of "Harper's Bazar," costing ten cents for the picture and five cents for the cardboard on which to place it, is worthy of their attention, is able to give a person of high degree of cultivation a very pleasurable sensation, and can greatly add to the joy of life.

The ordinary citizen, whether he live in the slums or in a palace, looks upon almost all current illustrations as story-telling only, and he cares for nothing else, and he thinks he cannot get out of the realm of story-telling unless he gets a picture of the very highest price and beyond the reach, except for occasional moments, of any but the very well-to-do. Even when he looks at high class paintings, the thing that chiefly concerns him is the story; as was well illustrated by the great vogue, at the Chicago Exposition, of that very pleasing but not particularly artistic little picture, "Breaking Home Ties."

Now, you should understand I have no objection to the story-telling habit in a picture, or of the love of story-telling in the observer. What I am contending for is, that it is possible, not simply for uneducated people but for the average person of culture to increase his art knowledge and add somewhat to his agreeable sensations by making a study of even the wood-cuts, the process pictures, and the chromos in illustrated journals.

DISCUSSION.

[REPORTED BY CORA Z. PARSONS.]

MR. SCHNEIDER, teacher of drawing in New York, spoke of what was being done in that city in utilizing the museums in the public school work.

MR. TALBOT of Alabama, a teacher in a colored school, said that he was aiming at the training of the hand and the eye of the pupil instead of an art development, stating briefly his mode of procedure.

MR. CLARK of Boston wished to express a deep feeling of gratitude to Mr. Ives for his admirable address. He felt sure that all supervisors and others interested in art would join in his expression of appreciation.

MR. GOODNOUGH said we must develop the artistic feeling in the children, not by talking art but by placing before them high ideals in the way of examples of art. He paid a high tribute to the work done along this line in Denver, both in the high school and library. In closing he thanked Mr. Ives for his very able address.

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PICTORIAL DRAWING IN PRIMARY AND GRAMMAR GRADES: SHOULD LIGHT AND SHADE BE TAUGHT?

BY MISS WILHELMENA SEEGMILLER, ALLEGHENY, PA.

METHODS.

Pictorial art makes two demands,—that noble and beautiful things be said, and that they be said well. While these demands are attained only through the language, the message of art is its higher and nobler part.

Pictorial representation is an expression of human thought and feeling, and it is great or good according to the amount and quality of thought and feeling clearly expressed. Of this we have abundant proof in the masterpieces of art.

In the spirituality shining in the faces of Fra Angelico's saints and trumpet-blowing angels we see reflected the great life-thought of the devout and spiritual man who sacrificed all worldly honors, saying that the practice of art required repose and holy thought, and that he who would paint the life of Christ must live the life of Christ.

When Courbet paints his gathering tempests, so that we see the atmosphere laden with the hush of the storm and almost hear the mutterings of thunder in the lowering clouds, we understand his love for Nature in her awe-inspiring moods.

Millet shows us scenes from peasant life. Beyond our thought of his composition, his drawing, his color, or his atmospheric effects, we are impressed with his grand conception of the heroism in humble life and the dignity of labor. Ruskin says that the value of every work of art is exactly in the ratio of the quantity of humanity that has been put into it and legibly expressed upon it.

In the simplest work of children the humanity should be legibly expressed. We wish, not only the child's representation of the book but of his interest in the book; not alone the portrayal of the flower but of delight in the flower.

Nature has established a sympathy between external forms and our thoughts and feelings which is the everlasting basis of all true art. In our work with pupils we have three things to consider: a study of the facts,—of structure and appearance,—command of the muscles of expression, and the sympathy. In our anxiety regarding the facts and the free expression, we must keep it very clearly in mind that the aim of pictorial art is through and by means of these to express the sympathy.

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"Art is never imitative, but ideal and creative. The artist, be he musician, poet, or painter, transcends the bounds of nature, and passes into the ideal. He becomes a new creator, and his work is a new creature. A play of Shakespeare, a symphony of Beethoven, a picture of Raphael, or a torso from the Parthenon is not an exact imitation of anything we see or hear around us in the lives of men, in the music of the woods, in the landscape, or the human form." Yet each is in accord with nature, and appeals to all that is noblest and best in us.

> Art is the child of Nature; yes,
> Her darling child; in whom we trace
> The features of the mother's face,
> Her aspect, and her attitude—
> All her majestic loveliness,
> Chastened, and softened, and subdued
> Into a more attractive grace,
> And with a human sense imbued.

The creative activity which, in its highest manifestations, ennobles the artist is in a lesser degree the possession of all.

Raphael did not find a woman sufficiently beautiful to be the model for his Sistine Madonna, but from his experience he combined and portrayed the perfections of many women. The same longing for the expression of the ideal was shown by a tiny child in a New England school. Each pupil had been given a daisy to draw. Hers had a somewhat angular and inartistic stem. After her drawing was completed she looked somewhat unhappy, and as the teacher examined the work, she said, "I didn't make the stem of my daisy nice, but I made it like this one." The teacher said "Yes; I see, dear," and passed on. Still the child seemed dissatisfied, and presently said again, "You know, Miss Brown, I didn't want to draw it this way, but I had to." "Yes," said the teacher; "that was right. Now, you may make the most beautiful one that you can;" and the child was radiant.

After making the best possible choice of material and arrangement, we can ofttimes imagine something better than what we see produced materially before us. We wish that the tree leaned a little more protectingly over the house, the ship were turned at a slightly different angle, the sail had a more graceful sweep, the drapery fell in different folds, or the pitcher had a more glowing surface. In our drawing we can combine the imaginary ideal qualities and the desirable visible qualities.

It seems to have been designed, that, with God-given aspiration, man should in all things seek the ideal, and constantly grow toward it, till he realize perfectly unity and completeness in the broad life of eternity. As we look back through the ages, we find that it is

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only those who sought the ideal, and in some form strove to express it, whose works have lived to affect our lives to-day.

The benefit of pictorial art in education is derived largely from the constant striving to create ideal conditions and to express ideal thoughts.

Expression in any art demands the mastery of language. The musician must understand pitch, scale, and fingering ere he interpret for us the beauty of Mendelssohn or Mozart. The poet must understand grammar and rhythm ere he move us by flights of sublimity or depths of pathos. He who would produce effect with brush or pencil must also understand the technicalities of his art.

Within the past few years we have heard a great deal about setting the children free. So many strange things have been said and written, that it seems to be the idea of many people that the sole duty of the educator is to let children alone, and that the one all important law of the universe is, "Do as you please."

No one could wish children greater freedom than I, but there is a vast difference between the freedom of carelessness and the freedom which comes from a consciousness of power. I find the most free and artistic work in schools where I also find the best drill. I feel that we need constant and thorough drill on principles and in movement.

Let us briefly discuss some of the essentials of good composition and rendering. Unity, variety, and repose are oft-quoted words, but words of deepest meaning. Good composition demands adherence to the law of principality. In a good poem, play, or novel there is one principal idea or character to which all else is subordinate. In a good picture there should be one element of supreme interest, and so skillful an adjustment of relationships that all features blend into one harmonious whole. There must be sufficient changefulness to sustain interest, and restful arrangement and good drawing to produce repose. When work is to be done in light and shade, there should be a concentration of light and shade effect in the arrangement. One object or one part of a study should receive higher light than the rest.

Generally children do not get sufficient practice in grouping. The teachers arrange the groups. When pupils make their own groups, considering the essentials of composition, the planning for effect gives them clear concepts of the features necessary to produce effect in the sketch.

Even in the lowest grades time devoted to grouping is well spent. In the first and second years children can readily be led to see which models will look best together, and from a collection of miscellaneous objects select those which will make the most pleasing arrange-

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ment. They delight to bring several objects to school to arrange pleasingly on their desks for the teacher, and when pupils are called to the front of the room to arrange their groups where all can see, many a little hand flies up whose owner is anxious to make the objects look more companionable, to add variety, or to substitute one of his own possessions to remove an element of incongruity.

When work in light and shade is begun students should have shadow boxes, which may be improvised from pasteboard or geographies. They should make their own arrangements, studying effects of light, shade, and shadow.

In pictorial art we represent, not reality but the appearance of reality. There are two kinds of truth, truth of structure and truth of aspect. One is as great and essential a truth as the other. In all pictorial work we study the structure and the aspect, but portray only the aspect.

Scientific representation and art representation are two very different things. Between science and art there has been a great gulf fixed, yet they are so closely related that they go hand in hand. When teachers understand this seeming contradiction, and remember it in connection with elementary science instruction as well as in the drawing periods, pictorial work is greatly strengthened.

The light and shade question is quite a problem. Light and shade mean much more than black and white. One of the first things to be considered in light and shade sketching is gradation.

May I quote a description of Correggio's picture of Antiope in the Louvre? "The woman enveloped in a panther skin is as bright as a flame. The soft red tone forms the first halo; then the light blue draperies, with a slight greenish tint, form the second halo. The satyr has a value a few degrees below that of the draperies, making it the third halo. When the bouquet is thus formed Correggio surrounds it with beautiful dark green leaves, shading toward the extremities of the canvas."

This is an exceptionally fine case, showing observation of gradations; but in the simplest sketch there should be an effect of central light and gradation. In this gradation we must consider the values of direct light, shade, shadow, and reflection. Color enters into the question, and color values must be sustained and represented in the black and white. Attention must be given to the relation of objects in space. The lines of the composition must bear a pleasing relation to one another, and the spaces into which they divide the picture must be a matter of thought.

Our drawing must also represent texture and quality. We must show with very little detail that the house is made of bricks, not painted boards, and that the potato has a roughness and earthiness different from the characteristic smoothness of the apple.

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When these qualities are united in the mind, they must be expressed in artistic rendering.

We are limited by our materials. There are often high lights in our subject many degrees lighter than our paper, and depths of shadow darker than the darkest marks of our pencils. Like the singer who cannot reach high or low notes, we are compelled to transpose the key and retain the relationship. We cannot imitate; we must translate. To obtain the desired effects of interest and light, we must often exaggerate certain features and eliminate others.

The light and shade problem, then, is to portray, in artistic rendering with limited material, an impression of what we wish to express, duly considering concentration and gradation of interest and light, values of light, shade, shadow, reflection, distance, and color, relation of lines and spaces, and characteristics of texture and quality; combining all these in unity, "not the unity of rigid law but the unity of trees, and clouds, and human souls."

Is this a problem for primary grades? It is said that little ones see effects of light and shade. They do when their attention is called to them; but they also see the luminous blue of the sky, the fleeciness of the cloud, and the flash of the diamond. Would you ask them to paint these, just because they can see them? There are many things we can see and appreciate which we cannot express till we gain the mastery of language, and little children must first learn the elements of the language of art.

Do children naturally represent light and shade? When you as a child drew a house or an elephant did you express your thought in masses of light and shade?

What has been the history of the race? Did the artists in the days of the Pharoahs understand light and shade? Do the Assyrian hunting scenes show light and shadow?

Personally, I am little concerned in the question, Can children in primary grades express their thought in light and shade? In the limited time devoted to pictorial art in the primary grades it is all I can do to get children to see well, to gain mastery of the channels of expression, and to show form, light, shade, distance, and characteristics of texture and quality in clear expressive outline.

If there has been a good foundation laid in grades below, I think we can beneficially work in light and shade in the seventh and eighth years. We should begin under the most simple conditions, working on clear sunshiny days, and making arrangements for the light to come from only one direction. In first work it is well to use models and objects with opaque surfaces, placed in positions to produce strongly contrasted effects of light and shade.

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In the majority of schools pencil and paper are the only mediums which can be satisfactorily used, and, indeed, the mediums most generally commended elsewhere; so that interest centers to-day in pencil sketching. The first rendering might be a representation of masses in straight lines. Succeeding this we might ask for somewhat broken lines following the contour of objects. After a little practice we should allow our classes perfect freedom in the manner of rendering, and criticise individual work. If the drawings become too liney, we should ask for more delicate treatment; if too undecided, ask for more clearness and a showing of the line; if too labored, require time sketching.

Great stress should be laid upon directness of treatment. In pencil sketching every stroke should count, and there should be no purposeless indecision of touch. It is better for pupils to spend two-thirds of the lesson period thinking and one-third drawing, than to spend two-thirds drawing and one-third thinking.

The selection of pencil and paper should be guided by the touch of the sketcher. A smooth paper requires a softer pencil than a rough. There should be enough resistance between pencil and paper to secure firmness of treatment. It is best to use several grades of pencils, that the different values of the picture may be readily obtained.

No rules can be given for treatment, but pencil is a very different medium from crayon, charcoal, or color, and needs quite a different handling.

A certain prominent New York artist has his pupils draw with a very fine point, exercising the greatest care to keep the strokes of the pencil from showing. They use burnt rubber rolled to fine points, and laboriously put in and take out tones till they secure values.

Such work is in the province of charcoal and bread. I do not believe with this New York artist that work in pencil is valuable chiefly because it prepares for higher work in other mediums, and that it makes little difference about arrangement if we get practice in drawing and study in values.

Pencil work, of course, helps color and charcoal study; but the charcoal and color study help the pencil sketching, also. A pencil sketch should have a completeness in itself as great as that in a color or charcoal study. I feel, that, in a pencil sketch, there should be a showing of the line, and that there are many things to be considered besides a study of values. Good specimens of rendering should be placed before pupils, and attention called to strong points. Copying good examples of rendering is also valuable.

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In his "Discourses on Art" Sir Joshua Reynolds said: "For my own part, I am not only very much disposed to maintain the absolute necessity of imitation in the first stages of the art, but am of opinion that the study of other masters, which I here call imitation, may be extended throughout our whole lives, without any danger of the inconvenience with which it is charged of enfeebling the mind or preventing us from giving that original air which every work ought undoubtedly always to have. I am, on the contrary, persuaded, that, by imitation only, variety and even originality of invention is produced. I will go further. Even genius—at least, what generally is so called—is the child of imitation."

Wm. Morris Hunt said to his pupils (who were special art students): "I like you to copy some. You must get yourselves ahead by studying fine things. If you don't, you never will do them. I have told you over and over again whose works to copy—Michael Angelo, Raphael, Albert Durer, Hans Holbein, Mantigna. Get hold of something of theirs, hang it up in your room, trace it, copy it, draw it from memory over and over till you own it as you own 'Casabianca,' and 'Mary Had a Little Lamb.'"

While we try to give pupils standards outside and higher than themselves by asking them to copy, we must remember that there are two kinds of copying—one purely mechanical and external, the other that which is done with a desire to enter into the thought expressed and the manner of expressing it. With practice, kindly criticism and help pupils finally become unconscious of technique, and think only of the thought to be expressed.

Early work in sketching should not be on too large a scale. We add to the difficulties when we ask to have large surfaces covered. For general work I have been using paper cut one-eighth imperial size, five and a half by seven and a half inches.

I have been deeply interested in the subject of light and shade. I have discussed its various points with artists and supervisors, and made experiments in primary and grammar grades. As a result of my experience, I am rather conservative. I should attempt no work in light and shade in primary grades. If conditions were favorable, I should begin the work in the highest grammar schools; but I should remember that time is limited, that art education is a term of broad meaning, and that there are many important things to be taught besides light and shade.

I have been asked to speak of the relation of pictorial art to general school work and the encouragement of free illustrative drawing. We should use drawing in connection with other work as much as possible, but when we wish to combine studies, we should ask, Will the study we illustrate be made clearer, and no harm be done

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the drawing? When we draw to show that ten daisies and ten daisies are twenty daisies, the twentieth daisy is not apt to get its full share of attention. When we draw to show that the square described on the hypothenuse of a right-angled triangle is equivalent to the sum of the squares described on the other two sides, we are aided by seeing visible proof of the statement, and the drawing does not deteriorate.

I doubt if we have any more reverence for George Washington after copying his portrait, but we enhance the study of history and the study of art when we draw the styles of architecture and ornament in connection with the study of the civilization which produced them.

Children should not only be indulged but encouraged in free illustrative drawing. One of the early uses to which I put my first slate was making a picture of the teacher. I made every frill on her dress, and every curl in her hair, and added more frills and more curls. When the picture was completed, in the innocence of my soul I showed it to the teacher, and told her it was her picture. I never drew her any more. I was sent to the principal's room on an errand. He was not in, and while I awaited his return, thinking there might be no moral wrong in drawing if I refrained from drawing ladies, I asked one of the larger girls if I might draw on the board. I was absorbed in an Indian tent, with smoke curling from a hole in the center, when the principal entered, and said, "I would like to know what kind of a geometrical problem that is." "Geometrical problem" seemed a dreadful thing to say. I wanted to ask my mother what it meant, but I was afraid she would say, "Why, Wilhelmena! what have you been doing?" so I didn't see the joke till years after when I entered the high school and studied Euclid's "Elements of Geometry."

I quite clearly remember my own experiences, and when children draw me, if I don't look like the Venus de Milo, I know they wish to make me just as lovely.

When a nine or ten-year-old boy draws his teacher with her arms looking like jointed sticks, a circle for the head, a line for the mouth, and almost anything for the other features, I think she should not feel pleased.

As their powers develop children become conscious that the arm is more than something which bends in the middle; they see the softness of the hair, and the modeling, color, and expression of the face in a new light, and they know they have not the power adequate to express these things.

I have often felt sorry for pupils who were asked to illustrate poems, drawing men and angels, when they knew their drawings

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were ridiculous. We should endeavor to have free drawing in all the grades, but the drawing in the higher grades should be of a different character from that of the lower, and we should require as high a standard in the free drawing as in the regular drawing.

I would say a word regarding the influence of general school work and environment on pictorial art. When we teach decorative composition, we strengthen our work in pictorial art. The qualities of unity and beauty in the Anthenian ornament are the qualities desirable in a good pictorial composition.

The essentials of English composition and pictorial composition are the same, and work in one can often be assisted by reference to the other. When pupils look up from their work, and their eyes rest on a beautiful vase, a cast of the "Wingless Victory," or a beautiful plant in the window, they are gaining strength which will be apparent in their pictorial drawing.

It was said of Titian and Tintoretto that they painted "with fire, sudden and splendid, as the lightning paints the cloudy vault of heaven." They would hardly have obtained such wonderful color had they not been surrounded by the glory of Venetian coloring, and day by day delighted in the golden hues of the Venetian sunset, the sunlight through the showers on the lagoons, the pavements of red lavas from the Eugenean quarries, and the palaces of white marble reflected in the waters.

In pictorial art we cannot overestimate the importance of the general influences and environment of the schoolroom. I hope it has been my good fortune to suggest a few thoughts worthy of discussion. There are many in the audience deeply interested in the subject of pictorial art, who are able to give the result of profound thought and experience. I hope the discussion will be very full and free.

THE PLACE OF ART EDUCATION IN GENERAL EDUCATION.

BY JOHN S. CLARK, BOSTON, MASS.

One of the greatest gains made during the half-century now closing is the clearer insight of men into the meaning and the implications of evolution. There was a time when the newly discovered facts of the past history of the earth and its creatures, seen dimly and without much relation to other facts, staggered all but the most courageous minds with the vastness and ominousness of the problems they involved; but, as years have gone by, men have come to see the same gigantic and enigmatic facts in clearer mental perspective and

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under brighter light. Now the philosophy of evolution, as Dr. John Fiske and others clearly proclaimed it years ago, and as Henry Drummond has lately so admirably reaffirmed it in his work on the "Ascent of Man," is the common possession of most thoughtful people.

This evolutionary history of the world of man is only the scientific, detailed tracing out of the means and ways by which there has been brought about the stupendous fact of man's place in the scale of creation, which keen philosophic speculation had long ago made him conscious of, even while unable to understand or account for it. The theologian of three centuries ago meditated in the older Hebrew phrase:

> When I consider the heavens, the work of Thy fingers; the moon and the stars, which Thou hast ordained: What is man that Thou art mindful of him?

But to-day, in the light of evolutionary science, the thought takes a different accent:

> When I consider the heavens, the work of Thy fingers; the moon and the stars, which Thou hast ordained: What is man that Thou art mindful of him? Thou madest him to have dominion over the works of Thy hand. Thou hast put all things under his feet!

Whichever road we travel,—the old path of ontological speculation, or the new path of scientific investigation,—we come out upon the same intellectual hill-top, namely, the thought that man as a physical being is the consummate product of material creation, while as a spiritual being he is the appointed master of material creation and the beginner of a new world of spiritual growth and spiritual creation. The essential, distinguishing fact about him is his more direct relationship through his personal feelings and desires to the Divine,—that is, to the eternal, spiritual reality of the universe,—than exists in the world of matter, which can only passively reflect the Divine.

I shall assume that we agree to start out from this standpoint in considering the question before us to-day; for, in order to think to any real purpose about the place of art education in general education, we should first obtain a clear idea of the relation of education itself to human development, and then the place which the arts of the race (literature, music, painting, sculpture, and architecture) hold in the development and training of spiritual man.

The first proposition that I have to offer you is one upon whose acceptance or rejection the general character of the whole scheme of public education must logically depend. It is as follows:

> Proposition I. That the human soul is a self-acting spiritual entity, which is more completely a revelation of the divine spirit which is behind all that is shown in the material world; and that this soul or spiritual entity, when properly developed, dominates man's physical powers, making them subservient to itself.

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We hear much in these days about the soul or the mind as having only passive existence; as being a product of the material forces of the universe, and possessing only such powers as are induced in it by the changeful play of these forces upon it through the medium of the bodily senses. This conception of the soul makes it practically only a higher differentiation of the common physical forces of the universe. This is the outcome of that physiological psychology that proposes to give us a psychology without a soul. In passing, I can only remark that this physio-psychological discussion that is now upon us is but a survival and a development of the great philosophical discussions of the centuries. In the light of modern biological investigation and evolutionary thought, the present discussion is destined to enlarge our conception of man's place in nature and his destiny.

Now, as practical educators, we must think of education as one of two things: A complicated process, by which physical energies are automatically transformed into sense activities and then into thoughts; or, on the other hand, as an appeal to a human soul, very little aware at first of its own powers, but yet potentially a self-determining ego, with powers more or less capable of being quickened to a great degree of creative self-activity.

Of course, it cannot be claimed that the mind or the soul is independent of the physical organism. We cannot conceive of mind as being able to annul the laws of exterior matter. What I wish to claim is, simply, that the mind, being an entity in itself, has a certain power of control over that very material mechanism, the brain, whose conformation and functions condition it, and that it has also a certain original power of combining with and taking advantage of the forces of the material world so as to modify their actions and transform their applications. Nor is it intended to deny that the senses are the appointed gateway through which the things and the forces of the outside universe come near to us, influence us, and give our minds material to work with. What I do wish to remind you of is the fact that the spiritual entity behind and above all the man's sense-organs is the thing of first and greatest importance. You remember the famous aphorism of Leibnitz: "There is nothing in the intellect which was not previously in the senses—except the intellect itself."

As a matter of fact, the stoutest champions of the theory of soul as a combination of differentiated physical energies cannot keep their footing on their slippery ground. They cannot explain, or, indeed, fully express, their own theory without falling back upon assumptions which are inconsistent with that theory. Just here comes in the weakness of much current educational argument brought for-

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ward by those whose influence is otherwise energetically inspiring. If I may be allowed to point my criticism by direct citation, I will instance certain statements recently made by one who stands conspicuously before the country as an exponent of the new education. I have read Colonel Parker's books with great interest and thoughtfulness, especially his latest volume on "Pedagogics," and as nearly as I can make out, the colonel himself, being considerably bigger than his psychological theories, stands generously on both sides of the question at once. See if I am right. On page 202, he says:

> I cannot resist here the temptation to lay down a rule fundamental in all education: That which is best in education—that which is best for the body, and mind, and soul—is unconsciously acquired.

And then, on page 254, he says:

> The foundation of education consists in training a child to work; to love to work; to put the energy of his entire being into work; to do that work which best develops his body, mind, and soul; to do that work most needed for the elevation of mankind.

Can this energetic work—this putting his entire being into the task—be automatic and unconscious?

Do not these two propositions, which are put forward as fundamental, practically annul one another?

In his chapter on attention, he says:

> Attention is holding the being—body and mind—by an act of the will in the most economical attitude for the action of the external attributes or objects upon consciousness.

Does he not here forget that the holding of powers and activities in check must, in the very nature of things, imply something that holds, *i. e.*, an inherent, self-acting force or energy, so poised as to dominate the other particular forces and powers in question?

Again, a few pages distant, in the same chapter, he says:

> The synthesis, association, unification, or recollection (terms expressing the same mental act) of the ideas is perfectly unconscious and automatic so far as the ego is concerned. The ego is conscious of the results only of the units of elementary ideas. You can analyze, compare, classify the results, but you cannot directly unite or arrange the ideas.

Would the colonel have us understand that the ideas in this book are not his own, and that they automatically arranged themselves? Is it not true that the colonel, as well as the world's greatest poets and artists, did directly create ideas and unite them to form new wholes?

The fact is, the whole scheme of experimental psychology, which aims to reduce mental phenomena to unmediated physical energies playing through matter, and so to dispense with self-activity in the

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intellectual life of man, is (as Professor Ladd has pointed out with such clearness and vigor) based wholly on an assumption of the self-active intellect itself; *i. e.*, on the purely mental hypothesis of the existence of atoms and molecules through which the primal energy can transmit and manifest itself. And this hypothesis is a pure synthesis of the mind. So we have the paradox of human beings denying that the human mind has any real essential existence as a self-acting entity, and yet asserting that the ultimate basis of all so-called mental phenomena is traceable to physical forces acting in certain minute units of matter, whose very existence is, after all, merely a convenient conjecture of this dependent physical mind itself!

Truly this sort of intellectual confusion is near kin to that of the old lady who said, that of course the moon was indispensable to us, because we must have some light in the evening; but that we could get along without the sun, if necessary, since the sun shone only in the day-time, when we could see first-rate, anyway.

But (to treat the subject with the seriousness which it demands) we must remember that this question, as to whether the soul is a self-acting entity or merely a higher differentiation of molecular energies, is more than just a curious problem for the biologist and the metaphysician. The whole spirit and aim of education, no less than the spirit and aim of all efforts for social well-being, practically depend upon the stand we take on this question. We cannot reasonably be on both sides at once. The vital question in education today, therefore, is, Where do we stand on this fundamental point?

My second proposition is:

Proposition II. That man, by virtue of this self-acting soul, becomes in his highest estate, not only a transformer of the material conditions which surround him but also an actual creator of new spiritual values of an altruistic character—hence his arts.

I can take time merely to suggest, in the briefest fashion, how man is a transformer of the material conditions round about him and how his activities are imbued with the altruistic character; how he, and he alone, in contrast to all other living creatures, sets to work with conscious and deliberate foresight to change these very material facts, which, to a certain extent, experimentally condition his range and mode of inward life; and how his activities crystallized into arts have changed the face of the earth and the semblance of many of its creatures into something quite unlike their original estate, making both Nature and her creations immensely more contributory to the physical well-being of man himself.

Men's activities may be classified into two divisions, the useful arts and the fine arts.

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The useful arts exercise his creative powers chiefly on but one plane of his existence, and that the lowest, namely, the physical. While they mark a nation's upward growth to a certain limited extent, they do not of themselves embody all of our race experience, nor even the best of our race experience.

The fine arts (poetry, music, painting, sculpture, and architecture) are the forms in which the higher life of man embodies itself. It is to these fine arts that we always have to look in order to learn in what way and to what degree a people have climbed up above the level of mere animals—clever enough to secure good things to eat, effective shelters from the weather, and convenient coverings for their bodies.

In a certain sense it may be said that there is a large part of the best of our race experience which never gets embodied in any tangible material form at all, but acts for the creation of new conditions rather than new things; refining and elevating the quality of personal character and daily life, but never shaping itself into any explicit forms of art creation. It is not quite true that these particular spiritual energies are unmet with in the fine arts, for in indirect ways the most commonplace toil helps make the work of art possible (we all remember our nursery stories of how the farmer and the miller help prepare the child's breakfast for him); and, in a still higher sense, every noble inward life helps create a more healthy spiritual atmosphere for all other men to breathe.

But the fact remains, that, if we would direct our thought to the definite, tangible records of man's higher life, we must look for those records in the various forms of the fine arts.

Creative activity which brings forth the useful arts is service rendered in laying the foundation of material civilization. Creative activity which brings forth the fine arts is service rendered in building the superstructure of spiritual civilization. Man is so constituted and human society is so constituted that the higher powers and activities of the race naturally and necessarily ultimate in the fine arts as the very condition of ever-developing character.

Now, if we accept the doctrine of evolution, man's soul or spiritual self is the latest and fullest revelation of the Divine Cause of all that is; and this spiritual self coexists with the animal frame and the animal nature which constitutes physical man—the climax of physical creation. A constant struggle is going on between his animal nature, which is inherited from his animal ancestry and which works for self, and his spiritual nature, which is altruistic and which is impelling him forward to work for others. Man's arts are at once the evidence and the result of this conflict.

This is the unanimous affirmation of science, history, and religion.

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My next proposition is:

Proposition III. The history of civilization is the record of man's progress in the creating forth of spiritual values through the subjection of his own animal nature and surrounding material nature to the service of his spiritual needs and ideals; hence, the world of art. For the arts of man are not merely incidental to civilization. They are the supreme products of his creative, spiritual activities,—the condition and promise of higher civilization.

It cannot be too strongly emphasized that art is not a mere incidental phase of the life of man. Some people have an idea that it is so; that it simply happened in successive ages that people spent their play-time in building with blocks on a large scale, making "stone dolls," and composing tunes, rhymes, and fantastic tales—occupations whose remains are well enough to interest the idler of to-day, but which have no solid significance for practical people.

This notion of the arts is as far as possible from the truth of the matter. The fact is, that, in every age, men's creative energies have embodied themselves in art forms in order to satisfy the irresistible, divine instinct of creation within them, and make a way in which to share with their fellows their inward personal experiences; and the fact that we ourselves stand to-day where we do stand in the progressive march of civilization is due in no small measure to the earlier fact, that generations of men before us, who lived, and loved, and suffered, and hoped, and who wrought their own wonderment and desires, their aspirations and their hopes into art forms, have bequeathed to us their art as their richest and most beneficent legacy. We hold this legacy now in the form of the world's great epic and lyric poems, and in its dramas, instinct with human passion and human aspiration, peopled with personalities of man's own imaginative creation far more real in their influence to-day than the shadowy names of history. We hold it in the form of the great treatises on philosophy, government, sociology, and the sciences,—the very condensation and crystallization, as it were, of the human intellect. We hold it in the world's Bibles, the legacy of the religious thought of the race. We hold the legacy, again, in the form of the world's great music, the symphonies that still make our world palpitate with exquisite harmonies once conceived by human genius,—the oratorios, and operas, and songs, that, like unquenchable torches, kindle the souls of each successive generation of human kind with fires of joyousness, of patriotic ardor, of religious ecstacy. We hold the legacy yet again in the form of monuments and temples, cathedrals and majestic colossi, eloquent of the questionings and longings of souls facing the great mysteries of life and death. We hold it in the form of treasured remains of sculptures, eloquent of old-time insight into the divineness of beauty and the old-time delight in such insight. We hold it in the form of

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the world's great paintings, eloquent of all man's widest range of interests and sympathies, of his love for the good and the right, of the gradually clearing vision which has enabled him to see the divine in nature and the still higher manifestation of the divine in humanity and to make the vision manifest to all mankind.

On another occasion I shall discuss the bearing of art education upon the labor problems of the day, and through labor to all the interests of social well-being. On this occasion I can only remind you of the immense significance of art from the economic point of view.

Now, standing as we do to-day in the possession of this art legacy from the men of the past, can we rationally minimize it, and, as many of the educational leaders demand, consider the child merely as a particularly high differentiation of physical energies, the passive subject of nature, molded and played upon at nature's mercy? I tell you, nay. We must see, and own, and practically act upon a truer conception of the mind of man, and upon that larger vision of the place of man in creation's scale which was so strongly brought out by Dr. John Fiske at Harvard two weeks ago, in his Phi Beta Kappa address. Dr. Fiske then gave utterance to words that are to be memorable in the great discussion upon which thinking men are now entering with reference to man and his destiny in the light of evolution, and he has kindly sent to me his exact words for use on this occasion. In speaking of psychical man and contrasting him with all that had preceded him, Dr. Fiske said:

> The physical variations by which man is distinguished from apes are not great. His physical relationship with the ape is closer than that between cat and dog, which belong to different families of the same order; it is like that between cat and leopard or between dog and fox, different genera in the same family. But the moment we consider the minds of man and ape, the gap between the two is immeasurable. Mr. Mivart has truly said, that, with regard to their total value in nature, the difference between man and ape transcends the difference between ape and blade of grass. I should be disposed to go further, and say, that, while for zoological man you cannot erect a distinct family from that of the chimpanzee and orang, on the other hand for psychological man you must erect a distinct kingdom; nay, you must even dichotomize the universe, putting man on one side and all things else on the other.

It is this stupendous sense of the soul's reality—that is, its individuality and its self-activity, and how it has manifested itself—that we need to emphasize in these days of talk about the soul as merely a derivation from sense-activities.

Let me ask all those who believe there is nothing in the mind but the product of the senses, Whence came these arts of man? Can you assume for their existence anything less than the existence in the mind of man of a creative power, superior to the physical forces that surround him—a power which appropriates through the action of the

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senses these physical forces and transforms them to its own spiritual ends?

I desire to leave this point with emphasis on the fact that these arts of man are not mere incidents in his development. They are the sum of his existence—that "toward which the whole creation moves."

My next proposition is:

Proposition IV. That every child is born heir to two world environments (the material world of nature and the spiritual world of man), and also the possessor of aptitudes for ever-expanding creative activities of his own.

We have seen that man is surrounded by two great world environments. These two world environments act upon the child, each in its own way. The material world of nature, the world of cloud and rock, of multitudinous plant life and swarming animal life, makes constant appeal to the new human being through his physical sensibilities and physical interests, as one who is the crowning product of its own marvelous cycles of evolutionary energy. On the other hand, the spiritual world of man—the world of his arts—makes constant appeal to the new human being through his spiritual susceptibilities and spiritual interests, as one who is capable of all that the race is capable of; and, being a new being, has endless future possibilities of personal activity. The upward growth of this new human being we find dependent upon the relation or balance between his responses to the influences of these two world environments; and it is here that we, as educators, should take careful note of how these two environments affect the child. His animal nature, obedient to the laws of natural evolution in the physical world, is absorptive, selfish. It grasps. It appropriates for the good of self. This is nature's provision for the perpetuation of the race. His spiritual nature, on the other hand, obedient to the laws of spiritual life, is creative, altruistic. It gives. It makes for the good of others. This is the divine provision for the development of humanity. In so far, and in so far alone, as this spiritual response to, and utilization of, the influences of his spiritual environment predominate over his submission to the influences of his material environment, he grows towards that high human destiny which we can but faintly begin to forecast.

If it were true that children were only little animals, subject to nature's laws, and possessing minds that work merely automatically under the outside stimuli of natural phenomena, it would be well enough to do as many modern educators advocate: simply surround the child with pleasing natural objects and trust their sensuous attractiveness to insure attention and observation, in the belief that these will somehow of themselves evolve desire for what is truly best and secure energetic action along right lines toward high ends.

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The unfortunate fact is, however, that, unless we make a strong appeal to children through the spiritual side of their nature, they are liable to respond only in terms of the animal. As most practical teachers know, we are likely to be brought up standing by the child's frankly materialistic measures of the universe. Those of you who have read the recent autobiography of Frances Power Cobbe will recall her experience when, returning to her country home for a visit after several years of absence, she met a grown-up young man who had been a pupil in the little village school organized and enthusiastically taught by herself. "Well, Andrew," said Miss Cobbe, "how much do you remember of the lessons you learned at school?" "Sure, Miss," said Andrew; "I've forgot them entirely." "Oh, but certainly you must remember something of them. Don't you remember about the earth, and the sun, and Mars, and the other planets?" Andrew scratched his head, and light dawned upon his countenance. "Yes, Miss," he declared; "I do remember now. You laid them all out on the schoolroom table, and Mars was a red gooseberry, and I ate him."

It evidently will not do to trust too far or too implicitly to the "automatic" transformation of sense impressions into elevated thought. Jacobi has truly said: "Nature conceals God; man reveals God."

Now, is there any provision in the universe for helping to insure such a predominance of man's spiritual development and such consequent progressive mastership of the material world?

There is; and this leads to the next proposition, one of the most significant of all the great significant truths of evolution, namely:

Proposition V. The period of infancy and youth, when the mind is especially susceptible to the influences of environments and when the active powers are most easily directed, is a special provision for the unceasing development of man's spiritual qualities and creative activities.

Dr. John Fiske was the first to point out clearly to contemporary thought the important fact that physical evolution had come to an end in the production of physical man; and that the further play of the evolutionary process must be sought in psychical man. He also pointed out how this psychical development was conditioned upon the psychical or spiritual man making his physical being and his physical environment subject to himself. Dr. Fiske has also supplemented these important contributions to evolutionary philosophy by another of no less importance—one which cannot be ignored in any attempt to place education upon a truly philosophical basis. I refer to his statement that the long period of dependent infancy and youth in the human child, as contrasted with the pre-natal provisions for self-existence in the lower animals, is evidence of a distinct plan for the increasing development of the psychic life of the human race, through

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a special provision in the life of every individual of a plastic condition of mind, whereby the accumulations of ever-expanding human experience could be handed over from generation to generation through ever-expanding faculties for self-activity in receiving, and then for ever-expanding power for self-activity in creating, for the benefit of human life.

I cannot stop to discuss the immense significance of this evolutionary point of view of the psychic development of the race in its bearing upon education. If nature's provisions in this respect mean anything, I do not think it will be questioned but that they are intended for the ever-increasing development of the psychical or the spiritual man rather than of the physical or animal man.

And this leads to my final proposition:

Proposition VI. Education should be the fullest possible utilization of the plastic period of infancy and youth, not only for cultivating a knowledge of the child's two world environments, but also emphatically for training to skill in the creative activities along art lines, as the highest contribution of the individual to social well being.

The best education means simply the best utilization of this plastic period of the child's life for the development and training of that in him which most deserves to be developed and trained.

I say, "that which most deserves to be developed and trained," assuming that not everything in the child's inherited make-up is of the same value. I take it to be a part of the responsibility laid upon mature men, to weigh the various elements of human nature as fairly as they can and learn to put educational emphasis on the more worthy of those elements. In our lesser task of guiding the progressive development of plant and animal life, we have for a long time made some such selection. Man's effort has been, not simply to help the earth bring forth more flowers and fruit of precisely the same sorts as would grow without help but to put his intellect and his will in co-operation with the powers outside him so as to transform existing conditions of growth, to the end that still more beautiful flowers and even more delicious fruits may be brought into existence. Look at our greenhouses, our orchards, and our market gardens for the result. When the task set us is to help work out the divine purpose in the higher development, not of vegetables or brute beasts but of new human beings, there is not less but more need that we should consider deeply the animal nature of the child on the one hand and his spiritual nature on the other, and how the former can best be utilized in the full development of the latter.

The supreme purpose of education, so far as that education lies within our control, should be the development of the child's capacity for unselfish creative activity and for spiritual enjoyment. The de-

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velopment of his other capacities should be treated with regard to the manner and degree of contributing toward this supreme end.

I intentionally use the term creation rather than expression when referring to the supreme form of human activity, because I believe we ought to keep in mind the thought that the highest activity goes beyond mere "expression" (*i. e.*, the mere statement of what is), and becomes "creation;" that is to say, productive action—action productive of new things or new conditions. This is a point that I wish particularly to emphasize: the distinction between expression and creation.*

This idea of education as training for creative activity includes all that was best in our earlier notions of the purpose of education. It includes the acquirement of stores of knowledge; for, of course, it is only upon the basis of a knowledge of what is that men can proceed to make things or conditions better. It includes, also, the development of individual power; because, of course, the man who can command himself is the only one who can effectively command matter or force. But the mere "acquirement of knowledge" may be as worthless as the accumulation of gold pieces in a miser's strong box, and the "mere development of power" may be as worthless as the development of power in a finished engine that stands unconnected with any sort of working machinery. The new ideal of education, as training for creative activity, includes both the effort after knowledge and the effort after power, and adds to these a purpose. That purpose is the active betterment of the world and the progressive elevation of human living. This view of education necessitates direct training, not only for creative thought but also for skill in creating forth the best embodiments of such thought. It implies, not simply keeping the child's senses tickled with a succession of novel and pleasant impressions, which he may express or record in any fashion that comes easiest, but also in giving him such opportunities for and

* This is not a mere verbal distinction. Man's most valuable and lasting work in any direction is work, not merely expressing or stating facts that he has become aware of but actually creating forth new facts. The dramas of Shakespeare are not simply transcripts of things that the author knew to have actually happened to particular people. They are a new-created world wherein human character and human life show themselves even more clearly and more truly than most of mankind ever see with their own unaided eyes in the thick of common happenings. The symphonies of Beethoven are not simply expressions of what the composer had heard from winds, and birds, and running water. They are the positive creations of a self-active soul grasping the laws of harmony that are so faintly hinted at in nature, and embodying forth ideals of tone and rhythm that never had taken form without the composer's genius as a cause. The Parthenon with its sculptures was not simply a marble statement of the laws of gravity and of the religious and political opinions of the Athenian state; a material expression of existing facts. It was the bringing forth into visible and glorious existence of an entirely new creation, something that had not existed in the marble quarry, but only in the constructive artistic imagination of man, imagination so strong, so clear, so high in its reach that it could and did command matter to its obedient service in the perfect shaping of its own material embodiment.

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such guidance in creative activities that he may gradually attain to self-command in these activities, that he may learn to respect positive standards of technical workmanship, and also learn to hold himself sturdily up towards them in his own endeavors.

Now, I do not wish to be understood here as overlooking or as crushing out the elements of the child's instinctive interests. I believe we ought to study very thoughtfully and very sympathetically the natural, instinctive interests and desires of the child in planning and conducting educational work. But I believe that we should study these interests and desires, not just for the sake of following their indications of "the line of least resistance," but also and much more for the sake of utilizing them as means whereby to lead the child out of his present animal self up to a still higher and better human self. As grown-up men and women ourselves, we simply must believe that our measures of life are, on the whole, juster and truer than the child's own measure of life, else life itself is a hopeless anti-climax, the dreariest of illusions. The child would naturally prefer to possess a juicy apple this afternoon rather than to possess

The Lord Christ's heart and Shakespeare's brain

next week; but that is no proof that good things to eat are truly more worth while than wisdom and righteousness. No. What we have to do is neither to impose our own wills arbitrarily and absolutely upon the child's will, nor yet to fold our arms and indolently let him have his head in any direction and to any extent he likes. Ours should be the more difficult, but much more honorable, task to recognize his feelings and impulses with ready sympathy, to bring to bear upon those feelings and those impulses such spiritual influences as will combine with the influences of his dual environment to develop right powers and habits and encourage right activities, and to give him all the direct, positive practice and training that we can give in the typical creative activities, to the end that he may have, not only desires to create but also power to create in terms of art; that besides having good intentions he may actually do good work.

We have hitherto spoken of art in its larger, inclusive meaning, comprising all literature, music, painting, sculpture, and architecture. What is true of art as a whole, in its bearings upon the life of the race and the education of the individual, is true of the particular lines of art which are usually referred to when we speak of art in education. Art in this sense is understood as applying to modeling, drawing, and coloring, with their special functions in decoration, illustration, and sculpture, painting, machinery, and building construction and architecture.

Now, there are two great obstacles in the way of the establishing of true art education in our public schools:

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1. The mistaken and belittling notions about art and art education which prevail to so great an extent among professed leaders of educational work, as well as on the part of the public.

2. The unfamiliarity of the rank and file of teachers with the subject-matter and methods of true art instruction.

Now, as to the first obstacle, many educators, when they speak of art, mean merely graphic expression, mere diagramming or imitating as a means of giving information. When they speak of art instruction, they mean merely encouraging children to make maps, diagrams, and sketches, or models, in connection with their lessons in arithmetic, geography, physics, and natural history, etc. These apostles of "free" art practically take the ground that the average child can drop into "art" as Mr. Wegg dropped into poetry, "in a friendly sort of a way," and that if he is just given clay, a pencil or brush, and a piece of paper, and urged to draw or model whatever he happens to see just as he happens to see it, the result is art! This is just like giving the untrained and illiterate child paper and pen, telling him to write whatever he thinks about, whatever he pleases, in whatever way occurs to him, and calling the result literature! Now, everybody would recognize the absurdity and futility of this latter procedure. We all know that the child cannot by himself evolve good literary taste and good literary style out of his own crude desultory thoughts plus a sheet of paper. There is no such short-cut to literature. He must indeed write, and write, and keep on writing; but above all he must read and be taught what to read. His mind must be fed from the fruitful store of good literature which already exists, the legacy of accumulated ages of human culture.

Precisely the same is true of art education in the common schools. No sensible course of art instruction can afford to omit free, spontaneous object drawing and drawing from nature, from memory, and imagination. Such opportunity is absolutely essential to the acquirement of any practical mastery of drawing, and drawing is an exceedingly important part of art education. But to regard such experiment with pencil or brush in connection with observation lessons in natural history as educationally identical with or equivalent to art study is like taking the chatter of children at recess as educationally equivalent to the study of noble English.

And again, it is not uncommon to see teachers and superintendents exhibiting in public with the strongest expressions of pleasure and satisfaction things they regard as fine products of the "free creative activity" of their pupils—specimens of modeling, drawing, and "making" so hideously ugly in form and color, so offensive to really cultivated taste, that one can but wonder at their exhibition. True, such fearful and wonderful things do, in a sense, express the child's

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primitive instincts for creative action. But so do the harsh yell and uncouth jargon of street urchins express their primitive instinct for social communication. We ourselves have passed beyond the point of taking any positive pleasure in harsh tones and vulgar phrases, and our interest in it leads at once to the desire to elevate the level of children's use of language. The fact that any of us fail to see the corresponding barbarity and ugliness of much of the present public school products in the way of drawing, color, and made-work is because adult appreciation of art qualities is so often itself faulty and incomplete. A better appreciation among educators of the everlasting principles of truth and beauty in art will necessarily point to the importance of leading the children up higher.

There are educators who profess to answer criticisms of this nature by declaring, that, though the child's unguided scrawl or handiwork does not show any close kinship to real art, it is educationally the proper thing that he be left to flounder about among his own devices until he someway evolves power to climb up to better work. The human race, so they urge, went through long periods of rude, barbaric gropings after the idea of the beautiful. The child's development should be "natural," and allowed to consist of stages of rudeness and barbarism as dense and as slow of outgrowth as individual temperament may necessitate. This notion of "natural" development reminds me of a quaint little book I once read about the lives of the patriarchs. I have forgotten now who wrote it or what was its title; but its grave explanation of the days accorded to Methuselah and his fellows clings to my memory. The author said that whereas at the present time men have access to the records and remains of past history and can correct, re-enforce, and supplement their own life-experience by studying the experience of earlier generations and centuries, it was different with the patriarchs. In their day the world was all so crude and young, and there had been time for the accumulation of so little helpful history, that the Lord evened things up by letting each man live a good deal more history than is now permitted to any one mortal!

Now, it cannot possibly be our best plan to-day to ignore all the progress of the past and make each child laboriously work out all over again the whole history of civilization, Dark Ages included, when he ought to be let into his birthright as "Heir of all the Ages." A broader and clearer appreciation on the part of educational leaders as to what art itself means as a factor in developing the creative power of the child, and what it stands for in social life to-day, is the first requisite for the success of art education as a part of public education. As evidence of how this great subject is ignored, we have only to refer to the reports of the committee of ten and the commit-

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tee of fifteen, and further I am not aware of any scheme of correlation of studies in which the subject is, in any way, adequately recognized.

But I believe a change is coming. Sooner or later it will be seen and practically recognized that what man has done in his arts is to a young mind in its formative stages what fertile soil is to a young plant; and when that time comes, men will no longer try to either cultivate rose-bushes on a strictly primeval diet of granite gravel and rain or to cultivate human souls on a strictly primeval diet of "nature study" and untrammeled frolic.*

They will accept for the children under their care the advantages that lie in being heir of preceding ages, and use these advantages as a means whereby the new life may grow up to still higher forms of personal development and productive activity.

The second obstacle to be surmounted (the imperfect equipment of public school teachers for carrying on art instruction in the class-rooms) will be done away as far as and as fast as the leaders come to appreciate the true nature and importance of art as a fundamental feature of educational work, for the grade teachers of our American public schools are essentially capable and loyal. They are able and ready to learn whatever it is necessary for the good of the schools that they should learn. But they need definite assistance and guidance. Suitably planned courses of study will do much to help; courses arranged, not hastily or perfunctorily by people with narrow views of the subject and with slight acquaintance with the experience of others in similar work but thoughtfully and intelligently by persons who can comprehend both the physical nature and the spiritual nature of the child. Only those who are engaged in this work know how narrow are the limitations that surround the teachers. The best that exists to-day is but a stepping-stone to what should be done and what can be done as soon as a better understanding of what art means exists among educators. Rightly planned courses of study re-enforced by suitable working materials, and art examples, good and abundant, to which the children themselves may have ready access, the whole interpreted by a wise and sympathetic supervisor, who knows his subject and who understands child nature in hearty, affectionate fashion,—I tell you, friends, we have as yet only seen the

* I heartily believe in the introduction of various lines of nature study into the public schools. In city schools particularly such studies are an indispensable help in bridging the chasm between the child and his natural environment, and giving him at least a suggestive glimpse into the marvels and beauties of the natural world. What I do object to is the extreme ground taken by some educators (an extreme precisely opposite to that of the old-fashioned word-for-word text-book memorizing), wherein it is fancied that the study of nature is educationally all-sufficient; that language and number study can be sufficiently and successfully developed as mere incidentals to nature study, and that drawing used as the hand-maid of the natural sciences can constitute art instruction. Against this misconception of what art means, and what art study ought to be in a course of education, I believe a strong protest should be made.

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beginning of what a power art education may and ought to be in the inward uplifting to useful and noble work of the successive generations of children who pass through the public schools of our land.

To summarize in a few words the points we have been considering, let us remind ourselves: First, that evolutionary science, ontological philosophy, and empirical psychology, in their truest interpretations, practically agree in declaring that man is the highest of all finite existences, from which proceed self-acting spiritual powers. Second, that the arts of man are the embodiment of these spiritual self-activities of the race exercised along creative lines; and that being thus the highest activities of the highest of all finite existences, they should be constantly utilized in education, if education itself has for its distinct aim the development of what is best in the child both for himself and for the social life of which he is to form a part.

And now let me say in conclusion, that, if I rightly apprehend current educational discussion, many of the schemes of correlation or of concentration that are being advocated are based mainly on the consideration of the physical environment of the child, the forces of which play upon the brain through the action of the senses, and hence are exterior to the child. The result of such schemes is to make the child largely the product of his physical environment. As opposed to those materialistic views of education, I suggest that we take as our center of thought the child himself, with a full comprehension of his creative spiritual nature, and then measure the relative values of educational subjects according as they contribute to the development of his highest possibilities as a creative spiritual being. By so doing, we shall see that the creative activities of the child form the real educational objective, and that the arts of man, as ministering to these activities, should not be relegated to any incidental place in the arrangement of studies, but should be practically recognized as the most inclusive, the most vital means we have for centering our educational effort aright; centering it, with all its nourishment and all its inspiration, upon the soul of the child—upon the child as the heir and the potential master of the world.

DISCUSSION.

COL. FRANCIS W. PARKER, Cook County Normal School, Englewood, Ill.—Mr. Clark's thesis—the elevation of spiritual life by means of art education—is of the very highest character; it is, indeed, the noblest conceivable ideal of education. We can congratulate ourselves that this publisher of art-books has come, in theory at least, to the very highest ground that it is possible for any man to take. The premises from which he derives his entire essay, however, are open

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to grave criticism. He repeats a statement which he made, lately, in Aurora, Ill. He claims that certain educators (he named the Herbartians at Aurora) believe that the human ego, or the soul, is the summation of conscious activities; or, in other words, that the soul is evolved out of the sensations and other activities of consciousness. In a word, he asserts that these educators deny the existence of a transcendental ego. He is alarmed at the lack of spirituality on the part of the Herbartians, who make, as he thinks, the soul an evolution out of matter.

Mr. Clark had the kindness some time ago to send me his abstract. This fundamental statement so startled and shocked me that I took the trouble to go to the most eminent educators in the country, especially the Herbartians, and ask them if this statement is true. The answer I found with one and all was the same: "It is not true." I would like to ask Mr. Clark if he has any authority whatever, any line ever written or said by an American educator, upon which he founded this fundamental statement of his essay.

[Mr. Clark replied that he did not know of any American educator who held this doctrine, but that he believed it to be true of Ribot.]

It may be that the great French psychologist is a believer in this kind (as Mr. Clark calls it) of materialism, but certainly no American educator among those advocating a more scientific study of education—most certainly not the Herbartians: the mild and philosophic De Garmo, nor my Presbyterian friends, Drs. Frank and Charles McMurry, nor Dr. Seeley—can be accused of supporting such a view of man's creation. If I am to be counted in the list of those to whom this doctrine is ascribed, allow me to say that I have taught psychology many years, and never dreamed of teaching, or even thinking, such a doctrine. I have tried to teach the phenomena of the ego, the nature of the acts of consciousness under the control of the will, and have always held, perhaps without sufficient ground, that there is a transcendental ego, though I have never tried to explain it. I leave that to the great philosophers and ontologists.

Mr. Clark may not be aware of it, but there is a new spirit coming into educational circles. However we may differ, we are trying to understand each other, and our mutual criticisms are based upon understanding and honesty of purpose—a purpose to find the truth. He comes here, to the best meeting ever held by the National Educational Association, and without the slightest authority, without seeming to have made the slightest research, without questioning any one of the educators against whom he makes his charge or quoting one line from their writings to substantiate it, assigns to them, as the basis of his discussion, a doctrine they do not hold. He now says that he does not know of a single American teacher who holds this doctrine, and still he persists in repeating assertions that he knows to be false. The doctrine which he states may or may not be true. The point I have to make is, no living American educator holds, or ever held, this doctrine; and consequently, no one, to-day, makes this doctrine the basis of methods. Does Mr. Clark intend to make a blank and bare misstatement the foundation of his plea for spiritual growth? Is he so dead to history as not to see the legitimate application of his statement and its effect upon education at large? I cannot forbear saying that this statement sounds like an echo of old Boston that reaches back to the days of Cotton Mather and the Salem witchcraft; a statement made to deftly arouse the suspicion of pietists and dogmatists; an echo of the attacks upon all discoveries in the realm of truth since the days of Galileo. Again, is Mr. Clark wholly innocent of the fact, that, with certain people, one has but to call a teacher a materialist to injure and cripple his influence?

The second statement made by Mr. Clark is like unto the first. He refers to the creeping into the schools of the teaching of nature, which he designates as

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"materialistic." He would have, as he states, some teaching of nature, but he "damns the suggestion with faint praise." He says, quoting Jacobi, "Nature conceals thought." Whose thought does nature conceal? Certainly nature has concealed thought, age upon age, until there came a Galileo, a Watt, a Helmholtz, a Huxley, a Spencer, a Darwin, a Franklin, a Morse, a Bell, an Edison, to reveal God's thought and fill the world with light and power. Nature conceals thought as words do, as art does, as the Greek marbles did, buried in the cellars of Rome for hundreds of years, until Winckelmann brought them out and taught their beauty. The point Mr. Clark makes, I repeat, is, that the study of nature is rank materialism. He evidently does not sympathize with the inspired authors of such bits of literature as these: "Day unto day uttereth speech, and night unto night showeth knowledge;" "Sweeter also than the honey and the honey-comb;" "Moreover by them in thy servant warned, and in keeping of them is great reward;" "The rolling year is full of Thee;" "Flower in the crannied wall:"

> "One impulse of the vernal wood
> Can teach us more of moral evil and of good
> Than all the sages can."

According to Mr. Clark, these revelations of nature are not, to say the least, spiritual. There are those, and I wish to count myself among them, who believe that the entire universe pulsates, thrills, vibrates, with the thought and love of one great eternal Being, whose will is law, whose power is love, whose work is the spiritual growth of man, who reveals himself, reveals his own infinite energy, in every leaf, flower, rift of cloud, blade of grass, every pebble on the beach, wave of the ocean, and in the soul of man; in a word, that God is imminent in his universe, and that "study of nature lifts one up to nature's God." If Mr. Clark is right, such literature must be brushed aside as meaningless sentimentality or crass materialism.

I would hazard a definition of art: Art is the revelation of the laws of nature and of man, and consequently, the revelation of the laws of the Creator of man and nature. The *raison d'etre* of any work of art is, that some soul has found a law, a great truth; has had some deeper, or better—an original—insight into nature and into man than his fellows, and reveals to the masses his own discovery, his own inspiration. Art tells something to the people which neither nature directly, nor words, nor any other human being can tell. It follows that all art springs from the study of nature and man.

It certainly was a help to Michael Angelo and Leonardo da Vinci to study human anatomy for long years in order to express their ideals. If then, this definition of art is accepted, art reveals the mysterious workings of God's law in man and nature; therefore, art is the study of nature and of man.

Is it materialistic to believe that a child, in order to appreciate art, in order to develop his higher spiritual nature, must go to nature directly, must be brought in contact with that which afterward will be heightened and broadened by literature and art? If the literature and art of nature are spiritual, is it not a curious paradox to deny that the influence of nature itself is spiritual? Can Mr. Clark deny that all we study is the invisible truth? We study man; we study a human being; we study invisible character,—and that is portrayed by art in marble or upon canvas. We study the plant, the animal, or the earth, and we study invisible character manifesting itself through matter in form and color. When we study man, we study the character of man. When we study nature, we study the invisible characters of the earth, of plants, and of animals; we study the thought of God, and therefore, approximately, the character of God. The study

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of nature has had a struggling existence. It does not need the brutal blows of our learned friend to kill this infant of education, nature study.

There are teachers in this republic who believe that the study of nature, for the spiritual, mental, and physical welfare of the child, is far superior to the customary exercise of the mind upon dead forms, and whose experience goes to prove that they have rational grounds for such belief.

Not long ago, Mr. Clark's war cry was, "Art for art's sake!" He shook this banner to the breeze, and the first whiff it caught from genuine art students tore the banner and broke the standard. The reply was, "There is no such thing as 'Art for art's sake;'" no such thing as knowledge for knowledge's sake. All art is for spiritual development—a conclusion to which he himself has evidently arrived. With the zeal of a new convert he raises his banner anew, and charges once more upon his former critics.

The third point that Mr. Clark makes is, that we should have more skill, more exercise of skill, in art. The demand is just. There should be far more exercise of skill. Most drawing is now taught by special teachers. The half-hour or the hour is passed under such direction, then the matter is dropped, not to be brought before the children again until the reappearance of the special teacher. Art is at present the educational Cinderella. Certainly art has no strong hold upon our schools. Find me a child taught by the flat-copy method who loves art!

There are two well-defined methods in developing skill in forms of expression. One way is to direct attention wholly to the mere forms of expression; to practice upon these forms without the faintest idea of their meaning (if they have any); to exercise the motor centers of the brain without a definite relation to the thought centers; to go through a process which Dr. John Dewey terms "mind disintegration"—a process for which the American taxpayers are now paying millions of dollars yearly, a process that has been discussed and disapproved ever since the days of Socrates: "The letter killeth but the spirit maketh alive."

The other method of skill-acquisition in art forms is to bring about unity in action of mind and body; to make the drill in skill the direct and immediate outcome of the image to be expressed or revealed; to have behind every exercise in skill the impelling energy of intrinsic and educative thought; to lead pupils to study nature, geography, and history under the demands for art expression; thus filling the school with art, making art the servant, ready and obedient, in all mental and spiritual growth. Here lies the real point of difference between Mr. Clark and the Herbartians. A few of us who have tried to make art an intrinsic and immediate means of studying science, geography, and history have found, or think we have found, that art expression has a marked reflex action upon thought power and right motive. True, the genuine reflex of a child's crude image must be a crude work of art, a "daub or a blotch," yet truthful, honest, and educative. In this concentration of art upon thought, teachers are applying the latest discoveries of psychology: the laws of "motor discharge" and the "organic circuit" presented by Dr. Dewey, the theory of man as a "reflex animal" by Dr. James, and the discussions of "dynamo-genesis" by Dr. Mark Baldwin. "Motor discharge" is organic, functional, and instinctive expression, the germination of all modes of expression, to be continued as begun by maintaining the unity of expression. This theory—that, in primary education, all the forms of expression may be adequately acquired under the steady and persistent impulses of educative thought—is a working hypothesis, which may or may not be true. True or not, the hypothesis is evidently not deemed worthy of attention on Mr. Clark's part. He does not even refer to it. And yet, if true and practicable, it means an immense economy of mental effort, and it also means that art may become an organic and indispensable factor in all study and

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schoolwork. We find that the attention of children can be fixed and the interest aroused in modeling, painting, and drawing in relation to all studies as in no other way. A few teachers have been struggling against the influence of isolated drawing. They desire to use art as a potent means to help the child; as a natural means of expanding and concentrating educative images, images that lie at the basis of all growing mind movement. Against this wholesome tendency is Mr. Clark's attack directed.

The best authorities in educational psychology tell us that flat-copy drawing is flat, stale, and unprofitable; that it stultifies the mind; that it is far better for the child to have some motive for his art work; that he should feel what he does: that when he handles the clay, or brush, or pencil, he should be struggling to realize, to externalize, an image seen within. Mr. Clark is opposed to this sort of thing, else he would not have made this studied and elaborate attack.

Mr. Clark has quoted from "Talks on Pedagogics." If he had read carefully the hypotheses in this book, and criticised them fairly and honestly, his criticisms would have been more than welcome. It is stated in "Talks on Pedagogics" that "Adequate skill in each and all the modes of expression [including, of course, the art modes] can be acquired in the eight primary and grammar grades, under the impulse of intrinsic thought." This is a plain and simple proposition. I ask, if Mr. Clark had a spiritual motive, if he really wished to promote the interests of art, if he wished to induce higher spiritual action in the children, if he must give any attention to my discussions, why did he not take that plain hypothesis and expose its errors? We certainly need more drill in art, but the question is, Shall it be drill with, or drill without, thought?

Mr. Clark has failed utterly, in his painstaking but specious argument in favor of development of spiritual life, to show the art methods by which he would develop that spiritual life. Is spiritual life developed by long exercises in flat-copy drawing? Is there some occult, some mysterious, power in flat-copy and typical-form drawing that is beyond the common eye, which is above the ordinary research of teachers? I confess that I have watched flat-copy drawing from the time the art child was nursed in Boston, after it was brought over from Kensington, England, where it had its birth in the spirit of money-getting, up to the present time, but I have failed to see any prolonged enthusiasm on the part of the children. I have failed to see any real zeal and interest on the part of the teachers. Certainly Mr. Clark owes it to his audience to explain how his methods and system of drawing develop spiritual life. Is it when a child takes a flat-copy of a trapezoid, or some other geometrical form, and reproduces it? Is it when typical forms are put before him and he laboriously copies them? It is to be hoped that Mr. Clark will explain this mysterious process of the development of spiritual life not found either in the study of nature or of man. He should explain the spiritual effect of reproducing flat copies or drawing typical forms. It is easy to explain the æsthetic effect of painting or drawing a landscape, a tree, a leaf, a flower, or a mineral. The "growing image" is the spiritual effect; but what, allow me to ask again, is the mental or spiritual elevation gained by the isolated drawing from copy-books? Has this system made artists? Is there an art teacher of this kind who is an artist? What testimony do the regular teachers bear in regard to the spiritual effects of copy-book art?

One thing I am ready to grant, as every common-sense person must, and that is, that copy-books must be adapted to the average teacher; that flat-copy drawing and typical-form drawing are absolute necessities in the evolution of the so-called art studies. Any publishing house would be exceedingly foolish to put into book form an ideal like that for which a few teachers are now struggling. The attempt

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would be a financial failure. Nay, it would be worse. It would effectually stop the onward movement in drawing. We must needs go through all these conditions of evolution. But it is one thing to publish books that meet the demands of the time, that meet the demand of the average teacher, and quite another to stand up before this great National Educational Association and defend these books as the best possible method. It is quite another thing to make an attack, based upon a statement utterly false, upon those who are trying to do higher things in education than the average teacher is able to do.

It has always given me great pleasure to indorse the Prang system of drawing as the best system extant. The man whose name this system bears is one of the noblest on God's earth. I have indorsed this system for years, but I have not done this because there is any finality whatever in its methods. It has been a strong movement toward something better; but if its present manager and defender seeks to cut off any movement above that which his books are able to accomplish, his motive cannot well be counted as purely spiritual. There has been steady progress in the Prang system. Has that progress ended? Is the proposition and attempt to make art common and useful to be condemned? Is the proposition to put art into all subjects and studies to be labeled anti-spiritualistic?

I have said that art studies have a very small place, now, in our public schools. Art is generally taught by special teachers. The ordinary teacher has little or no sympathy with art itself. The movement a few of us have tried to inaugurate is to bring teachers into a close sympathy with art; to make art as common as breathing, as necessary as speech, as beautiful as music, as useful as writing; to fill the schools with art; to fill the child's soul with art; to have the clay, the crayon, and the pencil, common things in common use; to bring art from its isolation into the hearts of the children; to make art common for the people, that the humblest homes will have some educative basis upon which to found their appreciation of art. This is the movement that Mr. Clark is pleased to attack.

Mr. Clark speaks of the "daubs and blotches." To my mind, some daubs and blotches are beautiful, because they represent the best the child can do. They are genuine; they are honest; they are educative. On the contrary, take the catacombs of art,—I mean the art exhibition at the great World's Fair,—and viewed under the standard of genuineness, they were hideous. That is beautiful which is the child's best, always and always, and art must be the genuine reflex of the conscious image, else it is not art.

I take no pleasure whatever in this discussion; I regret that I have said one word in criticism of the essay of this drawing-book publisher. Hereafter, if I may be forgiven this time, I will only discuss questions which are fairly and honestly presented. It is time lost to discuss the ghosts and spectres of traditional education that ever and ever have glared and glowered at progress from the intellectual heights of the Athens of America.

JOHN S. CLARK, Boston, Mass.—The main point of my paper I will reaffirm. The question of the ultimate reality of mind as a self-existent entity is as old as philosophy itself. The discussion of it on the negative side is being quickened to fresh energy by much of the current work in empirical psychology. The tendency of the day is, as we all know, to try to subject everything to laboratory tests and to ignore whatever cannot be expressed in definite scientific equations. It is not strange that educational psychology should have caught some of the prevailing contagion, and that in consequence avowed materialists and those who disown materialism should alike drift, as they are so often found to do, into the habit of expressing themselves in terms of the baldest and barest materialism. This incon-

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sistency on the part of some of our educational leaders to-day is precisely what I pointed out when I cited Colonel Parker as an instance of confusion of doctrines. In quoting him, I expressly stated that he is not a materialist, but simply appears to be on both sides of the question at once.

The undeniable fact seems to be that much of our current educational psychology does place such over-emphasis on the casual aspect of sense-impression in its relation to the mental processes as to belittle the element of a self-determining ego.

William James, professor of psychology at Harvard, says, in his "Principles of Psychology," page 1:

> The "associationist" schools of Herbart in Germany, and of Hume, the Mills, and Bain in Britain, have thus constructed a psychology without a soul by taking discrete "ideas," faint or vivid, and showing how, by their cohesions, repulsions, and forms of succession, such things as reminiscences, perceptions, emotions, volitions, passions, theories, and all the other furnishings of an individual's mind may be engendered. The very self or ego of the individual comes in this way to be viewed, no longer as the pre-existing source of the representations but rather as their last and most complicated fruit.

The practical emphasis of the Herbartians of to-day, as a whole, is laid on the definite problem of the right concentration and unification of school work,—a problem we are all trying to solve. My only criticism of them is that many of them are coquetting unprofitably with a materialistic psychology, as Professor James himself sees and states. The unprofitableness of such materialistic psychology in its bearing on educational affairs is this: that its logical outcome is the belief that unconscious cerebration is the educationally important part of the child's life, and that such primitive sensations as he receives when confronted with natural objects and natural phenomena may be trusted (if various enough and numerous enough) to combine with each other and somehow produce of themselves, by a sort of automatic fusion, clear reasoning, right desire, and energetic will.

Colonel Parker challenges me to cite any American educator who dabbles with these materialistic views. His psychology certainly shows a large, inconsistent admixture of this sort of materialistic doctrine. He cannot complain, therefore, if I ask him to step to the witness stand again. Take, for instance, his statements about the origin of elementary ideas, the nature of attention, observation, imagination, and the ego as given in his "Talks on Pedagogics." His views on these points determine the character of his psychology.

On page 142, in speaking of elementary ideas, he says:

> An elementary idea is the product in the brain of an external attribute. The causes and conditions of its existence are: (a) Physical power of the brain to receive the action of the external attribute. (b) The repeated action of the attribute or external energy over special nerve tracts.

Again, on page 108, he says:

> An elementary idea, I repeat, is created by the repeated action of a definite external attribute. It is the simplest form of mental energy. The brain is an organism created and developed for the differentiation, reception, and action of external energies.

On page 116, in speaking of attention, he says:

> The power of the will in attention consists in holding the body and the mind in the most economical attitude for the most effective and complete action of external attributes through nerve tracts upon consciousness.

Again he says of attention, on page 111:

> That which is of especial moment to us in discussing attention is the fact that all the ego has to do in the processes of the creation of elementary ideas and their unification into individual concepts is to present proper physical and mental conditions for external and internal action.

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Colonel Parker often speaks of the psychology of Dr. John Dewey as being "good enough for me." But what Dr. Dewey says of attention is just the opposite of the views of Colonel Parker.*

And again on page 112 he says of the ego:

The synthesis, association, unification, or recollection (terms expressing the same mental act) of the ideas is perfectly unconscious and automatic so far as the ego is concerned. The ego is conscious of the results only of the units of elementary ideas. You can analyze, compare, classify the results, but you cannot directly unite or arrange the ideas.

And yet Colonel Parker in the very same chapter makes assertions of precisely the opposite character in regard to the ego's power to synthesize ideas. He says, on page 237 (the italics are mine):

Synthesis, association, recollection, remembrance, imagination, are all one and the same act in kind; that is, the same action takes place and the same laws control the action. It is true that an act of synthesis, in which are included the other acts I named, may have different causes. These acts may have direct external causes, *or may be the products of the action of the ego without direct external stimuli.*

So, in the great primal question of the genesis of thought and of mental synthesis, the ego is at the same time both capable and incapable of taking an active, decisive share in the process. Do not these extracts show a hopeless confusion in regard to the very fundamentals of psychological teaching?

And further, when we come to study his views about expression of thought as complementary to the genesis of thought, we find his ideas are here also confused and inconsistent. Thus, on page 237, he says:

Modeling, painting, and drawing are the art modes of expression. Making has for its motive practical use. The design of art is entirely limited to the expression of thought; *the individual concept is a mental means or medium of thought expression; the motive and the thought are embodied in an individual concept.*

I confess, that, with all my best effort to understand the passage which I italicize, it remains unintelligible. I do not see how an "individual concept" can be a "means or medium of thought expression."

His whole theory of expression implies the supreme power of the ego to react upon its conditions. Motive he puts as the great impelling power of the ego, and motive must be regarded as an inherent self-active force in the ego itself. But motive cannot have its origin in external attributes, and we have seen that Colonel Parker in his genesis of thought has so tied up the ego to passivity under the action of external stimuli that he has left no chance or room for the existence of a self-active power of motive adequate to take, as he implies, supreme command of the ego, and cause it to react on external attributes in observation on the one hand and to create forth its own individuality in expression on the other.

I can only call attention to this inconsistency, and beg to hand over his theory of motive and volition to his brother psychologists. Dr. Harris has charged the Her-

*"In a broad sense, every act of knowledge may be regarded as due to attention, for every consciousness involves the activity of the mind. Nothing can be in consciousness which consciousness does not put there. Consciousness is an active process. * * * Attention may be defined as follows: Attention is that activity of the self which connects all elements presented to it into one whole, with reference to their ideal significance; that is, with reference to the relation which they bear to some intellectual end. The essential characteristic of attention is, therefore, activity directed towards some end. Ultimately this end is self. The various activities of attention are based in the interests of the self, and directed towards ends which will satisfy the self by fulfilling these interests. Its process is such a direction of its own contents that these ends will be reached. Startingpoint, goal, and way are all found in self, therefore. Attention is thus a process of self-development. In studying attention we are studying the activities by which the mind develops or realizes itself." ("Psychology," John Dewey, pp. 132, 133.)

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bartians as desiring to substitute desire for will. Colonel Parker is evidently engaged on this problem.

Occasionally Colonel Parker seems to rise out of his physio-psychological ambiguity, and to say something that is both intelligible and true. On page 242 in the chapter on "Modes of Expression," in speaking of art, he says:

> There would be no reason for art if art did not translate and transcend nature. Art shows things to man which he cannot otherwise see. The true function of art is revelation and inspiration. Works of art have marked the highest spirituality in each stage of human evolution; they rank as the highest interpretation of human life.

This is clearly intelligible, and practically in accord with what I tried to make fundamental in my own paper. The difficulty is that it seems to be unrelated here; that Colonel Parker's physiological psychology does not at all fit on to it. There is a great chasm between this "art" as the embodiment of the highest creative activity of man, and the one sort of drawing, modeling, and painting which Colonel Parker seems to approve; namely, that which produces a literal reflection of nature's apprehended facts without any admixture of the ego at all.

These quotations (and they could be largely increased) show that I was entirely just in declaring that Colonel Parker is inconsistent; that his personality is much larger than his psychology, so that he is enabled to stand on both sides of the question at once. Hence, we find him making the most baldly materialistic declarations about the automatic genesis of thought and the impotence of the ego to shape thought, and at the same time pleading for the child's freedom in self-activity and his emancipation from all influence that might affect the complete working out of his own individuality.

It would not be worth while to point out this inconsistency on Colonel Parker's part were it not that the present popular interest in psychology gives the undesirable, *i. e.*, the materialistic, side of his teachings special prominence, and tends to make it influential in an unfortunate way. The physiological data which he serves up under the guise of psychology are very likely to lead those teachers who are not trained to philosophic thought into a hopeless sort of confusion, wherein things are expected to educate the child; wherein the child is regarded as a mere product of his surroundings, instead of a responsible being who can and should learn to control and direct his own powers both of inward thought and outward act.

This notion of the educationally all-efficient power of "unconscious cerebration" is untrue and particularly unfortunate. While I wish to be understood as feeling the greatest interest in and respect for that empirical psychology which is endeavoring to trace out the facts of mutual relationship between mind and body, I feel that what practical public education most needs to-day is emphasis on the positive, self-active, creative aspects of mental life in the child. For, with all that the empirical psychology has done to indicate relationship of mind and body, it cannot point out, much less explain, one single instance of the direct transformation of material force into psychic force. While it is in one sense true that the school curriculum is an ingeniously planned series of conditions which we purposely bring to bear on the individual child for the sake of helping along his mental development, the ultimate purpose of education must, I take it, be to help bring about the recognition and exercise by the child of his own inborn power of selecting from and utilizing for conscious ends the very conditions that surround him. And I cannot help believing that the more our educational effort is permeated with our sense that the child is, not the subject but the master of the material world, the more inspiring the appeal of that education will be towards the development of positive mental and spiritual energy in the child himself.

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I can hardly let pass unnoticed the misrepresentation of that plan of art education with which I am identified, which would make it seem to be a matter of flat-copying with no recognition of drawing from nature. Anyone who has ever made the least intelligent examination of the Prang Course of Art Instruction knows that it gives a generous place to the study of and drawing from nature, making the study of nature one of the fundamental features; that it heartily encourages and helps the use of drawing in all the other studies; and that, while it recognizes the educational value of study from art examples and affords certain limited occasions for copying from the flat, it is historically true that this course has, on the whole, done more in this country than all other influences combined to overthrow the old-fashioned flat-copy systems which Colonel Parker so despises. If alluded to at all, let allusions to any particular course of instruction be just.

Colonel Parker's chronic condemnation of flat-copy drawing reminds me of a story Henry Ward Beecher used to tell about his dog. The dog once saw a squirrel run into a hole in a stone wall; and forever after when he passed by the wall, or when he had nothing else to do, he seemed to take a special pleasure in going and barking at that hole.

The value of the study of type-forms can be truly and fully estimated when their study is used to develop the creative powers. Creative imagination as it enters into the industrial arts cannot use for its basis nature's various approximations to type. It must be able to grasp the underlying idea of the absolute type itself. Those of us who see in the geometric type forms, as Froebel did, the sign of and the key to all the marvelous form-manifestations of the universe, and especially to all the art-work of man, and who know how in actual practice the child's understanding of nature and his creative imagination in art can be developed with the help of the type forms, cannot help feeling that Colonel Parker's relegation of the type solids to the wood-pile argues chiefly unacquaintance with their artistic meaning and educational value.

Colonel Parker thinks that I misunderstand or undervalue his doctrine, that all forms of expression, including drawing, may be acquired through the immediate inspiration of intrinsic throught. So far as this means that practical facility, in drawing, for example, can be better acquired by drawing to express a thought in the child's own mind than by simply making lines in ignorant obedience to the command of a teacher or in uncomprehending imitation of a flat copy, I most heartily agree with him. I have been preaching that doctrine myself for twenty years. But, as I see the matter, the point where his views and mine diverge seems to be this: He seems to believe that the facility in drawing which can be secured through the use of the pencil and brush in connection with the common branches, geography, natural history, and the like, is the same thing as art education. There I disagree with him. The latter half of my paper was an endeavor to show why art education should mean more than using drawing as a help in the other school lessons, and how the field of "intrinsic thought" should be broadened by bringing the pupil into inspiring relations with the great creative minds of the race through their art works, to the end that the pupil's own intrinsic creative thought might be greatly improved. The study of good art examples is an indispensable part of any course of instruction whose purpose is the development of either appreciative or creative power along art lines. An art product cannot be the result of mere automatic brain processes and reflex muscular action. Simple graphic "expression," even from nature, may be thus automatic, and "drawing" become thus as mechanical as penmanship; and I do not see how the mere copying on paper of the literal image of a natural object is any more educational than the copying on paper of a bit of historic ornament in the flat. It is only conscious,

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appreciative study underlying the "expression" in drawing from nature which can give it educational value. So conscious, appreciative study of the "copy" of some ancient artist's masterpiece can assuredly make the subsequent "expression," in that case, also, educationally valuable.

When we come to actual creative work, we must remember that art is not an unconscious product. It is the product of mind consciously exercising its own positive creative power over nature.

But the main point under consideration is not Colonel Parker's views, whatever these views may be. My allusion to his psychology was merely incidental to the presentation of a larger and more inclusive thought of the aims and purposes of art education. Dr. Harris sounded at Cleveland last spring a bugle call to a higher discussion of general educational values than has hitherto occupied the p mind. Consequently we are confronted by the greatest educational issue as ever come to us: the necessity of recognizing in all education more c and positively than ever before the active, self-determining aspects of the c mental life and growth. Then, too, that larger understanding of man as tive element in social evolution, which is coming in through the writi men like Fiske, and Kidd, and Drummond, constitutes, if we see it ari an imperative social demand that education shall assume the highest spiritua and in regard to the nature and the functions of the human ego. In the face of this discussion, while we recognize that the analytic labor of the psychologis is essential to the shaping of a right public education, we must not forget that ucation as a whole is synthetic. It is a synthesis of forces selected from the m terial world of nature. from the higher spiritual world of art,—the ultimatum of civilization.—and from those active, creative forces inborn in the human natur of the young child; a synthesis directed by the conscious human intelligence o one generation for the sake of the conscious human intelligence of generations that are to come.

MISS KATHERINE BALL of San Francisco, Cal., said that art education should embrace more than pictorial drawing from nature. The pictorial drawing from nature was important, but in order to obtain a well-rounded development, construction and decorative design should also be considered.

Miss Ball laid great stress upon the necessity for developing the taste of the pupils. They should constantly be led to an appreciation of the beautiful in nature and art. Fine things should be kept before them, t give them standards and ideals toward which to work.

Miss Ball said that she had visited all the cities and large towns west of Chicago, and had not found the flat-copying which Colonel Parker claimed was prevalent. In schools where drawing was properly taught only a limited time was devoted to copying. Beautiful examples of historic ornament and fine studies in pictorial rendering were placed before pupils and copied. This study and reproduction of fine things developed a taste for the beautiful and a power in execution, but the old-time flat-copying which Colonel Parker described was altogether a thing of the past.

WALTER S. GOODNOUGH Director of Drawing, Brooklyn, N. Y.—The aims of art education in general education are many. The more this subject is studied, and from whatever point of view,—philosophical, educational, historical, economical, —the broader and more far-reaching do those aims seem to be.

Briefly speaking, I should hold that—

First—Art education, as a factor in general education, should develop the emotional, the ideal, and the moral nature of the child. Most of our public school education deals with the intellect and will. It is felt by many educators that the

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time has arrived when greater attention must be given to the education of the emotional, the sympathetic, the æsthetic, and ethical phases of child nature.

Second—Art education should develop a love and discriminative appreciation of the beautiful in nature, art, industry, literature, dress, home surroundings, and in human thought and action. The æsthetic faculty, the creative impulse, the love of the beautiful, are among the oldest instincts of the race. It shows itself very early in the majority of individuals, "often in the first or second year of life," says Sully. It is extremely important that this element, so universal, and so valuable in bringing simple joys and pleasures into our lives, should receive the attention it deserves.

Æsthetic culture owes its importance to the fact that it not only makes a higher, more valuable productive power, thus becoming a large factor in the industrial success of the individual, but it results in a culture, a refinement, an enjoyment and happiness, a higher civilization.

Says Professor Ladd, "The beautiful is one form of the good; to be and to enjoy that which is beautiful is to share in reality of the good." Plato thought that the soul ascends to the good through the beautiful.

Third—Art education should bring the pupil into a closer knowledge and appreciation of his environment, and relate his school training directly to many productive occupations.

Fourth—It should lead him to a knowledge and appreciation of some of the great achievements in human thought, as exemplified in historical examples of ornament, architecture, sculpture, and painting.

Fifth—It should give great and varied training to the perceptive power, perhaps to a wider and deeper extent than any other school study. Says Ruskin: "The more I think of it, the more I find this conclusion impressed upon me, that the greatest thing a human soul does in this world is to see something and tell what it sees in a plain way. Hundreds of people can talk for one who can think, but thousands can think for one who can see."

Sixth—Art education should give systematic training of the imagination, that faculty so dominant in the young child, but, to a considerable extent, neglected in our school work, and without which there can be no great human achievement.

Seventh—It should be a constant stimulus to thought, and train, not only to concentration and power of thought but to breadth of view. It is of the utmost value educationally in this respect, as the greatest stimulus to thought is present in the active interest which the subject has for all children.

Eighth—It cultivates the highest, noblest, and most varied modes of expression, and is a most valuable aid and complement to oral or written expression.

Ninth—Art education should develop manual skill, executive ability, and critical power. It should train the judgment.

Tenth—Art education is an all-important element in developing and training the creative faculty.

The wonderful bridge that connects New York and Brooklyn was first a dream in the mind of Roebling, the engineer. The magnificent new ocean steamship St. Louis, just put in service, the beautiful library building of Boston, the great cathedrals of Europe, to say nothing of sculpture, painting, or design, had first to be conceived in the brains of the designers and created on paper and in the imagination with nearly the vividness of actuality.

Systematic training of the creative power has received little attention in education, little indeed in art education.

True art education is more largely intellectual and emotional than many realize. It is the mind, not the eye, that is to be trained to perceive and appreciate beauty.

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If beauty were perceived by the eye alone, the normal eyes of one would perceive it as well as those of others.

There can be no true art, no real art education, that does not take fully into account more than the training to skill of hand, particularly imitative skill,—strong, powerful, masterly, as this should be. To a far greater extent art is dependent upon training of mind and soul. We may possess a fluent tongue, an easy, graceful pen, or facile brush; but unless we have some thought to express, some ideas to convey, what we produce will be only temporary.

Thought will live; expression never, except as the embodiment of thought.

"Art should be taught a child," says Marion, a French writer, "because it has an incomparable educative power. The beautiful is essentially order and harmony. From the imagination and the mind order passes into the heart, and soon manifests itself outwardly in elegance and grace. A just proportion is observed, and finally it reappears in acts. Good taste easily takes the form of self-respect. It is not a commonplace to say that art softens public and private manners. There are faults and moral tendencies the idea of which a mind accustomed to live in companionship with the beautiful can neither conceive nor abide. Evil is an ugly thing, and the delicacy of a soul sensitive to beauty is offended at and spurns it."

Drawing, modeling, painting, all the art modes of expression, are invaluable adjuncts in all general school work. The regular teacher cannot be all she should be who has not these modes of expression at command to illustrate thought. Neither can her pupils, without these modes of expression, give out to her what they have seen, know, think, or feel, allowing her to look into their minds, as written or spoken language will not. Words are but signs and often poor vehicles of thought.

The use of the art modes of expression by pupils in science, and in all other studies capable of graphic expression, is of everlasting service to them, as it forces closer, more critical observation and knowledge, and so enchains the interest and attention as to crystallize thought and make the knowledge the pupil's own. When he has reproduced anything by drawing, modeling, or painting, he has got a mental image of it that it is difficult to acquire so completely in any other manner or that he will retain so long by any other means.

This is not art, however. The pupil must put something of himself into his work, some of his own thought and feeling, before it can be art.

Says Ruskin: "All real art is the disimprisoned soul of fact."

Colonel Parker, in his "Talks on Pedagogics," would have drawing, modeling, and painting acquired simply as means of expression, through use in expressing thought about the other school studies. He would make it, if I understand his position correctly, simply a handmaid in pursuing the other regular school work, as natural science, history, etc., claiming that sufficient skill will be acquired by this frequent daily use as a means of expression.

I would not underrate the value these art modes of expression have in that direction, and I think they should be utilized by regular teachers more than they are. In addition to this, however, if we are to meet the exigencies of modern life, and educate the pupil broadly and roundly, developing all his faculties, a certain portion of school time must be set apart, in the weekly if not daily program, for pure art study.

Only through the study of artistic, beautiful things, and by special study of works of art and the products of art industry and well-directed lines of creative work, can certain standards and ideals be obtained.

Says Partridge: "We must bring into children's lives every poetic influence, to quicken their minds and develop the æsthetic nature. We speak much of the

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beauty of holiness, but not enough of the holiness of beauty. Fill the children with sweet music and the high thoughts of the poets and the best art, and they will build up a fabric which, in after life, will withstand the attacks of care, sin, poverty, and grief, for they will have discovered something in life which the world can neither give nor take away."

ROUND TABLE DISCUSSION—METHODS OF TEACHING.

BY MRS. MATILDA E. RILEY, ST. LOUIS, MO.

Those who teach in art schools or in private schools and have had no experience in art work in public schools can have no conception of the conditions and difficulties that confront both teacher and pupils in the public schools. The methods presented here are derived from experience in public school work.

No teacher can successfully present or thoroughly teach any subject unless he knows the definite object he has in view and has a well-defined plan by which to accomplish it. Drawing, like older and better-known studies in school-life, calls for a knowledge on the teacher's part of both the educational and practical value of the subject in hand.

Since the method of giving every exercise must conform to and cannot go beyond the mental development of the child, it behooves every teacher to thoroughly inform himself as to the mental condition of the class before him, and to adapt his method and his material to that particular capacity waiting to receive it. It is necessary to the successful method, then, to know to what faculties to appeal and how to appeal.

Probably this is easier in construction than in the other departments of drawing, for the means of the expression of facts in construction have become formal and conventional, and the principles which control the results belong to the exact sciences. Decoration calls for a deep appreciation of beauty, a thing of gradual growth and slow cultivation. It must grow as the child grows; it cannot be forced. There seems to be no question as to the proper methods of teaching construction and decoration, while the greatest diversity of opinion prevails as regards representation.

Although it is said that no work of art is machine made, nor can the art faculties be cultivated by drawing machine-made objects of the geometrical order, in representation the type solids can be used to advantage; for just as there are fundamental rules in arithmetic, so the type solids are the foundation of form.

While art is the expression of individual feeling, and all pupils should be encouraged to give this expression, there are certain underlying principles that must be understood and can best be learned through these types before the pupils can give this individual artistic expression. Pupils should not be confined to the geometric forms any more than they should be confined to the abstract tables in arithmetic, because they not only would tire of them and their work become mechanical, but the aim of true art influence would be defeated and the educational value lost.

These types are easily procured, are inexpensive, keep the work within bounds, and make a definite educational plan possible. They are permanent forms, which

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present an infinite variety of problems to be solved, without altering with time or changing with decay.

The type solids lead to natural and other forms involving similar principles, but demanding a special rendering of texture which should have all the study that can possibly be given to them.

In giving a lesson devoted to natural or other forms, the importance of good selections should be emphasized. Whatever is chosen, let it be the best of its kind. Even an apple may furnish food for thought upon the part of little children. They must not select the over-grown product, nor the shriveled, bitter fruit, for neither is the type for which we are searching; but the luscious, fully rounded, perfect apple, in which every child delights. What is true of the apple is true of every model used in school-life. All objects should be chosen with reference to their beauty and to the artistic elements they contain. The teachers should be urged not to leave the selection of the objects to chance, nor pick up at random, at the last moment, whatever comes to hand; but they should try to make a wise and judicious selection for every lesson.

If objects are to be studied in a certain position, it will be necessary for each pupil to have an object or group of objects; in which case the arrangement of both pupils and models becomes quite a problem, if two pupils are sitting at one desk.

To get individual work, where each pupil must have an object or a group, it is necessary to have several different objects or arrangements, so placed that no two pupils, sitting side by side, will have the same study. If there is no certain position of any of the models to be studied, only as many objects or groups are necessary as will give a pleasing arrangement for each pupil. The number of single objects or groups would depend greatly on the size.

The placing of models can be on vacant desks, on supports put across the aisles, or on the teacher's desk. Wherever they may be placed, it is necessary for them to rest on a horizontal plane. It not only creates an unpleasant feeling to have a vase, ink well, tumbler, or other object on an oblique plane, and makes violent perspective, but it cultivates an indifference to the seriousness of the purpose of the study and a habit of carelessness on the part of the child.

Some advise beginning pencil measurement with the third year, to get apparent height and width. The most benefit is derived in individual instruction in this grade by teaching the pupils to test their sight-drawing. This prepares the pupils for class instruction in pencil measurement and blocking in the next year or grade.

It is sometimes a question as to which is better, blocking by pencil measurement or sketching first, then test by pencil measurement. Classes do well in both plans. If sketching is done first, then verified by pencil measurement, it is hard to determine to what extent the use of the eraser should be permitted with pupils in the grades. Although they often get far from desirable results if allowed free use of the erasers, this is better than to have positive limitations made as to their use.

More accurate drawing may be obtained by the use of invisible edges, but it will be mechanical and the pupils will learn to depend on them.

Until recently drawing from life, pupils posing for each other, has been confined to the work of the high school; but it has been found that an occasional lesson of this kind through all the grades is highly beneficial.

Valuable time is often lost at each lesson in preliminary questions and suggestions by the teacher. To avoid this enough time should be given one group for the class to learn to determine the center of the group, the center of the paper,

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greatest height, greatest width, and relative proportion. After this, in every case, the class should begin to draw as soon as the models are arranged.

The drawing of detached leaves in the lower grades often results in geometric views, with the stems pointing to the observer and a tendency to uniform work. By the introduction of potted plants into the schoolroom, pupils succeed in getting pictures showing very little detail, and often approaching the proper perspective.

Where it is possible all foliage should be remodeled before drawing; also, all natural forms, as it is easier to teach elimination in modeling than in drawing.

In the higher grades, large single leaves, such as the calla, canna, palm, etc., are often as interesting and instructive as sprays.

The pupils should be encouraged to seek beautiful examples of strong, characteristic growth, giving attention to texture, relative distance, and light and shade; but this cannot be done by prefacing the drawing by a lesson in botany, for botany treats of the construction of the plant and not the picture, and makes the midrib, seen or unseen, as inevitable as the conventional table line.

It has been found advantageous for the special teacher in drawing to give personal instruction to pupils (accompanied by their teachers) in out-of-door study, such as towers, arches, roadways, and bits of scenery.

The work in the high school has not been mentioned, for if the work of the grades is properly done, there will be very little question as to the proper methods in the high school.

A course of study in drawing must be flexible in the very nature of the study, and great latitude should be given the teacher, if sufficiently competent; but when we consider that a very large majority of our best teachers in other studies have little or no knowledge of drawing, we are compelled to make our work prescriptive.

The time is approaching when our normal graduates will be as well qualified for teaching drawing as they are in any other subject. Then the main thought will be, not what to draw but to teach the pupil how to draw the right way.

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DEPARTMENT OF BUSINESS EDUCATION.

SECRETARY'S MINUTES.

FIRST SESSION.—WEDNESDAY, JULY 10TH.

The department was called to order at 2:30 o'clock Wednesday afternoon by the President, J. M. Mehan.

Secretary W. E. McCord being absent, the President appointed J. W. Warr of Moline, Ill., as Secretary *pro tem.*

President Mehan then delivered the President's annual address.

On motion of Frank Goodman, the President's address was referred to a committee of three, to report on same at the Friday session.

The President appointed as that committee Mrs. Sara A. Spencer, Mr. Springer, and J. W. Warr.

The next paper, on "The Exchangeable Value of the Alliance of the Business Educators' Association with the National Educational Association," was read by Mrs. Sara A. Spencer of Washington, D. C.

At the conclusion of Mrs. Spencer's paper Mr. Z. Richards, the first President of the National Educational Association, made some interesting remarks, showing the value of business training in preparing young men and women to become good citizens.

Prof. Chandler H. Peirce of Evansville, Ind., discussed the service that business colleges had rendered the public schools, by showing them how to make their work more practical.

Prof. J. H. Woodruff of Indianapolis, Ind., described the business department of the public schools.

Professor Springer of Ann Arbor, Mich., contended that public school work could not be compared with the work of the business college, as the course in a public school could not be so comprehensive as that of a well-appointed business college.

Mrs. Spencer remarked that business colleges had not been hostile to business college work in public schools, but cheerfully co-operated with them in making their work as successful as possible.

J. W. Warr of Moline, Ill., was next on the program, with a paper on "Guaranteeing Positions, or Fraudulent Advertising."

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The paper was discussed by Professors Wallace of Denver, Marshall of California, President Mehan, and Frank Goodman.

Prof. W. A. Woodworth, Principal of the Denver Shorthand and Typewriting School, presented the subject of "Shorthand and Typewriting."

The paper was discussed by Messrs. Peirce, Mehan, Springer, Richards, and Mrs. Spencer.

After some routine business the session adjourned until Friday afternoon.

SECOND SESSION.—FRIDAY, JULY 12TH.

The Department of Business Education met in Young Men's Christian Association hall at 2:30 p. m., President Mehan presiding.

Mrs. Sara A. Spencer of Washington, D. C., presented the following report of the Committee on President's Address:

Your committee respectfully report that we have held two meetings, one for organization and outline of work, at Young Men's Christian Association hall, July 10th, and one for consideration of topics, at Hotel Richelieu, July 11th, 1 to 5 p. m.

In accordance with the suggestions contained in the President's address, we recommend the appointment by the chair of a committee of nine representative educators to consider, investigate, and report upon the following topics, viz.:

First—"Physical and Vocal Culture and School Hygiene."
Second—"Normal Training for Business College Teachers."
Third—"Shorthand, Typewriting, English, and Rapid Writing."
Fourth—"Practical Writing."
Fifth—"Rapid Calculations, Business Arithmetic, and Higher Accounting."
Sixth—"Book-keeping, Theory and Practice of Accounts, Inter-communication."
Seventh—"Finance, Commerce, Political Economy."
Eighth—"Laws of Business, Ethics of Business, Duties of Citizenship."
Ninth—"A Model Curriculum for Business High Schools."

We recommend, that, while all these topics are referred to the entire committee for general consideration, each topic be especially referred to one member of the committee for special investigation, and that he be authorized to select from representative educators two others for conference and aid.

We further recommend, in pursuance of suggestions in the President's address, that the Committee of Nine hold one meeting in Denver to-day, and one meeting before the next annual meeting of the National Educational Association, and report to this department at that meeting; that the Chairman of each conference sub-committee mail to the other eight members of the Committee of Nine typewritten copies of questions to be submitted to the business educators of the country for suggestions and approval; that to secure relatively uniform, fair, and reliable information from educational institutions, the Committee of Nine shall use the list of business colleges and commercial high schools and commercial departments contained in the latest report of the Bureau of Education, issued at Washington, D. C.

We suggest the following questions from Conference on Vocal and Physical Culture and School Hygiene as typical of the range of inquiries to be undertaken by the various committees:

PHYSICAL CULTURE.

First—Is physical culture given to or provided for the students in your institution?
Second—Do you employ special teachers for this purpose? How are they paid?
Third—How much time is devoted to this training, and at what intervals?
Fourth—Is it optional with your pupils or compulsory?
Fifth—What tests of physical condition are applied upon entering and leaving?
Sixth—What methods are used? Have you a gymnasium? Describe it.
Seventh—What are the results of your experience?
Similar topics are advised for vocal culture.

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SCHOOL HYGIENE.

First—Was the building occupied by your institution constructed for that purpose?

Second—What are its provisions for drainage, ventilation, light, heat, and acoustics?

Third—Are grounds for recreation, free circulation of air, or ornament attached to or near your building?

Fourth—What are the conditions as to healthfulness of the surrounding neighborhood?

Fifth—What are the dangers and defenses of your buildings as to fire? What facilities for escape?

SARA A. SPENCER,
Washington, D. C.
DURAND W. SPRINGER,
Ann Arbor, Mich.
JOHN W. WARR,
Moline, Ill.

The committee had also recommended the topic of "Co-ordination of Business College Branches;" but, on motion of Frank Goodman, the topic of "Practical Writing" was substituted in lieu thereof, after which the report was unanimously adopted.

Prof. S. S. Packard of New York City was recommended by the committee as Historian, with a request that he prepare a history of business education: whereupon President J. M. Mehan appointed Mr. Packard as Historian.

The subject of "Vertical Writing" was presented by Chandler H. Peirce of Evansville, Ind.

This paper was discussed in a lively manner by Mr. Heisey of Kansas City, Mo., Mr. McPherson of Denver, Colo., and Mr. Stebbins of Brooklyn, N. Y., in favor of vertical writing, and by Mr. Springer of Michigan, Mrs. Spencer of Washington, J. E. Barnes of Denver, and others in favor of speed, grace, and legibility as secured by the regular slant.

D. W. Springer of the commercial department of the high schools of Ann Arbor, Mich., handled the subject of "The Ethical Side of Business Training."

"Actual Business From the Start" was presented by Mr. Carl C. Marshall of Eureka, Cal.

Department adjourned to 6 p. m.

Prof. Chandler H. Peirce of Evansville, Ind., presented the report on resolutions, which was unanimously adopted, as follows:

Your committee beg to offer the following resolutions:

Resolved, That the thanks of the business educators are due, and are hereby tendered, to Miss Agnes Hunter and Miss Clara M. Norton for their kindly consideration in tastefully decorating and adorning with the choicest roses and flowers the room in which our deliberations were held.

Resolved, That this section of the National Educational Association will remember with heartfelt gratitude the many courtesies and attentions extended by the Young Men's Christian Association, and that we, as members, can never forget our pleasant and profitable stay in the beautiful and magnificent "City of the Plains."

Resolved, That our thanks are extended to the local committee of this department, also to the press of the city, for attentions and courtesies, and to our President for his admirable services.

CHANDLER H. PEIRCE, *Chairman.*
CARL MARSHALL,
GERTRUDE HOLMES,
Committee.

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Mr. H. C. Spencer of Washington, D. C., presented the following report on behalf of the Auditing Committee, which was adopted:

We, your committee, appointed to examine the account of W. E. McCord, Treasurer of the Department of Business Education, would report as follows:

We find, according to the Treasurer's books—

July 13, 1894. Balance on hand last auditing		$92.41
Receipts—		
July 13, 1894. Received from Irwin Shepard, Secretary National Educational Association, account expense Business Department		15.00
Oct. 3, 1894. Received on account of memberships		45.00
Total receipts		$152.41
Disbursements —		
Paid Irwin Shepard, on account of membership fees	$38.00	
Paid for Department and Executive Committee—Expenses to July 5, 1895	81.80	
Total disbursed		119.80
Balance in treasury		$36.61

H. C. SPENCER,
J. W. WARR,
Auditing Committee.

We also find there is owing by this department the following:

Brandon Printing Co. (3,000 circulars)	$24.00
Telegrams, postage, expressage, stationery, etc., of Executive Committee	15.91
Telegrams and expressage by President	4.00
Total due and unpaid	$43.91

We recommend that the balance of $36.61, now in the hands of the Treasurer, be turned over to the Chairman of the Executive Committee to be applied to above indebtedness, and that the first money received by this department be applied to liquidating any balance that is due and unpaid.

H. C. SPENCER,
J. W. WARR,
Auditing Committee

The election of officers resulted as follows:

President—Frank Goodman, Nashville, Tenn.
First Vice President—Durand W. Springer, Ann Arbor, Mich.
Second Vice President—W. A. Woodworth, Denver, Colo.
Third Vice President—Chandler H. Peirce, Evansville, Ind.
Secretary-Treasurer—J. W. Warr, Moline, Ill.

Mrs. Sara A. Spencer of Washington, D. C., was unanimously elected Chairman of the Executive Committee, with power to appoint the other two members of this committee.

J. W. WARR,
Secretary pro tem.

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PAPERS AND DISCUSSIONS.

PRESIDENT'S ADDRESS.

BY J. M. MEHAN, DES MOINES, IOWA.

Members of the Business Educators' Association of America:

Another year has passed and we are assembled for our seventeenth annual meeting, to greet each other, to exchange experiences, to compare notes, to advance the interests of the work in which we are, from choice, engaged; and last, but not least, to enjoy the pleasure of meeting again friends who have grown dearer to us year by year as we have come to know them better. And herein lies one of the great benefits of our organization. To know each other is to free ourselves from error, from jealousy, from littleness. To know each other is to respect each other, to befriend each other. How, then, shall we estimate the value of these annual meetings?

This is our third meeting with the National Association as a part of that great organization, and we all, I feel sure, are now so fully at home in it that we will never again consent to be separated from it. Our work is honored by the recognition it is receiving from that body, and let us hope the National Association is in some measure bettered by our being a part of it.

The year through which we have just passed has been one that has tried private schools to the fullest extent, and many not only suffered but have been obliged to close their doors. We should be thankful indeed that very few business colleges are numbered in this list. It is a fact that some have been obliged to go out of business, but it is doubtful if the times are to blame for this. Business colleges, like other institutions, are not all good, and some of them fail for want of public patronage in the very best of times. We may congratulate ourselves that our schools stand high in the public confidence, a fact proven by the liberal patronage accorded them during the depression of business through which, let us hope, we have now passed.

But business colleges have not been standing idle even in these times of depression. Many have moved into new and elegant quarters, many more have been re-seated and re-furnished, and others have, in various ways, been beautified and made more comfortable, convenient, and cheerful; thus adding to the efficiency of the instruction, as well as to the health, comfort, and convenience of their students. Many new and excellent text-books and devices for the

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teaching of business branches have been brought out since we met last year, much thought has been given to the subject of business education by those directly engaged in our schools, the attention of able teachers outside of our own lines has been called to our work, and we have received such encouragement as never before to strengthen and develop our efforts. Some of our ablest and brightest members have visited a large number of the business colleges throughout the country, and are ready to enlighten us with comparisons and conclusions drawn from earnest searching after truth concerning everything pertaining to business education and training. We have, I believe, in every true sense, been making commendable improvement along all the lines of our work.

SOME OF OUR SHORTCOMINGS.

But it is my duty to speak not only of our advancement, but to indicate, as best I may, the things that, in my opinion, retard our improvement. This is not a mutual admiration society, and was not intended for such.

I trust I may not be thought hypercritical when I say it seems to me that we are in danger of magnifying too much what I will call the mechanical side of our work, to the neglect of the intellectual side. We are laying too much stress on our appliances, our surroundings, our equipment.

The duty of the business college is to train young men and women for business pursuits; and however pleasant, agreeable, or, indeed, desirable it may be to feast our eyes and the eyes of our pupils upon polished brass and cut glass, mahogany and marble, these surroundings, let us remember, do not make the school. It was Mr. Garfield, I believe, who said, "All the college I want is Mark Hopkins on one end of a log and myself upon the other." We must not forget that it is the teacher, and not the surroundings, that makes the school. We are in danger of relying too much on text-books, courses of study, methods, etc., and too little on vital instruction and persistent example. We are in danger of wrangling too much over the question of whether a student shall become an imaginary business man the first day he enters school, with "actual business from the start," or whether he shall endeavor to master, partially at least, the theory upon which accounts rest before he begins to practice upon the numerous details surrounding even ordinary business transactions. We are in danger of keeping ourselves on the rack as to what our competitor has or does, to the neglect of what our pupils should have and should do. We are too apt to forget that our competitor's corner on any "system," either of wheels in his school or wheels in his head, counts but little against able, intelligent, conscientious teaching and training.

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LIGHT AND VENTILATION.

While speaking of our schoolrooms I wish to say, that, while we have done much—I often think too much—for appearances, we yet want proper light and good ventilation. I am sure that you will agree with me in this respect. Careful and constant attention should be given to the ventilation and lighting of our rooms. Good teaching cannot be done in poorly lighted and poorly ventilated schoolrooms. The pupil should have all the advantages it is possible to give him, and until this is done we have not fulfilled our part of the agreement. Many of the business blocks that we occupy have not been built with the view of making schoolrooms of them, and great care and attention, as well as considerable expense, is often necessary to put them in proper condition for school use. Where large numbers of pupils are gathered together for work, if ventilation is neglected, the atmosphere is breathed and rebreathed until it is often positively dangerous. Attention is an absolutely vital element in instruction, and it cannot be had where the brains of students are benumbed by breathing vitiated air. Something better than raising and lowering windows must be adopted before the best results can be obtained in ventilation.

THE TRAINING OF TEACHERS IN BUSINESS.

Dr. Harris, in an article in "Harper's Magazine" for May, speaking of the public schools, says: "The most important item of improvement that belongs to the recent history of education is the introduction of professionally-trained teachers."

Dr. Harris is eminently right, and the greatest improvement that can possibly be made in business colleges to-day is through the employment of professionally-trained teachers. Our teachers, however, in addition to being trained as teachers, must come in touch with commerce; must have a clear knowledge of the requirements of the office and counting-house; and must, in the true sense of the term, be business men and women. To their professional training, business experience in our work is almost indispensable.

I have several times, as the principal of a commercial college, sought to find men engaged in office work whom I might put into my school as teachers of business branches; but when I found one sufficiently learned in his profession, I usually found him wanting in ability to instruct, and without either the spirit or the high aims of a teacher, and too often his habits were of such a character that I could not conscientiously place him as a model before my young men. Of course, there are exceptions to this, but they are exceptions. If we want good teachers in our business colleges they must be made as other experts are made—trained for this special work. We cannot hope to pick them up by chance.

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I believe it is Dickens who says, "Every Englishman believes he can do three things without previous training." It seems to me that almost every callow American youth, whatever else he believes, knows that he can teach school without training, and that without training he is especially fitted to establish and conduct a business college. Now, as a matter of fact, barring the special branches and office or business experience, the training that will make a good teacher for the grammar school or the high school will make a good teacher for the commercial school. The foundation on which is reared the superstructure of all good teaching is psychological law, and this applies at one period of the pupil's career as well as at another. Our commercial schools are no longer made up of men and women who come in for a few weeks to be shown the theory of double-entry book-keeping, but they are made up of boys and girls, young men and women, who come to be taught and trained for business; and when we ignore the training of teachers, and depend upon picking up bright men and women, who, from empirical knowledge only, can best do this work, we are making a mistake which we cannot afford to perpetuate.

It has always been, and is now, the boast of other institutions of learning, that they have gathered, and are still gathering to themselves, great teachers, and for this they are known of all men, and not for the number of square feet of floor space they occupy, nor the ornate and luxurious furnishings with which they are fitted.

As to how this training is to be given to our teachers each school must decide for itself; but however it is done, I believe it can best be done in a formal manner. Experience alone, in teaching, should not be depended upon. You take a young man into your school to train for a teacher. Your intention is good. You have resolved he shall pursue a course of reading; you will advise him as to what he shall do, caution him as to what he shall avoid, and develop him along pedagogical lines. But you soon find that your time is consumed in other matters pertaining to your affairs; that you have no more time to teach him how to teach than has the merchant to teach the young man applying to him how to keep books or to write shorthand, and, unless you have regular classes that he may join, in which teachers are being instructed, and with which he can study in a formal manner, much of your good resolution goes to the winds.

I would suggest that there are various ways in which our teachers may secure training:

First—Through the regular state normal schools. I say "state normal schools," because of the large number of worse than useless schools calling themselves "normal" schools.

Second—Through "summer schools for the training of teachers of business" connected with our own business schools.

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Third—The establishment of normal training classes for this purpose in our own schools.

Fourth—The collection of books on teaching, and the carrying out of systematic courses of reading by our teachers.

Fifth—Lectures on teaching by men and women eminent as instructors.

Sixth—The careful study of our best public and other schools and colleges, and the adoption of their means and methods.

Seventh—The reading of educational journals.

Let it not be thought, on account of what I have just said, that I think we have no well-trained teachers; what I want to say is we have not enough of them. But whatever may be said regarding the training of teachers, a large part of the success of every teacher rests upon his personality. It takes good material to make a good teacher. Teachers are both born and made. No amount of training will make a good teacher out of one who is not born to be a teacher. Teaching is not a mechanical process, but an intellectual process, and no methods or mechanism will take the place of the teacher's personality.

The teacher in the future business college will be one of intellectual capacity, character, and general culture. He will have a broad knowledge of the theory and practice of teaching as laid down in the literature of the teacher's profession. His scholarship will be broader than his sphere, and his good judgment and common sense will not be the least of his attainments. Then will the young man who opens a business college on the strength of his ability to flourish impossible eagles and spirally constructed stags disappear from the work on which he now brings ridicule.

ENGLISH.

Notwithstanding all that has been said on the subject at former meetings, I cannot refrain from saying a word about the teaching of English in our business schools. I am sure there is not one of us that would not gladly give up this branch of work, and I am likewise sure that there is not one of us who can give it up. There is a strong pressure brought to bear by the public upon schools of all kinds over all the country regarding the matter of training in English, and the commercial public is loud in demanding that our students be better prepared in this branch. The law and medical schools in my own state now require that the students entering them shall pass examinations in English, and failing to do this they are provided with the means and required to remedy this deficiency. A strong effort is being made all over the country to discover the reason why students do not master, to a reasonable degree, our English spelling and our English speech in the public schools. More attention is being given to the subject in our higher institutions of

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learning, and Harvard now makes English the one only required work of her whole curriculum.

The commercial schools must stand shoulder to shoulder with other institutions of learning in this matter. It is a duty we owe to the business public, that young men and women shall not be allowed to go out, claiming to have been pupils in our schools, without our having, at least, made it a requirement that those standing in need of a reasonable drill in English should have had their wants in this direction supplied, as far as lay in our power, while they were with us.

THE HISTORY OF BUSINESS EDUCATION.

While we are working for the up-building of business colleges in the future, it would be most unwise to neglect the lessons of the past, and particularly to neglect the remembrance of those who labored in this, at that time, certainly not particularly prepossessing field. I therefore suggest that we unite in having prepared a history of business education; that a leader be appointed to take charge of this work, and that he be empowered to command whatever assistance he may need from among the members of this body. The history of business education deserves a place in our literature; in fact, the literature of business education demands thus to be rounded out and crystallized in such a work. We have among us now men who have grown up with business colleges, who are perfectly familiar with them from their very beginning, and who are thoroughly competent to write—in fact, have already written—much of just such matter as a work of this kind should contain. It seems to me, therefore, eminently fitting that we should, before it is too late, secure the services of these fathers of business college work in America, to write this most valuable history of the rise and progress of business colleges. I hope, that, before this meeting is adjourned, the proper steps will be taken to carry this matter to a successful conclusion.

'Tis greatly wise to talk with our past hours,
And ask them what report they bore to heaven.

A COMMITTEE ON BUSINESS EDUCATION.

I wish further to recommend that a committee, consisting of not less than ten members of this body, on a plan similar to the well-known committee of ten, be selected by this association, to make a report at our next meeting on subjects of vital interest in our work. Among such subjects, and in order to convey my meaning, I will merely suggest the following topics: Studies to be pursued in business colleges; the extent to which the various subjects taught by us should be carried; business, practice, and intercommunication; the theory and practice of accounts, and the place in our courses each should occupy; the training of teachers, etc.

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This committee can be subdivided, and, if appointed early in this session, can meet for the first time before leaving Denver, and afterward much of the work can be done by correspondence, thus economizing in time and expense, though a full meeting of the committee should be held before the next meeting of this association. My friends, we must make some sacrifices; we must show ourselves to be as deeply interested in our special work as are the teachers in any other line of educational work, if we would succeed in any way that deserves the name of success.

LABOR AND LAW.

Whatever charges have been made against the schools and business colleges of this country by those ignorant of their aims or the work they are doing, they have never been charged with promoting idleness. They are pre-eminently working schools, and for this fact, if for no other, they deserve the good will of the American public; for the greatest danger that confronts this great nation to-day is the danger of young men and women growing up with the hope of getting through life without work, and the fatal error of looking upon labor as a disgrace. The sons and daughters of wealthy parents are too rarely found within the walls of business schools, where idleness is unknown, where the hive is filled with busy bees, and from which the drones are driven if they cannot be converted into workers.

In addition to fostering the spirit of labor, business schools cultivate a most wholesome respect for law and authority. There are no schools where order and discipline are better observed than in the better class of our business colleges.

"You are doing a great work," said a prominent public school superintendent, recently, to the principal of a business school, after carefully looking over the different departments and observing the students at their work. This was said in no spirit of flattery; it came from the lips of a man whose heart is devoted to the work of education, and who would scorn to compliment a school that did not, in his estimation, deserve it.

Fellow teachers, we are doing a great work, and that we may realize still greater results let each one of us set for ourselves higher ideals. Let us magnify our calling. Let us strive day by day with patient energy to improve ourselves and our cause.

'Tis weary watching wave on wave,
  And yet the tide heaves onward;
We build, like corals—grave on grave,
  But pave the pathway sunward.
We're beaten back in many a fray,
  Yet ever strength we borrow;
And where the vanguard rests to-day,
  The rear shall camp to-morrow.

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THE EXCHANGEABLE VALUE OF THE ALLIANCE OF THE BUSINESS EDUCATORS' ASSOCIATION WITH THE NATIONAL EDUCATIONAL ASSOCIATION.

BY MRS. SARA A. SPENCER, WASHINGTON, D. C.

A slight divergence long continued leads to vast distances between honest minds agreeing upon general principles at a common center, and if those traveling upon these lines ever need mutual counsel and help, they must either retrace their steps or leave the beaten path and move toward each other.

No problem in the educational field to-day more vitally concerns the purpose and end of all education—a rounded, well-developed, harmonious, and useful life—than the relation of arts, sciences, and letters to human culture and human need. The instructors of the world have sought the solution on diverging lines.

The difference lies somewhat like this: One class claims that education from the beginning should specifically prepare the human being for what he is to do in life; that is, for self-defense, for honest material success, for securing prosperity for himself, those dependent upon him, and the community in which he lives. Further culture for intellectual and spiritual development and happiness must wait on these achievements or be incidental to them. Another class claims that all education is primarily for development of faculties; that the special things taught may rarely or never be used in life, but the culture will have so developed the intelligence and reason as to secure correct conclusions and adaptability to circumstances in all of the common and extraordinary emergencies of life. How vast and ever-widening the field that stretches away between these two ideas, and what colossal difference may be forecast in their results applied to the youth of a nation!

The truth lies in a combination of these two theories. Either alone is full of danger.

Let us glance for a moment toward the beginning of human culture, and see whether any natural order has been developed, observed, and applied. History indicates that civilizations have developed out of barbarism, and war, and conquest, and plunder, through the necessity for labor. Captured slaves, who provided for the wants of families while masters went to war, acquired skill, established industries, and trades, and the arts of peace; built cities, grew strong and wealthy, founded for mutual protection civil government, compelled allegiance and respect, and possessed the land.

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Thus was the world, ancient and modern, made ready for commerce, for sciences, the fine arts, philosophy, literature, and scholarship; and so labor and business have furnished the incentive, the means, and the reward for discoveries rich and rare, for productions of exquisite skill, for researches deep and broad and high, for attainments vast and comprehensive.

Why is it that Science strays so far from business to-day, and regards even the suspicion of relationship as a reproach, an imputation upon her honor and high calling? How has she grown so arrogant and ungrateful, so forgetful of the ladder by which she climbed —the bridge over which she crossed? And how has Art grown so proud and supercilious, despising the day of her birth and the purpose for which she was called into existence?

As it has been and is with tribes and nations, so is it also with individuals and families. The farmer, mechanic, and tradesman rise early and toil late, and "mother's work is never done," and all of the household live plainly and poorly that some one son, or more recently a daughter, may pass through the high school, the college, the university, the professional school, to come out toward middle age, probably to be supported still by the toiling family. Meantime, their habits, ways, and appearance may shock his sensibilities, if they do not touch his heart with the pathos of the price they have paid to make him the ornamental appendage to a profession and a family he has grown to be. Thus science and learning, which should lighten the burdens and add to the joys of the whole world, seem to be used as an illusive day-dream by the few, and to bind heavy yokes about the necks of the many.

Yet it sometimes occurs that the scientist, or scholar, or man of letters returns, impecunious and dependent, to find a thrifty brother, with trained business intelligence and skill, amassing an honest fortune, and using it prudently, regarding his learned brother as a harmless visionary, to be borne with and provided for. In either case there is an appalling waste of the essential wealth of life, the time, energy, ambition, and intellectual faculties of the moderately-endowed candidate for university and professional honors, who only lacks the business ability to achieve success in an already overcrowded profession. In this great, rich world he cannot feed himself. Yet we have secured a finished product of a high range of educational systems and institutions, and they who do deliver him to us do not regard it as strictly necessary that he should be of any special use. Let him find his place. His "faculties" are developed.

False ideas that mislead, pervert, and paralyze useful faculties are not really the product of Science, but of Ignorance, and this haughty jade, who despises labor, trade, and business, is not Sci-

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ence herself, but a treacherous pretender, whose chief delight is to beguile youths and maidens with an idea of living without sordid care or personal exertion. True Science is the best friend and ally of labor, leads the way to fresh fields and shows new processes of culture. Commerce exchanges the rich products for the wealth and beauty of the world, and philosophy, art, and literature elevate, refine, and embellish the hours of sweet repose that alternate with toil.

To this department of the National Educational Association, when, a few years ago, we were a separate organization, there seemed a great gulf between our ideas of the educational needs of the people and the prevailing ideas in the common schools, high schools, colleges, and universities of the country. Our line of divergence we labeled "practical," and used the term until we wore it threadbare, declining to see that practical things meant more than meat, and raiment, and money in bank. Determined to believe that common schools taught only dead rules and exploded theories, we did not study them to see the educational wonders of the nineteenth century developing and blossoming at our feet. We were very busy hurrying the world onward, and the world was hurrying us, and we were calling for more steam, steam, steam; more speed, speed, speed; more money, money, money! How we—a mere handful, after all, of our own special class of institutions—ever came to listen to the still, small voice of the National Educational Association, saying: "Come with us, ye that labor and are heavy-laden, and find rest to your souls," seems a marvel. Perhaps it was the approaching assembly of the nations of the earth upon our soil, to see what education had done for humanity and could do, and the impending danger of utter obliteration unless we were speedily allied with the educational forces of the land. It is certain that as a separate educational organization we had not been able to secure, by all the influences at our command, the co-operation, for mutual counsel and inspiration, of one-fifteenth of the schools and colleges of our own distinctive class in the United States.

Perhaps it was because the scope of our work was not sufficiently broad and varied to arouse enthusiasm; perhaps it was because our colleges are all private institutions, and the spirit of rivalry was stronger than the spirit of good-will and good-fellowship; perhaps the majority did not desire to incur their share of the expenses, which were certainly a heavy drain upon our resources; perhaps the proprietors felt the imperative need of a real vacation, instead of an assembly for hard work. Perhaps it was all of these and more. We may not have known how to appeal to them. But nothing is more certain than that it is an indispensable requisite of a

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convention that people should convene, and that requisite was largely wanting in our case.

Now all of these hindrances to a broader field of usefulness in our assemblies are thoroughly removed, as a direct result of this alliance. The scientific discussion, in the light of modern thought, of every known educational problem by the advanced thinkers and most royal educators on this continent may be heard and participated in at our pleasure. Personal rivalries need have no place where the interests represented belong chiefly to the whole people. The expenses of these assemblies are reduced to the lowest terms, so that if a teacher can go anywhere he may come here. The association is so identified with the living interests of the whole country that the fair broad land is before it where to choose a place of meeting, and an entire state, or group of states, will join in providing for its entertainment. And thus, without the heavy personal care and responsibility of entire provision for a convention, we may find genuine recreation, artistic delight, rest, and comfort in coming together.

As to all the real purposes of a convention—exchange of ideas, study of methods, a higher standard of attainments for ourselves as teachers, a clearer comprehension of the priceless human souls committed to our care and culture, a stronger sense of responsibility for our daily walk and conversation—it is clear that all comparisons must be in favor of this alliance. If we are not giving in exchange a fair equivalent for what we are receiving, and appear to be somewhat isolated and out of the "swim," let us concede that it is due to contributory negligence on our part. This department should be a living factor in this great organization, sensibly felt as enriching its life-blood and vital force.

Here, for illustration, are points discussed in the general assemblies and special departments of the National Educational Association in which we should be deeply, earnestly interested:

First—The training of teachers for a recognized profession. The great reforms in methods of reaching the mind and securing its cooperation in the process of growth have not come through the accidental inspiration of untrained tyros, but are the direct, logical result of acquiring the science and art of teaching. To the normal school should be admitted only those who desire to make teaching a profession, and to the schoolrooms, as teachers, should be admitted only those who have proven themselves "called" and are thus consecrated, prepared, and ordained. Only the ignorant will trust quacks with the treatment of their bodies, and suffer all the dangers and consequences. Surely it is manifest that more disastrous results must ever flow from permitting raw recruits to tamper with the precious, immortal mind.

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What a baptism unto regeneration—what a new life—would flow into the business colleges of this country if this doctrine were accepted and followed! It is said that in Germany ninety-five per cent of the teachers are fairly entitled to be called professional; in the United States not one-tenth as many, or less than nine and one-half per cent.

Second—The effect of higher education upon the lower and lowest. It was worth while going to Asbury Park to hear Commissioner Harris epitomize the whole philosophy of a liberal education in the words: "A principle of action is a sum of a series. The mind must be able to grasp all the preceding steps, to reason, compare, and deduce before it really knows a truth. Higher education seeks the unity of human learning. It studies each branch in the light of all others, and in the light of its own history. A good definition of science is, that it unites facts in such a way that each fact throws a light on all other facts, and all facts throw a light on each fact."

Let us, with the best educators and thinkers and humanitarians of the age, note the dangers of half-way culture in forming leaders and agitators to stir up the savage blood of the ignorant masses, and bestir ourselves to aid the National Educational Association in uniting the interests of the partially and the liberally educated, and blending their forces for the salvation of the lowest.

Third—How to develop the morals of students through the influence of daily instruction in common things. Surely this is mutual ground upon which all educators should meet. We all agree that sharpening the wits without developing the moral forces is simply giving the spirit of evil weapons more keen, and subtle, and sure, to endanger the individual, society, and the nation. We all admit that the Prince of Darkness knows enough; that he is a highly cultivated and accomplished gentleman, with tact and skill and fascination to lead and charm the scholar, the poet, the artist, the divine; that the only thing he cannot abide is the infinite love of doing good and being true at the cost of any sacrifice of self. If, as De Garmo suggests, we make everything we teach a lesson in purity, truth, justice, benevolence, and aspiration toward high ideals, we are gathering about the soul committed to our care an atmosphere in which evil (the D—evil) cannot live, and are developing manhood for the illumination and salvation of the business world.

Fourth—Reconstruction of the common school curriculum on the basis of the report of the committee of ten. This comes home to us with peculiar significance. If a broad range of new studies, from nature and life, shall be introduced into the lower grades of common schools; if the text-book is receding, and the living teacher, and observation, and personal research are becoming the illuminating

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forces of to-day, we must be ready to receive and work with, rather than upon, a new product of the common school.

Pending these great changes really going on, the National Educational Association has needed, upon its committee of ten and in discussion upon that report, the counsel and co-operation of the leading minds of the nation. To make room—*i. e.*, time—for the study of natural phenomena, for experiments, measurements, observations, and general living conditions of this planet, it is not necessary to throw aside technical grammar. As well leave out enumeration or the multiplication table from arithmetic. If the common schools, from lowest to highest, would adopt the rapid methods of calculation so well understood and constantly applied in the work of the business college, and the rapid-development method of teaching language, which makes this branch a delight in the best commercial schools, there would be a gain of three-fifths of the entire time devoted to the lower grades, or three entire years out of the first five of school-life, nearly five years out of eight, including the grammar grades; and this without the sacrifice of a single principle of mathematics or of scientific, scholarly English. Add our methods of rapid writing, that needful records may be clear, quickly made, and beautiful, and we shall have a new and interesting mental product, which it will be a delight to develop into still higher and nobler uses.

Friends, the new education was not born with the business college, and will not die with it. The manual training school, the technological schools, the schools for physical and vocal culture, the schools for applied ethics, are all as directly practical as ours. All have borne fruit and dropped seed along the educational highways and by-ways. It is good for us that we are coming nearer to the great heart of the instructors of the world, bringing with us our experience, and gathering theirs for strength, illumination, and inspiration for the work of our lives.

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GUARANTEEING POSITIONS, OR FRAUDULENT ADVERTISING.

BY J. W. WARR, MOLINE, ILL.

To come before an intelligent and honest body of educators for the purpose of trying to demonstrate that the practice of certain educational pirates in enticing young people into their clutches by guaranteeing them situations is fraudulent, would seem about on a par with going before a religious assembly to prove that the devil was no gentleman, that stealing was sinful, that murder was a crime, and polygamy immoral. For certainly no proprietor of a business college, with any just claim to the name, will so insult the business intelligence of the community, and subject the whole business college fraternity to suspicion and disrepute, as to openly guarantee situations to young men and women he has never seen, never heard of, and of whose mental and moral fitness he can have no knowledge. Hence, to even impliedly assume that the heinousness of this offense needs proving is almost an insult to your intelligence and honor. The fact is patent, and must be admitted, that such guarantees are not made in good faith, and if they were, it would be manifestly impossible that they could be carried out. It is a scheme conceived in fraud, nursed by ignorance and duplicity, and perpetuated by rascality on the ever-existing credulity of mankind. Now, while the so-called schools making such guarantees are repudiated by legitimate institutions, and while many take occasion to denounce such practices, is everything done that should be by the honest educators of the country to stamp out this evil?

Are we not compelled to admit that the guarantee of situations grew out of the practice of some of our best, most worthy, most conscientious business educators in extolling, as the chief merit of a business education, the passport it affords to a business position? When it was claimed and proved by testimonials that the graduates of a business college readily found lucrative positions as a result of the qualifications afforded them, it only remained for the educational charlatan to go one step further by guaranteeing in advance what others asserted would be a result. It is not my purpose to attempt to prove that those who make so prominent the success of their graduates in getting business positions through the qualifications afforded by and the influence of the school, are making claims in any way savoring of fraud, but I do claim, that, in making an incidental feature of a business training appear the most prominent, they

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are, to a certain extent, lending color to the fraudulent claims of those who follow the same lines of argument, but do not stop where honesty ends and fraud begins. Understand me. I regard it as eminently proper for a legitimate business college to make prominent and emphatic its claims in the direction of fitting young men and young women for lucrative positions in business. I can see no impropriety in publishing the testimonials, adorned with half-tone portraits, of those who have demonstrated the work and worth of the school by securing through its training and influence positions which gave them a start on the road to success in life. I take no exception to this form of advertising, which simply proves the worth of the school by its results. But how about those students who have not been successful in securing good business positions, and, either from necessity or choice, have gone into other fields of labor? Is it to be inferred that their business education was a failure? That because they did not keep books, operate the typewriter, or manage a business office their business training represented a waste of money, time, and energy? By no means. And yet such conceptions of the value of a business training exist to too great an extent among the masses, and they exist because business colleges have, as a rule, not made sufficiently prominent and emphatic the claim that a business education is a necessity whatever pursuit in life the individual may follow; that whether a young man or young woman decides to engage in commercial work, farming, preaching, law practice, teaching, writing, or common every-day labor, a knowledge of business principles and practice is one of the essential elements of success in that work. I have on more than one occasion heard remarks something in this tenor: "Oh, yes, a business college is a good school to attend for those who wish to fit themselves for business, but a great many attend who never get any good out of their education. For instance, young A spent a good deal of time and money taking a business course, and then, when he left the school, took a piece of land and has been doing farm work ever since."

And yet, if young Mr. A had been consulted he would undoubtedly have denied that his business education was of no value to him. If he proved to be the right kind of a farmer he would have claimed that successful farming means farming conducted on correct business principles, and that debit and credit applied to a farm are quite as necessary as fertilizers, for while fertilizers make crops, the application of business principles and business methods coins them into money. This narrow conception of the value of a business training has kept many young people away from business colleges. When they saw by the advertising literature of the schools that the measure of success of a school seemed to be established

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by the number of business situations it secured for its graduates, the educational value of its curriculum seemed to be eliminated. It was not so much education but apprenticeship for clerical duties that was assumed to be desired, and for which facilities were so amply provided. It was this imperfect idea of the scope and character of business colleges that caused them to be stigmatized by many as mere "clerk factories," and to be viewed with suspicion and distrust by many prominent educators who estimated schools from an educational standpoint, and could not understand how an institution that claimed to be a substitute for a business office, furnishing mere practice in mechanical duties, could properly assume the dignified name of college. The educational idea must, to a certain extent, be eliminated when it is persistently overshadowed by claims that treat theories and principles with contempt, insisting that the old primitive way that existed before schools, that of learning to do by doing, is the only royal road leading to success. It is not the purpose of this paper to depreciate or belittle the claims of business colleges regarding the practical character of their work. Were they not practical they would lose their distinctive value. But there is such a thing as claiming too much in this direction, and when the claim is made, and loudly and sharply emphasized, that students engage in actual business transactions, handling actual merchandise and receiving and depositing actual cash, making actual gains and sustaining actual losses, it is no wonder that the contempt of the real, actual business world should be excited, and that confidence in the integrity of such schools should be lost. I am quite aware that business colleges making the claim of actual business do not expect it to be so literally construed as to mean that the merchandise the students handle is real merchandise, the cash the real currency of the country, and the school itself a vast merchandise emporium. "Actual office practice" expresses fully and correctly that which the term "actual business" exaggerates or misrepresents, and if business colleges generally would look more to exact truth than to advertising effect in the preparation of their catalogues and circulars, the claim of "actual business" would give place to other terms that would quite as effectually describe their work, besides possessing the merit of absolute truthfulness. Business educator, first cast the "actual business" out of thine own eye, and then shalt thou see clearly to cast the "guaranteed position" out of thy brother's eye.

The word fraudulent may be, and undoubtedly is, too strong a term to apply to the advertising of "actual business" as the overtowering feature of a school, and yet we must remember that the charlatan who guarantees situations tries to make his claim seem

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plausible by representing that his students are in demand because "actual business" and "no text-book foolishness" is taught. To adopt a part of his methods and try to escape the obloquy that will follow, is very much like the complacency of a foreigner who was roundly abused by another, and then turned away laughing immoderately. "What in the world are you laughing at?" asked a bystander. "Oh, I got such a good yoke on dot 'feller,'" was the reply. "You see he called me a wortless, good for notting Swede fraud." "Well," was the comment, "I don't see any joke about that." "Why, don't you see," said the victim, with another outburst of laughter, "he called me a Swede fraud, when I was a Norwegian all the time."

Now, if this little incident has any moral it is that misrepresentation will be called fraud no matter what name it goes by. In business college advertising there is no need of making claims that may be even perverted into misrepresentation. The exact truth regarding the value of a business education is so grand, broad, and strong that nothing more is necessary to convince the people of its universal utility. Every day broadens the field of action and enlarges the scope of its usefulness. Modern science and invention are revolutionizing the world. All forms of human industry are taking the shape of vast business enterprises which enlist the services of educated brains which machines can never displace. While skilled labor has been begging places at one dollar a day, ten-thousand-dollar places have been hunting for men—men with minds trained to do the practical things that the age demands. And with these opportunities increasing day by day, the responsibility of the business college becomes correspondingly greater, and if it keeps pace with the great march of improvement it must have the strength that comes only from a full appreciation of duty, and the courage and moral purpose to faithfully discharge it.

SHORTHAND AND TYPEWRITING.

BY W. A. WOODWORTH, DENVER, COLO.

Prior to the Christian era shorthand originated, and from that time it marched steadily forward until it was overcome and lost in that deluge of barbarism which swept over the human race after the decline of the Roman empire. In 1588 it was revived in England by Dr. Timothy Bright, from which time until now it has never ceased to delight the scholarship and to quicken the inventive genius

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of successive generations. In 1837 Isaac Pitman, breaking the theoretical bonds which enthralled the art, advanced it to that practical utility which is to-day so fully realized by hundreds and thousands of people.

Its history may be divided into three distinct epochs: Ancient classical stenography, from 63 B. C. to A. D. 1588; modern stenography, from 1588 to 1837; and phonography, from 1837 to the present day.

ANCIENT CLASSICAL STENOGRAPHY.

We possess evidences in the writings of the most renowned Roman statesmen, historians, and poets, such as Cæsar, Cato, Horace, Martial, Pliny, and Tacitus, all of whom either wrote or made use of shorthand, proving that it was extensively employed by the Romans. Rome extended her sway over the then known world. It seemed essential that the debates and weighty resolutions of the senate should be brought quickly to the knowledge of the people. An abbreviated writing adapted to verbatim reporting was preeminently the want of the age. It was this desire which gave impulse to the invention and propagation of shorthand writing.

Tiro, a descendant of one of the nations conquered by the Romans, but living on an equality with Cicero's family, being inspired, no doubt, by Cicero, invented a system of shorthand, by means of which, Cicero having convoked the senate in the Temple of Concord on the fifth day of December, 63 B. C., the orations delivered on that occasion and now familiar to students of history were reported by stenographers placed in different parts of the senate. In 54 B. C. Cicero ordered the proceedings both of the senate and the people to be taken in shorthand and published. After Cicero's death, in 43 B. C., Tiro spent considerable time disseminating the art, and died in 4 B. C. It is altogether incontrovertible that this writing obtained great prominence and was patronized and practiced by the emperors themselves. Augustus was an expert writer, and during his reign there were three classes of stenographers appointed by the imperial government, called *notarii*. Diocletian in an edict stipulated that teachers of shorthand should receive seventy-five *denarii* ($1.50) per month for each pupil.

Origen, an eminent Christian writer of the third century, dictated his critical studies of the Bible to seven or more shorthand writers.

Fulgentius, a grammarian of the fifth century, says: "All instruction is of a lower and higher nature, as the instruction of the youth in writing is divided into the usual one and the stenographic one."

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Constantine, the first Christian emperor of Rome, reclassified the official stenographers introduced by Augustus.

St. Augustine gives an account of a successful strike of shorthand writers, something unknown in this "striking age."

The "incompetent" existed then as now. Basilius the Great chides a careless writer as follows: "Words have wings; therefore, we use signs, so we can attain, in writing, the swiftness of the winged speech. But you, Oh youth, must make the signs very carefully and pay attention to an accurate arrangement of them, as through a little mistake a long speech will be disfigured."

Pliny the Younger (80 A. D.), speaking of his uncle says: "When actually in the bath he was employed either in hearing some book read or in dictating. A shorthand writer constantly attended him in his chariot, who in winter wore a particular sort of warm gloves, that the sharpness of the weather might not interrupt his studies."

Neither were the popes slow to recognize the benefits of shorthand. Jerome employed ten amanuenses and Augustine supported sixteen.

DECLINE AND DISAPPEARANCE.

After the disintegration of the Roman empire in the fifth century for hundreds of years, when ignorance, strife, and bloodshed with their accompanying evils prevailed throughout Europe, there are to be found few references to shorthand.

We pass quickly over its almost complete destruction by fire in the thirteenth century, the discovery by Trithemius of a copy of the Psalms written in the "Tironian Notes" in 1499, now preserved in the library of Wolfenbuttel, Germany; the successful attempt by Elrich Frederick Kopp in 1820 to decipher these notes, containing almost as exhaustive an account of Roman shorthand as if he had invented it himself.

Other systems appeared, but fear of the Inquisition interfered with their use. Incredible as it may appear, Isaac Pitman's phonography was denounced in 1845 by Rev. Edward Bickersteth as follows. "Mesmerism, phrenology, and phonography are the stalking-horses from behind which the most satanic lies and the most absurd blasphemies are sent forth against the Word of God."

MODERN SHORTHAND.

With Timothy Bright's "Characterie," printed in 1588, the modern literature of stenography begins. Since then 883 different systems have been issued, 307 English, 218 German, 145 French, and many Italian, Spanish, Russian, and others. But we pass rapidly to what interests us most.

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PHONOGRAPHY.

Fifty-nine years ago a youthful schoolmaster of Bath, England, who had previously acquired some skill as a writer of Taylor's stenography, devoted a midsummer vacation to the construction of a system of shorthand, by means of which, as he hoped, the study of the art could be made a branch of common school education. What has he lived to see?

An issue of more than 2,000,000 copies of his text-book; a weekly issue of 23,000 copies of his "Phonetic Journal;" the Bible; the Prayer Book; tracts and periodicals without number; Bacon's "Essays;" Bunyan's "Pilgrim's Progress;" Cowper's "Poems;" Miss Muloch's "John Halifax;" Dickens' "Pickwick" and "Oliver Twist;" Goldsmith's "Vicar of Wakefield;" Macaulay's "Essays" and "Biographies;" Milton's "Paradise Lost;" More's "Utopia;" Scott's "Waverley" and "Ivanhoe," and some of Shakespeare's plays published in shorthand characters; and ninety-six per cent of the reporting of the world done by means of systems based upon his own.

INTRODUCTION INTO THE UNITED STATES.

In 1843 Stephen Pearl Andrews attended the World's Anti-Slavery Convention in London. When leaving the platform a package of books and pamphlets was handed him with the request that he examine them and introduce the subject to the American public. The result was the publication of "The Phonographic Class-Book," in 1844, by Andrews, and a class of Boston teachers 500 strong.

In 1848 Oliver Dyer went to Philadelphia, and started a class in the high school. In three years 6,000 persons had been taught the art in Philadelphia. Before 1845 the qualified verbatim reporters of the United States could be counted on the fingers of one hand. Mr. Dyer's class commenced work in March. In the following June, with the aid of twelve pupils, he reported the National Whig Convention which nominated General Taylor for the presidency, and this in connection with school duties. From this class D. F. Murphy, a youth of fourteen, now for so many years the honored head of the official reporting corps of the United States senate, Mr. J. J. McElhone, and others were transferred to the courts of Philadelphia and the two houses of congress,—first officially reported in 1848.

LADIES AS STENOGRAPHERS.

Colorado makes no apology to the ladies. Here they have equal rights with men. A lady is president of our Stenographers' Association. The best managed graded school in Denver has a lady principal. Go on the streets and you will see her independent in locomotion and apparel, while the men are doing admirably as mil-

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liners, dressmakers, and cooks. For some time men held a corner on our profession; but the women now have the advantage—in numbers, at least. She has proven herself worthy. She is proud of being one link in the great chain which keeps the business of the world moving; proud of being a helper instead of a dependent; proud of the special profession which enables her to achieve an honorable independence. General Spinner employed the first seven lady clerks in the Treasury Department at Washington in 1862. He said: "It is the one act of my life with which I am entirely satisfied." There are now several thousand in the different departments.

In 1872 Mrs. Eliza Burnz introduced shorthand into Cooper Institute, teaching free of charge, at which time there were six lady stenographers in New York. Now there are more than 15,000. Two of the best teachers of shorthand and typewriting in the country are Mrs. Packard of New York and Mrs. Longley of California. There are 110,000 lady stenographers in the world. In 1892 they earned $71,000,000.

SHORTHAND AS A PROFESSION.

The reasons for regarding theology, law, and medicine as "the learned professions" arose from the knowledge requisite for their proper exercise. Are more knowledge and skill required to deliver a sermon, to plead a cause, to diagnose a disease, than to rapidly comprehend, reproduce, and preserve for the student the effusions of the theologian, statesman, physician, scientist, and the philosopher?

The moment the reporter ceases to understand, that moment his fingers cease to work; he is lost in a labyrinth from which he cannot extricate himself. Unlike the practitioner of other professions, the general reporter cannot make a specialty of one branch of learning. Mere manual ability to write rapidly is not sufficient. He may be called upon to report the testimony of medical experts on an intricate point on which the life of a fellow being may depend; a convention of druggists or a congress of theologians; a rapid array of statistics on the currency question; a technical debate on the tariff, covering every branch of industry, art, and production; or a grave and learned discussion on a complicated and momentous question of international law.

Three difficulties exist which prevent the proper recognition of our profession:

1. The fact that the reporter is out of sight, and consequently out of mind, and so busily engaged in recording the progress of other arts and sciences and in extending and perpetuating their literature that he leaves the progress of shorthand to time and circumstances.

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2. The statutes in most states provide that the official stenographer may be removed at the pleasure of the presiding judge—an official to-day, a tramp to-morrow.

3. Incompetent Instructors. There exists a conviction that the art can be mastered in a few lessons. There is reason for this conviction. With the placing on the market of a practical typewriter there arose a demand for shorthand writers—a demand that far exceeded the supply. Shorthand colleges (so-called) sprang up all over the country. The avarice of the proprietors induces them to spread broadcast through newspapers, magazines, and circulars "advantages" of their so-called discoveries of easy systems, guaranteeing a full knowledge of the art in a "dozen lessons" and "reporting skill in three months." When a speed of one hundred words a minute (usually on practiced matter) is reached they are graduated, presented with an elaborate diploma, and sent forth into the business world to try the patience of their unfortunate employers and degrade the profession. The United States Bureau of Education informs us, that, in the year 1890, 57,375 persons received instructions in shorthand, and yet 229 more of these institutions sprang up in the United States during the year 1891.

We must discourage all attempts to lower the standard by those who deceive the confiding. The public must be undeceived, and shown the folly of the belief that one can be qualified in three months. No court or legislative reporter should be commissioned who cannot with his pen demonstrate his ability upon an examination by practical men.

True, the elementary principles of stenography, like those of law, medicine, or theology, may be learned in a short time; but everybody knows that a brief course at a medical college is not sufficient to make a skilled physician, nor a smattering of Blackstone, Chitty, and Kent a competent lawyer, and so it cannot make that combination of brain, nerve, and muscle—of knowledge, skill, and endurance, —which we call a reporter. One may mix colors, but he is not an artist; one may use a chisel on marble, but he is not a sculptor; one may master the alphabet of a language, but that does not make a linguist. Even a blacksmith is understood to serve an apprenticeship of a year.

The universal introduction of shorthand will tend to reform our English. As it is, no person can tell the common spelling of any word which he has heard pronounced but has never seen written or printed. For instance, if a uniform pronunciation were given to the termination ough, the first line of the couplet

> Though the tough cough and hiccough plough me through,
> O'er life's dark bough my course I will pursue.

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might be read: "Thuf the tuf cuf and hiccuf pluf me thruf;" or, "Thup the tup cup and hiccup plup me thrup." It is not surprising that the Frenchman should complain of a cow (cough) in his box (chest); or that Voltaire, upon learning that ague is pronounced as two syllables and plague as one, should wish one-half the English had the ague and the other half the plague.

A child should not be subjected to such useless waste of time. When all the sounds are indicated, shorthand is yet four times as rapid as longhand, and a child after a little study could pronounce any word in the English language if he never saw the word before.

The public schools of Bavaria, Saxony, and Austria have introduced shorthand. The Romans taught shorthand. Every child should, must, and will be taught shorthand and typewriting. Our public schools and universities are offered the opportunity to take a long step forward by establishing professorships for stenography and typewriting. The universities should turn out able shorthand teachers and competent practical stenographers. A professor, to perform such a task, must be of no mean education. Private institutions ought to go out of existence unless they are an improved edition of the public school and the university.

Shorthand is one of the most important auxiliaries in the battle of life, not as a means of earning our bread alone but of cultivating the mind—as an aid in general education. It is an extravagance to do without a stenographer, and economy to employ one in our courts and offices.

Mr. Gawtres said of the benefits of shorthand:

If all the feelings of a patriot glow in our bosoms on the perusal of those eloquent speeches which are delivered in the senate, we owe it to shorthand. If new fervor is added to our devotion and an additional stimulus be imparted to our exertions as Christians by the eloquent appeals and encouraging statements made at the anniversaries of our various religious societies, we owe it to shorthand. If we have an opportunity, in interesting judicial cases, of examining the evidence and learning the proceedings with as much certainty and nearly as much minuteness as if we had been present on the occasion, we owe it to shorthand. In short, all those brilliant and spirit-stirring effusions which the circumstances of the present times combine to draw forth, and which the press transmits to us with such astonishing celerity, warm from the lips and instinct with the soul of the speaker, would have been lost entirely to posterity and comparatively little known had it not been for the facilities afforded to their preservation by shorthand.

Were the operations of those who are professionally engaged in exercising this art to be suspended but for a single week a blank would be left in the political and judicial history of our country, an impulse would be wanting to the public mind, and the nation would be taught to feel and acknowledge the important purposes it answers in the business of life.

TYPEWRITING.

Quite as much may be said of the advantages of the typewriter. Shorthand and typewriting are twin sisters. So long as shorthand

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is not universal, the typewriter is as necessary to the stenographer in the transcription of his notes as is an orator's tongue to the utterance of his thoughts. What the sewing machine is to the needle, the typewriter is to the pen. Children enjoy using the typewriter. Twenty-five years ago there was hardly a machine in use. Now there are 300,000. The time is coming soon, advocate it or not as we may, when the typewriter will be used in all public schools and in the home. We expect to live to see the typewriter as common in the home as the sewing machine is to-day. I am sorry to say that if this prediction is not verified the typewriter trust has itself to blame. Even now the business man no longer sits from morning till night writing laboriously with a pen. In one hour at most he can dictate a heavy correspondence, leaving the balance of the day for other business and reasonable rest and recreation.

A preacher once said: "The world is wrong side up. It must be set right side up, and we are the people to do it." The world is in many respects wrong side up. The world is moving up, up, slowly but surely. The stenographer is the Archimedes, shorthand and the typewriter the lever and fulcrum with which to put it right side up. Will the masses ever use typewriters? That might have been asked of the sewing machine thirty years ago, and of the bicycle five years ago, but not now. Civilization takes no steps backward. Why not lead the procession? Agassiz, the eminent naturalist of Harvard College, said he could not have accomplished what he did had it not been for shorthand. Parents come to us with their children, and desire a business education and a position guaranteed in three months. Give us the Boston teachers, the Philadelphia high school scholars, the flower of intellect, and we will give them a stepping-stone on which to climb to the heights of ambition. Teach children shorthand and typewriting, and enable them to accomplish more in a decade than they now accomplish in a lifetime.

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ETHICAL SIDE OF BUSINESS TRAINING.

BY D. W. SPRINGER, ANN ARBOR, MICH.

The possibilities for the teaching of ethics are greater in no department of education than in ours. While discussing the subject of accounts, it is easy for us to refer to the account with us which is kept above. In it we are debited for daily blessings, such as life and health, and credited for all our acts that make for the betterment of mankind. The use of the statement can be made to show the evil effect of too much crdit. Many a man has been dragged to ruin by the fact that his credit was larger than his financial ability. There is a reckoning day for all of us. The trial balance illustrates the difference between being right and nearly right, and strengthens the injunction, "Be sure your sins will find you out." The principles of double entry are those of justice and equality. The student can be shown that it is impossible to get something for nothing and a shoulder-blow is struck against our high-toned forms of gambling.

System is a necessity in our work in book-keeping. It is also necessary if we would economize. If that can be impressed upon our young people, the next generation will be more thrifty and contain fewer bankrupts.

During the time the student is engaged in business practice, he is learning that fair dealing is essential to success. He deals with men and women, and is enabled to make a study of human nature. He discovers his relation to himself and society. He must have confidence in himself. Not the same kind as had the man who was proud of but two things: First, that he was a self-made man; and, second, that he adored his creator. No man can inspire confidence in others who has none in himself. The student should be taught that there are two ways of achieving success: One may rise by pulling others down. The better way, however, is to make the world and others better, and by the strength obtained in such efforts to place ourselves in as commanding a position as possible.

Teachers and proprietors of schools, precepts will count for but little unless our practice is in accord with our instructions. We must gain the confidence and respect of our pupils. At this age in educational advancement, no teacher should be employed who uses liquor or tobacco in any form or who enjoys the pleasure of the card table more than that of the library.

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DEPARTMENT OF CHILD STUDY.

SECRETARY'S MINUTES.

FIRST SESSION.—THURSDAY, JULY 11TH.

The first meeting of the Department of Child Study was called to order at 3 p. m. by President William L. Bryan.

The Secretary, Miss Sara E. Wiltse, being absent, Prof. M. V. O'Shea was appointed to the place.

In his opening address, the President described the character of the program for the entire session, stating that it was the aim to have, first, reports of child study work in different parts of the United States and Canada by committees from different sections; second, a report of the National Committee on School Hygiene; third, brief addresses upon the value and method of child study for a science of education and for teachers in service.

After the President's address a report of child study work in Iowa was read by H. E. Kratz, Superintendent of City Schools, Sioux City, Iowa. This was followed by reports of child study work in Minnesota by Prof. M. V. O'Shea of Mankato, Minn.; in New York, by Prof. E. R. Shaw of the School of Pedagogy, New York City; in California, by Prof. Earl Barnes of Leland Stanford Junior University; in Illinois, by Col. Francis W. Parker of Cook County Normal School, Englewood, Ill.; in Indiana, by Prof. William L. Bryan of Bloomington, Ind.

President Bryan then spoke briefly of the outlook for child study in different parts of the country and the good that had already been accomplished. He said it was of especial importance that child study should be made practicable for the ordinary teacher, and that it should enable her to understand child nature more thoroughly, so that she could adapt her instruction and government and discipline to each individual under her care.

Then followed an address by Dr. Edward R. Shaw, on "Methods of Child Study and Their Comparative Values for the Teacher." This was followed by an address by Prof. G. T. W. Patrick of Iowa, on the subject, "Is Child Study Practicable for the Teacher?"

The last address of the afternoon was delivered by Prof. Earl Barnes, his subject being "Punishment as Seen by Children."

The President appointed as a Committee on Nominations, Prof. G. T. W. Patrick of Iowa, Prof. M. V. O'Shea of Minnesota, and Mrs. Charles E. Dickenson of Colorado.

The meeting was then declared adjourned until Friday afternoon.

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SECOND SESSION.—FRIDAY, JULY 12TH.

The meeting was called to order at 3 o'clock p. m. by President Bryan.

The first address of the afternoon was delivered by Prof. M. V. O'Shea, upon "The Method and Scope of Child Study for Teachers in Service."

This was followed by an address by Prof. W. O. Krohn of Illinois, on "Some Results of Child Study Work in Illinois, and Their Value for Teachers in Service."

Dr. Charles De Garmo being called upon, delivered an address upon "Child Study from the Herbartian Point of View."

Dr. C. C. Van Liew of Illinois then followed with an address on "Child Study with the Co-operation of the Parents."

An abstract of a paper by Professor Baldwin of Princeton College upon "Imitation in Childhood" was presented by President Bryan; and this was followed by a report of "Studies upon Motor Ability" by Supt. John A. Hancock of Colorado.

There followed upon this report some discussion upon the development of the muscular system and of physical activities in children. It seemed to be the opinion that the development of free, large activities precedes that of delicately coordinated activities, rather than that the devolpment of large muscles precedes that of smaller ones.

The report of the National Committee on School Hygiene was read by Dr. Edward R. Shaw.

The Committee upon Nominations reported as follows:

For *President*—Prof. Earl Barnes of California.
For *Vice President*—Supt. Orville T. Bright of Illinois.
For *Secretary*—Dr. Edward R. Shaw of New York.

Upon motion, the report of the committee was accepted, and the above were declared the officers for the ensuing year.

After a few brief remarks by the President, expressing satisfaction with the marked success of the meetings of the department, the meeting was declared adjourned.

M. V. O'SHEA,
Secretary pro tem.

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PAPERS AND DISCUSSIONS.

REPORT ON CHILD STUDY IN IOWA.

BY H. E. KRATZ, SUPERINTENDENT OF SCHOOLS, SIOUX CITY, IOWA.

Iowa has but recently taken up in a systematic form the lines of work now designated under child study.

That which gave the greatest impetus to this line of work was the formation last winter, at the meeting of the State Educational Association, of the Iowa Society for Child Study.

A simple organization was formed. Its officers consisted of president, secretary, and treasurer, who, aside from performing the usual duties of such officers, were constituted an executive committee to appoint leaders to carry on the lines of work agreed upon, and who were given general management of the work of the society.

Three lines of investigation were agreed upon, viz.:

1. Ear-mindedness and eye-mindedness; with the view of learning about the comparative value of recollection, through impressions made on the ear and eye, and possibly gaining some suggestions as to the cause of poor spelling, and how to correct it.

2. Tests of sight and hearing; in order to discover what per cent of pupils had defective senses; whether this per cent increased in the higher grades or not, etc.

3. Determination of age, weight, and height of respective grades; for the purpose of testing whether large physical development and precocity usually attend each other, and, if so, whether the former stands in relation to the latter, as cause and effect.

Other lines of work were not excluded, but it was deemed wise not to attempt too many lines of investigation at first.

The officers chosen were: Supt. H. E. Kratz, Sioux City, President; Supt. C. P. Rogers, Marshalltown, treasurer, and Supt. O. C. Scott, Oskaloosa, secretary.

An annual fee of fifty cents was fixed, and an enrollment of seventy-five members secured.

In April a sixteen-page pamphlet was issued by the society, through the co-operation of the Department of Public Instruction, which contained a history of the organization of the Iowa Society for Child Study, working directions for the lines of investigation agreed upon, study of temperament, study of individual characterization, and bibliography of child study.

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Results are, as yet, necessarily meager. In ear-mindedness and eye-mindedness the investigations, while not conclusive, seem to indicate that good spellers, generally, are eye-minded, and that it may be well to attempt to develop eye-mindedness in the poor spellers.

In tests of sight and hearing, the investigations showed an alarming increase in defective vision as they ascended the grades. In one city, where 4,551 pupils were examined, the per cent of defective sight was six in the first grade, and sixteen and a half in the eighth grade.

In determining the relation of large physical development to precocity or scholarship, conclusions vary; but as far as the investigations have gone they seem to indicate that a big body is no assurance of a big per cent in scholarship.

In several cities of the state the study of the individual pupil was begun by recording, on a blank prepared for that purpose, the chief characteristics of each pupil, and noting at bi-monthly intervals any changes which were observed. A year's use of such blanks shows the following advantages:

First (and of foremost importance).—There has been such an interest roused among the teachers in the study of pupils' chief characteristics as never before was manifest. Teachers say that their pupils are in their thought as never before, individual peculiarities are better understood, a deeper insight gained into child nature, etc.

Second—There is a more intelligent appreciation on part of teachers of the real needs and defects of their pupils and a greater definiteness of aim in their work.

Third—A few children who were regarded as hopelessly dull have been found to be simply dull in hearing; and some to be hindered by defective eyesight.

Fourth—Teachers have been able to seat pupils with reference to their ability to see and hear.

Fifth—The teachers with the records of their pupils' defects before them could more effectively work for symmetrical development of each pupil.

Sixth—The teachers were brought into closer and better relations to their pupils in general, and developed greater intelligence and sympathy in dealing with bad boys and girls.

Seventh—The records disclosed to the superintendent how carefully his teachers studied their pupils, the measurements they applied, what motives they appealed to, and what feelings they sought to arouse. In short, the inner school-life of each teacher was thus revealed. We are convinced, that, in this line of child study, we are on the right road to still more effective work.

This report of work already done in Iowa cannot set forth that which is most promising in this department; and that is, the en-

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couraging outlook for the coming year. From nearly every quarter of the state came the report: "We have not yet made a beginning, but we are getting ready to prosecute these investigations vigorously the coming year." Our most promising work lies in the future.

REPORT OF THE WORK IN CHILD STUDY IN MINNESOTA.

BY M. V. O'SHEA, STATE NORMAL SCHOOL, MANKATO, MINN.

My report of child study in Minnesota will perhaps be more prophetic than historical—a promise of things to come, rather than a lengthy record of important things already accomplished. The past year has not been entirely fruitless, however, for much interest has been manifested in all parts of the state in child study, and a beginning at least has been made in the work in a number of places—in the state university, in the normal schools, and in many of the public schools. At the university, Mr. Harlow S. Gale, who has the chair of experimental psychology, has devoted considerable time during his regular class-work to the consideration of the methods and problems of child study; and during the past year a member of the senior class, in conjunction with Mr. Gale, has been making a special study upon children's imaginations. I am not able at this time to give the results of that study, for the material gained has not been completely worked over; but it seems to be a very interesting one, and I believe something good will come from it. Mr. and Mrs. Gale, both of whom are trained psychologists, are keeping a psychological diary, after the manner of Preyer, of their child, two years of age, and there is reason to believe that some valuable suggestions will come from this later.

In the state normal schools considerable work along the line of child study is being done in connection with the regular work in the training of teachers. At St. Cloud special studies were made the past year, under the direction of Miss Lawrence, superintendent of the practice department, upon the eye-mindedness and ear-mindedness of 121 children, the tests suggested by Granville in his little book being followed. It was found that the number of pupils who were decidedly sight-workers increased from the lower grades to the higher. She believes this is an indication that cultivation may develop either eye-mindedness or ear-mindedness, and that modern school methods train the eye more than the ear. "A class of pupils from the country who had been in the school regularly had thirty-three and one-third per cent sound-workers. Throughout the grade pupils who

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were marked sound-workers were the poorest readers of their classes. These pupils were very good thinkers and workers in most of their work, but manifested less interest at once if asked to look at a book. They frequently endeavored to get the story of the reading lesson by listening to others. After discovering this, the ear was appealed to more frequently in connection with words. Ear-minded pupils were always given an opportunity to sound words, were required to read orally more than they had been, rhymed words were used, and so on. The result was a marked improvement in their work in reading."

At the Winona Normal School, the study of children during the past year consisted of the following, under the direction of Mr. E. A. Kirkpatrick, instructor in psychology, and Mr. L. H. Galbreath, instructor in methods and superintendent of the practice school: (1) Discussion of students' own childish experiences, and their incidental observations upon children in connection with the study of various topics in psychology. (2) A course of lectures and assigned readings, giving purposes, methods, and principal results of child study. (3) Observations of classes and individual pupils in the model school under ordinary school conditions, to determine their power and habit of attention, perception, apperception, imagination, memory, conception, reasoning, and volition. The students were furnished with outlines to guide them, and they reported both orally and in writing their observations and inferences. (4) Experiments conducted by the students, under the direction of the teacher of psychology, upon the pupils in the model school, in testing sight, hearing, motor-ability, and so on. (5) Inquiries, conducted by the statistical method, leading students by generalization to see the kind and amount of reading done by the pupils, their ideals of right and wrong, etc. (6) Measurements and observations of individual children by students at home and during vacation, more extensively varied than is possible in the schoolroom. For this, printed directions were given students, and their reports were tabulated by members of the psychology classes and all the generalizations possible made.

In addition to these six lines of work, Mr. Galbreath made a special study upon a class of normal school students—as to their readiness in appropriating the contents of any assigned reading. He found that it took some students twice as long as others to master the same article, and his conclusions are valuable as indicating a marked difference in the quickness of pupils in responding to the stimuli of the classroom.

At the Mankato Normal School the work in the study of children is somewhat similar to that at Winona. During the past year there have been three principal lines of work:

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(1) Studies upon the physical, intellectual, and emotional characteristics of children in relation to the work of the schoolroom. Courses of lectures are given in the psychology and pedagogy classes upon the purposes and methods of child study, and the results that are being reached by different experimenters. The best methods and means of child study for the teacher are especially considered. After completing the studies in psychology and pedagogy, and before beginning teaching in the practice school, each pupil-teacher is required to observe and study the children he is to teach, making careful reports upon physical, intellectual, and emotional characteristics, so far as these are of direct concern to the teacher. In making out these reports, the children are never aware that they are being studied, unless in the case of testing senses, motor-ability, etc., but the teacher is required to gather all data from observations made during the regular work of the classroom and upon the playground. Several reports of each pupil are made during the year by different persons, these being carefully preserved; and it is the purpose to thus keep a record of each pupil as he goes through the grades. It is believed that several years of such detailed and careful records will afford valuable data for the educator in tracing the effect of varied educational agencies upon children in different stages of their education. In addition to the study of general characteristics, pupils are studied as to their capacities for responding to each of the different subjects of instruction in the school. If a pupil seems deficient in any branch, a careful test is made to discover, if possible, the reason for this.

2. The special studies upon children's drawings begun three years ago, a preliminary report of which was made at the meeting of this association at Asbury Park last year, have been continued, and a large number of drawings have been collected from children in the Mankato Normal School and from the public schools of the state. These continued studies tend to confirm the points made in that report, that children use symbols with great readiness and confidence in expressing their concepts and ideas of the relations of things in their environment; that every child has a characteristic way of making symbols to express his thought, and that these symbols seem to embody, in a measure at least, the concept characteristics of objects as the child thinks of them. During the past year drawings were gained at frequent intervals from children who had already made drawings for two years, the purpose in this being to trace changes in the symbols used, and in the freedom, manner, and accuracy of using them to express relations indicated in a selection of narration or description in story form. It is the aim to continue this work so that we may have several years' drawings of a number of children, which we purpose to continue to study along the lines indicated in last year's report.

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3. During the past year numerous special studies have been made at the Mankato Normal, but they have been sent to specialists in different parts of the country to be worked over in conjunction with other material. Studies were thus made upon children's imagination, hopes, time-sense, sense of justice, and so on.

In the public schools, especially those of St. Cloud, St. Paul, and Duluth, studies have been made upon children to determine their relation to and capacity for the work of the classroom. These included tests upon the senses and the motor-abilities of pupils, and observations upon the keenness and accuracy of perception, memory, imagination, and reasoning.

Mr. C. L. Sawyer, principal of the South Side High School of Minneapolis, required monthly reports of all his teachers upon the physical, intellectual, emotional, and volitional characteristics of each pupil under their care.

This is substantially what has been done in our state along the line of child study during the past year. We hope to have more to report in coming years. A state association will probably be formed at the approaching meeting of the university summer school, and much interest and enthusiasm is manifested in such an organization. Letters have been received from many of the leading educators of the state, all of whom are anxious to have a society that will keep abreast of the work done in child study, with the special aim to make this new work practical for the average teacher in the graded schools. There seems to be a general feeling at present that the study of children, as ordinarily conducted, is not feasible or of special value in the average schoolroom, so that in many places nothing is being attempted by the very class that most need the benefits that may come from child study. We are hoping, that, if an association be formed, suggestions can be made that will be practical and profitable for at least the average public school teacher.

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REPORT OF THE COMMITTEE FOR NEW YORK STATE ON CHILD STUDY.

BY THE COMMITTEE.

In gathering the information for this report your committee addressed letters to all the normal schools of the state, to other institutions of equal and higher rank for the training of teachers, and also the State Department of Public Instruction. Replies have been received from all but six of the professional centers of education. At the Oswego Normal School during the past year all the students in psychology have made observations upon children outside the school. This work has been under the direction of Miss Margaret K. Smith. The study was made in accordance with printed syllabi, and involved the physical condition of the child as to appearance, development, and health. Measurements of the body were made in regard to height, weight, size of head, chest, shoulders, and arms. Tests were made upon clearness of vision; upon accuracy of hearing and distinguishing the direction of sounds; sensitiveness as to touch; muscular resistance. A study was made of the child in repose; then tests to ascertain to some extent the contents of the child's mind, by seeing what he would recognize through each sense. A study of the child at play was made—as to the kind of play preferred; tendency to imitate; tendency towards persistence; adaptation of means to ends; tendency to construct, to reproduce; power of attention; sense of fair play; evidence of will; evidence of self-control, etc. The last syllabus used by the student in this study of the child directed him to observe the senses most highly developed; those most depended on; the properties or qualities of an object which the child notices first; the adequacy of language to needs; character of questions asked; motive; lines of curiosity; how the child satisfies his curiosity; lines of ignorance; relation between parents' occupation and child's knowledge; manual capability; attitude towards animals, music, poetry, stories; favorite places and persons; the tendencies of the child; characteristics of his desires, beliefs; his sense of right and wrong; character of memory; influence of environment. All this has been required of the students of the psychology class with regard to children not in the practice school. In the practice school special studies have been made upon reflex action, upon anger as evidenced by children, and also an effort has been made to recognize children who are below the average intellectually as well as physically. The matter of child study has assumed considerable proportions as a part of the

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training of teachers at Oswego. It must not be assumed, however, that all these observations and measurements have been made with the scientific exactness of the specialist. The effort has been made in the true direction to enlarge the teacher's knowledge of the individual child in order that she may the more fully aid that child's best development. A further end is secured in that the teacher is led to become interested in the more scientific investigations of specialists and to appreciate the value of these investigations.

During the latter part of this year, State Superintendent Skinner, through the Department of Public Instruction, has taken up the matter of child study. It is the intention of the department to give the subject a trial, and through teachers' institutes to interest the rank and file of teachers throughout the state. Accordingly the department has issued a pamphlet of thirteen pages, entitled "Hints on Child Study," by Prof. Charles H. Thurber of Colgate University, and also a syllabus by Professor Thurber, to secure data for a study on "Children's Hopes." Through this effort of the state department much data will probably be collected. Already over 3,000 papers have been sent in.

The Geneseo Normal School has already begun the collection of data according to the syllabus issued by the state department.

At the Cortlandt Normal School work in child study has been introduced during the past term, and the results have been found to be so helpful that it is purposed to make it a part of the regular work next year.

At the Potsdam Normal School students in the graduating class have been required to study and report on groups of children and on individual children. These reports were made the bases of discussions in the graduating class, and Principal Stowell deems such study intimately connected with the normal training of teachers.

In the Normal College of New York City, the senior class has made a collection of 1,200 miscellaneous incidents regarding children, and these incidents have been discussed. Several classes of children have been tested individually upon spelling and drawing. At this institution monthly meetings for child study have been held under the direction of the Committee on Child Study of the Associate Alumnæ. This committee has collected data on "Anger" and "Dolls," according to Dr. Hall's syllabi. The committee has also kept continuous records of fifty children in the Alumnæ Kindergarten of the East Side.

At the School of Pedagogy, University of Buffalo, monthly meetings of mothers in the interest of child study have been held at the Franklin School. In this school the teachers have been collecting facts, so as to secure a biography of each child—this biography being kept in a separate book. Accurate physical measurements of

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the children of this school have been taken at two periods, with the intention of giving physical exercise that will correct faults as well as serve for comparison.

At the School of Pedagogy, New York University, observations, tests, and measurements upon handwriting have been continued during the year, the number of pupils thus tested and studied reaching nearly 4,000.

The collation of the data is not yet completed. Some of the conclusions which it seems to warrant are: (1) That the muscular habit of girls in writing becomes sooner fixed and is more difficult to change than that of boys. (2) That girls in writing are fatigued considerably quicker than boys. (3) That fatigue of either boys or girls in writing varies widely, some becoming apparently as much fatigued in writing three lines as others in writing eight lines, with variations between these two numbers. In the Hensinger School—a day school recently established in which the University School of Pedagogy has a small but enlarging interest—experiments have been made upon children when learning to write. The children of the first and second years wrote only upon the blackboard, making very large letters. By inciting these children to write with the left hand about one-third as much as with the right hand, it was found that the improvement with the right hand was greater than if the right hand alone had been used. With the older pupils who wrote with pen and ink, a desk with a slope of 15° and a sliding top, to give a minus distance of three and one-half inches, was found to give the pupil greater ease and freedom in writing and greatly to improve his posture while writing. The vertical hand was the style used.

The School of Pedagogy also made during the year an extended study upon the poor spellers in a school of 600 pupils. As similar studies are to be made upon the poor spellers of other schools during the coming year, only a few points growing out of the study are reported. The study showed that with these pupils the eye aids most in learning the first part of the word and the ear most in learning the latter part of the word; that these poor spellers were helped by first studying the words aloud and after this writing them, and that association of letters and memory was decidedly helped by dividing the word into syllables and pronouncing each syllable.

In closing this report, mention must be made of the many teachers and other observers throughout the state who are quietly and assiduously collecting data for specialists to collate and generalize upon, thus giving most important aid to the child-study movement.

Respectfully submitted,

EDWARD R. SHAW,
JENNY B. MERRILL,
Committee.

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THE STUDY OF CHILDREN ON THE PACIFIC COAST.

BY EARL BARNES, LELAND STANFORD UNIVERSITY, CAL.

The Pacific Coast has no state organization devoted to the study of children. The work with us has naturally gathered around our two great universities, the normal schools, and scattered workers. Alexander E. Frye, as superintendent of the San Bernardino schools, prepared an elaborate mind chart some four years ago and gathered a large amount of data. So far as I know these have not yet been worked up. Charles McGrew of San Jose about the same time prepared and printed some very general outlines for gathering data, but owing to Mr. McGrew's death the work was never brought to completion.

When Stanford University was opened in 1891 a course of work was at once offered in the Department of Education on the Study of Children. Only half a dozen students registered for the course, but it has grown steadily until this year we had fifty-two students registered in this course, and during the past two years we have had a seminary devoted to the same work. We have also had from the first, as a part of the department of education, an experimental kindergarten and primary school where we have been able to carry out some specific studies. From the university we have carried on series of studies,—lecturing, printing outlines, gathering and working up data,—in connection with the superintendents of education in the cities of Oakland, Santa Cruz, Alameda, Santa Rosa, and Stockton; in connection with county institutes we have printed outlines and gathered materials for various phases of child study from all the schools in Monterey, Santa Ana, San Mateo, Fresno, Madera, San Bernardino, Riverside, and El Dorado counties. As a result of these collections we have gathered and worked up 15,000 children's drawings, 7,000 papers on the historical sense, 37,500 definitions (following Binet's tests), 3,000 papers on children's rights, 1,200 compositions on heaven and hell, 4,000 papers describing punishments, 2,000 studies on observation, 3,000 comparisons of the horse and cow, 5,000 papers on inference, 3,000 papers on children's ambitions, 1,200 tests on poor spellers, 1,200 color tests, and 2,000 compositions on fear. We have also a large amount of material collected on the property sense, the sense of time, sex instinct, the money sense, etc. The results of these studies have been presented in a variety of papers before congresses and associations and in articles in the "Pedagogical Seminary," the "Pacific Educational Journal," and in other journals. Miss Schal-

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lenberger's principal contribution has been the study on "Children's Rights" in the "Pedagogical Seminary," and she is now working on children's property-sense.

About the time that this work on children of school age was begun the Pacific Branch of the Association of Collegiate Alumnæ organized a committee for the study of infants. Miss Milicent Shinn of Niles organized this committee, and has been its active leader ever since. She prepared and published for its use two very extended and valuable syllabi for directing would-be students. During the past year the committee has met as a graduate seminary of the University of California, and it has now an elaborate study on children's drawings nearly ready to publish. Miss Shinn has prepared and published, under the auspices of the University of California, two volumes of "Notes on the Development of a Child," making the most complete record of infant life so far printed. She has also published several articles in the "Overland Monthly," the "Normal Exponent," the "University of California Magazine," and elsewhere, on this subject, and her addresses before the Association of Collegiate Alumnæ and the Woman's Congress in San Francisco have been widely read.

With the establishment of the Department of Pedagogy in the University of California in 1892, Prof. Elmer E. Brown brought to California new interest in these lines of work. In his own classes he has done much to develop an interest in child study, and his investigations on "Children's Interests" in the city of Oakland have led to valuable results. He has maintained a seminary on child study during the past two years, one member of which, Miss Mary Wilson, has just completed a translation of "*Compayre's L'Evolution Intellectuelle et Morale de l'Enfant*," which is soon to be published.

At the beginning of this year Prof. Thos. P. Bailey was called to an assistant professorship in Professor Brown's department, and he has succeeded through his classes and through his field work in institutes and conventions in arousing an interest in these directions. His "Child Study for Naturalists," published first as a bulletin of the South Carolina Association for the Study of Children, and afterward in the "Pacific Educational Journal," has helped many inquiring minds.

Within the past few months one of the public schools of Oakland has been set aside as an observation school for the University of California. It is under the direction of the department of pedagogy, and several promising lines of experiment and observation have been started.

In the summer of 1894 Dr. F. B. Dresslar was called to the department of psychology and pedagogy in the State Normal School at Los Angeles. He has aroused an interest in his part of the state in child

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study, and has started promising lines of work. His articles in "American Journal of Psychology," Vol. VI., No. 3, and in the "Handbook of the Illinois Society for Child Study," are well known. He has now in hand an extended study on "Number Perception through Touch and Sight Compared."

At the San Jose Normal beginnings have been made in this line of study.

I doubt if any other part of our country gives such freedom and such enthusiastic assistance to students in this field as our own Pacific Slope. Our school organizations and regulations are flexible, our teachers and parents are optimistic and eager to help, and our school superintendents are glad to lend a hand in all possible ways. Much of what has been done is due to the intelligent co-operation of such men as McClymonds, Burke, Barr, Linscott, Greeley, and Wood.

THE STUDY OF CHILDREN AT THE UNIVERSITY OF CALIFORNIA.

BY ELMER E. BROWN, BERKELEY, CAL.

One of the lines of child study undertaken in connection with our work at the University of California is the investigation of children's interest in the different branches pursued in the common schools. So far as possible, we are seeking to determine what well-defined sequence of interest in different aspects of a given branch may be found in the great body of school children in the course of their development within the period of their school-life. We believe that any well-defined stages of interest that may be discovered will be of considerable significance in connection with the problem of the elementary school curriculum.

The first study of this sort undertaken was in reference to the development of interest in various forms of narrative. The results of a preliminary investigation along this line were published in the school report of Oakland, Cal., for 1892-93. The only scientific value attaching to these results is the suggestion of the rough outlines of a working hypothesis. Further investigations along the same line are now in progress. A second study which we are undertaking, parallel with this, relates to children's interest in different aspects of natural science study. There is perhaps no line of study in the elementary school course more painfully lacking in any well-defined sequence of topics than is our nature study. This is perhaps one reason for the

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slow progress that our nature study has made. We have observed that children are much interested at an early age in the mere naming and recognition of natural objects. It has been noticed also that many show great fondness for machinery and for the observation of the play of physical forces. Possibly the studies of living things (biological studies, if you please) have been given undue prominence as compared with physical studies. Furthermore, some question has been raised as to whether the processes of development, as of a plant from the seed, a butterfly from the caterpillar, a chick from the egg, are as immediately interesting to the youngest children as are some of the other aspects of nature study. Close attention to the processes of development has appeared at a late day in the evolution of the sciences. Possibly individual evolution may be analogous to the evolution of the race in this as in many other particulars. At any rate, a painstaking study of the things that are intrinsically most interesting to children at different stages of their school-life is highly desirable.

As suggesting lines of fruitful investigation, we have found a general inquiry into the things in which school children are interested of value. Circulars were sent to a number of teachers, asking them to ascertain as nearly as possible what things each child in their respective schools took the greatest interest in. This inquiry related, not simply to the pursuits of the schoolroom but to whatever could be observed of tendencies and tastes as displayed on the playground and outside of school. The reports sent in were highly suggestive and interesting.

REPORT ON WORK IN CHILD STUDY IN INDIANA.

BY WILLIAM L. BRYAN, UNIVERSITY OF INDIANA, BLOOMINGTON, IND.

In Indiana we have no state organization for child study, but there are vigorous calls for organization from many parts of the state. Courses in child study are given at the State Normal School by Professor Stalker, at the Danville Normal by Professor Kingman, and at the State University. Active child study work has been done by about one dozen former students of Indiana University, who are now school superintendents or principals. In a half-dozen cases the work done by these men has proved beyond doubt how great the immediate benefits to teacher and school may be from such work, under wise direction. At the State University we seek above all to train

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men and women to do and to direct high class work in child study when they enter or re-enter school work. After an elementary year in psychology, we offer a year's laboratory course, followed by research work as long as the student pleases to stay.

We believe that scientific child study can only really get inside the school through such men and women, and we are happily seeing this thing now coming to pass. The research work conducted by Dr. Bergstrom and myself is by no means confined to child study, but fully half of the work is so. Mr. Culver has in a forward state an investigation of the curve of mental fatigue. Mr. Bush has completed a research on the curve of memory for foreign words. Mr. Harter has completed a research which has important bearings on the subject of apperception and on the curve of habit. Mr. Westphal has shown in a new and decisive way the importance of suggestion. Other researches bearing on the co-ordination of activities are less far advanced.

I have heard over and over that this movement is a short-lived fad. I have not yet found an unbeliever who was not converted by three months in the laboratory; and when I see in Indiana between fifty and one hundred strong men and women, most of them over twenty-five, working for mastery in this great field, I am careless of which way the wind of popular opinion blows to-day.

IS CHILD STUDY PRACTICABLE FOR THE TEACHER?

BY G. T. W. PATRICK, STATE UNIVERSITY OF IOWA.

LADIES AND GENTLEMEN: You are all enthusiastic on the subject of child study. You think that it is not only practicable for the teacher, but that it is one of the most vital, most fruitful, most hopeful movements in modern pedagogy. In this opinion I fully concur. Why, then, do I propose such a chilling question as the practicability of child study for the teacher? That such an inquiry is pertinent and timely a few considerations will show.

Certain forms of child study are not only practicable for the teacher, but always have been and always will be practiced by every teacher who takes an interest in her pupils. I do not refer to these, but to child study in the newer sense; to those special, painstaking investigations illustrated by the work of Preyer, Stanley Hall, Russell, Barnes, Baldwin, Porter, and Gilbert, and reported from year to year in this department. Is this kind of child study practicable for

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the teacher? and by the teacher I mean the teacher in our common public schools. I leave out of account now the normal school, the college, and the university. In these, or whenever there is any attempt at systematic inductive study of psychology, child study will have a large place. For the science of psychology it has already done a great deal and promises to do far more. It is going to be for some years one of the most engrossing fields of study in the psychological laboratory.

But now what shall we say of the common school? The child study movement has reached that stage when this question must be brought forward for discussion. Child study is the latest pedagogical fad. Very lately everybody connected with a public school has heard much about it. Almost every city superintendent has talked of it to his teachers, and perhaps made some attempt to introduce it. Child study is, as it were, upon the conscience of the public school teacher now. It is a new duty, which perhaps she understands but poorly, but which is impending. Some, indeed, have welcomed it with enthusiasm; have, perhaps, undertaken it in some form or another; but, in general, the teacher's attitude may be said to be this: She wishes to understand better what child study is; why she must add it to her already over-numerous duties; and if she must, in what form and in what way.

We must remember that the select few scattered throughout the country who have followed the child study movement with interest and sympathy from its beginning, who have undertaken perhaps the study of children in their own schools, or homes, or laboratories with brilliant results, and many of whom, no doubt, are gathered here to-day, are not representative of the great army of working teachers. Let me speak of Iowa, with which I am most familiar, and which I may take as a typical community. In that state there are about 17,000 schools and about 28,000 teachers. In these 17,000 schools practically nothing has been done in systematic child study to the present time; but there are probably very few teachers, in the graded schools, at least, who have not heard much about the subject and who are not waiting to know what they must do. We propose, therefore, this question: Shall the teachers in our primary and intermediate grades undertake this work, and if so, in what way?

Child study has now advanced so far that we may look back over the work done, and see what methods have proved useful, and of the useful efforts may inquire what ones are open to the teacher.

1. The study of infants and young children through successive weeks, months, and years, as practiced by Preyer, Baldwin, Miss Shinn, and others, has proved eminently useful, and made valuable

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contributions to psychology and pedagogy; but this method is, of course, not open to the teacher who gets the child, at best, not until the age of five or six.

2. The method of Barnes in studying children's drawings, theological ideas, etc.; the method of Margaret Schallenberger in studying children's rights; the method of Bryan and Hancock in studying motor ability, can never be practiced to any extent by the teacher, because such studies to be of scientific value must be planned and directed by a specialist who is acquainted with the literature of the subject, who understands accurate laboratory methods, and who has such knowledge of statistics as shall enable him to handle the results when obtained. Only in very exceptional cases may we expect the teacher herself to be such a specialist. Furthermore, no teacher has a large enough number of children under her charge to use this method. She may, to be sure, co-operate with others. She may receive blanks, make tests, and return reports; but as a matter of fact it has been found, that, in all tests requiring accuracy, the presence of an expert to whom the teacher acts as an assistant is advisable.

Another most fruitful method of child study is that used by Gilbert upon the New Haven school children. He tested 600 boys and 600 girls, fifty for each year from the ages of six to seventeen, in respect to height, weight, lung capacity, muscle sense, color discrimination, force of suggestion, motor ability, reaction time, fatigue, and memory,—his elaborate and carefully prepared tables and curves showing variations of each of these matters, with age and sex. But this method is not practicable for the teacher, requiring a large number of children, much time, elaborate apparatus, and more knowledge of the higher mathematics and laboratory methods than the teacher usually possesses.

There is finally the so-called Russell method, which originated in the Worcester Normal School, and which consists in miscellaneous observations of children's sayings and doings, accurately recorded upon provided blanks of different colors. This method is certainly practicable for any teacher, but it has not proved as useful as was hoped, for, since no definite problem is set, the working up of the material thus collected is almost a hopeless task. In one way, however, this method has proved useful. It has awakened in the teacher a new and healthy interest in the child and sharpened her powers of observation. If the results of these observations could be used, and if the teacher could have an abiding faith that they would be used, we should have here a practicable kind of child study; but as soon as the teacher discovers that this study is chiefly for its retroactive effect upon her, her interest in it is gone. The case is like the sub-

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jective influence of prayer. It is good so long as one believes in the objective answer. There is one other objection to the Russell method, which in the public schools is almost fatal. It is absolutely necessary that the children shall not know that they are studied. If they do, not only are the results worthless, but there follows a disastrous form of pride and self-consciousness. It is doubtful whether this kind of child study could be widely introduced into our schools without coming to the knowledge of the parents and children.

These are the principal methods of child study as it stands to the present time, and we have seen that their practicability in the public schools is doubtful. The fact of the matter is, that the nature of these studies is such as to preclude their practice to any great extent by the teacher. The very success which has attended this movement is due to its bringing to bear upon the child those exact and comprehensive methods which have advanced the material sciences, and which belong to the technical school and to the college laboratory and seminary. It is no discredit to the teacher that she cannot carry out these methods. It is not her business. It is asking too much of her to require her, not only to adapt her teaching to the laws of physical and mental growth but that she herself shall ascertain these laws. This work is vital, but it must be done by others. We require that the teacher shall understand the laws of respiration and the circulation of the blood, but we do not expect her to ascertain these laws by examining her own pupils. Others do this, and she profits by their labors. Child study as we have thus far used the term is not the function of the teacher, nor has the average teacher the time or training for it. I fear, furthermore, that the rapid propagandism of child study through our public schools will be injurious to its highest interests, and by its failure will arouse prejudice against one of the most hopeful contributions to pedagogy. There is need of propagandism on the subject, but it should be confined to the results of child study and to special methods adapted to the teacher. The hand-books and manuals of child study which are now being scattered among the schools present, with many good and wise suggestions, a great mass of questions and tests which never will and never should be used by teachers, and which if used would only lead to confusion. I conclude, then, that child study in the technical sense in which we have used it, as illustrated by the methods which we have examined, is not the function of the teacher, and is not practicable in the public schools.

But there is a kind of child study which is practicable for the teacher, and which indeed can be done by no one else; and this

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brings one to the second and positive part of my paper. When I survey the field of child study for the last ten years, and when I note some of the pedagogical fruit derived therefrom, and then when I enter the average schoolroom of the intermediate or primary grades or the kindergarten, I am convinced that the first thing for the teacher to do is to acquaint herself with the work that has already been done in child study and to apply its results. The best thing for any state society for child study to do is to print a succinct account of the results of child study to date and put it into the hands of every teacher. Let me illustrate: One of the results of child study, thanks to the labors of Stanley Hall, Bryan, and Hancock, is, that, in young children, movement should be large and free, involving the larger muscles of the trunk, arms, and legs, and that fine finger and eye work, requiring delicate co-ordination, exactness, and fixity of the body, is immaterial and dangerous at this period, fruitful in producing chorea and defective sight. That part of kindergarten work to which most time is given, namely, modeling, cutting, and pasting colored papers, interlacing slats, stick-laying, etc., is shown, for young children, to be wholly wrong. Yet in many of our schools these very things are now being introduced into the primary grades, and for many decades the tendency has been to increase the study of drawing, designing, writing, and, in general, the hand and eye education. We are not surprised that Sturgis tests, reported by Hancock, showed that, out of 150 children examined, only half were free from choreic tendencies. Child study has also shown how simple tests upon children will reveal these beginnings of nervous disease, yet the number of teachers who understand these tests or ever make them is almost infinitesimal.

Again, child study has shown that it is unnatural and injurious for children to be still; that movement—movement large, free, and frequent—is necessary for health of mind as well as body. Yet inquiries in a school system in a prosperous Iowa town revealed the fact, that, from the third grade upward, the children are kept sitting in their seats from 9:00 to 11:30 in the morning and from 1:15 to 3:30 in the afternoon; that even the recess—that blessed old-fashioned respite of fifteen minutes—has been abolished; that the custom of having the children recite from their own desks instead of passing to recitation seats is rapidly growing in favor, and that therefore they leave their seats during all this time only for five or ten minutes' marching, twice a day.

Again, child study has shown that play is one of the best means of education for young children; yet at the age of five the child is taken into the schoolroom, put into a straight-backed, immovable wooden seat, so high sometimes that his little feet do not touch the

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floor, and set to the study of letters, and (at least after a few months) left to himself to prepare his lesson while the others are reciting.

The result of all child study upon young children from five to eight shows that their incessant activity, their sense receptiveness, their tendency to imitate, their constant use of the voice point to an education largely physical, moral, and æsthetic, in which play and rambles out of doors shall not be absent, and in which, so far as the education is intellectual, sense-judgments, imitation, memory lessons, and real language shall have a prominent part. To see how far actual practice agrees with the teachings of child study, I selected one of the best primary schools in a graded school system in Iowa. The teacher was sympathetic and kind, and anxious to learn the best methods. She had forty-five children, from five to seven years of age, in a large, not unattractive room. The primary purpose for which they were there appeared to be, to learn to read and to write, and the one idea around which everything centered was Pollard's synthetic system of teaching reading. The teacher estimated, in answer to my questions, that three-fourths of the time of each child was given to reading, writing, and spelling. There were no gymnastics or physical training; no testing of sight or hearing, nor any tests for nervous disorders; no examination of the mental possessions of the child upon entering school; little attempt to impress the sense with things of beauty or works of nature; no training of sense judgments; little study of things in the place of symbols, and little training in oral language. The attempts to modernize this school consisted in stick-laying and paper-cutting and in instruction in drawing and clay-modeling, in which the cube, the sphere, and the cylinder had prominent places; owing, I suppose, to the Frœbellian theory of the ethical value of these figures.

In some primary schools the attempt to introduce science studies has hardly improved matters, since the work is mainly of the intensive kind, consisting of analysis, description, and drawing, involving, as ever, the eye and hand, and delicate co-ordination of these.

Judged by prevailing pedagogic standards this school was not a bad one. There was frequent singing, and the children were not kept in their seats all the time.

Child study has shown that our bookish eye-minded education is unnatural, and that the constant emphasis of one sense,—namely, the eye,—and of one member,—namely, the right hand,—is destructive of natural healthy symmetry of body and mind. Yet what do we find in our schools? The child of five years enters school in April, and in the following September he begins to read a book. In the intermediate grades his education is almost wholly with

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books. It virtually consists in sitting at his desk during the five or six school hours and cramming from a book, for intervals of fifteen, twenty, or thirty minutes, so-called "lessons" in reading, writing, arithmetic, geography, history, and physiology, to be recited or written during like periods immediately following. Even mental arithmetic and music (the two hopeful exercises occasionally appearing in this dreary outline) are studied from a book.

I am aware that there are better schools than those I have described, but there are also schools that are not nearly so good. They may be taken as representative. When, now, we compare this system of instruction with that indicated by the results of child study, we must frankly admit that the two have very little in common. This view is taken also by Stanley Hall, who, if anyone, should know the outcome of the child study movement thus far, and who says, in the "Journal of Education" (December, 1894): "The whole method and scope of schools have got to be reconstructed if our practice is to harmonize with our new knowledge."

I can merely allude to other matters in which child study and modern psychological investigations have shown the evil of existing school practices, such as of the ruinous effect upon the attention of the so-called seat work; the conflict between the myth-loving nature of the child and the practice of stuffing him with bits of science in the reading books; the failure to use the golden opportunity of the age from eight to fourteen for the study of the necessary modern and ancient languages; the obliteration of sex in our schools, particularly in the higher grades, in face of the important differences between boys and girls revealed by child study; the evil effects of foreknown written examination; and finally, the fearful discrepancy between known hygienic conditions and the actual conditions of the schoolroom and school-life.

During recent years studies in experimental psychology, physiology, and child study have been bearing a rich harvest of practical pedagogical truth. The fruit of this harvest is still to be reaped, for the most part, by our public schools. Just now, therefore, it behooves the teachers to put in their sickles and reap some of this fruit, rather than to make new sowings. It seems to me that the first thing for superintendents, principals, and teachers to do, in taking up this matter of child study, is to make a thorough and careful study of the child-study movement from the beginning, and bend their energies to the introduction of such changes as our new knowledge demands.

But in addition to this, there is a kind of child study which is not only practicable but necessary for the teacher, and which no one else can do; and that is, the study of her pupils individually in the

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light of the general principles derived from this new science. Some of these practical studies are indicated in that excellent leaflet of Professor Bryan's, entitled "Suggestions on the Study of Children." As illustrations of this kind of child study I may mention the physiological tests which are of prime importance. The sight, hearing, breathing, and motor ability of each child should be tested, and he should be examined for indications of nervous disorder. So much is at once practicable, and the teacher should be supplied with precise instructions for the tests. In the near future, though not everywhere practicable at present, determinations of height, weight, and reaction-time may be made and the result compared with the normal for each age.

Another illustration of practicable child study is what we may call the entrance examination. When the child enters school for the first time, the teacher, by means of a series of sympathetic conversations, will find out something of the child's mental possessions, and as far as possible adapt her teaching thereto. I know not why this may not be extended to the other grades. At present a pupil's competency to be promoted is determined by one or more examinations in a few subjects, of which the chief are reading, writing, geography, and arithmetic. Why are these chosen and the others left? Why should we not make an inventory of the child's moral and æsthetic possessions at such a time? Why not test his memory span; his power of retention; his sense-judgments; his motor ability; his knowledge of music; his mental as well as his physical symmetry? To ask any teacher at once to undertake all this would be absurd; but these are the directions in which practicable child study may be extended, and these tests would be found extremely interesting. At any rate, the examination of the contents of the child's mind upon entering school is a first perfectly practicable step.

As another illustration of practicable child study, let any teacher break the monotony of school-life by giving a class a wholly unexpected examination in some subject pursued the last term or the last year. She will perhaps make discoveries which may suggest changes in her method of instruction. These are illustrations merely. A teacher can hardly read the recent literature on child study and not be filled with enthusiasm in studying her pupils in many other ways.

Another practicable aspect of child study which I have not time to develop is the formation of state societies and round tables. The work of such a society will be to visit schools, and agitate such reforms as child study has clearly indicated to be wise; to instruct teachers in practical methods of child study, and furnish explicit

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directions for the same; and finally, to carry on or encourage theoretical research in the university, college, normal school, or family. To confuse these different branches of the work seems to me a great mistake.

To the teacher, then, who asks, What child study is practicable for me? I should say: Read the literature on the subject; master the work that has been done; join your nearest round table or state society; and then study your pupils in the light of the knowledge thus gained for practical benefit to yourself and to them.

PUNISHMENT AS SEEN BY CHILDREN.

BY EARL BARNES, LELAND STANFORD UNIVERSITY, CALIFORNIA.

Punishment with savages rests on revenge,—it is getting even with the offender; later on, in civilization, it rests on the attempt to frighten the offender and all would-be offenders, thereby protecting the law-abiding; among still more highly civilized people it tends to become a remedy,—a means of instructing or curing imperfect or diseased minds. In our treatment of children to-day, I take it, no one would uphold a punishment inflicted simply to get even with the child; revenge is unworthy the man who has the care of a child in his hands. So, too, any punishment inflicted simply to frighten a child would be considered unworthy of any intelligent parent or teacher, unless the fear aroused was looked upon as an element necessary to the child's well-being or to the protection of his fellows. All punishment, we say, should be remedial in its nature; hence, any punishment which leaves the child in a worse state of mind than it found him—which leaves him ugly and revengeful, or cowardly and hopeless—is wrong, and from the point of view of the intelligent teacher, has been a failure. What the child ought to feel has nothing to do with the case. Our problem is the same as that of the physician: How has the remedy which we have applied actually affected the patient? Has it left him better or worse than he was before?

If we are right in feeling that punishment is justifiable only when it is remedial, then it becomes a question of the first importance to determine how boys and girls of different ages at present react against different sorts of punishments, for different classes of offenses, in the home or in the school. In the hope of reaching some tentative generalization, I have gathered some thousands of concrete instances from school children, mainly in California, though a few hundred

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came from the Mississippi Valley. While discipline in California homes and schools is probably less severe than in New England, I believe it rests on a very intelligent basis and is representative of the best conditions in America. The data were gathered as composition exercises, the children being given the following directions:

1. Describe a punishment which you have received which you think was unjust, and tell why you think it unjust.

2. Describe a punishment which you have received which you think was just, and tell why you think it just.

In working up the papers I collated the boys and girls of each age, from seven to sixteen inclusive, separately. The following pages are based upon a study of 2,000 papers describing unjust punishments, and 2,000 describing just punishments. The age, however, has little significance in this study, as the older children often describe punishments received when very young.

Of course, there are objections to such a method of inquiry, which occur at once to any intelligent person. In the first place, it will be charged that such a broad investigation must do violence to the details involved and give only vague, crude results. This charge I am ready to admit, but would urge that a rough preliminary survey is all that our present state of ignorance allows. When a new country is to be entered, even the rudest sketch of its mountains and rivers is of use. I believe this statistical method can do such a service for child study.

Other criticisms apply to details in the method. It will be said that untrained teachers will impose their own ideas on the children, or will otherwise interfere with their free expression; that children will fix their compositions to suit the people who are to read them; that children cannot accurately describe their inner states, or that what the children write will depend on the mere accident or circumstance, as little amenable to law as the number of pebbles by the road side, and that our data reveal, in part, true childish reactions, but largely what the child has been told and has seen. To answer these criticisms briefly, I would say: Our teachers are interested in their children, and eager to help any one who is in earnest to study them. The slightest hint or suggestion given by a teacher affects all the papers in her room and is quickly detected by an experienced observer. If the teachers understand this, and if the work is given out at a particular hour, with a request from the superintendent that the first rude drafts, uncorrected, be sent directly to his office, and if the test is so simple that the teacher has only to submit the subject and gather the papers, his personal equation need not greatly color the results. For the pupils, it may be said that they, too, love to tell the truth, and if the papers are for some one outside the school, they will express

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themselves with great freedom; the very fact that they cannot clearly tell you whether a punishment is just or unjust is itself a part of the phenomenon we are studying, and of value for us to know; besides, who among us can express clearly a philosophical reason for considering a punishment just or unjust? The charge that we are dealing with accidents can be answered only by the papers themselves. During the last five years I have worked over expressions in writing and drawing from more than thirty thousand children, and the more I work the more there grows in me the realization that in the subjective life of children, as in all the rest of the world, we are dealing with phenomena that follow well-defined laws, and that if we will take any simple strand of activity and gather our materials from a large body of children, we can formulate a law which will hold true for any similar large body of children under similar circumstances. As to the difficulty of separating the child's psychology from the imposed beliefs and practices, this difficulty inheres in all study of the subjective world, and in the great variety of environment represented in these papers some parts will cancel others by overlappings.

Of the 4,000 children whose papers we examined, 265 girls and 246 boys say they cannot remember ever having had an unjust punishment; 33 girls and 24 boys say the same about the just punishment, making 568 cases in all. Two and a half per cent of 2,000 children cannot recall a just punishment, and twenty-five per cent of the other 2,000 cannot recall an unjust punishment. Probably this twenty-five per cent represents one of the most uncertain quantities involved in this study, as all who did not care to describe an unjust punishment would find inability to remember one an easy excuse.

In working up the 3,432 cases described, it was found convenient to divide each case into its three elements; the offense charged, representing the point of view of the punisher; the punishment received, presumably identical from all points of view; and the reason why just or unjust, as seen by the recipient.

First, we will examine the offenses. Five hundred and sixty-eight say they never had an unjust punishment, and 274 did not name the offense in such a way as to be intelligible, so that we have left 3,139 offenses with which to work. Of these cases reported, 542 (sixteen per cent) were general disorder, pushing in line, slamming doors, and the like; if to this we add 250 cases of talking or whispering, and 188 cases of being late, it gives 980 cases of disorder (twenty-nine per cent). Disobedience comes second on the list, with 379 cases (eleven per cent); then comes running away, with 353 cases (ten per cent); fighting or quarreling, 348 cases (ten per cent); destroying things, 318 cases (nine per cent); poor work, 332 cases (nine per cent); rudeness or impudence, 96 cases (three per cent); taking things or steal-

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ing, 90 cases (three per cent); story-telling or lying, 45 cases (one per cent). This leaves 217 cases that have to go under the general heading miscellaneous. Of course, in dealing with the concrete cases it was sometimes possible to place them under any one of two or three headings, but in nine-tenths of the instances their classification was easy and clear.

To put the matter differently, we say that a quarter of the offenses specified are negative in character, and the remainder aggressive. Incapacity and carelessness on the part of the children may be supposed to lie back of such misdemeanors as poor work, being late, and destroying things, the last-named division including many tales of accidents. Twenty-three per cent of all the offenses fall into this category of omissions.

Of the sixty-two per cent of aggressive crimes, forty-seven per cent are evidence rather of misdirected energy than moral obliquity. Disorder, rudeness, talking and whispering, quarreling and fighting, running away—these are spurts of waste steam rather than the rattling of defective machinery.

Judged by the Mosaic standard the children make a good showing, only fifteen per cent of the offenses charged being condemned by the Tables of Stone. Swearing, Sabbath-breaking and all breaches of religious observances, envy, and such cases of cruelty as our nineteenth century consciences brand as inimical to the spirit of the sixth commandment—these are all so rare as to be massed among many others in the miscellaneous group. Stealing and lying form but four per cent of all crimes recorded, and the only considerable infringement of the Decalogue lies in the line of disobedience. Rebellion against organized laws and observances is as old-fashioned as Eve, and it is notable that from Luther to the modern social reformer and our own school children, revolt seems still to fairly hold its own.

Justice or injustice did not generally inhere in the offense charged nor in the form of punishment received, but rather in the adjustment of the two; hence, the two lists of offenses and punishments are similar. Many more cases of punishment for disobedience, lying, and running away are cited as just than as unjust, however, and punishments for poor work, talking or whispering, being late, quarreling and fighting lean to the side of justice, while stealing and rudeness hover between the two camps. The only offenses in which injustice largely predominates are disorder and destroying things. The accident divides honors with surplus vitality as a source of unjust punishment.

There is little difference between the offenses committed by the boys and the girls. The girls are more often in trouble with disobedience and poor work and breaking or destroying things—the petty

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offenses of the home. The boys are punished a little more often than the girls for running away; they talk as much as the girls do, they are about as often tardy, they tell about as many lies, and they have only a few more cases of assault and battery to answer to than the girls have. Evidently the new woman is starting with the generation.

Passing now from the offenses charged to the punishments received, we find that the 4,000 children give 2,801 specific punishments. As before, 568 remember no punishment, and 631 omit the punishment in reciting their cases. Thus the children are less specific in naming their punishments than in describing their accusations. Of the specific punishments named, 1,174 (thirty-four per cent) were whippings. With many of the children whipping is synonymous with punishment, some even saying that they have had no punishment—have only been scolded or shut up. If we add to these whippings 240 cases of shaking, striking, or slapping, we have corporal punishment furnishing forty-one per cent of the total cases cited. This does not mean that forty-one per cent of the punishments received by children are corporal, but it must at least mean that these punishments linger long in the mind and are easily called up when wanted. While we cannot distribute the punishments by ages, owing to the fact that children are often describing punishments received years back, it is still interesting to note that seven-year-old children give more than twice as many cases of corporal punishment as the sixteen-year-old children do. The cases of whipping, shaking, and striking given by children from seven to sixteen, make a series running 193, 176, 159, 163, 127, 135, 126, 136, 118, 91, forming a pretty uniform movement. This agrees with the study made by Miss Margaret Schallenberger on "Children's Rights," in showing that corporal punishment plays a steadily decreasing role in children's minds as they grow older. Confining comes next to whipping, with 622 cases (eighteen per cent). Under this heading we included all cases of being deprived of liberty to move about, except being sent to bed. If we add 110 cases of this latter class, it makes 732 cases (twenty-one per cent) of confinement in all. Two hundred and seventy-nine children (nine per cent) were scolded; 113 (three per cent) lost a treat of some sort; only 69 (two per cent) had marks or checks; 50 (two per cent) had extra work imposed; 36 (one per cent) lost a meal; and only 15 (one-half per cent) had to correct the harm. This leaves 93 (three per cent) forming a miscellaneous group.

If we compare the punishments received in those cases called just with those received in cases called unjust, we find that the punishments are severer in the just group than in the unjust. Six hundred eighty-one whippings are called just against only 493 that are

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called unjust, and a careful reading of the papers shows that children do not object to any of the ordinary forms of punishment because of the penalty itself. It is because of other conditions. There are, however, 423 cases of indefinite just punishments, against 208 indefinite unjust punishments, while the indefinite offenses are about even, 140 to 144, showing that the feeling of injustice keeps details fresh in the memory.

The fact that deprivation prevails as a form of punishment among girls is in harmony with the more negative character of their offenses. As poor work, talking, rudeness, and disobedience are less aggressive crimes than running away, fighting, and disorder, so confinement and loss of treat, low marks, scolding, and shaking are milder and less active penalties than the whipping so generally inflicted on the boys.

The conclusions that come from this study on penalties are, that, with the children studied, the common form or type of punishment, just or unjust, that lingers longest in their minds is still some form of bodily pain; that children do not object to severe penalties as such; that checks and extra work have ceased to be much used as punishment, or else make a slight impression on the mind; that we treat boys more severely than we do girls; and that the most civilized form of penalty known, correcting the harm, is hardly connected in children's minds at all with misdemeanors. Evidently we keep penalties before the children's minds rather as fear-inspiring objects than as remedial agencies, or else children are in that state of development where they naturally look upon punishment from this point of view.

In telling why a punishment received is just, the children show great uncertainty and vagueness. Most of them focus their attention upon the offense and their own relation to it. The punishment was just because it balanced the crime. It was atonement. A second class think only of the punisher, and recognizing him as just, they accept what they get; while a small third class think of the effect of the punishment upon themselves.

Taking from the 2,000 papers describing just punishments those of fifty-seven children who say they have never had a just punishment, and 851 who give no reason for considering their punishments just, we have left 1,092 papers (fifty-five per cent) which give some sort of reason for considering their punishment just. Of these papers 837 (seventy-seven per cent) look upon the punishment as simply offsetting the offense. The teacher or parent is one of the forces of nature. If they run into him they must expect a reaction; that is, a punishment. This is just. It is as though the child said: "It rains; if I go out I shall get wet. All right; I go." The wetting is the punishment. The answers which we placed in this group were generally

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very brief: "I deserved it," "I ought to have it," "I did wrong," "I intended to do it," "I disobeyed," "I knew better," or "I was careless." Sometimes they go more into detail, but generally a couple of phrases settle it. "I paid up," would cover most of these cases. As a girl of eleven says: "One time when I was visiting my Auntie S., she wanted to wash my head and I began to cry. She washed my head anyhow. I cried so hard that she whipped me and locked me in a room. I think I deserved it." Another girl of nine says: "Once my grandmother slapped me because I woun't say my prayers, and I think I needed it. I was very bad." We should expect that the immature children would more often give this reason and that it would decrease with each year of age. The table, however, is rather indeterminate in its testimony.

In the second case the whole responsibility is shifted to the one who inflicts the punishment. The punishment was just because it came from the parent or the teacher. This is, of course, blind following of authority, and only seventy-six children (seven per cent) of those who give reasons give this one. Probably many cases in the first group would pass over to this had they been answered more in detail. As would be expected, the number of children giving this reason falls off as we go from seven to sixteen. The series for the successive years runs: 17, 19, 13, 6, 8, 2, 3, 4, 3, 1.

In the third group the punishment is looked upon as in some way affecting the culprit for his good. One hundred and thirty-seven children (twelve per cent) of those who give reasons agree with this. They say, generally, "I needed it," or, "It was for my good." Exactly how the good comes to them is a little obscure oftentimes, as in the instance of a girl of eleven who says: "I got a whipping because I didn't know my A B C's. I couldn't remember them, and I got a whipping, and I think I deserved it because I wouldn't say them, and they told me to set down and I did, but I wouldn't say them, and they whipped me again, and then I remembered them." The number giving this reason increases, as would be expected, from seven-year-old children to the oldest class. The series runs: 9, 8, 10, 13, 6, 11, 19, 18, 20, 23.

From a careful study of such a bunch of papers, one reaches some conclusions which are hard to express in quantitative terms. The most important of these general conclusions is a realization of the fact that children accept a good deal of what they get without serious question. They have been told so often the same old story about needing punishment that they accept and return the phrases even where they must know better. Take, for example, the following case from a girl of ten: "One day my brother hurt himself, and he thought it was I. I did not do it. It was on the grass. My mother took

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me and put me in my bedroom and would not let me play any more. I think that I deserved it." Then again, the children have sometimes confused and unsettled ideas of what we mean by just or unjust, or of what we mean by punishment itself. Take, for instance, the following, written by a girl of fourteen: "A little girl went to visit her grandmother and she had to do some knitting and other things every day while she was there, and her mother would not make her do only a few tasks and then let her amuse herself any way so that she would not do any harm. I think this was an unjust punishment." Or take the boy of eight who gives a dozen unjust punishments, of which this a type: "My brouther fell down the steps and stuck his foot on a nale the other day, bad."

In conclusion we can say:

Nearly all children have punishments which they consider just.

Forty-two per cent of the children can give no reason for considering their punishments just, though they accept them as such.

The most common reason in children's minds for considering a punishment just rests on the feeling that an offense can be paid for in pain. This view decreases with age.

Twelve per cent of the children feel that punishment some way does them good, though they hardly see how.

Seven per cent of the children put the responsibility on the punisher's shoulders, accepting what comes in the name of authority.

In general, children's notions of what makes punishment just are very vague, not becoming very clear even in the high school.

In examining the reasons given by 2,000 children for considering their punishments unjust, we must first take out the 511 children who remember no unjust punishments, and 352 more who give no reason, or a very indefinite reason, for considering the punishment unjust. This leaves us 1,137 reasons to consider. First among these comes a large group, 462 children (forty-one per cent) of those who gave reasons who declare that they were innocent; they did not commit the offense for which they were punished. As a boy of nine says: "One time, about four years ago, we had several chickens; among them were a rooster that fought a pet duck that I had, and killed it, and my father whipped me for it. I think this was unjust." In collating the stories, the cases of innocence fell into three groups. Two hundred and seven children simply declare themselves innocent, 200 say it was some one else, and 55 claim to have been lied about. The plea of innocence is made about equally by the younger and the older children.

The second group is composed of 312 children, twenty-seven per cent of those who give reasons, who admit the offense, but claim irresponsibility. They say they couldn't help it, the act was necessary,

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they didn't know any better, they forgot, they were obeying some one else, or they were ignorant of the charge preferred against them. The "couldn't help it" class is largely recruited from accidents. There were 168 cases of this sort. To say that the act was necessary was, of course, to say the same thing in a different phrase. There were but seven children who said this, showing that their attention is focused rather upon themselves than upon any abstract quality of the act. The plea of ignorance is entered by seventy-nine children. A boy of eight illustrates the group: "Satday I pulled up one of papa's onion thet he planted, and he gave me a whipping. I dident know he cared." Only twenty-seven put in the plea that they forgot, and but twenty-one claimed to have been obeying some one other than the punisher; nine claimed to have been ignorant of the offense for which they were punished, and many others gave evidence of being hazy about it, as when a girl of nine says: "Was it not fair that I had a shaking one day at school, and I do not know why did I get that punishment."

The third group of children admit that they committed the act charged, but they claim that the act was right. A girl of thirteen puts it thus: "One time, when I was eight years old, I went outdoors to play. I didn't put on any hat nor shawl. It was a foggy morning. I played in some water. I got whipped two or three times two or three mornings for it. It didn't hurt much, so I don't care. I don't think I deserved it because I do that every night and morning now."

The fourth group of 214 children, nineteen per cent of those who give reasons, admit the offense, but object to the trial or the kind of punishment. Ninety-one children say the punishment was too severe, and the cases cited include many varieties of assault and battery; thirty-four object to being punished for class offenses, fifty-four claim that partiality was shown, and thirty-five claim that in some way the punishment was not according to law. The apology is often condemned as a form of punishment.

The changing view with changing years is not at all marked in this study. With the advance in years there is a decreasing number of those who give no reason, and the older children are more apt than the younger ones to think that the trial or penalty was wrong. Between the girls and boys there are some differences; a few more of the girls have had no unjust punishment, and more of them give no reason, or an unintelligible reason, and more of them fall back on the plea of irresponsibility. More of the boys, on the other hand, plead innocence, more declare that their acts were right, or that the trial or penalty was wrong.

An interesting child's bill of rights could be made up from these papers, and it again would be mainly confined to the boys. Hunting,

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fishing, the circus, going swimming, a certain amount of free time, and freedom to get clothes dirty, many boys consider their inalienable rights. The following from a boy of twelve well illustrates the attitude of many of these papers: "I was ponished for running away and I didn't deserve it, because I wanted to look for a bager that I saw going across the field. I didn't get the bager. The bager run up a hill and when he got on the other side of the hill I lost sight of it and went home and told my mother and she ponished me and I was mad at her."

To sum up this part of the study, then, we should say:

Twenty-six per cent of our 2,000 children have had no unjust punishment that they can recall.

Twenty-four per cent of those who have had unjust punishments have only a vague feeling about it; they give no reason.

Forty-one per cent of those who give a reason claim to be innocent of the crime charged.

Twenty-seven per cent claim irresponsibility.

Nineteen per cent object to their trial or the kind of penalty received.

Eleven per cent dare to set their own judgment in opposition to that of their judges and declare their acts to have been right.

From a consideration of the offenses charged, the punishment received, and the reasons given for considering them just or unjust, I would draw the following general conclusions:

Justice is, with children, largely a matter of feeling; they feel wronged or justly dealt with without much notion as to why.

The majority of children look upon punishment as an atonement, —they pay for crimes in suffering.

They sometimes demand that they shall be excused when they could not help it or when they didn't know any better.

In a just punishment, children demand: That they shall know the offense with which they are charged; that they shall not be punished for other people's crimes; that others implicated with them shall be treated exactly as they are treated; that no excessive or unusual punishment shall be administered.

On the other hand, they accept: Corporal punishment when legally applied; the binding force of a law when duly promulgated; the duty of obedience to constituted authority.

Of course, such general conclusions do violence to many of the concrete particulars involved, but they hold for the general sweep of facts, and this study makes no pretense of interpreting individual cases. It simply marks some general outlines.

Many interesting specific questions spring from this study, and we have already gathered the materials for two or three special studies.

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Among these questions are the following: How far do children consider that a class shall be held responsible for the faults of individuals? How far do children consider it wrong to testify against a companion? If wrong, why is it wrong? For what offenses is corporal punishment allowable? How far, and why do children object to partiality? Would they consider it just to punish part of the culprits if all could not be detected? How far should genuine forgetting hold as a good excuse? How far should weak sense of time be accepted as an excuse? How do boys and girls differ in their attitude toward punishments? If some one else begins a quarrel or fight, does that justify one in carrying it on? In case of conflict of authority, whom should a child obey? What is the highest authority in a child's life? If a child lives up to the letter of the law, does this excuse him from moral responsibility?

METHOD AND SCOPE OF CHILD STUDY FOR TEACHERS-IN-SERVICE.

BY PROF. M. V. O'SHEA, MANKATO, MINN.

No one who has followed the growing enthusiasm in child study can have failed to notice at the same time that the average elementary teacher, who is the principal factor in our country in the instruction of childhood, feels that she can receive little benefit from this new work, because it does not seem adapted to her understanding and abilities and suited to the limiting conditions of the schoolroom. It may be that teachers always complain of the impracticability of new methods, and there is no doubt a tendency in this direction; but yet it is probably true in the case of child study that methods of investigation may be pursued which are not well adapted to the ordinary teacher and schoolroom, although they may be of the greatest value for experimental psychology, and hence for an ultimate science of education. Many express themselves as surprised that systematic work in the study of children has not been undertaken with greater interest and zeal by the great body of teachers; but it should be remembered, I think, that thus far child study has been largely experimental and inductive in character, and the average teacher has little time, opportunity, or capacity to undertake such work, even though she possessed the inductive attitude of mind toward educational problems. The conditions which exist at present in most schoolrooms do not seem to admit of such original

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experimentation, with or without special apparatus; but rather whatever studies are made by teachers must be of the scope and kind that can be carried forward in connection with their regular work. Many teachers seem to feel that this cannot be done to any great extent, and so they declare child study to be without interest or value for them.

This impression has without doubt been conveyed to teachers through the declaration sometimes made that all work in child study is valueless which does not follow the methods of pure experimental science. It is assumed that little is yet known of the nature of childhood, and that the only way in which correct and serviceable data can be secured is by observation of a large mass of facts without reference to their bearing upon any problems within the schoolroom. It is said that we are without a science of childhood, and have no right to make any presuppositions about it; but that instead we must observe and record without thinking of the ultimate bearing or value of our observations. It is maintained, further, that, while this may not be of marked, direct value to teachers, it will ultimately lead to a correct understanding of child-nature upon which a science of education may be built. Finally, it is said, that, by observing children in this manner, the teacher will get into sympathy with child-life, and this is one of the most important requisites for intelligent teaching.

Now, it will readily be granted that most of this is eminently true; but it is to be feared that it does not cover the whole case. In the first place, teachers have been told over and over again for ages to observe and study their pupils, but such directions prove of little value because the majority of teachers have not been made eye, ear, and thought-minded to the phenomena of childhood. One might as well tell a mechanic to go out and observe flowers, in the hope that he would discover all that is of importance concerning them. Anyone who is much in contact with untrained teachers can see that they have never been made sensitive to the vital manifestations of child-nature that are constantly being displayed in their presence; and they will never become so unless under the direction and guidance of one who is competent to guide.

But it may be said, and with justice, too, that to direct a teacher how and what to observe is to prejudice her mind, since she will naturally tend to make facts fit into certain principles whether they rightfully belong there or not. There is a possibility of this, no doubt; but it should be remembered that teachers must deal in some manner with children any way, and there is more probability of their acting wisely if they have some important principles suggested to them, and then directed how to test them in individual cases, even

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though this prejudices their minds, than if they are entirely without principles and directions other than the one command to observe their children. Two considerations tend to confirm this view. In the first place, it is not altogether true that nothing is known of childhood in relation to school work. It is but just to say, that, through the spontaneous inductions of the race, we are already in possession of at least some valuable knowledge along this line that the average teacher seems to know nothing about, except perhaps in theory, and she fails to see the application of well-known and helpful principles in her daily work in the schoolroom. Now, if she can be led to discern in concrete cases the application of known principles of childhood in relation to school work, she is going a long way to make her teaching intelligible and adapted to her pupils; and she will at the same time be growing in sympathy with childhood. It seems that this is a legitimate and most profitable field of child study for teachers, although the results may be of value to science only in illuminating and confirming principles which are but now imperfectly understood, or showing the falsity of others that are advanced from time to time.

In the second place, teachers have always been observing their children; but lacking intelligent directions and the pure inductive attitude of mind, their observations have come to but little. Were they experimental psychologists, they would refrain from generalizing from single instances, and would know what to observe, although it is maintained, and with some show of reason, that everything ought to be observed, for one phenomenon of childhood is as valuable as any other; but for the average teacher to attempt to observe everything indiscriminately seems liable to result in nothing being specially observed and intelligently apprehended. The ordinary teacher has little aptitude for the methods of pure experimental or inductive science, especially so when she has a definite amount of work to accomplish, and she must act according to some principles anyway. If they are not suggested to her by those who have made investigations, she will surely make them for herself, however erroneous they may be.

It seems to the writer that there is a place for both methods of child study: the methods of pure experimental science, which gather facts irrespective of their bearing upon any principle; or to test some hypothesis, these facts to be organized in due time into principles. But those who collect such facts must have some special training and opportunity, and the average untrained teacher has neither of these. There is, again, the method of testing and applying in individual cases in the schoolroom facts and principles of childhood already believed in, and that are being constantly cor-

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rected and added to by the investigations of experimental psychologists. This method recognizes that teachers will work under some principles anyway, and it is wisest to suggest to them those that are established, and show how to test and apply them, even though they have not the training and habits of mind to discern the exact limitations of these principles. The problem is a practical one. Those teachers who have the advantages of training in a normal school or university may be able to follow the methods of pure inductive science with intelligence and profit; but these constitute a very small portion of the great body of elementary teachers, all of whom must be provided for in the best possible way.

It is the opinion of the writer, then, that the method and scope of child study in the schoolroom should be determined by practical rather than theoretical conditions, in the sense that the work must be of such character that the teacher can understand it, and that it will not require much special time or elaborate apparatus to perform it. It must have special reference to those principal characteristics of childhood that must be understood and appreciated in order that teaching may be of the greatest benefit in stimulating the intellect and developing the character.

At the risk of seeming dogmatic, the following outline as to scope of child study is suggested, as indicating some of the things which should be done by teachers-in-service.

In her study of children the teacher will want to gain direct information upon at least two points: (1) She will want to ascertain the pupil's capacity for responding to the stimuli of the schoolroom; and when she finds any pupil wanting in ability she should understand what may be done, if anything, to overcome the defect. (2) She will need to understand something of his disposition; the influences that have given shape to his feelings and will; whether these be manifested in a desirable or undesirable manner; and what may be done to develop a pure, wholesome, unselfish character. To get reliable information upon these points, one must be able, in the first place, to trace to some extent the influence of physical types and conditions upon intellectual and emotional characteristics and tendencies. Whatever is definitely known as to the influence of the physical over the spiritual in childhood, and that is important to be understood in the schoolroom, should be put into such form that it may serve as a guide in the study of individual pupils. A teacher should be able to make tests upon the senses and motor abilities of her pupils; and also to detect the evil effects of unhygienic conditions, food, clothing, general habits of living, and so on.

In the second place, a teacher should be able to study in some detail the keenness, accuracy, and readiness of perception and ap-

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perception, memory, imagination, and reasoning in individual pupils, not as though these processes were distinct from each other, but in their essential connections and unity. She should know when a pupil is failing in the work of the school what the reason is; and that she may be able to do this she must know something of the amount and kind of knowledge the pupil possesses at any time; what phase of mental activity is specially called into play in the study of each subject of instruction; and what, if a pupil is deficient in any phase of intellectual activity, should be done to overcome the defect. She must further and particularly be able to observe and appreciate the interests of different children, the intellectual activities which are most prominent at different periods of their school work, the contents of the minds of pupils who have had different experiences, and the difference in readiness of response to the stimuli of instruction.

In the third place, and perhaps most important of all, the teacher should be able to analyze in some measure the child's emotional personality, in order to discover the predominance of physical emotions, as fear, anger, pride, joy, love, and the effect of her instruction and discipline upon the emotional and volitional nature. She ought to be familiar with so much as has long been established, and with the results of studies that are being constantly made upon children's emotions; as to their causes, the effects upon the individual of their frequent manifestations, the method of dealing with them, etc.

It is believed, that, if the teacher may in this way observe and study in her pupils the prominent physical, intellectual, emotional, and volitional characteristics, she will be capable of better adapting her instruction to the needs of particular pupils of different ages and capacities. This work should bring her into close sympathy with child-life, leading her to constantly grow in understanding of the true nature of children and the best method of employing school agencies to train the intellect and develop moral character.

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CHILD STUDY WITH THE CO-OPERATION OF THE PARENTS.

BY DR. C. C. VAN LIEW, ILLINOIS STATE NORMAL UNIVERSITY.

I did not expect to address this meeting until last evening, when asked to do so by your president. I beg, therefore, that you will be indulgent if I confine my remarks to a comparatively simple field of child study, one with which I am at this time perhaps most familiar, which is freshest in mind, having recently been interested in testing its practical value at the Illinois State Normal University. In the Illinois Society for Child Study, of which you have already heard much during this meeting, we now have about 530 members, and are rapidly increasing the membership. But with this rapidly increasing interest in the field of child study, we are soon to be forced to meet a very serious problem. We dare not be content with this abstract enthusiasm in a comparatively new field. If there is not something to introduce the teachers, soon and thoroughly, to a concrete utilization of their new enthusiasm, there is danger that the cause will suffer at their hands. In appealing to the great mass of teachers, we have to remember that we are dealing with those who are immediately interested in the practical phases of school-work. While all fields of child study look ultimately to the establishment of more rational methods of education, the teacher may well question the wisdom of any proposed line of work that does not at once bring her into a closer touch with child-life. In enlisting the interest of teachers at large in this work, therefore, two things seem to be needed: (1) An appeal to the teacher's practical field of work, which will always constitute her first measure of the value of any new line of thought, and (2) a fitting introduction to the problems of child study as a whole. There can be little doubt that certain lines of child study are better fitted for this introductory work than others.

I have been very much interested in the paper to which we have just listened, by Professor O'Shea, which, it seems to me, recognizes the two requirements just stated, and which also seem to imply the line of work I now have in mind. To be able to diagnose the child, physically, mentally, and morally, is one of the very first obligations of the teacher of to-day; and to be able to diagnose the child upon entering school implies, on the part of the teacher in the first primary grade, a look into the past life of the child. Almost all advocates of child study agree that the first practical benefit to the teacher, to be derived from the concrete study of child life, is a closer, more sympathetic touch with the child itself. It is this, certainly, which the

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primary teacher needs at once with the child that has just entered school for the first time. How is it to be attained? Certainly, in the end, by means of the close and detailed study of the personality before her. But the question may fairly be asked whether parent and teacher may not here, at the outset, work together; and whether, in fact, the former cannot be of value to the latter in furnishing some information concerning the child's past life and development that will constitute an appropriate introduction to the teacher's study of the child. The first attempt to answer this question was made by Conrad Schubert, at Jena, Germany, by means of his so-called "*Eltern Fragen*," which, as has been above stated, have been rearranged and adapted to American needs, and are now to be found in the "Handbook of the Illinois Society for Child Study" (Trans.), Vol. I., No. 2. It is the idea of these "Questions to Parents" to put to the parents questions that shall reveal something of the child's past development. They have reference to the physical, mental, and moral development of the child. In the majority of cases, they may be so framed (should, in fact, be preferably so framed) as to aim directly at concrete events in the life of the child, from which the teacher is at liberty to draw her own conclusions, *e. g.*: What sicknesses has the child passed through? Do you know if any traces of these illnesses are still apparent? Has the child made any long journeys? If so, where? Has it experienced any sudden and important or unusual events, such as some accident, wedding, funeral, fire, etc.? What are its favorite toys, plays, occupations, fancies, stories? Who are its favorite companions? The questions are made to cover also the emotional and volitional development of the child. It will be seen at once that this work cannot lay claim either to completeness or to perfect reliability of results. Undoubtedly it needs to be supplemented, for the purpose of heightening its practical results,—by the work of the medical examiner, for instance,—in the case of every child that enters school. But if we may, at this stage of the development of child study, look to practical results for the measure of the value of any line of work, the "Questions to Parents" certainly have a very significant function to perform. Practical tests have already shown that the teacher may, by this means, at once become cognizant of physical limitations in the child which would otherwise have remained unknown, though a constant annoyance to the child, or would have been discovered only with embarrassment to the child. This is true of more children than we are prone to suspect. Again, one of the most fruitful outcomes of child study is the more complete study of the child's environment into which the teacher is necessarily forced. We study each individual as a product, largely, of an individual environment. The past is ever present

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as a factor in that environment. It is this which the "Questions to Parents" seek to recognize. The child that enters school for the first time is the reflection of some specific home life and home surroundings. It is these to which the primary teacher is introduced through the "Questions to Parents."

One would naturally expect parents to object to these interrogations. In the experiences upon which these remarks are based, such was not the case. Nearly all seemed to enter at once into the spirit of the work, and responded readily and honestly. In but one instance was it found necessary to doubt the replies of the parent interrogated. As a rule, parents are alive to whatever is for the interests of their children. In this work, which requires so little expenditure of time or energy, I believe they will, as a rule, be found reasonable, and one of the best results of the attempt is the closer sympathy that is established between parent and teacher in the work both are undertaking for a common end.

REPORT ON SCHOOL HYGIENE.

BY DR. EDWARD M. HARTWELL.

[ABSTRACT.]

Hygiene is applied physiology. It is the science and art of promoting and preserving health, which we take to mean the greatest energy of each part compatible with the greatest energy of the whole organism. School hygiene as an art is concerned with all measures that science and experience have shown to be helpful and efficacious for securing the normal growth and development of pupils and the normal activity of teachers under the conditions incident to school-life. Nearly one-quarter of the total population of the United States is at present subject to the conditions of school-life; or, in other words, is engaged in the sedentary occupation of attending school. Of our school population, over ninety-six per cent is found in elementary schools and over eighteen per cent is found in cities. Urban conditions, at their best, are less favorable than rural conditions for rearing full-grown, vigorous, healthy children. City-bred children of school age in America—at least, in the six great cities on the Atlantic seaboard—are less favorably situated than their contemporaries in certain European cities, it would appear.

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Thus the death rate per 1,000 living at the age-period five to fifteen, which is the healthiest decade of life among civilized man, is less in London than in Brooklyn, Philadelphia, New York, Washington, and Baltimore, or in Boston, whose death rate is higher than in any of the cities named, while Berlin has a lower death rate than any of these cities except Washington and Baltimore. The mortality from diphtheria among children of school age and from consumption among female school teachers is markedly greater in Boston than in any other of the American cities named above. No class of wage-earners in Boston, so far as the mortality rates, analyzed by occupation, of the United States Census Bureau go, has so high a death-rate from consumption as women school teachers, excepting marble and stone cutters. The fact that Boston is the only one of these six cities which habitually neglects to wash her schoolhouse floors and corridors from year to year and decade to decade is not without significance.

It cannot be denied that municipal sanitation and school hygiene are more highly organized and successfully administered in the leading cities of Europe than in the leading cities of America. Indeed, school hygiene has no place or standing among the arts and sciences in America. There appears to be no department of public health so miserably endured, so incompletely organized, so well-nigh universally neglected by publicists, scientists, and publishers as school hygiene. Without resorting to foreign books, periodicals, and official reports, it is quite impossible for the student to inform himself as to the nature and results of the investigations and experiments made during recent years for the improvement of the health of the school population of the continent of Europe.

The public schools are organized, maintained, and regulated by the state, which clearly owes it to itself to take adequate measures to prevent the school population from contributing to the spread of epidemic diseases and thereby endangering the public health. It is also the duty of the state, particularly where attendance in school is compelled by law, to provide schoolhouses so placed, arranged, and furnished that their occupants, both pupils and teachers, shall not be subjected to unsanitary influences or allowed to engage in unhygienic procedures in prosecuting their work. School boards as at present constituted and teachers as at present trained for their profession are unequal to organizing or administering a genuine and effectual system of school hygiene such as the times demand in city schools. Experts in medicine, sanitation, and hygiene are necessary —nay, indispensable—for such a purpose.

If the public health is to be effectually guarded, the schools and those that frequent them should be subject to inspection by properly trained representatives of the board of public health, which board

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should have a voice in the selection of school sites and in matters relating to the drainage, plumbing, heating, lighting, and ventilation of schoolhouses. Ordinary physicians and teachers are not competent as a rule to pass intelligently upon questions of sanitary engineering which naturally arise in connection with the planning, erecting, and furnishing of schoolhouses. Sanitarians, architects, and hygienists should settle these and kindred questions. Even then there is room left for a special inspector or director of school hygiene, whose business it should be to see that teachers and janitors carry out such reasonable rules as may be laid down (in respect to the hygiene of the school, the classroom, and the hygiene of the school-child) by public health officers, sanitary experts, and school officials acting together. The teachers should be made thoroughly conversant during their professional training with the hygiene of instruction, and be required to conform to its principles in all practices and procedures which affect the eyes, ears, brains, muscles, or bones of their pupils. These three classes of experts acting together could regulate the gymnastics, the plays, hours of study, methods of instruction—in short, the school-life—of the children in the interest of public health, personal hygiene, and school efficiency.

The fact that no American university, medical school, technical school, or normal school offers such theoretical and practical courses as are requisite for training up experts in school hygiene may be granted. But we submit that this state of things simply serves to emphasize the need of education in the interests of hygiene in general and of school hygiene in particular. Let us strive to enlist the aid of physicians, sanitarians, educational authorities, and philanthropists in planning and waging such a campaign. The ultimate aim of such a campaign would be the organization and maintenance of a comprehensive and effectual system of medical inspection and hygienic supervision of city schools. To bring this about the electorate must first be enlightened and aroused.

What can we do to further these ends?

1. We can utilize the literature of school hygiene in making known to the general and educational public the nature and results of European study and experiment.

2. We can urge the necessity of determining, by thoroughgoing investigation, the actual condition of the school population of our great cities, so that intelligent action may be taken to amend the most obnoxious of these conditions.

3. We can endeavor to induce some progressive and influential university or technical school to grasp the idea that it would be performing a public service, and possibly entering upon a profitable speculation, if it were to establish courses of instruction, similar to the best in Europe, for the training of experts in school sanitation and hygiene.

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REPORT ON THE VENTILATION AND HEATING OF SCHOOLS.

BY D. F. LINCOLN, M. D.

A great reform in school architecture is being worked out in our days, both in foreign lands and in America, and it is our privilege, if we will, to aid it, not merely by hastening its progress but still more by giving it direction. The subject of ventilation is one of the chief departments of this reform. It is essentially a modern subject. Not that ventilation has not been considered in past centuries by isolated thinkers, and by here and there a practical man. In its existing phase, ventilation is a very modern science. The hold it has gained on the popular mind is proved by the existence of a number—not large, but satisfactory as individuals—of important school buildings of recent erection which fully meet the requirements of engineers. We must look for such buildings to towns of moderate size, where civic consciousness is keen, rather than to metropolitan cities. They are all the more creditable, since they have been executed in the face of demands on the part of science which when laid before the men of twenty years ago seemed preposterous. The standard of to-day is very far beyond that of yesterday; but it is not a fluctuating standard, nor in any true sense is it an arbitrary one.

That it has been so widely accepted in English-speaking countries is due, without doubt, to the very high character of the men who have spoken for science in this department, both from the ranks of hygienists and from among engineers and architects.

Those chiefly responsible for the great residuum of popular ignorance in this matter are the architects and the school authorities. As regards the latter, they have this excuse, that building is not their profession. Among architects, there are some noble examples of firms who systematically refer all questions of ventilation, warming, and drainage to trained engineering talent. The way is open for school boards to encourage—nay, to insist—upon this habit among architects, all of whom have their bread to earn, and who naturally feel that it is not for them to force sanitary reform at the risk of being considered visionaries.

Before proceeding further, it is in place to point out that the success of all our schemes will largely depend on the quality of the men (engineers or janitors) who are intrusted with their execution. On them it depends to smooth over the difficulties which attend

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novelty; to adjust points which were not foreseen; to watch at all points and attend to the comfort of all inmates; to economize fuel by skillful firing, instead of cheating in the allowance of fresh air; and in every way to work for the success of the system.

The standard of purity for school air here recommended for adoption by the association is that expressed by the phrase "sensible purity." This implies that a visitor, of good powers of perception and accustomed to observe, will not perceive closeness in the air of the school on coming from the outer air directly to the point to be observed. This standard was proposed by De Chaumont & Parkes, the leading authority on hygienic questions in England, and has not been seriously controverted, to the writer's knowledge, in England or America. It is formally acknowledged by our own best authorities as correct. The statement, however, is incomplete without the numerical value assigned to the idea, to wit, that the amount of carbonic acid contained in the air to be breathed shall not exceed six parts in 10,000, in order that sensible purity shall be maintained; four parts derived from the original pure air, and two parts derived from the admixture of human breath.*

It must not be supposed that the mere presence of two parts of CO_2 is of itself of any consequence. It is significant only as indicating the amount of air that must have been expired by the inmates of a room in order to produce this increase. The deleterious components of the breath and perspiration are so small in amount as to be hardly measurable. Their presence is detected by the decolorizing of a solution of potassium permanganate, but no apparatus is here recommended as being suitable for a practical test of these organic volatile substances in the hands of those who are not expert chemists.

The acceptance of a lower standard is much to be deprecated. German authority can be quoted in favor of 10/10,000, but it is not to Germany that we ought to look for guidance in this matter. For some reason, the Germans appear to be much less sensitive to the close air of crowded rooms than Americans, and they must be allowed to be their own judges of what is best for themselves, as we for ourselves.†

If it were possible to conduct the expired breath directly from the house, a great saving in the expense of ventilation would be made. But as the breath practically mixes with the air of the room

*For purposes of calculating the supply of air, it is assumed that the outer air contains 4/10,000 of CO_2. Respiration, within the limit of "sensible purity," adds 2/10,000 more. A more accurate statement gives 3¼ CO_2 for the outer air and De Chaumont & Parkes' criterion of 6/10,000 would therefore require to be reduced to 5½ for modern accurate analyses. It is not, however, thought best to disturb the accepted ratio, 6/10,000.

Von Pettenkofer gives .0007 of CO_2 as a standard for rooms designed for continuous occupation; but considers .0010 admissible for schools.

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(being first thrown downwards from the nostrils and then slowly rising), no alternative remains but that of getting the air of the room freely diluted with fresh air, introduced continuously rather than intermittently.

The amount of dilution required to dilute the air of a room to "sensible purity" is easily calculated if we know how much the person or persons exhale in a given time. A man at rest may be assumed to expire sixth-tenths of a cubic foot of CO_2 per hour. This amount of CO_2 added to 3,000 cubic feet of fresh air will produce the following total:

CO_2 already present in 3,000 cubic feet of pure air, at rate of 4/10,000.	1.2 cubic feet.
CO_2 added by breath	0.6 cubic feet.
Total contained in 3,000 cubic feet	1.8 cubic feet.
Which equals 6 parts in 10,000.	

Showing that a man's breath will in one hour vitiate 3,000 cubic feet of air up to the limit of purity. A woman's requirement would be five-sixths of that; a child's, three-sixths to four-sixths.

For churches and schools the amount assigned per hour by Billings is 2,400 cubic feet per head. This, of course, allows for the presence of women and children.

A factor hitherto unattended to is the frequency of movement among children, and the constant use of the voice for speaking and singing, both individually and in concert. These actions involve considerable increase in the discharge of CO_2, the data given above referring only to persons at rest and silent.

Prominent hygienists have frequently claimed that young children ought to have as large an allowance of air as large ones. It is doubtless safer to assume this to be the case, for several reasons.

1. Because young children are the more sensitive to unwholesome surroundings.

2. Because they are much more sensitive to contagious diseases at the primary age, and because an abundance of fresh air is a powerful auxiliary disinfectant and preventive of contagion.

3. Because, as above stated, they may (with many teachers) use their voices and their limbs much more than older pupils.

4. Because systems planned to supply a stated amount of fresh air very frequently fail to accomplish what is expected—not always owing to the fault of the architect. In such cases it is humane to allow the stress to fall with less weight upon the youngest.

5. Because, even now, some prominent architects are employing a standard much below that here recommended, which ought by no means to be cut down for the younger scholars.

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Billings' allowance of 2,400 per head an hour is assuredly not too great for the upper classes in high schools, where growth is rapid, while consumption of food and excretion of carbonic acid closely approach the adult standard.

For younger children, it may for the present remain an open question whether an allowance less than this should be permitted. The reporter does not at present see sufficient reason for reducing it, and therefore recommends that it be not reduced below 2,000 cubic feet per hour.

There are very few schools or buildings of any description (large hospitals excepted) which come up to this standard. It is, however, proper to state that large schools now exist which are kept running on a basis of a much larger supply than that here indicated.

No system can be accepted as performing its promises until proof has been given by analysis of the air. This is rarely made.

The anemometer is valuable as indicating the speed of the current entering and leaving a room, and, by inference, the amount of air passing. It is incapable of giving testimony to currents in the body of the room, and leaves us without information as to the distribution of the currents and the thoroughness with which the entering air mixes with and dilutes the bulk of the contained air. Furthermore, the instrument is capable, when unskillfully handled, or in *too skillful* hands, of giving entirely unfair and misleading reports.

When the children are ill-clad and dirty, the air must smell more or less unclean. Here is room for personal work among the homes of the children. Washing of faces, hands, and heads, and attention to scalp and ear diseases, contribute to the purity of the air.

Outer clothing must be hung up in closets detached from the rooms (or possibly in halls), each child having a separate hook so set that garments do not overlap one another, but hang so as to dry easily. The closets must be ventilated liberally.

The condition of the floor may be such as to cause impurity of the air; as when the wood is light and splintery, retaining dust, or where washing of the floor is neglected.

SIZE OF ROOMS.

The ordinary classroom may be supposed to accommodate from thirty to fifty-six scholars. It may be too large or too small.

NOTE.—Table, showing the degree of purity of air resulting from perfect admixture of different amounts of fresh air with the CO_2 exhaled by one man in an hour—assumed equal to six cubic feet:

3,000 cubic feet of pure air to	6 parts CO_2	in 10,000	in mixture.
2,000 cubic feet of pure air to	7 parts CO_2	in 10,000	in mixture.
1,500 cubic feet of pure air to	8 parts CO_2	in 10,000	in mixture.
1,200 cubic feet of pure air to	9 parts CO_2	in 10,000	in mixture.
1,000 cubic feet of pure air to	10 parts CO_2	in 10,000	in mixture.
600 cubic feet of pure air to	14 parts CO_2	in 10,000	in mixture.
400 cubic feet of pure air to	19 parts CO_2	in 10,000	in mixture.

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1. In modern ventilation the incoming current of air is necessarily very rapid. It is usually thrown in at a height of six feet or more. In a small room this current will be felt in an uncomfortable way; but practice shows that a room allowing a cubic space of 250 cubic feet per head is large enough to allow the air to diffuse before it comes in contact with pupils.* Exit registers cause little draught in the room.

2. Since a child requires 2,000 cubic feet of fresh air per hour, it is evident that the cubic space allotted him contains only a few minutes' supply, and may be neglected in our calculations.

3. But in cases where ventilation is very poor, a decided aggravation of the evil is perceptible in crowded rooms. The air of rooms, even with closed doors and windows, undergoes a slow process of replacement, owing to the permeability of walls and windows, and on the average may be thus self-renewed once in an hour. If two classes of equal size are placed, one in a large, the other in a small room, both being unventilated, the amount of air thus coming to the larger room will certainly be the larger, and the difference will be obvious.

4. Excessive crowding not only hampers ventilation, but imposes a physical contact between pupils which has elements of danger, and is certainly ignoble. The pedagogic reasons for ample space need not be given; but

5. Excessive size may also be objectionable. For example, 350 cubic feet apiece to fifty pupils gives 17,000 cubic feet, or equal to thirteen feet in height and a floor, say, forty-three by thirty. In such a room the distances are inconveniently great in many ways.

6. Lighting is more easily secured in small rooms.

It is not advantageous to make the height of the ceiling exceed twelve or thirteen feet in ordinary rooms. With this proviso, the floor space for each scholar will be nearly twenty square feet.

If small children receive the same allowance of fresh air as larger ones, the cubic space in the room must also be the same.

Attention should be called to the following source of ambiguity. Certain schools may require and receive a large amount of special ventilation, *e. g.*, for laboratories, halls, cloakrooms, water closets; which, added in to the amount supplied for rooms, may considerably raise the apparent supply per pupil. It is not sufficient to know

*The authority of Rietschel is to the contrary of this. He says: "It is not easy to change the air-contents of a room oftener than five times in an hour without producing draughts" (Leitfaden I., p. 12). This, with 200 cubic feet space per scholar, allows but 1,000 cubic feet of fresh air supply.

Woodbridge, in the case of the new high school at Lynn, Mass., causes the delivery of from 140,000 to 160,000 cubic feet of air to each schoolroom, which changes the air about fifteen times in an hour. One-half the air is sent in by a single inlet three by one foot in size; the rest enters by a transom. He employs diffusing plates at the inlet.

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how large a quantity of air is furnished in the gross; we must know what is furnished to each schoolroom, and the number of persons who are actually using the room. The requirements herein reported refer to the latter datum, viz., the quotient of each room supply divided by actual number of pupils in room.

METHODS OF INTRODUCING AIR.

Ventilation can be improved by systematically opening windows at stated intervals. Relief can also be given by keeping a crack constantly open. The best way to do this is to open at the bottom, placing a narrow board in front at the distance of an inch to deflect the current upwards. The amount of air which can be admitted by this method or by opening at the top without injury to the pupils is but a small fraction of what is desirable. The cool currents are often annoying, and when so are dangerous.

Windows may be opened at recess (in ordinary, *i. e.*, ill-ventilated buildings), and the children compelled to leave their seats.

In the climate of the Northern United States, the introduction of warmed fresh air is absolutely necessary for good ventilation in cold weather. "Natural" ventilation cannot be depended on, and it is certainly dangerous to health.

Hence, the problems of ventilation and those of heating must be treated together. They belong in the hands of the same person, who ought to be an educated and experienced engineer.

Perforations in the walls or windows are open to the same objections as the opening of windows. They must not be considered seriously in the problem of good ventilation.

Assuming that the air required for ventilation is brought in by flues, warmed, the following principles apply to the case of a schoolroom of ordinary form and size:

1. The opening or openings for admitting fresh air should be well above the height of the heads of the occupants. The volume and velocity of air entering is too great to permit it to be introduced at a low level in a horizontal direction; and if deflected by a screen it at once rises to the upper part of the room.

2. Orifices for extraction of vitiated air in winter are placed at or near the floor-level. Those near the ceiling are for use only in exceptional cases of excess of heat.

3. The question of locating these openings in the outer or the inner wall must be left to the decison of the architect or engineer, in accordance with varying circumstances.

4. The choice of a high or a low point for the extraction of air from a room is not dependent on considerations as to the slight excess of CO_2 in higher or lower strata of air. In well-ventilated rooms

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the difference between different levels will not be great, either in temperature or in amount of CO_2; a great excess in either respect in the upper strata points to very bad ventilation.

FLUES.

Any but the most elementary method of ventilation will require the aid of flues to convey air to and from the room. The entire system of flues for every building should be planned before the foundation of the house is laid; or, as has been pithily said, the ventilation should be set up and the house built around it.

So much depends upon circumstances in this respect that it seems the safest plan to say but little, and that of a general sort, trusting details to the architect's honor and science. Simplicity is, of course, a desirable feature; but the architect is the presumably competent judge of the need of complexity. In general, bends and angles are undesirable, as retarding the currents. Friction against rough-finished sides does the same. Wood is inadmissible as a material; it shrinks, and is a dangerous conductor of flame. A straight discharge-flue, extending in undiminished size above the roof, and (if desired) capped to exclude weather, is desirable.

It is only in recent years that the size of flues, and the probable velocity of the current of air in them, has been supposed to have anything to do with the success or failure of ventilation. It is not uncommon to find in old buildings flues whose ventilating power may be estimated at one or two per cent of what is required. In illustration of what may be required by modern methods, I will instance rooms furnished with two inlets for fresh air, each three feet by one foot in size; with corresponding outlets.

Mechanical Aids.—In order to move air through flues, the mechanical force obtained from steam or electricity—in some cases, from water—is highly to be recommend for larger buildings. The expense is small, and is likely to work a saving in the end. The advantage of mechanical ventilation over that obtained by the draught of a heated shaft lies in its constancy. The hot chimney draws finely in cold weather, poorly in mild weather.

An approximate remedy for the weakness of draught in mild weather is found in placing a small stove inside of the chimney at the bottom, with the smoke flue in the center, to be lighted only when the temperature is above freezing point. The mechanical result, in moving air, obtained by the direct application of heat is far inferior to that obtained by burning an equal quantity of fuel for running a steam-fan. The most wasteful application of heat is that of inserting steam pipes into the upper ten feet of the ventilating shaft exclusively.

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A fan may be used for propelling air into the rooms (plenum system) or for exhausting it (vacuum system).

The respective advantages need not be discussed here. The plenum, however, has this point in its favor: We can always know where the air is drawn from, and can guarantee its purity, whereas the suction of an exhaust fan may draw air into a room from all sorts of accidental localities. A combination of both is often advantageous.

An exhaust-flue, whose draught is maintained by heating it with steam coils, is a very wasteful appliance. If heat is to be used for this purpose, the smoke flue may be inclosed in the center of the main shaft.

The "intake" of fresh air is to be placed wherever, in the judgment of the architect, the air is purest—avoiding contamination by dust, street odors, refuse, and equally avoiding the chimney-tops. It is impossible in this, as in other parts of the subject, to foresee all circumstances. In some cases, the pavement is clean and the air above it pure; in others, the use of top-dressing on a neighbor's lawn may render the air pestiferous.

Air must not be taken for school use from the interior of the building. Out of session, the air from a perfectly clean cellar can safely be used, with much economy, the discharge of warm air by the ventilators being stopped by closing the valves of outlet, and a rotation of air being established between the upper and lower parts of the building.

A useful device for saving heat consists in successively passing air from one room to another. This may be applied to the case where a classroom adjoins a cloakroom; when the air which has fulfilled its functions in the former is drawn through the latter on its way to the outlet from the building.

To regulate the temperature of a room, the flues for hot air are sometimes fitted with valves so contrived that it is in the teacher's power from time to time to admit more or less of cold (pure) air, which mixes with the warm before entering the room.

Another plan, which has for its sole drawback the high cost of the appliance, consists in fixing an automatic regulator at any desired point, in the room or in the in-flow of hot air, setting it at seventy degrees, or as may be judged best. The regulation can be applied to effect the opening and shutting of furnace draughts, or to the shutting off and letting on of steam coils, singly or in mass.

The temperature of the schoolroom may range between sixty-five and seventy degrees in American schools.* The moist climate of England goes with a different standard of temperature for comfort.

*On some days it will be comfortable at sixty-five degrees Fahrenheit; on others not.

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Dryness in the air of the school is a feature which we need not seek to abolish. Dryness is not, *per se*, injurious.† Overheating of the air and bad ventilation cause sensations which are often incorrectly referred to dryness. The best practice in our country does not heat the air before entering the room above one hundred degrees Fahrenheit; it often is not raised above eighty degrees or seventy degrees.

For warming schools of a single room, or of two stories with one room in each, the jacketed stove is admirably adapted, and is capable of giving first-rate results. The jacket reaches to the floor, and under it opens a flue for introducing fresh air; the inflow is regulated by a valve. A common chimney at the farther end of the room serves as ventilator, and draught is aided by running the stove-flue into it and out at the top. The opening for the escape of foul air is in the chimney at the foot. The sectional area of the chimney-flue is made as large as convenient.

Inclosed or jacketed steam coils are sometimes placed against the outer walls, communicating below with the outer air by an opening through the house wall, guarded by a valve. This arrangement requires to be supplemented by aspiration (heated chimney) fan. If not so supplemented, the amount of air entering will depend greatly on the direction of the wind, the outer temperature, etc.

The openings in the walls may be so small as to be totally inadequate to the purpose desired.

Steam-coils placed in the schoolroom may serve a useful purpose in severe weather, being disused when the weather becomes moderate. They may thus properly supplement a system of forced ventilation, which supplies an equal quantity of fresh air daily at temperatures ranging from seventy to ninety degrees.

Steam coils, or hot plates in the floor, should be placed at points where the scholars can make easy use of them for drying or warming themselves; *e. g.*, in the halls.

A connection between the schoolrooms and the water closets is of questionable propriety.

The closets and urinals should be ventilated by a strong draught exercising a suction from within and causing currents to flow inward at all openings. The draught chimney should be independent of that used for the schoolrooms.

In case artificial light is used, one gas jet may be reckoned equal to five persons. The outlet may for such cases be at the top of the room.

Gas stoves and oil stoves, discharging their products of combustion into the room, deserve no countenance. They must not be allowed in the schoolroom on any pretense.

†Except in cases of idiosyncrasy.

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COST OF VENTILATION.

It is stated by Professor Woodbridge that the fuel cost of ventilation has been found to be 1.44 pounds of coal per day for each of 750 scholars in the Lynn High School, making the per capita cost about 2.5 mills per day. The supply per scholar is nearly 3,900 cubic feet per hour. The proportion of CO_2 found in the air varies from 5.2 to 5.7 parts in 10,000.

The above represents the difference in expense between perfect ventilation and no ventilation; but as the latter is an inconceivable case, and as a large amount of heat would be wasted by open windows, even if no systematic appliances were used, it is fair to set the cost decidedly lower. To offset this, however, there is some expense for increased plant (boilers and engine).

The Massachusetts Institute of Technology has two large buildings of nearly equal size, used for similar purposes; the one ventilated in an old-fashioned way, the other provided with an average supply of 8,000 cubic feet per hour for each occupant—or four times the amount desired for schools. The coal-expense per occupant is estimated by Woodbridge at something in excess of one dollar a year per occupant (or one-fifth of a ton of coal).

The two computations coincide very closely, giving a probable annual cost of twenty-five cents per pupil if 2,000 cubic feet of air were the allowance. The steam fan is used in both cases.

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DEPARTMENT OF PHYSICAL EDUCATION.

SECRETARY'S MINUTES.

Motto.—"The life of man in every part has need of harmony and rhythm."

FIRST SESSION.—DENVER, COLO., July 9, 1895.

THE CREATION AND ORGANIZATION OF THE DEPARTMENT OF PHYSICAL EDUCATION.

A meeting was called in the interest of Physical Education, at the close of the morning session of the National Educational Association, July 9th. Mr. Edward F. Hermanns of Denver was chosen temporary Chairman, and Miss R. Anna Morris of Cleveland, Ohio, Secretary.

The object of the meeting, as stated by Miss Morris, was to arrange for a petition, to be presented to the Board of Directors, asking for the creation of a Department of Physical Education.

Upon motion, the following named persons were appointed a Committee on Permanent Organization, viz., Mr. Barringer, New Jersey; Miss Morris, Cleveland, Ohio; Mr. Wilkinson, Emporia, Kan., and were also requested to present to the Board of Directors of the National Educational Association the petition circulated by Miss Morris and signed by twenty-five leading educators of the country.

The following is the petition:

We respectfully petition the Board of Directors of the National Educational Association to create as a branch of that body's work a Department of Physical Education.

L. H. JONES, *Superintendent, Cleveland, Ohio.*
L. W. HUGHES, *Principal Normal School, Cleveland, Ohio.*
E. L. HARRIS, *Principal High School, Cleveland, Ohio.*
JOSEPH KRUG, *Superintendent of German, Cleveland, Ohio.*
BUEL T. DAVIS, *Superintendent of Schools, Winona, Minn.*
FRANK B. COOPER, *Superintendent of Schools, Des Moines, Iowa.*
W. M. BEARDSHEAR, *President Iowa State College, Ames, Iowa.*
J. W. SEAVER, *Professor Yale College, New Haven, Conn.*
W. G. ANDERSON, *Professor Yale College, New Haven, Conn.*
FRANCIS W. PARKER, *President Cook County Normal, Chicago, Ill.*
FRANK STUART PARKER, *Teacher Cook County Normal, Chicago, Ill.*
L. J. KOCH, *Director Physical Education, Normal School, Chicago, Ill.*
W. P. BOWEN, *Director Physical Education, Normal School, Ypsilanti, Mich.*
FRANCES C. BURTON, *Assistant Physical Education, Normal School, Ypsilanti, Mich*
R. G. BOONE, *Principal State Normal School, Ypsilanti, Mich.*
EVA D. KELLOGG, *Editor "Primary Education," Boston, Mass.*
A. B. POLAND, *State Superintendent of Public Instruction, Trenton, N. J.*
J. M. GREEN, *President State Normal School, Trenton, N. J.*
W. C. WARFIELD, *Superintendent of Schools, Covington, Ky.*
H. R. BLAISDELL, *Principal High School, Covington, Ky.*
W. A. BELL, *State Director National Educational Association, Indianapolis, Ind.*
NATHAN C. SCHAEFFER, *Superintendent Public Instruction, Harrisburg, Pa.*
HENRY HOUCK, *Department Superintendent Public Instruction, Harrisburg, Pa.*
JOHN I. STEWART, *Department Superintendent Public Instruction, Harrisburg, Pa.*
GEO. W. PECKHAM, *Superintendent of Schools, Milwaukee, Wis.*

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SECOND SESSION.—WEDNESDAY, JULY 10TH.

A meeting for the purpose of permanently organizing the Department of Physical Education was held in the basement lecture room, in the Central Presbyterian Church, immediately after the close of the general session, Wednesday, July 10th.

Mr. Edward F. Hermanns, Principal of Denver High School, acted as Chairman, and Miss R. Anna Morris of Cleveland, Ohio, as Secretary.

The report of the previous informal meeting was read and approved. The Secretary, Miss Morris, was called upon to state the object and aim of the new department just created.

The President stated that the object of the meeting was the election of permanent officers.

Upon motion, a nominating committee was appointed, consisting of Col. F. W. Parker, Chicago; Mr. W. M. Barringer, Newark, N. J.; Miss McMurray of Iowa; Miss Kimberlin of Detroit; Mr. A. W. Clancy ot Chicago.

The committee reported the following named for officers for 1895-96:

For *President*—Miss R. Anna Morris, Supervisor Physical Training, Public Schools, Cleveland, Ohio.

For *Vice President*—Mr. Ed. F. Hermanns, Principal Denver High Schools, District No. 2.

For *Secretary*—Miss N. D. Kimberlin, Supervisor Physical Training, Public Schools, Detroit, Mich.

Upon motion, the above-named officers were elected by acclamation.

The department adjourned to meet at 8:30 o'clock Thursday morning, July 11th, in the parlors of the Brown Palace Hotel, at which time the officers elected and others, including Colonel Parker of Chicago and J. N. Wilkinson of Emporia, Kan., were invited to speak on the subject of "Physical Education."

Meeting adjourned.

THIRD SESSION.—THURSDAY, JULY 11TH.

The Department of Physical Education held its first regular meeting in the parlors of the Brown Palace Hotel at 8:30 o'clock. The President, Miss Morris, called the meeting to order.

The minutes of the previous meeting were read by Secretary Miss Kimberlin and approved.

The following program was presented:

1. "Object of Physical Training Department." Miss R. Anna Morris, Cleveland, Ohio.
2. "Practical Physical Training in Public Schools." Miss N. D. Kimberlin, Detroit, Mich.
3. "The New Department." Colonel Parker, Chicago, Ill.
4. "Voice and Body." Mrs. Boyd, Newton, Kan.
5. "Physical Training in Brooklyn Public Schools." Superintendent Maxwell, Brooklyn, N. Y.

Discussions followed by Professor Lynch of Missouri; Professor Freidburg of New York City; Major Clancy of Chicago; Miss Pike of Denver; Mr. Barringer of New Jersey.

Upon motion, the President and Secretary were requested to arrange a program for the meeting of the department to be held in connection with the next meeting of the National Educational Association.

Meeting adjourned.

N. D. KIMBERLIN,
Secretary.

R. ANNA MORRIS,
President.

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PAPERS AND DISCUSSIONS.

THE OBJECT OF THE NEW DEPARTMENT.

BY MISS R. ANNA MORRIS, SUPERVISOR PHYSICAL EDUCATION, PUBLIC SCHOOLS, CLEVELAND, OHIO.

The National Educational Association, the greatest educational body in the world, by the establishment of a Department of Physical Education has paid the subject the highest compliment ever given to it in this country. It has raised the "new idea" from the orphanage of "fadism" to the dignity of a child of education.

The aim of the department is not only to establish a closer relation between those who are actively engaged in physical training, but to give dignity and scope to the work by enlisting the interest of prominent educators and by bringing it more effectively to the attention of the regular teachers with whom the hope of the future training lies.

It is believed that our department meetings will prove stimulating, and that they will afford an opportunity for an interchange of experiences and ideas by the practical presentation of physical training in schools of all classes.

PHYSICAL TRAINING IN PUBLIC SCHOOLS.

BY MISS N. D. KIMBERLIN, SUPERVISOR PHYSICAL EDUCATION, PUBLIC SCHOOLS, DETROIT, MICH.

While I intend briefly to give my idea of the place and aim of physical training in public schools, the subject is ideal in that it represents what seems to me the best standard, but practical in that the benefits claimed are such as I have already observed in my own experience.

The subject divides itself naturally into two sections. First, that which deals with the pupil; and, second, that dealing with the public school teacher as the instrument in executing the physical director's instructions.

In the case of the pupil, let us examine the conditions we have to meet. The average child of healthy parents probably leads a more nearly natural existence between birth and five or six years of age than at any other period of his life. He eats heartily and regularly, sleeps soundly and plays vigorously. Growth and change of tissue are active, and the mental faculties, while developing, have not yet reached the point when they can entirely overrule the physical, as they so often do in later years. As a result, most children come to us healthy and vigorous, with fairly well-shaped bodies.

With school life, new conditions arise. Mental training is begun, and the work and confinement together make up a life further from that of nature than the

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one hitherto led. Unfavorable modifications, more or less marked, must occur, and I think our main effort should be to counteract these; that is to say, our work is preservative rather than formative, as our object is not to develop athletes or strong men, but simply to continue healthy conditions for the child, so that his body shall grow strong and fit for the work of life and so trained as to be the ready servant of his will under all circumstances and emergencies. The particular exercises that will best do this can scarcely be specified here; they must, however, be such as can be performed under present conditions of school-life, and should aim primarily to develop sound heart and lungs, the essentials of physical vigor, and secondarily, secure bodily self-control.

Quite as important as the exercises, is instruction in physiology and the hygienic care of the body. In my own work a course of physiology is studied by all grades during the school year. The subject is presented in as practical a form as can be done in the schoolroom. Charts are used, and in many cases the actual tissue. The pupils not only have an intelligent appreciation of the subject, but in many cases the teaching has produced practical results outside of the school by changes in dress, food, and mode of life. This part of the work, aiming, as it does, to develop the body into a sound and perfect instrument, is the first and most important duty in physical training.

We by no means fulfill our whole duty when we have given the child sound heart and lungs and vigorous limbs. These things are good and worth striving for, but they form only a part, and we can never hope for all the good of physical training until we at all times apply to this branch of instruction the same methods of research and the same patient, thorough study as has been given of late years to language studies and the mental development of child-life.

The most marked mental result is probably the increased power of doing good work which we get by putting the body into a vigorous and healthy state; a good instrument will naturally do more and better work than a poor one.

There are also certain specific benefits traceable to special sections and methods of the work. Among these I would place, first, the alertness, precision, and prompt execution of voluntary movements we obtain through military execution of the drills. The exactness and rapidity of this form of movement have a special value in developing concentrated attention, which, becoming a habit, must prove of use in the parallel development of the mental life.

In Detroit we have insisted upon a brief period of light exercises every twenty minutes for all primary grades, and it has resulted in a brightness and power of attention that fully prove its value.

Certain moral effects, too, follow systematic physical training. The first seen is the better discipline, prompter obedience, and, consequently, the greater ease with which the teacher obtains perfect mass-control of large bodies of children. Going from the class to the individual, we soon find a self-reliance and self-control which comes from a knowledge of his bodily powers and the assurance that he can use them at will.

I think, too, that, in connection with the physical training, the teacher may rightly give instruction in some of the elementary forms of courtesy, by showing the signification and use of the military salutes, and insisting upon their performance both collectively and individually. There is a concreteness in these forms which seems to make them especially serviceable to this end, and I have seen the plan work well.

A correct position for a few minutes during drill will do little to correct a slouchy posture, tolerated till it becomes habitual. Correct sitting and standing

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positions are to be insisted upon during recitation periods, and the orderliness, precision, and respectful salutes of military drills preserved in all mass movements. As they grow familiar with the work, the teachers should be conscious of the need of watching the weaker children, excusing them at times and modifying the work to suit their powers. Statistics show that one in fifteen school children has physical defects marked enough to call for attention.

It is difficult sometimes for the teacher to see the need of all this at first, and it can be done only by a presentation of the work that appeals to his reason; that is, by showing physical training to be the basis of all lasting endeavor in other directions, and applying to it the pedagogical methods of mental training.

In conclusion, I would like to speak of some points that need our immediate attention.

First comes the question of the proper treatment of the deformed, and all who, not wholly incapacitated from effort and the chance of benefit from the physical training, are yet unable to take the ordinary class work. More than any others, they need our careful and considerate attention, yet they cannot receive this under present school conditions without unfairly holding the others back. School boards have already established special schools for the deaf and dumb, and I think a like movement would probably meet the other case.

Next comes the question of school play-grounds. Our school children show little of the spontaneous activity natural to childhood, and too often the impulse to play has to give way for want of proper play-grounds. In England every school has a play-ground surrounding it—often quite an extensive one. In many cities these are opened evenings and Saturdays, and in some of the crowded manufacturing and slum districts other grounds have been reserved—not ornamental parks or so-called breathing spaces but veritable play-grounds, where children can romp or play ball to their hearts' content. England has long been known as the country of popular athletics, and no doubt much of her great commercial and political power may justly be traced to the vigorous constitutions developed in the school play-grounds.

The lesson is worth learning. Systematic physical training can do much, but it cannot do all, and it should never be allowed to replace the natural activity of vigorous out-door games.

One danger to be carefully guarded against is a tendency to limit our work to one system. We should keep ourselves elastic enough to seize the good that may be in any new idea. At the same time, I hold it very necessary to use these new ideas only after rigid test in the light of our own surroundings, especially in regard to suggestions coming from different climates and conditions of life, as our American environment has produced a distinctive American type.

Too often the teachers perform exercises merely because the order has gone forth that they shall exercise; tolerate it as a fad, and go through it as a task. To be worth anything, the training must be thorough, systematic, and intelligent; and it can be fully so only in the hands of experts.

Therefore, we should press the need of physical training everywhere—in village, city, county, and state; and we can gain this point only by patient, earnest work within our present limits till people have learned physical training is not a mere passing fad, but a necessity of modern conditions and an essential part of education to be secured, if need be, even at the cost of many things now more highly esteemed.

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THE NEW DEPARTMENT.

BY COL. FRANCIS W. PARKER, COOK COUNTY NORMAL, CHICAGO, ILL.

I rejoice that the Physical Training Department of the National Educational Association is at last organized.

The Physical Training Association is doing an excellent work, but we need to reach all the teachers of this country through a propaganda of the kind which you here propose. As we study the great science of pedagogics, we come nearer and nearer to the central questions. Co-ordination and concentration are in the air. All physical training should be concentrated on a healthy, strong, active brain, which means a sound body. The results of physical training should be looked for, also, in skill of thought-expression.

Child study is now coming in with its great help in this direction. It is very difficult to think well, and it is extremely difficult to develop ethical character without the proper physical training.

I would suggest that this department devote itself to the great purposes of physical training, to bring about a strong and earnest propaganda of training into a good, healthy, sound body and a vigorous brain; that all discussions concenter around the relation of mind and body—mind to body and body to mind.

VOICE AND BODY.

BY MRS. GASTON BOYD, DIRECTOR OF MUSIC IN PUBLIC SCHOOLS, NEWTON, KAN.

Herbert Spencer says: "It is one's duty to make of a child, first, a good animal; after that is accomplished, his mental and moral training may be considered."

That physical vigor is requisite to a resonant, rich quality of the speaking voice or singing voice is at once apparent. In no particular does weakness or illness effect a greater change than appears in the voice. To obtain the best results in voice culture, physical culture must accompany it. The two are inseparable if the best possible work in either is to be accomplished. To be well equipped with the habit of body and mode of speech such culture insures is to bear a letter of recommendation more emphatic than any written page. Quality of tone and mode of articulation impress, though unconsciously, every ear.

The station agent, busied with pen and paper, hears a voice questioning with regard to route or train. If the voice be uncultivated, the articulation careless and slovenly, the pen is not lifted, the eye is not turned from his work, and the answer he gives is as careless as are the tones which reach his ear. On the other hand, no sooner does he hear a voice rich and resonant, with a pure and distinct articulation, than he springs to give attention and careful response.

The necessary work of physical training and voice cultivation can never be successfully done in our public schools until the regular teacher is impressed with the importance of this work and strives to become herself the embodiment of the principles taught.

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So long as we have teachers who do not stand erect, who carry the body in an ungainly fashion, whose chest is narrowed by contracted shoulders, whose mode of dress makes the freedom and elasticity of the body an impossibility, so long may we look in vain for large results from the children. And this is equally true of the voice. A teacher may possess a quality of voice which in itself arouses and fosters the worst elements in the character of a child, and when we consider the strength of the imitative faculty we may appreciate the harm arising from the daily and hourly repetition of harsh or nasal tones of voice.

It is hoped that this department of the National Educational Association may aid in the formation of a public opinion which will demand of our public school teachers that knowledge of voice and physical culture which will manifest itself in a distinct articulation, a pleasant quality of voice, and correct carriage of the body.

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DEPARTMENT OF NATURAL SCIENCE.

SECRETARY'S MINUTES.

DENVER, COLO., July 9, 1895.

At the meeting of the Colorado State Teachers' Association in December, 1894, there was organized a State Department of Natural Science Teachers. This association developed a great interest in the improvement of natural science teaching in high and preparatory schools. The association held several independent meetings, and in anticipation of the National Educational Association meeting in Denver for July, 1895, a committee was appointed to confer with the officers of the National Educational Association, regarding the possibility of organizing a similar department in the National Educational Association.

The officers of the National Educational Association showed the most cordial interest in the proposal to organize the new department.

Correspondence with President Butler and Secretary Shepard developed the plans in line with the following circular, which was distributed widely throughout the country in the hope of attracting the natural science teachers to the Denver meeting:

COLORADO STATE TEACHERS' ASSOCIATION.—DEPARTMENT OF SCIENCE TEACHERS.

IMPORTANT ANNOUNCEMENT.

A movement has been inaugurated in Colorado looking to the improvement of the teaching of natural science in the secondary schools. It is purposed to extend this movement in connection with the Denver meeting of the National Educational Association.

At the last (December) meeting of the Colorado State Teachers' Association a new department was organized, called the Department of Science Teachers, and including the teachers of science of both collegiate and secondary schools.

The aim is to limit the number of science subjects taught; to insist that each subject shall cover at least one year; to improve the methods and matter of laboratory work and all that is implied therein; and to determine, if possible, the proper order of the natural sciences suitable for, and fundamental to, the courses of the secondary school.

In connection with the National Educational Association at Denver, it is designed to hold a Round Table Conference of the teachers of natural science of both collegiate and secondary schools. Eminent teachers of national reputation will be present at the Round Table Conference. There will also be exhibitions of scientific apparatus, methods, etc.

It is hoped that the interest shown and the discussion elicited, as well as a good attendance on the conference, will justify the application for the organization of a Department of Science Teachers in the National Educational Association.

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In this prospective department lies a great opportunity for the co-operation of the teachers of collegiate and secondary schools. Such a department will effect the articulation of lines of work which are one in nature and aim, and which should be brought into close touch.

The hearty co-operation of all teachers in any way interested in this line of work is requested. It is suggested to bring for exhibition any novel material in the way of new apparatus, charts, methods, etc., which will be of popular interest and practical value to fellow teachers.

Announcement of intention to attend should be made by writing to any one of the following Colorado Local Committee:

CHAS. STEELE PALMER, PH. D.,
University of Colorado, Boulder.
CHAS. J. LING, B. S.
Manual Training High School, East Denver.
WM. TRIPLETT,
Superintendent of Schools, Golden.
H. V. KEPNER. A. B.,
High School, South Pueblo.
A. J. FLOYD,
High School, Greeley.

Many replies were received in response to this circular, and by the advice of the officers of the National Educational Association at Denver, announcement was formally made of two public round table meetings of natural science teachers, at the Lutheran church, corner California and Twenty-second street, for 2:30 p. m., on Wednesday, July 10th, and Friday, July 12th.

RECORD OF THE PROCEEDINGS OF THE ROUND TABLE, JULY 10, 1895.

The first meeting was called to order by Dr. Chas. S. Palmer of the University of Colorado. In response to his question as to the pleasure of the meeting regarding a Chairman, it was moved and seconded that Dr. Palmer be declared Chairman for the meeting. Carried.

Dr. Palmer, after expressing his thanks for the honor, explained in brief the manner in which the Colorado state science teachers had taken it upon themselves to issue a circular to the science teachers of the United States, urging them to be present and participate in a round table discussion, and aid in the organization of a Department of Natural Science Teaching in the National Educational Association. He then called for the election of a Secretary *pro tem.* and, on motion, Mr. Chas. J. Ling of the Denver Manual Training High School was chosen.

Dr. Palmer then introduced Dr. Nicholas Murray Butler, President of the National Educational Association, who had kindly consented to be present and address the meeting at its opening session.

Dr. Butler spoke in brief of the sympathy with which the movement was viewed by the officers of the general association, and said that they were heartily united in wishing for the new department unbounded success. He dwelt upon the success of the general association during the past thirty-four years, and stated that they had, they believed, crystallized, in a great measure, the best educational thought of the country.

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"The subject of natural science," he said, "used in its broad sense, is, pedagogically, new. It has taken four hundred years to organize science into its now accepted subjects. Indeed, only since Darwin and Helmholtz have the ideas of science been clarified and classified. Hence, the school and the teacher must realize this disadvantage against subjects which have been so long settled pedagogically."

President Butler called attention to the fact that the stumbling-block to the Committee of Ten was the lack of an accurate pedagogical form for the scientific subjects. "The word 'natural' science may convey a variety of meanings, and before it is pedagogically treated it must find its exact meaning.

"The history of science as a requirement for college admission," he continued, "shows that the worst enemies of science teaching are science teachers in the highest positions. It is the highest function of science teachers to deal with the various aspects of the pedagogical forms of scientific subjects. We ought to know from scientific men what subject-matter ought to be taught, and in what order and under what varying conditions."

He then spoke of the questions that must be answered by scientific men, such as the co-ordination of subjects related to their work; sciences in the elementary schools and the relation they shall bear pedagogically to other subjects, etc.

"The educational value and pedagogical forms of science," he concluded, "can be put in a valuable form, and will be second to none if this problem can be put fairly and accurately on a pedagogical basis before the teachers."

The Chairman next explained the work undertaken by the Colorado science teachers, and said that, while the questions concerning physics and chemistry had given relatively little trouble, the matter of biology had given much. And furthermore, that all had agreed that thorough work in the high school implied descriptive work in the grades; yet the grade work was the least known, or, at least, it was a new and difficult subject. Hence, the subjects of biology and science in the grades had been given prominence in the program, in hope that some new light might be thrown on these more perplexing subjects.

Professor Bessey of the University of Nebraska was then introduced by the Chairman to open the discussion.

Professor Bessey stated that he had prepared no formal paper, but had mingled with the teachers and found somewhat of the conditions existing at present. He stated that he did not believe in "biological science," but in botany, zoology, physiology, etc.: that biological science came after the knowledge of botany, etc.

He further stated that he would talk especially upon the subject of botany, but much that he would say might equally well be applied to zoology. "In discussing the subject of what the 'high school botany' should be, it must not be forgotten that several factors prevented its realization at present.

"Firstly, such a course can be realized only when nature study in the grades is fully realized.

"Secondly, many teachers are not prepared to teach 'modern botany.' Hence, the question of what the botany in high schools should be is a serious question." He called attention to the great changes in the science of botany during the past twenty years, and affirmed that a teacher who has not prepared himself for teaching botany as it is understood to-day, and who attempted to teach it as it was understood twenty years ago, must, of necessity, teach an antiquated subject.

"Keeping in mind the difficulties in the way of the realization of the high school course in botany, the question may nevertheless be presented, What should the high school do? In other words, What should the student know about botany when he leaves the high school? Botany should introduce the student to the study of the forms of plant life. It should be an introduction to the philosophical

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study of plants; *i. e.*, it should outline work for the philosophical study of plants. The first view of any science should not be distorted; it must be a view of the whole subject. The ideal should be that the pupil carries away with him the great classes of plants, with reasonable clearness; in short, a general knowledge of the vegetable kingdom."

Professor Bessey spoke of the work which must be done in instructing a pupil of eighteen years, which might better have been done in the elementary school, and said that facts as such should be taught in grades below the high school, leaving for the high school the work which more properly belongs to it, viz., technical, systematic instruction. "As for the unprepared teachers," he continued, "they must step out, if they will not step up to the front. To teach botany successfully, there must be a suitable room, suitable tables and chairs, good compound microscopes and enough of them; in short, there must be the proper appliances, and the teacher must demand and demand till he gets what he needs."

The Chairman next introduced Prof. Geo. S. Atkinson of the Department of Cryptogamic Botany at Cornell University, who read a paper on "Botany and Zoology in the Secondary Schools."

Professor Atkinson spoke of his unfitness to discuss this topic, inasmuch as he had never taught either botany or zoology in secondary schools. He referred also to the unfortunate disagreement among teachers of natural history subjects, regarding the advisability of introducing these studies into preparatory work. He emphasized the high value of language work in Latin and English, but emphasized also the great lack of training in the power of observation and comparison. Moreover the preliminary work of teaching these can and must be done in the secondary schools.

Professor Atkinson doubted the advisability of recommending compound microscope work for all students, and enumerated the difficulties in the mastery of the technique, and the expenses, etc. [He afterwards explained, in a private conference with the Secretary, that he would advise such work for all who might elect it, and when the enthusiasm and interest of the student would enable him to master the delicate work of mounting specimens, adjusting the instrument, etc.]

Regarding the subject-matter of the work, he advised, for secondary schools, in botany, "the general facts concerning germination, growth, the parts of the plants, their relation one to another, their function in plant life. The gross anatomy and general relationships should be taught first."

He regarded the following as a good tentative scheme of treatment:

1. Introductory talk by the teacher, giving a general outline of the plant.
2. Practical study by the pupil, following some "laboratory guide."
3. Quiz and review.
4. Further talk by the teacher, explaining parts not well understood.
5. Lecture by the teacher on the minute and more difficult structure.
6. Demonstration of minute anatomy with the (compound) microscope.
7. Essays on the various topics covered, by the students.

Professor Atkinson spoke favorably of the report on this line of work by the Committee of Ten.

He also referred to the recommendations of the regents of the State of New York, in the revised syllabus for 1895. (Botany, pp. 373-378; zoology, pp. 378-380; physiology, pp. 381-383.)

Professor Atkinson also spoke of the encouragement given by the State of New York to botanical work.

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The Chairman then requested Prof. W. S. Jackman of the Cook County (Ill.) Normal School to speak upon the "Teaching of Natural Science in the Grades Below the High School." Professor Jackman said:

"It seems, after all, that we are all aiming at the same thing, namely, the development of the pupil. The fact that pupils are in the high school without a knowledge of facts which seem 'foolish' for a child of eighteen years is an evidence that the teaching of such fundamental facts of science should be present in the grades below the high school. Upon the work of the first eight years all the success of this work depends. Scientific insight will suit the ideas of the higher teacher. To catch the pupil, the attractiveness of the subject must be presented first. Little laboratory experiment is needed in the grades; but actual, systematic, accurate field-work is imperative."

He spoke of the prejudice regarding the idea of "school;" that it means to many the four walls, the desks, and blackboards, and that all the work should be confined within such a "school;" whereas, what is most needed is the freedom of the "field excursion," where the restraint of the schoolroom may, in a measure, be thrown aside without any sacrifice of good and profitable results. In fact, the results would be better, because the attractive side would be easily presented and the enthusiasm and attention of the pupil would be freely aroused.

Professor Jackman further said: "People must be impressed with the advantage of this method, and must spend money to get the children into the field for study."

Referring to the instruction of teachers, he said: "Teachers must grow with the work. At present the teachers in the primary grades do not know how to instruct the little children. The high school methods will not do, but they must learn to teach from the standpoint of the child. Words must mean something, and there will be no difficulty in speaking the words.

"The high school teacher," he concluded, "must be interested in the grade science teaching from self-defense, because he cannot do the work he wished to until the teaching below is right."

Mr. Otis Ashmore of Savannah, Ga., spoke of his experience in taking his high school class to the sea coast on a scientific excursion, and of the enthusiasm aroused. He fully agreed that the freedom of such excursions meant a great deal for the advancement of science teaching.

The election of officers for the department resulted as follows:

For *President*—Chas. E. Bessey, Lincoln, Neb.
For *Vice President*—Wilbur S. Jackman, Chicago, Ill.
For *Secretary*—Chas. S. Palmer, Boulder, Colo.

SECOND SESSION.—JULY 12, 1895.

The Chairman, Dr. Palmer, called the meeting to order at 2:30 p. m., about seventy-five being present, and suggested, that, in view of the favorable outlook, it would be proper for the permanent officers to assume control of the Round Table. Professor Bessey of Nebraska, the President, was therefore called to the chair and presided at this session, Dr. Palmer acting as Secretary.

A motion was made, that, in view of the necessity of meeting the Executive Committee of the National Educational Association at 4:30 p. m., adjournment be taken at 4:15 p. m.

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The President then introduced Dr. Joseph Le Conté of the University of California. He said:

"I do not wish my talk, disintegrated and disjointed as it is, to be dignified by the title of address. And, by way of introduction, I realize my loss in that I have never had any experience in the lower schools. But let us consider:

"Firstly, the obstacles in the way of introducing science into the schools. The field of science is enormous; and yet there is no suitable recognition of this by the schools. This is one reason why the method of teaching natural science in the schools is imperfect. This is illustrated by the curriculum of the schools. It seems to date from the period of the birth of the new learning in ancient languages. The old scheme is thoroughly practical; it has been greatly modified, but the system is thorough.

"But now we witness another revival of learning. It is not the 'Book of the Ancients,' but the 'Book of Nature,' which is spread before us. But unfortunately as yet, there is nothing corresponding to this in the schools.

"And moreover, when the attempt was first made, it was found that science (as given then), did not furnish as good an educational method as the classics. Science of the older day involved a book method; not the natural method of going to the original books and laying open the 'Book of Nature.'

"But now we find a newer method; and hence, the laboratory and the field—the keys which will unlock nature.

"Another characteristic of the introduction of good science into the schools lay in the fact that the old curriculum was originally designed as a preparation for a leisure and literary class. Now the schools are regarded as a preparation for the whole people.

"Thus, formerly, scholars reverenced the old adage, 'In nature nothing is worthy of study but man; and in man nothing is worthy of study but mind.' But now science shows that the best cultivation of mind comes from the study of nature.

"Thus the natural study of science cultivates the whole man,—the eye, the hand, and the brain. Observe how the cultivation of man is illustrated by the child,—the hand, the eye, and the brain,—the most fundamental, the most natural, and the most successful method.

"Again, it has been said that natural science is at a disadvantage as compared with the classics and the humanities, in that the one merely teaches power over nature, while the others teach power over man; and therefore the latter are the more practical in life where man meets man. But notice biological science, which is most practical in teaching the dealing of man with man. I mean the value of the method of comparison and the rapid drawing of results.

"Further, natural science must be taught in a thoroughly formal, *i. e.*, a scientific way. The order of the natural sciences is absolutely fixed and rigid. Thus it is impossible to understand mechanics without a previous knowledge of mathematics; and thus the logical order is mathematics, mechanics (and perhaps astronomy), physics, chemistry, biology, geology, and finally, shall we say, because now it has became thoroughly scientific, sociology. This order is rigid.

"But here come the difficulties. Firstly, we cannot teach all as yet; and secondly, they are not all necessary. What shall we choose?

"Let us illustrate the solution by appealing to the two methods of nature study. These are, firstly, the natural history method; and secondly, the scientific method. In the one is illustrated rapid observation and the drawing of conclusions; in a word, intuitive perception. In the other one uses the formal reason in a fixed code. The one (the natural history method) is adapted to the lower grades; the other (the scientific method) is adapted to the higher schools and to investigation.

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"Here we meet the horns of the dilemma. In the high school we cannot teach all of the sciences previously enumerated. Shall we, therefore, teach a little of each; or shall we give a good full year at least to a few? Now, observe, that, in the higher schools, in teaching natural science, the object is, not merely to give useful information but rather to give the key with which the student may open and understand the book of nature. And, hence, two or three branches are enough for the present.

"Now, of the two sides, viz., the experimental and the observational, both must be represented. On the experimental side we find physics and chemistry. Of these the teacher should teach that which he can teach best; but physics is the more fundamental. On the other side (the observational) we find biology, botany, physiology, physical geography, etc. Of these, that should be taught which is best understood by the teacher. These subjects may well be taught together, though botany is the more fundamental, and is more easily introduced into the schools.

"Lastly, just a word regarding the prospective organization of the Department of Natural Science Teaching in the National Educational Association. Surely this is as important as any department in the association. When we consider the newness and the uniqueness of the scientific method, if any department is to be recognized, surely the Department of Natural Science should be."

Dr. Le Conté's remarks were followed by a discussion on the teaching of physics and chemistry.

Mr. Lewiston thanked the round table for recognizing Nebraska in the election of President Bessey. He spoke of the use and uselessness of definitions, and recommended the ignoring of atoms and molecules as far as possible, and the study of heat, light, and electricity as such. Regarding the economy of time and the use of note-books, he would make the note-book a polyglot. Thus with one piece of copper wire, there may be measured, first, the length; second, the specific gravity; and later, the specific heat, the heat and electrical conductivity, etc. Regarding the so-called "sandwich plan" of interspersing chemistry with physics, he had used it, and found it to work well. It caught students who would come back another year; and also, physics and chemistry help each other greatly. Regarding science in the grades, he recommended correlation. Thus measurement suits well with geometry.

The Chairman next called on the Secretary.

Professor Palmer spoke of the general problem of the newer science courses in high schools. We must offer something which is modern, and yet which can compete with the good old special classical course in the way of discipline. Mathematics, physics, chemistry, and biology seem a good provisional course and order. And further, the task is now upon the high school teacher. College teachers can no longer ask the pupils to wait for college before beginning science; hence, the high schools must take up the problem now. Regarding the criticism sometimes offered of "materialism" resulting from the study of science, he maintained that the sciences build up the best and strongest character if they are well taught.

The Chairman next called on Mr. Garvin of the East Denver High School.

Mr. Garvin expressed the heartiest interest in the work of the round table. He then expressed his views by quoting at length from the most admirable report of the Chemical Committee of the Colorado State Science Teachers. [This report is published in full in the "Colorado School Journal," May, 1895, pp. 210, 211.] Mr. Garvin favored the order: Physics first and chemistry afterwards; one year to each: seven hours per week; two periods of two hours each, etc.

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The Chairman next called on Mr. Ling of the East Denver Manual Training High School.

Mr. Ling favored the order, physics first and chemistry afterwards. He recommended the separation of classroom work and laboratory work. The former should anticipate and clear the way for the latter. But especially he dwelt on the fact that the object in high school science should be, not merely information but that which gives mental power.

Mr. Twiss of Cleveland was next called upon. He preferred the order of chemistry first and physics afterwards. First, he would teach physical geography with elementary chemistry and physics; then, in the next two years, he would work in more advanced physics and chemistry.

Professor Strong of the University of Denver was next called upon. He spoke, first, of the order of physics and chemistry. He thought the two studies were not different, and hence could be taught together; but because of the fact that many students leave the high school early in the course, he would teach physics first. On the other hand, physics depends on mathematics, and therefore should come late in the course. Regarding the attractive "sandwich plan" of Mr. Lewiston, that would suggest the wisdom of an elementary and a more advanced course. Secondly, regarding the scope; he would limit the number of subjects but go deeply into them.

Principal Skidmore of Philadelphia was next called upon. He said that he regularly "sandwiched" physics and chemistry with the same class (second year) on alternate days. Thus he began physics with the study of magnets, and chemistry with the study of electrotysis. He rejoiced at the opportunity to discuss science, and congratulated the Colorado Science Teachers' Association on their work. He spoke on the necessity of this department for the National Educational Association, and instanced the state of the book and apparatus market as an illustration of the undeveloped state of science teaching.

Principal Wise of South Denver spoke next. He had tried both orders, and found best results by teaching both together. He used no special text-book. In a scope of three or four years' high school course, he would give physics and chemistry each one year of five hours per week.

Mr. Coudry of Lincoln, Neb., followed. In dealing with teachers he found too much ground was covered. He preferred a few subjects, with greater depth in each. He preferred the order, physics first and chemistry afterwards. Botany and zoology could be taught incidentally.

Mr. Turner of Omaha spoke next. He preferred physics first. If physics and chemistry are to be "sandwiched," let them work together.

At this time, in anticipation of the organization of the round table into a department of the National Educational Association, the Secretary, Professor Palmer, spoke a few earnest words, encouraging his fellow teachers to do all in their power to awake the interest of college and high school teachers alike to the importance of the problems and of the work to be done. He advised the formation of local and state associations of science teaching all over the country, and urged all to attend the next meeting of the National Educational Association to push on the work.

The committee appointed to present the matter to the Board of Directors of the National Educational Association proceeded at once, with Professor Le Conté as their spokesman, to urge the petition. The petition was unanimously granted, and thus the round table with its officers became the Department of Natural Science Instruction of the National Educational Association.

CHAS S. PALMER,
Secretary.

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ROUND TABLE OF NATIONAL HERBART CLUB.

The National Herbart Society held two sessions, July 10th and 11th, in the afternoon, at the time of the National Educational Association meeting in Denver.

This society for the scientific study of education in its present form was organized at Denver. Its purpose is to study, and investigate, and discuss important problems in education. Its members do not subscribe strictly to the doctrines of any one leader, but seek for fair and thorough discussion. Some members of this society are strongly tinctured with the educational doctrines of Herbart, others are not; and it is right to expect an honest search for truth.

In the meetings for organization an executive council of nine members was chosen, which has the control of the society's work. They are as follows:

Charles De Garmo, Swarthmore College, President; Nicholas Murray Butler, Columbia College; John Dewey, University of Chicago; Wilbur S. Jackman, Cook County Normal School; Elmer E. Brown, University of California; Frank McMurry, University of Buffalo; Levi Seeley, State Normal School, Trenton, N. J.; C. C. Van Liew, Illinois State Normal University; Charles A. McMurry, Normal, Ill., Secretary.

The society was organized for the aggressive discussion and spread of educational doctrines, and it desires to draw into its membership all teachers, students of education, and parents who wish to keep abreast of the best thought and discussion. It publishes a year book six weeks before the National Educational Association meeting, which contains three or more complete monographs on important topics carefully worked out by specialists in educational fields. The "Year Book" is sent free to all regular members. In addition to the "Year Book," the society, through its Secretary, will send free to each member two or more additional pamphlets during the year. Regular yearly membership in the society may be secured by the payment of a one-dollar fee, which should be sent to the Secretary, Charles A. McMurry, at Normal, Ill.

The first "Year Book" was published before the Denver meeting and sent to members, as a preparation for the discussion of its contents at that time. The first "Year Book" contained four articles, as follows:

"Most Pressing Problems Concerning the Elementary Course of Study," by President Charles De Garmo.

"Concentration," by Dr. Frank McMurry.

"The Educational Theory of the Culture Epochs," by Dr. C. C. Van Liew.

"A Plan of Concentration for First Two School Years," by Mrs. Lida B. McMurry.

These papers were quite fully discussed at the sessions of the Herbart Society at Denver.

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Among those who took an important part in the Denver discussions of the Herbart Club were:

Geo. P. Brown of Bloomington, Ill.; Robert H. Beggs of Denver, Colo.; Charles De Garmo of Swarthmore, Pa.; Wilbur S. Jackman, Chicago, Ill.; Col. Francis W. Parker, Chicago, Ill.; O. T. Bright, Chicago, Ill.; C. B. Gilbert, St. Paul, Minn.; Louis Galbreath, Winona, Minn.; Miss Sarah Brooks, St. Paul, Minn.; W. P. Burris, Bluffton, Ind.; Emma F. Bates, Bismarck, N. D.; John W. Cook, Normal, Ill.; L. H. Jones, Cleveland, Ohio.; S. G. Williams, Cornell University, N. Y.; F. M. McMurry, Buffalo, N. Y.; C. C. Van Liew, Normal, Ill.; C. A. McMurry, Normal, Ill.; W. S. Sutton, Houston, Tex.

A supplement of the "Year Book" was issued in November, containing a report of the discussions at Denver. The supplement contains also a discussion of the "Culture Epochs," by the Schoolmasters' Club, in a session held at Bloomington, Ill., October 4th and 5th. A second supplement will be sent out to members in March, 1896.

CHARLES A. McMURRY,
Secretary.

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THE EDUCATIONAL CONGRESS

OF THE

COTTON STATES AND INTERNATIONAL EXPOSITION

OPENED UNDER THE AUSPICES OF THE

NATIONAL EDUCATIONAL ASSOCIATION,

ATLANTA, GEORGIA, OCT. 25 AND 26, 1895.

In accordance with the request of the Department of Education of the Cotton States and International Exposition, and the resolution passed by the Directors of the National Educational Association at the session at Denver in July, the Educational Congresses of the Exposition at Atlanta, Ga., were opened by the National Educational Association, October 25th and 26th.

COMMITTEE OF THE NATIONAL EDUCATIONAL ASSOCIATION

Appointed at Denver to co-operate with United States Commissioner, Wm. T. Harris, at the Educational Congress of the Atlanta Exposition:

NEWTON C. DOUGHERTY *of Illinois, President of National Educational Association*
IRWIN SHEPARD *of Minnesota, Secretary of National Educational Association.*
I. C. MCNEILL *of Missouri, Treasurer of National Educational Association.*

CHAS. R. SKINNER *of New York.*
L. H. JONES *of Ohio.*
W.-F. SLATON *of Georgia.*
C. B. DENSON *of North Carolina.*
J. M. CARLISLE *of Texas.*
AARON GOVE *of Colorado.*
ELLEN C. SABIN *of Wisconsin.*
ESTELLE REEL *of Wyoming.*
GEORGE J. RAMSEY *of Louisiana.*
S. T. BLACK *of California.*
J. H. PHILLIPS *of Alabama.*
JAMES MCGINNISS *of Kentucky.*
RAY GREENE HULING *of Massachusetts.*
E. ORAM LYTE *of Pennsylvania.*

SECRETARY'S MINUTES.

FIRST DAY, MORNING SESSION.—OCT. 25, 1895.

EXPOSITION AUDITORIUM, ATLANTA, GA.

The Educational Congress was called to order by Ex-Gov. W. J. Northen, Chief of the Department of Education.

Prayer was offered by Rev. A. E. Winship of Boston, Mass.

Supt. J. S. Stewart, Marietta, Ga., President of the State Teachers' Association of Georgia, was then introduced, and delivered an address of welcome.

Dr. Wm. E. Boggs, Chancellor of the State University of Georgia, followed with an address of welcome.

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At the close of Chancellor Boggs' address Governor Northen added a few words of welcome, and introduced President Newton C. Dougherty of the National Educational Association as the Chairman of the Congress for the ensuing two days.

In accepting the gavel President Dougherty delivered a brief response to the addresses of welcome. He then introduced as the first speaker on the program, Col. Francis W. Parker of Chicago, who addressed the Congress on "The Training of Teachers."

Dr. E. Oram Lyte, Principal of the State Normal School at Millersville, Pa., next delivered an address on "The Relation of Normal Schools to Public Schools."

AFTERNOON SESSION.

The Congress was opened at 2 o'clock p. m. with an address by Prof. Edwin A. Alderman, University of North Carolina, on "Higher Education at the South."

President Wm. R. Harper, University of Chicago, spoke on "Ideals in Educational Work."

A. E. Winship, editor of "New England Journal of Education," read a paper on "Educational Pride and Prejudice."

SECOND DAY, MORNING SESSION.—Oct. 26, 1895.

The Educational Congress assembled at 10 o'clock a. m., President Dougherty in the chair.

Mrs. Eva D. Kellogg of Boston, Mass., read a paper on "Progress in Primary Education."

This was followed by an address by Hon. Chas. R. Skinner, Albany, N. Y., on "Rural Schools."

The Congress then adjourned to meet at 2:30 p. m.

AFTERNOON SESSION.

Congress was called to order by President Dougherty at 2:30 p. m.

Supt. Oscar H. Cooper of Galveston, Tex., delivered an address on "Aim of the Elementary Schools."

President Francis A. Patton of the College of New Jersey, Princeton, delivered an address on "University Education."

The closing address was delivered by Dr. Wm. T. Harris, United States Commissioner of Education, on "What the South is Doing for Education, and What Education Is Doing for the South."

The Congress was formally adjourned by President Dougherty.

N. C. Dougherty, *President.*

Irwin Shepard, *Secretary.*

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PAPERS AND DISCUSSIONS.

ADDRESSES OF WELCOME.

BY SUPT. J. S. STEWART, MARIETTA, GA., PRESIDENT OF THE GEORGIA STATE TEACHERS' ASSOCIATION.

Ladies and Gentlemen of the National Educational Association:

In the name of 8,000 Georgia teachers; in the name of 600,000 Georgia children; yea, in the name of Georgia's 2,000,000 citizens, I welcome you to this state. Where is there a teacher who is not ever ready to grasp the hand of fellow teacher in cordial greeting; or where is there a child that does not recognize the teacher as his friend; or the parent who does not welcome the teacher to his home?

There have been many conventions here during the past six weeks—conventions representing important interests and demanding our support. The laundrymen have been here, and the undertakers, the press associations of many of the states, the farmers, the firemen, and the bankers have all been here. Need I say in this presence that more important than any of these to the nation's welfare is this body of educators, representing the schools of the country? For what is the press with all its enlightening influence without an educated people to read and appreciate it? The fact is, that the increase in the power of the press is dependent upon the enlightenment of the people, and there is no body of men that should be warmer supporters of the schools than the noble men of the press. The work of these other organizations is confined to the body and stops with the undertaker; but the teacher's work touches two worlds and deals with the immortal part of man. Others deal with the temporal part, providing for man's wants, supplying him with food and clothing, the necessities and luxuries of life; but the teacher deals with the man—awakening, inspiring, ennobling.

Just as the teacher elevates a people and creates new wants in man do these other organizations prosper. His work underlies all others. The savage needs not the thousand wares displayed at this great exposition. The art gallery, this inspiring music, the wonders of electricity are all wasted upon him. He needs them not. These are for the educated man. Hence I say that every organization and all citizens welcome this great gathering of teachers.

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The teacher is not a mere consumer feeding upon the body politic, as some seem to think, but he is a creator of values. Pasteur, professor in the French institute, has added more to the wealth of France than all her Napoleons and Worths. He saved the wine industry, protected the cattle from fever, and with his germ theory revolutionized modern medicine, making all men his debtors. To Professors Volta, Oersted, Amperé, and Bell the wonders of modern electricity are due. Such men as Helmholtz, Faraday, and Cooke, in their talks of nature with their pupils, have founded modern chemistry, with its thousand applications in the arts and industries. The professors that could take the crude petroleum that was allowed to waste itself on lake Erie and extract hundreds of useful things surely were adding to the wealth of the country. The men who have extracted the oil from the cottonseed have increased the wealth of the South, while her phosphate beds, her mines of manganese, pyrites, and other ores are but witnesses of sources of wealth created by the schoolmen.

It is not alone in the arts and sciences that the teacher creates value. Every teacher, however humble he may be, is a creator of value because he makes the man himself valuable on account of his training. As the mechanic can take iron ore worth three cents a pound and by refining make it worth a thousand dollars a pound, so the teacher takes a boy, that, as a mere man of muscle, might be worth but seventy-five cents a day, and less, as a citizen, and by his training and under his inspiring influence develops a Harris or a Harper, a Grady or a Carlyle; men whose worth cannot be estimated in dollars and cents.

The teacher is truly a creator of value, though he cannot be said to be an accumulator of wealth in his own name; at least, in these parts.

Schoolhouses are the milestones of a nation's progress. Alfred laid the foundation of England's greatness when he founded her universities. Germany blotted out the disgrace of Jena and Austerlitz in 1870 with her "thinking bayonets." Old John Harvard staked the first milestone of New England's advancement. Virginia owes most of her great men to Jefferson. Who can tell how much Georgia is indebted to her male colleges and Wesleyan, the first of the colleges for young ladies? The exhibits in the negro building, Booker Washington himself, this great exposition is largely the result of the spread of public education in the South. As the schoolhouses dot the hill and plain does a state rise in rank among the civilized nations. Much of the unparalleled progress of the West is due to the people building their towns about their schoolhouses and not about their jails and courthouses.

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Education makes a man what he really ought to be, and develops undeveloped possibilities. A man with all the faculties that God has given him, discriminating him from the lower animals, is not a man until these latent powers are expanded and developed and he rises from the brute creation to something better. Education is meant to lift men and women to a higher plane in this world—to make complete men, whether they be white or black, yellow or brown. The world needs every man and woman developed to the very highest capacity. We have no faith in that education which educates for a niche in a wall. That is pagan. Much so-called business education is destructive and not constructive, narrowing the mind and promoting the increase of the materialistic tendencies of the age. The true education of which you are the representatives rises above this, putting character and intelligence, manhood and womanhood above the things of this world.

It is with special pleasure that I, as the representative of the Georgia Teachers' Association, welcome these men of brains to this congress at this time. Twenty-eight years ago our association was organized for the purpose of establishing a public school system for the state. In less than eighteen months the legislature passed a bill, drafted by a committee from the association, creating a system of public schools. Under circumstances without a parallel in modern history,—I challenge our critics to match it; with no land fund; with our wealth gone; with the flower of our young manhood sleeping on an hundred battlefields; with one-half of the population to be taxed to educate their own children and those of their former slaves (oftentimes the white boy having to work to pay the tax while the negro boy went to school); in a sparsely-settled country; with a magnanimity unexcelled,—the schools have been maintained and improved. In the cities and towns illiteracy is practically overcome, in many cases amounting to less than one per cent; in the rural districts progress has been made; the schools are Christian; the Bible is not excluded; our teachers are men and women of character. We are in the midst of a great educational campaign. We have asked the present legislature to pass a bill doubling the school fund of the state, though our school tax is now higher than in many states. Georgia is now paying but $1.70 a year for the education of each of her 650,000 children; or five dollars for each of the 350,000 that were enrolled last year. Her 8,000 teachers received from the state, on an average, $130 for their work. She has few schoolhouses of her own, depending upon the neighborhood church or any structure that the generosity of the trustees may provide. The schools run but five months in the year.

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The teachers recognize these unfavorable conditions, and are demanding more money for the schools, better teaching, closer supervision, and good schoolhouses that can be used during any season of the year. So great has been the increase in interest in public schools that there is little doubt but that our demands will be granted. We trust that your deliberations will result in such convincing proofs of the necessity of liberal support for the schools that our lawmakers will readily grant our requests. Then will this year be the beginning, not only of a great educational awakening but the beginning of a great industrial era.

You have come from every section of our country, from the great universities and colleges, from the normal schools and city systems, drawn together by a common interest, dominated by a common purpose. As the different instruments of this famous orchestra,—the cornets, clarinets, violoncello, violin, drum, and cymbals,—each vibrating with its own peculiar tone, yet uniting under the master guidance of an Innes, produce one great harmony, stirring men's souls, so may this congress, composed of representatives of so many departments of educational work, yet uniting under the master touch of Dr. Harris, produce results that will magnify the work of the teacher and give to America a system of schools that will counteract the destructive forces in our republic and will train a generation of liberty-loving, God-fearing men—

> Men whom the lust of office does not kill;
> Men whom the spoils of office cannot buy;
> Men who possess opinions and a will;
> Men who have honor—men who will not lie;
> Tall men, sun-crowned, who live above the fog
> In public duty and in private thinking.

THE ADVANCEMENT OF THE SOUTH.

BY CHANCELLOR WM. E. BOGGS, UNIVERSITY OF GEORGIA.

I have been asked to occupy about five minutes in bidding you welcome and in assuring you of the deep interest felt by our people in the subject about which we are to confer.

The sincerity of this welcome should be guaranteed by evidence as to what we are doing in behalf of education. I therefore beg to present some facts gathered by President Dreher of Roanoke College from the United States Census and the report of the commissioner of education, Dr. W. T. Harris, who honors us with his pres-

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ence. These facts necessarily take the form of comparison between the South and other portions of our country. The want of money being the most serious difficulty with us of the South, let us see how we use what money we have as compared with other people.

According to the census of 1890 the six New England States, with an area of 66,465 square miles and a population of 4,700,745, possessed taxable property valued at $3,567,947,695. And the six Middle States, including Maryland, with an area of 116,530 square miles and a population of 14,142,075, held taxable property valued at $7,813,052,992. While the thirteen Southern States excluding Missouri, with an area of 818,065 square miles and a population of 17,914,290, are rated as having taxable property valued at $3,731,097,266.

Now, according to the school commissioner's report for 1892-93, the New England and Middle States combined (with taxable property rated at $11,381,000,687) gave $59,461,708 for education, while the thirteen Southern States gave $18,873,565. The comparison justifies fully, I think, the claim made that our people, like our more fortunate kinsmen at the North from whom a number of you come, do feel a deep and abiding interest in the cause of education.

You will understand that we do not envy the greater wealth of our countrymen in New England and the Middle States. We ought to rejoice in the rich blessings enjoyed by them. I hope we do rejoice. We only take them as illustrious examples of people who earnestly desire popular education, and point to the facts that show that we of the South are equally in earnest. According to our limited resources we are doing fully as much as they.

Moreover, gentlemen of the Educational Congress, in estimating the results attained at the South we are sure that you will generously make due allowance for obstacles interposed by the scattered condition of our population. New England, for example, with nearly the same taxable property as the South, has its population (less than one-third of the South) packed in a territory less than one-tenth of ours. Of course, everybody knows that it takes more teachers, more schoolhouses, and consequently more money to do a given work when the pupils are scattered over a wide area.

And besides, you will make just allowance for the fact that our population consists of two races, for whom it is necessary to provide separate schools. I know, gentlemen, that occasionally strangers come among us who understand our problem far better than we do, and are ready to show us that we are wrong. I do not choose to enter in this connection upon any vindication of my people's feelings or their social customs. Enough that it is a fact that the peace and prosperity of both races are best promoted by having sepa-

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rate schools. And this fact necessarily lays very heavy burdens upon our slender purses. You will, therefore, make allowance for our embarrassments when you test our zeal for education by the results hitherto attained.

And with these facts before us, I do most heartily welcome you to Georgia and to the South. I am not ashamed to look you in the face when I consider the sacrifices of our people in behalf of education. Our kinsmen at the North are setting us a noble example, and we are trying to follow it to the best of our ability. Our progress seems slow when we look at our crying needs. Our steps may seem to lag, but it is only because of our heavy burdens. Give us your words of counsel and good cheer as to those in full sympathy with you on this great question.

RESPONSE.

BY N. C. DOUGHERTY, PRESIDENT OF THE NATIONAL EDUCATIONAL ASSOCIATION.

On behalf of the National Educational Association I wish to express our thankful appreciation of your kind and cordial invitation, given by Governor Northen at Denver, to open these educational congresses, and of the warm welcome extended us by the president of your state teachers' association, and the chancellor of the University of Georgia. It was here, that, fourteen years ago, when the South had just emerged from the cloud of war, we received a like hearty welcome from the citizens of Atlanta, under the leadership of that distinguished educator, Superintendent Orr. Then, as now, able men assembled here whose hearts were warm in the great cause of the public schools. The National Educational Association at that time was but a small struggling body whose membership was numbered by the scores. The men who met then were the educational leaders of the nation. Here then was Wickersham, now dead, in the vigor of manhood, faithful to duty, strong in administrative power, a leader of marked ability among men. Here was Pickard, who has left his impress upon the great Northwest. Here also, as now, was Dr. Harris, whose whole educational work has had the impress of masterly ability, and who, for breadth of thought and clear grasp of the whole scope of public instruction, from the lowest school to the highest university, has had in our country, in our century, no equal.

But, it may be asked, why should we teachers gather here in this exhibit of the material advancement of the nation? What can

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we bring that shall benefit this material development of the nation, with its hum of industry and vast throbbing factories? We deal with children, with the young men and young women of the nation—with interests that are not material but spiritual. From millions of firesides we gather them in; from the palace and the hovel, from the wealthy and the poor, from the farm and the shop they come and receive from us the first rudiments of mental culture, the first habits of study, the first impulse toward the formation of character. What, then, is our connection with the advancing industries, the restless stride of traffic, or the marvelous progress of power and wealth of the nation?

The answer is at once evident to him who reflects. An uneducated man is from that very fact uncivilized. Only as the wants of our higher social being are aroused; only as culture make its myriad demands known, seeking material and immaterial resources to satisfy the vastness of its desires, can civilization move on. Hence the education and culture of a people lie at the very base of our industries. The uneducated mind has no power to bridge rivers, to send cars winding through our hills and mountains. It knows no compass nor theodolite, no trigonometry nor calculus. It has no vision of earth's subtle forces which mind subdues for the use of man. The telegraph, the electric railway, the telephone, all show that the schoolmaster has been abroad. These are the results of mind culture, the mastery of thought in the field of matter. It is right, then, it is fitting, that the teachers of the nation, the guides and guardians of our youth, the workers on the deep and solid foundations of the nation's culture should meet here in this international exposition, which itself is but the product of the American school.

THE TRAINING OF TEACHERS.

BY FRANCIS W. PARKER, CHICAGO, ILL.

Fifty-six years ago, near the old town house of Lexington, and not far from the spot where the "embattled farmers stood and fired the shot heard around the world," was established an institution to redeem the blood of the martyrs shed in the Revolution,—the first school for the training of teachers ever founded in America. The bloody sword that destroys and devastates, or the sword of the spirit,—between the two we must choose.

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The establishment of the first normal school of America was the beginning of the inner movement that was to develop a nation of free men. The common school is the most divine institution on earth. In its crucible is to be melted, fused, and blended all the discordant elements of race, nation, and creed,—melted and fused into the genius of American liberty.

We make a great mistake when we suppose that our forefathers deliberately planned the common school. Of all our statesmen, I know only Thomas Jefferson who had a deep and broad plan to educate the masses of the people in one school. Although the common school was "born of the people, by the people, and for the people," its birth and growth, to a great extent, have been fortuitous and accidental. Before the time of Horace Mann (1837) there was no well-laid plan of common schools. The common school that then existed was a simple, co-operative scheme in country districts to educate the children together at the lowest possible expense.

It is true that reformers in all ages have had a profound belief in education as the basis of civilization moving to higher levels; but, although the common school came from the people, we cannot find in history any definite ideas of how the common school should be supported and what lines it should follow, or what goal it should reach. There was only an indefinite idea that education is indispensable to a free people. Horace Mann, who believed, with Thomas Jefferson, that, by intelligence and morality on the part of the people, a republic could be supported and maintained, left all and followed humbly, earnestly, heroically, one thing,—the education of the people in the common schools. He found the schools of Massachusetts in a deplorable condition; indeed, the common schools were taught by uneducated, untrained girls and by hedge-row schoolmasters. The people who had sufficient of this world's goods sent their children to the academies. In fact, the common school sank to the lowest level of a charity school. Horace Mann threw himself, body and soul, into the great work of developing the common school system. You know his wonderful history,—that is to grow as civilization grows. The day will come when Horace Mann will stand in the highest ranks of statesmen and philanthropists.

One thing inspired him with zeal, and that was the idea that there can be no efficient common school without the educated, trained teacher. Upon this idea, so bravely defended by this hero of education, all the development of the common school in the United States has depended; and it will ever depend upon the teacher who knows something of the child, and something of the means to educate the child.

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The history of the common school system of the United States has never been written. When it is truly written,—when it is shown that the silent, quiet influences of the common school are the heart and soul of the republic,—this history will stand above all other histories. The history of Greece and Rome will sink into utter insignificance before the story of this uplifting of the people by common education.

The main point I have to bring before you to-day, my fellow teachers, is this: The common-school system is very young; it is scarcely out of its swaddling clothes. It really began in any organized way with the founding of the first normal school; and it has grown with the establishment of normal schools, one after another, all over the country. The school depends utterly upon the knowledge and skill of the teacher. For the growth of the common school we have not been dependent at all upon the central government. Beginning in the little school district of New England, it has received all its impulse, and, indeed, all its obstruction, from the people. Each state has had the same general history: First, the opposition to the common school; the old cry "Am I my brother's keeper?" Then came deeper thought, closer examination into the merits of common education, and this great system moved on. Some of the states of the Union are to-day in nearly the same attitude towards education as Massachusetts was fifty-six years ago. It can hardly be the same attitude, for the good people of Massachusetts opposed every step of progress. Horace Mann, with his matchless eloquence, went from schoolhouse to schoolhouse, all over the state, absorbed in the great work to be done, but was met by small, cold-hearted, inattentive, sullen audiences.

Against the bitterest opposition the work of educating the masses in our schools at public expense has spread from state to state until it has reached the hearts of the great majority of people in most of the states, but it has only touched the hearts of many,—it is not rooted there. State after state, as yet, must go through the same general processes of common school development as Massachusetts has gone through. Indeed, Massachusetts has much to learn yet. I give you, then, my fellow-teachers, this one fact,—that the development and perpetuity of this great republic depends wholly and entirely in foundation upon the common school system, and the common school upon the normal school. The common school is capable of infinite improvement, infinite advance, and all this advance must be made by the education and training of devoted teachers. Many states have learned this lesson,—others have it yet to learn,—that money put into the common school is the literal rendering of "laying up your treasures in heaven." Of all the schools into which money should go in abundance, in which the best teachers

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on earth should be engaged and supported, the normal school stands first. One well trained teacher with broad views and great enthusiasm is worth, in influence, hundreds—yea, thousands—of indifferent teachers.

The great southern countries, the lands of fruits and flowers, have come together in this magnificent exposition. Everywhere we see signs of movement; but the best thing of all upon these beautiful grounds, with their great storehouses of the products of the whole country, is the little common schoolhouse. In that is the seed of all the future.

That which stands in the way of progress in education is the indifference of the people. We have great hope that this indifference will be removed, because it has been removed; because man after man and woman after woman, has arisen in different states and advocated the elevation of the common school system. So it is, and has been, in the North, and will be, must be, in the South. You may dig your treasures from the earth; you may fill your storehouses full to overflowing with ripe fruits,—everything in the way of material welfare may bless you; but without the development of the human soul, without the evolution of human character, without training into devotion to the good of all in the common school, there is nothing, neither can there be.

The day will come when ministers will preach the gospel of common education from the pulpit; yea, when it will be the grandest part of the great gospel of Jesus Christ. The day will come when statesmen from the hustings will stand up manfully for education of the masses. I say it must come; it needs no prophet to foretell what the future must be. The common school system is the one central means by which the great problem of human liberty is to be worked out, and it is fitting that the educators of the United States should meet in this great exposition, and with one united voice advocate the support, the promotion, and the elevation of schools that are to make war unnecessary, that are to drive away poverty, misery, and selfishness, and in its place put the ideal republic, the ideal free people.

These words, I am sure, are trite,—we are apt to repeat them; but the immense work to be done, my fellow teachers, is ever before us. Heretofore, we have used, to a great extent, the methods of oppression, the methods that deaden the mind by dead words. There is a new and living way, the way in which reason is to sit on its mighty throne, morality is to guide action, character is to be all in all, and we are to have what the world has never had,—a common school system equal to the demands of a democracy, a democracy which means the brotherhood of man and the fatherhood of God.

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RELATION OF NORMAL SCHOOLS TO PUBLIC SCHOOLS.

BY E. ORAM LYTE, PRINCIPAL OF STATE NORMAL SCHOOL, MILLERSVILLE, PA.

At the request—I might almost say command—of the distinguished president of the National Educational Association, I am here to-day to say a word concerning normal schools in their relation to public schools. The subject selected for me is an old one, and I should be almost sorry to be accused of attempting to say anything new upon it. What is true is generally not new; and what is new is sometimes not true. But the presentation of old truths is necessary so long as they lack application in practice, or so long as they seem liable to be neglected or overlooked.

The reasons for the special preparation of persons for the vocation of teaching may be found in the following propositions:

1. Every mind can be educated.

2. Every mind is endowed by the Creator with the power of self-education.

3. Every mind can be assisted in its efforts to obtain an education.

The truth of these propositions will be accepted without question by all who are familiar with man's development, though their application in the work of education has not always been so satisfactory as could be wished. It is true that, as a matter of theory, the need of teachers has been recognized; but, as a matter of practice, the growing mind has too often been placed in charge of one who was expected to be its master rather than its teacher. Some of the older members of this audience will recall with me the familiar term "master" applied to the wielder of the birch and the sharpener of the quill in the old red schoolhouse, and it was no empty title. Words are fossil history, it has been well said; and this word will reveal to the future philologist a pedagogical truth full of painful meaning to the generations that were familiar with it. But to-day the teacher is in demand. The man who knows the soul of the little child and feels an intense longing to aid that soul in its efforts to see the truth, that man—more often a woman—is needed everywhere. School boards are beginning to look for him, parents want him, and the children, without knowing it, are calling for him and to him in their helplessness. To-day it is a fairly well recognized fact that teaching is a business that can be learned and should be learned.

There have been two erroneous views held by schools and colleges with respect to the vocation of teaching. One view, held by many advanced institutions of learning, is this: All the preparation

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needed to teach a subject is a knowledge of the subject itself. That this view obtains to-day is too true, though it is somewhat curious that some institutions whose instructors prepared for their work as instructors by simply studying the subjects of which they were expected to be instructors have a sort of pedagogical attachment, an annex for the preparation of teachers, thus either condemning their own method of work or making a concession to a demand which they do not believe to be a proper one. No time needs to be wasted here to refute the statement that a knowledge of a subject to be taught is all that is needed for one to teach it.

The second view is even more erroneous. It seems to be the opinion of some that the teacher's preparation does not consist in making a thorough study of the branches of knowledge to be taught. While the faculty of no school will acknowledge that they believe one may be a good teacher with only a speaking acquaintance with the various branches which they are called upon to teach, the practice of some schools seems to indicate that scholarship is of little, if any, account. One may possibly teach in a haphazard way without previous preparation if he knows the subject he attempts to teach, but one cannot teach a subject if he does not know it, be he never so good a *methodite.*

It is no less trite than true, and no less true than trite, that the qualifications of a teacher, as determined by a correct idea of education, are twofold:

1. A comprehension of the being to be educated and of the branches of knowledge to be taught.

2. A comprehension of the principles and methods by which the mental and physical powers are developed and knowledge and skill are acquired.

To obtain these qualifications best and most quickly teachers must attend schools whose chief end is to teach the activities of the mind and body and the various branches of knowledge. Normal schools are thus necessary to a system of education, and their work is indicated by the qualifications needed by teachers. As a rule, academies and colleges are not equipped to prepare teachers, even when they have so-called pedagogical departments in the shape of occasional lectures by persons more or less acquainted with educational science. Their objects are general culture and the acquisition of knowledge, while the object of the normal school is to impart culture, skill and learning to its students for a specific and technical purpose, viz., that of fitting them to teach others. This work belongs to normal schools and to universities; and when this fact is more fully recognized, the teachers of our country will be better prepared for the duties which they must perform. It is to

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be regretted that numbers of schools of different classes boldly attempt the preparation of teachers for the public schools of the state, with meager equipment in many cases, and in many cases with but little comprehension of the nature of the problem they advertise themselves as able to solve.

The child first learns individual facts without any distinct consciousness of their relations; subsequently he learns facts as related to one another; and still later in life he learns—or should learn—the relations of facts, and finally realizes that among the most real things are relations of things. Dr. Harris says in "Hegel's Logic:" "The category of phenomenon implies the arrival of the mind at the insight into universal relativity. For when one sees that not only are some things dependent on others, but that all things are in their very nature dependent on their environments and that their environments are likewise made up of relative and dependent things so that the termini of relation are in themselves relative and not final realities—when one sees this he sees that all seeming realities are phenomena, or appearances, or manifestations of hidden processes of force or energy." The essence of "concentration," the latest arrival among the newer educational notions, is the element of relation. To co-ordinate and correlate the various branches of knowledge usually called higher branches is the function of higher institutions, such as colleges and universities. To co-ordinate and correlate the common school branches and the branches so related to them as to be necessary to a full comprehension of the common school branches is one of the functions of the normal school. To particularize with respect to a single branch: The relation of algebra and geometry to arithmetic must be comprehended by the teacher; and more minutely still, the relational idea in number, so admirably set forth in a late work by McLellan and Dewey, the relation of addition and subtraction, of multiplication and division, of addition and multiplication, of fractions and integers, of common and decimal fractions, of multiplication and involution, of involution and evolution, and so on,—all these relations must be comprehended by the teacher. The value and the beauty of English grammar lie in the relational idea. Vocal music is a matter of tone relations; and so on throughout the branches of the common schools. Ziehen does not go far enough when he says, "The entire process of education endeavors to awaken related ideas in the mind simultaneously, *i. e.*, to combine them by means of external associations." When this work of relativity is done intelligently by the normal school and with reference to fitting its students to teach these branches, it becomes professional work of a high order, and as such is a part of the legitimate work of the normal school, and

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a part that cannot be neglected by a fully equipped normal school without loss. The hackneyed question concerning academic work in a normal school course is answered by this conception of the proper function of these institutions. So long as the teachers who are prepared at normal schools are required to teach geography, history, grammar, and arithmetic, so long must these branches and the branches closely related to them be a part of the courses of study of normal schools. Let the public schools do what they can for their pupils, let their education be carried forward as far as practicable, and then if they look toward teaching in the public schools as a calling, the doors of the normal school should be open to receive them and the courses of study should be so arranged as to prepare them for the duties they desire to assume. High school graduates should thus find in the normal school classes in which they can continue their scholastic or academic work; and pupils who have passed through ungraded country schools—the schools from which many of our best teachers, and indeed many of our leading men, have come—should be able in the normal school to fit themselves for the business of teaching.

All will agree that normal schools are not established for the purpose of imparting a general education to their students, but for a special end, as are medical colleges, military academies, polytechnic schools, etc. The object of the medical college is to prepare persons for physicians; of the military academy, army officers; of the law school, lawyers; of the normal school, teachers. But the course in a medical college is not limited to the mere discussion of how to practice medicine, followed by practice in a hospital. It embraces those studies which lead up to the practice of medicine, or which bear upon the practice, including the whole science of materia medica. Nor is the training at a military school wholly upon the application of the principles of war, with an occasional dress parade or sham battle. A rigid course of mathematical and scientific instruction is insisted upon, in order that the young lieutenant may be able, not only to point his gun according to the laws governing the velocity and drift of projectiles but also to understand these laws and if necessary to derive them. Is the normal school to differ from all other technical schools? Is it not to be allowed to deal with the subjects that bear upon the teacher's work, and not alone with the way in which these subjects are to be used? The physician uses drugs, and the medical college is expected to teach the embryo physician the nature of drugs as well as their use. He tries to cure fevers, and the medical school is expected not only to teach him how to treat these diseases but also their nature, cause, etc. The teacher teaches children arithmetic, geography, history, sci-

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ence; and the function of the normal school is to lead the embryo teacher to understand the child and the branches to be used in educating the child, as well as the manner in which they are to be used.

This view, both rational and necessary, marks out the work of the normal school in harmony with that of other technical schools. In other words, a normal school is a school established for the scholastic and professional preparation of teachers. Any other view tends to lower the worth and dignity of the profession of teaching by lowering the standard of scholarship, as an examination of the results of the work done by schools whose sole object is instruction in the principles and practice of teaching seems to prove. Some higher schools might qualify persons scholastically for the work of teaching in the public schools, though experience proves that many of their students seem to be educated away from the child and the branches with which the teacher of the child must deal. In most cases, however, the scholastic preparation would be superficially made, if for no other reason than because there is a marked difference between learning a branch for the use to be made of it in business or in every-day affairs and learning it for the purpose of using it in instructing others. If it is not true that the school established to teach persons to teach others is the only school in which the branches of study can be properly prepared for teaching purposes, it is true that such a school is the best school in which to do this, and that work of this kind is legitimate normal school work. Given, therefore, to young men and young women who desire to become teachers such an education as may be obtained in a good public school, it is the duty of the normal school to fit them scholastically and professionally for their chosen work.

But the normal school has more to do than to give its students a broad and thorough knowledge of the branches they are expected to teach; and it is not inappropriate for me to refer briefly to this work, which is purely professional in its character. The mind and the "clay cottage," as Locke calls the body, must be studied. Montaigne says, "We have not to train up a soul, nor yet a body, but a man, and we cannot divide him." The knowledge of how to train a man must be a chief part of the work of these institutions. How the child perceives and apperceives; how it assimilates knowledge; in what it is interested day after day, and why; in what order subjects of knowledge must be arranged for the child; what knowledge is of most worth to the child at the different stages of its development; how it can be trained to the habit of deliberate induction and of accurate deduction (and this training cannot begin too early); what should be remembered and how it should be remembered;

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how the function of imagination should operate and how it should be checked; how the ideas and thoughts already acquired can be kept from "mixing up" (there's many a child that gets an undeserved reputation for falsifying whose ideas simply break loose from their moorings and float about with ideas belonging to other groups); what are the child's ideals and what or whom does it imitate—all these questions and hundreds of others embraced in the general subjects of psychology and methodology must form part of the normal school curriculum. If I might modify Lotze's remark that "it is questionable whether the mental picture of space which one born blind attains solely by the sense of touch will be altogether like that of one who sees," I would say that it is questionable whether the conception of teaching which one attains solely by coming in contact with children, and without availing himself of the experience of generations, will be altogether like that of one who brings to the practice of teaching the knowledge of pedagogics that is stored in the rich contributions of the devoted men and wise philosophers who have given their lives to this lofty calling.

"A family," Paley says, "contains the rudiments of an empire," and a school, even more than a family, must be an embryo state. Aristotle's "political animal" must begin his training in the primary school or the kindergarten. Plans of government, organization, and management must be studied by the normal school student. Further still, the application of the principles and methods of instruction and management employed in a public school must be made in a practice-school under wise and constant guidance.

In conclusion, let me say that the relation of the normal school to the public school is here outlined in part and the functions of the normal school are briefly presented. There are three broad lines of normal school work:

1. Scholastic or academic study of the branches to be taught and of the branches needed for a full understanding of these branches.

2. The study of the branches usually regarded as professional branches, *e. g.*, psychology, methodology, school management, history of education, and the like.

3. Observation of teaching in a model school and practice-teaching in a school of practice.

And these lines should be so developed, that, under the guidance of the normal school graduate, knowledge may be converted into character without too much loss in transmission from teacher to pupil. An invention of Nikola Tesla, consisting of placing a piece of iron pivoted at its center within the magnetic field of a ring, enabled him to convert electrical into mechanical energy more sim-

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ply, economically, and effectively than it had been possible to do before. What the great electrician has done in his chosen department the normal school should aim to do for the profession of teaching. With the child at the center of the magnetic circle of knowledge, the teacher must be trained to direct the God-given power, more mysterious than the electric current, which is generated when the child's spirit comes in contact with nature, so that it may be used simply, economically, and effectively to accomplish the purposes for which the child was created.

I would only add that this conception of education suggests the most important mission which the normal school has to fill. It is its highest duty to instill into the mind of the coming teacher a proper ideal of the lofty work he will be called upon to do. The molding of an immortal soul is a task not to be lightly assumed. The normal school should labor to inspire its students with an enthusiastic love for children, and lead them to appreciate the responsibilities resting upon the teacher and to consecrate themselves as missionaries in the great work of popular education.

HIGHER EDUCATION IN THE SOUTH.

BY EDWIN A. ALDERMAN, UNIVERSITY OF NORTH CAROLINA.

Out of the overthrow of an unique and forceful civilization in the Southern States there is slowly emerging a new society. Under the stern pressure of necessity, this silent revolution has proceeded so quietly, and has been masked so skillfully by the marvelous material resurrection of a ruined and conquered people, that men have not marked the clashing of old ideals and aspirations and modes of thought with the new strenuous influences of modernism and innovation. All the well-known phenomena of transition are in full play in Southern life. The people as a whole, incited by lack of training and consequent poverty, are pressing steadily toward a wider life, but are unable to distinguish in the general clamor the guidance of true wisdom from the voice of the slave to his prejudice or his sect casting in stumbling-blocks, or the raw enthusiast shouting panaceas and prophesying millenniums.

The direction and elevation of this social new birth is the surpassing duty and function of all educational forces, and more especially of the higher education in Southern life. Whether there shall issue from the conflict an enlightened civilization, blending the lova-

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bleness and charm of the old with the vigor and freedom of the new, or some unhappy system made up of crudities and ancient prejudices, is the task set for this generation of Southern educated manhood.

Isolated, individual, conservative, the South of the past held itself proudly aloof from the ferments of modern society, went its own way and created its own dominant, dramatic order. This order was a system of contrasts, and lights, and shadows. It produced neither wealth nor letters. It dishonored labor, arrested immigration, minimized invention, unified industry, and exalted caste. The academies and private schools of the time, conducted by scholarly and devoted men, were numerous and effective—indeed, almost perfect—instruments for the purposes of the time; but the common schools, branded with the burning badge of pauperism, could not thrive. Yet there issued from this order the smallest, the alertest, the most powerful political force in Christendom. The American Union had sprung from their brains, had been maintained by the valor of their arms, and had extended its territory under their guiding hands. By a strange historic paradox the causes of their weakness became as well the causes of their strength. The dangers and antagonisms of a militant labor system made them masterful in action and persuasive in speech. Baronial life, with its leisure and inherited overlordship, made them as simple as shepherds and as proud as kings. In the placid air of their enlightened medievalism lingered the brave old ideals of courage, and beauty, and gracious dignity. There was but one overshadowing Southern question then, and this for its treatment did not so much need universal intelligence and thrift and the spirit of gain and growth as it did character, principles, oneness of purpose, and chivalric codes of conduct. Hence all the forces of the time concentrated on these lines, and there arose an assertive, sensitive, sincere, dauntless race of men, esteeming life less than honor and loyalty more than gold, who wrought with a sad titanic sincerity for their doomed cause, withholding nothing, compromising nothing until the mighty struggle wore to its sublime and pathetic close at Appomattox.

The great war, in the mystery of historic forces, freed the white man, rolled away his burden, and enrolled the South in competition with the great industrial democracies of the world. Its problems, no longer direct and primitive, are their problems, intensified by the painful processes of social transformation. The old individualism has given place to combination and capitalism, servile labor to the labor of the free black, and with this the best products are to be raised, the best goods manufactured, and the best routes to market devised. Our first work is to possess the land and subdue it, for

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the care of the body, if not so valuable as other higher things, must take precedence in the evolution of a higher civilization. The law of the passage of society from the patriarchal to the economic stage necessitates the higher organism, the subtler brain, the more cunning hand. Hence, like a belated army, the South is seeking to conquer a place in material civilization; its dreamers become captains of industry and its doctrinaires lords of trade.

We shall lose an element of charm and picturesqueness, but we shall gain in wealth and productive energy, and the change is inevitable.

Our largest work is the wise and just guidance of the irrepressible instinct of democracy, restrained for generations, now asserting itself in the upheaval of the plain people,—the Third Estate,—who are everywhere coming to the front, demanding their share in government and challenging the authority of the ruling class. Our untrained men are learning to govern by governing—pedagogically and historically a wise process, for that surely is better than to be governed and remain ignorant. The situation is not without great hopefulness. The rank and file of this popular uprising are the best material in the world for the making of educated citizenship. The civil war revealed their value to the world and constituted their university. Its marches and dangers opened their eyes and gave them their outlook on life. They and their sons, the younger element in the movement, are men of unmixed English and Scotch-Irish blood; inheritors of the Anglo-Saxon consciousness; descendants of men who sacrificed peace and life for principle in three wars; keen-witted, if untrained; their very excesses the result of boundless faith in the majesty of their government. The tasks awaiting adjustment by these men, sure to attain and hold power in the end, are enough to appall the wisest statesmen and the profoundest social scientists—the remodeling of constitutions, the settlement of grave questions of suffrage and property, the reconciliation of classes, and, greatest of all, the problem of the two races.

The sentimentalists and partisans of the reconstruction period fancied that they had settled the question which had disturbed the dreams of Jefferson, which had perplexed and affrighted the national conscience through all its history, and which had just evoked the mightiest moral energies of the century. But their solution was no solution. It was solemn opera bouffe. The problem had just begun and remains the transcendent sociological problem of the age. Rant will not dispose of it, nor ignorant gush, nor race prejudice, nor the philosophy of the sentimental and the remote; but it must work itself out on Southern soil by the wisdom of Southern men of both races. It must pass into the region of scientific study

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and investigation. The Southern scholar must make it his province in the still air of the university; the statesman and publicist must ponder it, and the capitalist may well reckon with it amid his gold.

What manner of man, then, does the South need in its coming life?

Perhaps in the past we set too much store by wise leaders, and neglected to provide for wise followers. If so, the irony of fate is sporting with us; for now in the threatening danger of these great questions we are practically leaderless. The old type of leader, softened by fortitude and idealized by woe, has passed away, canonized by love and letters. The voluntary and occult forces of the time are seeking diligently to fashion the new. Now and then we seem to get a glimpse of our leader—as when Henry Grady, with his golden tongue and free, spacious spirit, uprose upon the South, a radiant prophecy of its future manhood; but it is only a glimpse. The mere industrial man will not answer our need; though there are lands to be tilled and factories to be built, and the madness of exalting empty political pre-eminence above the sciences that will dignify labor and procure food can never again curse our life. The mere orator, or politician, or scholar will not do. There must be a complex of all these—the man of free spirit and constructive habit—the man of insight and effectiveness, of utility and beauty, of action and contemplation. He shall, above all, have faith and sympathy with the blundering masses, and shall be endowed with that patient wisdom which can await the unfailing rectitude of public impulse and can keep its faith through unpromising days. Like Fichte around the king's council board or Luther to the burgomasters of Germany, he shall plead unceasingly for education in the colleges and schools, in the press and in the public library.

If our laws and institutions are not to become the crude experiments of the ignorant or the bold devices of the corrupt; if the South is to outgrow years of economic misconception; if the teachers in our schools are to be true teachers, educated men rather than party chieftains or untrained place-seekers must lead our civilization. The potential of trained mind must constitute the test of true leadership in the South hereafter. The popular contempt for higher education and the popular pride in the self-made man is always widespread and strong in democratic societies. The feeling is a sort of retribution upon scholarship and educated power for its cowardice and selfishness; but it is none the less defiance of common sense. The educated man may not always be in place, but he is sooner or later in power. The higher education is the dynamic element in the life of the community, invigorating the schools of the people, bravely struggling to elevate the common standard of

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living, supplying the state with its teachers in the schoolroom, the press, the pulpit, the family.

Out of the universities of the world have come its creative movements and men—religious freedom in the old world and civil liberty in the new. Modern Germany is the child of her universities, and relies more firmly for her permanent power upon them and their 28,000 students than upon her invincible soldiery. Blot out the influences of Harvard and Yale and the colleges of the Atlantic seaboard, and what art can estimate the loss in moral elevation, practical power, or national character? The great Columbian Fair, with its splendor and beauty, will fade away as a dream, but its neighbor, the university, will shape Western life for unnumbered generations. Wherever tyranny has sought to oppress the weak or ignorance to rule the wise; wherever the borders of light have needed to be enlarged or ancient and prosperous shapes of wrong to be cleansed from the land, the gray walls of the university have yielded up its spiritual battalions,—strong in steadfast purpose and cultivated brain, discoverers of thought, conservators of truth, stimulators of mind, sowers of seed that will bear fruit in a fairer time. The feeling is instinctive that men of this stamp and quality must serve a state in epochs of downfall and trial. The South has not failed in this feeling, as its brave efforts to establish and maintain schools and colleges for both races quite eloquently show; but the needs of Southern society are so great, her young men seeking training are so countless, the work of all colleges is such a fraction of what is left to be done, the disheartening rivalries and bickerings among the colleges themselves are such distressing proofs of the need of higher education, that it has seemed best for me to leave the questions of technique and administration to wiser men, and, even in this presence, to plead for the thing itself.

We are not all of one mind as to how the great need shall be supplied. There are those who insist that this vital thing is not a concern of the state, whose highest functions, they declare, are symbolized by the policeman's club or the law's penalty. And, then, there are the prosperous communities, with amassed wealth and settled material skill, who say to us that we must wait upon the impulses of philanthropy or the activities of the church for our educational foundations. But the nature of the state is at variance with the limitation of its powers to police regulation, and the instinct of civic self-preservation decides against trusting wholly to individual generosity or ecclesiastical agencies for an universal social necessity. The state is not the government alone; it is the will of the people expressing itself in beneficent institutions as well as in penal or protective codes. The protective function of a state, indeed, may

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disappear as reason advances, but the loftier educational function will increase as social relations grow in complexity.

From the standpoint of right, there is no power to which the state can delegate its duty and power to educate, for there is no higher power than the state. If there is a higher power in the state than the state, then that power is the state. From the standpoint of political common sense, the agent of social salvation should be at least as potent as the extent of social peril. Our social peril is superlative, involving education, or migration, or revolution. The most potent conceivable agent is the state, which is concerned about and surely is responsible for its own life. Therefore, it is the all-powerful state that must maintain itself against vital danger. If it be conceded that the youth of a commonwealth have the same right to be educated that they have to be free, then it must also be conceded that the state is responsible for and alone has the power to guarantee the granting of this sacred right. To those who concede the state's right and duty to educate in the primary education and deny it in the higher, it may be answered that an argument for any education is an argument for all education. If the state has a right to educate at all, it likewise has the right to determine the extent and character of that education. All knowledge is comparative, the higher education of one age becoming the lower of the next, and there can be no deadline in learning at which knowledge ceases to be good and becomes useless. The three R's are indispensable. But mere reading is not reading with profit, and the one is as indispensable as the other. Higher education simply means more education, better education, completer education for a completer life. It is not a cult for the few, nor a caste for the wealthy, nor a college for the exclusive. It is the training ground for the people, and is the essence of democracy in its purposes and results.

In my own state of North Carolina up to the Civil War there was a widespread feeling that the ruling class was confined to a few families of ability and wealth. In the early days of the century it was true, and necessarily true, for the influential and wealthy classes alone could command the advantages of education, and education finally rules. The enlightened policy of the modern state, knowing no class and knowing that those who most need help are least able to help themselves, cheapens the cost of this priceless thing and offers it to the aspiring of all ranks who feel within them the promptings of power and yearn for the higher life of useful action. As a result of this leveling process, introducing the higher test of fitness and ability, side by side in the various fields of endeavor and in the high places sit men of all ranks and all degrees of wealth advancing the life of the state.

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Let me not be understood in pleading for the higher education as underrating the lower, for there is no essential distinction between the two. The state cannot be interested in one and not in the other, for they are one and indivisible. A system of education all universities and no primary schools would be a crime, as a system all primary schools and no universities would be a farce. It is simply a question of sequence. The educative impulse is from above downward and not from below upward, and the two impulses re-enforce and enrich each other.

In the old Southern life, in every hamlet and community were to be found men and women of the rarest culture; but all around, giving color and tone to the whole, moved the untaught throng. The supremest need of the new life is the lessening of this inequality by the presence, in large numbers, in all elements of the population, of men and women of thoughtful, independent mind, of trained consciences and habits and hands, who can bring things to pass. This can only issue out of the higher education reacting upon the lower, lifting the whole to a higher common level.

The permanent forces in this process are, first and foremost, the state universities and colleges, supported by taxation and expressing the Christian tendency of the brotherhood of men, and secondly, the endowed institutions supported by enlightened philanthropy.

There is no call among us for a multitude of new foundations, unless it be for institutions for the training of teachers. We need rather to expand, and enrich, and liberalize the old foundations. There are two obstacles in the way of this result. The popular abstract hatred of taxation which enables the enemies of the state schools to confuse the thought of the people and to make them regard all taxation as a curse rather than as organized corporate wisdom, hallowed by Christianity, struggling to secure for the children a needful thing beyond individual power.

Secondly, the failure, thus far in our development, to find the golden mean between the individualism which preserves liberty and the individualism which paralyzes concerted action. Still partially rooted in our life is the fatal thought that every man should educate his own child, or leave him uneducated if it be his will or misfortune.

Emphasized by poverty, this conviction still stays the hand of giving and belittles the glory and gladness of helping others to help themselves. We will do well to labor and pray for the death of this sentiment. We would be mad to cease state effort and demand endowment at the point of a subscription list.

Bishop Potter in a recent utterance has declared that the darkest day for any people would be the day when they did not possess

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an ideal university. And by an ideal university he meant any group of free, simple, unhampered men seeking truth for truth's sake; "waiting patiently on their bended knees before the shut doors of the Kingdom of Knowledge;" getting their only reward in the thrill of the human soul in its contact with verity; ignorant and careless of the moment when their theoretic truth merges into fact and in the form of mighty engines, or stately ships, or roaring looms blesses the world. There can be no fairer picture on earth than this, and such men are indeed the *aristoi* of the world. But there is one thing greater than truth, and that is humanity. The Southern university may well cherish this serene ideal, and incorporate in its organization the creative impulse and the spirit of inquiry and investigation. But its first thought must be about its environment, out of which it must grow and by which it must do its duty before it can erect a beautiful aristocracy of scholarship. Once we were aristocratic in government and education, but now we are democratic in both. At this stage of our culture, when millions are to be impressed with the importance of knowledge, the Southern scholar must forego his office of prophet and seer and become ruler and reformer. Southern universities and colleges must do the work of social regenerative forces, reaching out directly into the life of the people, making known how much better light is than darkness, and how sweet it is for the eyes to behold the sun—ennobling the poor man's poverty and spiritualizing the rich man's gold.

I sometimes think that our brethren of the North and West do not fully comprehend how ripe the time is, and how hard the struggle for the fruitful doing of such work. Individuals and communities cannot be forced into power, or culture, or effectiveness, or skill. The desire for these good things must go before their realization. For a glimpse of the self-reliance, the eagerness, the bravery of the South, one has only to visit a Southern college and see the earnest, thrilling desire for the opportunities which the people believe to be concealed in education. The influences that hinder and obstruct cannot wholly restrain or dull it, and it grows by what it feeds on. It is something of the spirit, I fancy, that lives for us in the glad, grateful words of young Ulrich Von Hutten, spoken to the bright face of Freedom in the morning of the modern world, "Studies are blooming; minds are awakening. It is a joy to be alive." It is the spirit that will force history to place our epic period, not in the heroic days of '61 and '65, when our soldiers performed prodigious feats of arms, but in the grinding days from '75 to '95 when they and their sons met and rose above the stupendous difficulties that followed in the wake of war.

The going of the average Southern boy to college is no conventional, quite ordinary stage in the life of a youth. It is always an

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event, and sometimes a tragedy. It most frequently means, that, far away in the home, the father and mother work harder and rest less, and scrimp here and save there, eating skim milk and oatmeal and taking counsel in the still hours of the night how they may give their child the privileges they did not know and the entrance into the clearer, fresher, sweeter life denied to them. I have seen a feeble woman's face set with stern resolve and glow with ineffable love at the very thought of her boy putting on his armor at the price of her own life. The dignity, and power, and political value of childhood and youth as the fittest and ultimate concern of the legislator, the preacher, the political economist, the true statesman has entered our life as one hundred years ago it entered the life of the French, aroused by the mad earnestness of Rousseau and aghast at the havoc of revolution, or as it entered into the thought of the English a generation later to the music of Wordsworth's immortal ode.

Higher education in the South does not exist for its own glory, for the fame of its teachers, for the pride of sect, or for any subjective or selfish reason. Its aims must be pure public aims and its service public service.

In a portentous era and with inadequate means, it stands for the beneficent force that must transmute the tumultuous, untrained life about it into self-government perfected by education; its material, the youth of a new life and a new century, and its strong fortress, the self-conscious state, no longer a synonym of rude force, but an expression of Christian sympathy, and unity, and conscience seeking to realize and show forth the dignity of democracy, the beauty of popular concord and justice, and the majesty of republican citizenship.

IDEALS OF EDUCATIONAL WORK.

BY PRESIDENT WM. R. HARPER, UNIVERSITY OF CHICAGO.

I doubt if even the professional educator has a full conception of the intense educational activity which in a multitude of forms exists among us. With kindergartens, private schools, primary and grammar schools, high schools, normal schools and academies, boys' schools and young ladies' seminaries, schools of music, schools of art, schools of engineering, schools of architecture, schools of law, schools of medicine, colleges and universities; with the many special efforts which are being made to bring the results of educational

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work into the possession of the people, efforts which have assumed the most definite and rounded forms in that work, the very name of which to-day is a household word—university extension; with that educational work of an indirect though real character carried on through the powerful agency of the press, as seen in journals and magazines, and which constitutes one of the most effective agencies of our manifold educational activities; with all these, I say, there is at the same time a diversity and complexity which bewilder and confound us, and it is only in a few cases that the educational expert has shown any adequate realization of the amount and variety of American educational work.

It does not require the knowledge of an expert to see, that, in this great multiplicity of plan and method, purpose and scope, there is no such thing as system. This work consists of a hundred thousand disconnected parts, without adjustment to each other and entirely devoid of relationship to any general scheme. These parts cannot be said to be even loosely connected. The same thing is repeated in a thousand ways; each way, however, being sufficiently distinct and different to make void every effort looking towards adjustment or connection. Germany may be said to have a system of education, France likewise; but in America, as a whole, there is no trace of anything that might be rightly called a system. It is true that there is a so-called public school system; but this is at best partial, covering only a small portion of the field, and in effective operation only in certain portions of the country. There is in certain states—for example, Michigan and Minnesota—something which looks like a system in the relationship that exists between grammar schools and high schools and between high schools and the state university. But this also is only partial, and of questionable efficiency even in the states in which it has been most fully developed.

It is possible to go even farther, and to say that there is no such thing as order. Whatever phase of this activity we study there is discovered chaos and confusion; no order or plan. It will be granted that a work may be carried on systematically even if it does not constitute a system; but we look in vain to the country at large, to a single state, to the best of all states, or to a single county, or even to a city, for an organization which may reasonably be called systematic. It cannot be found.

It is possible that the results of our work as at present conducted may justify the lack of a system; and, indeed, the lack of system. There are those who praise unduly these results. They are in most cases, however, persons unfamiliar with the results obtained from other countries; for it is beyond dispute that the average boy of

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eighteen or nineteen who has finished the grammar and high school courses has had no such advancement as the boy of corresponding age in Germany. It is beyond dispute that whatever advantages the average American college possesses, whatever it may do for its students in discipline and in real effectiveness, it by no means ranks with a gymnasium or the lyceé. The results do not justify either the amount of money expended or the amount of work given to the cause of education in America. The introduction of order and system would double the efficiency of the work done, save two to four years in the life of every student, and secure a thoroughness which would revolutionize American methods in politics, business, and letters. No one who has intelligently considered the question will fail to realize the disastrous consequences which have attended the utter lack of system in all our educational work. But it is the question, however, not of system in educational work, for concerning this there is no question, but of a system in educational work that I would speak. The question is, Have we waited long enough, and has the time come when effort of a most vigorous character should be put forth to do that which hitherto we have expected to be done of itself? The difficulties attending the adoption of any general plan which could be denominated a system have not been overlooked. (a) We are still a young and undeveloped nation. Has the proper time arrived for a national system, which shall not only include all that has thus far grown up but at the same time organize the whole into an organic and systematic unity? (b) We are not as yet a people. The term peoples is more appropriate. Many and discordant are the elements of which we are composed. Is it possible to develop a system which shall be pleasing to all? (c) Will not better results be achieved if we move along independent lines, each investigator watching the results of all and adopting from time to time that which commends itself to him? These and many other objections present themselves in oppostion to the advocacy of a system. But I would answer (1) we have at our command the wisdom and experience of all the ages, and if we are not in a position to-day to take the necessary steps to formulate a system, we shall never be. (2) The very fact, that, as a people, we have among us representatives of so many nationalities; the very fact that our great purpose in reference to all foreign nationalities is the purpose to Americanize them,—in other words, the very circumstances of our situation,—should incite us to provide a system of education which, like our American system of government, should be unique and worthy the name American. (3) The adoption of a system does not shut out experiment and investigation, but rather encourages them. A system is not necessarily rigid and mechanical, but may be most

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flexible. Nor is it supposed that any system will continue to be used without modification. The very fact that it is a system carries with it the idea of growth, and growth means change.

It would be an audacious thing for me to propose to you a system of education for America. I have no such thing in mind. Such a proposition, when it comes, must come from one wiser and more experienced than I shall ever be. The truth is, the system when it is once evolved will prove to be the outcome of the wisdom and experience of hundreds of men. In order that such a system may come, however, every man who has at heart the highest interest of education should seek to make his contribution, however small and insignificant, for consideration in the counsels of those to whom this great trust will sometime be committed. Besides, each one of us engaged to-day in educational work owes to himself and to his work to present as frequently and as forcibly as circumstances and ability will permit, his conceptions of the educational principles which should operate, whether with or without a system. Situated as we are, each in his way is working out a system more or less comprehensive, more or less local; each is engaged in an experiment, the result of which will be of interest to all. I venture, therefore, to present a few of the ideas which in my opinion will characterize the educational work of the future, whether we are to have in mind the needs of a single institution or those of a district, or whether it be our plan to cover as years go by broader territory and include many institutions of many grades.

First of all, and if I mistake not, most fundamental of all, is the principle of individualism—a principle capable of application alike to students, instructors, and institutions. Every man born into the world comes into it with the limitations of his work clearly defined by nature. The man who succeeds in life is simply the man who is fortunate enough to discover the thing nature intended him to do. In some cases nature has seen fit to indicate early and definitely the line of work in which success may be attained. In others the discovery is made, if at all, late in life. In the growth and development of the body and mind, each man or woman is to be treated as if he or she were the one person in existence. The individual, not the mass, is to be cared for. From the beginning the student should receive such treatment as will enable those who are watching his development to learn what he can do only with difficulty. But this is not to be limited to the beginning; it should be continued to the very end of what would be called the preliminary period, a period which in the case of every individual continues until the clearest evidence has been secured of the discovery of the principal work which the individual can do to advantage. When once the discov-

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ery has been made the pupil should be allowed to devote himself, with certain qualifications, uninterruptedly to that for which, as experiment has shown, nature fitted him. The next aim will be to develop those functions which are capable of development. It will not be forgotten that the culture shall be as broad as possible, but it is true that the possible fields of mental culture are multitudinous, and that, after all, no man, however broadly cultivated, comes into contact with many of the fields. It must be admitted that a large part of our educational work fails utterly of accomplishing the thing in view. Men pass through all the grades of primary and secondary work, enter college and do also university work, and yet are reckoned by the world at large, and even by those most intimately associated with them, as failures. And so far as adding anything to the life of themselves or others they are failures. Why is this so? Because the idea has prevailed so extensively that men might be educated *en masse;* that one after another they might be ground through the curriculum of study without reference to special taste and predilection. A class of fifty men enter college, no two of them alike in equipment, natural taste, mental aptitude, or intellectual ability, and yet they have been required to take the same studies, within the same number of hours, in the same way and with a sameness throughout that makes college life for most of them a distasteful thing and an injury. I stand ready to assume the responsibility for the statement, that many men are injured by college training, and that the cause of the injury in nine cases out of ten has been the inflexible cast-iron routine of the college curriculum, which, let us congratulate ourselves, is fast becoming a thing of the past. Less harm has been done than would otherwise have been the case, because, as a matter of fact, only men of a certain disposition in days past have received an education. A great change has taken place among us to-day. Men of different types of mind, men who have no idea of becoming scholars, men who would be artists, mechanics, business men, as well as who have in mind the ministry or the law, may receive an education adapted to their needs and capabilities. That the doctrine of individualism is beginning to be respected is evident from the establishment of scientific schools, technological schools, and from the high position which these schools occupy now side by side with the college, a position to which they could not lay claim even so short a time as ten years ago. But the same sin (for it is a sin against God and against man) is still committed in most of our institutions, even in those to which reference has been made. The individual is forgotten in the mass. In how many colleges is it the custom to take, as it were, a diagnosis of the mental constitution of each student similar to that which the physician makes of

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the body? It is not unusual in these days in connection with the work of the Department of Physical Culture to have each man examined, the weak points of his body pointed out and the principal exercises indicated which will help him. Is such a thing done for the mental constitution? The present college methods too often compel failures, and it is more or less accidental that a man receives real and genuine help in his development. Why is it that so many men achieve marked success in life, in their profession and in every line of business, who have never seen the inside of college halls? Because contact with men does for them what technical education is supposed to do for those who avail themselves of its advantages. The feeling against higher education which has existed is not without some justification. A radical change is demanded—a change which shall shake to the foundations the educational structures that have been erected.

Outside of a very few of our highest institutions of learning, the cause of education in this country has been cursed by the failure of those in authority to recognize the principle of individualism in the work of instructors. I select two familiar examples. In the high schools, which are gaining rapidly in numbers and in efficiency, no attempt has been made to assign to teachers the work in which they are particularly interested. The man whose mind by nature is mathematical in its tendency is ordinarily asked to teach language or history. The woman whose whole soul is afire with interest in literature is compelled to do work in science or mathematics. Or worse yet, as happens in nine cases out of ten of our colleges, the same person is required to teach in three or more departments, to a greater or less degree distinct from each other, the chances being that in no one of the three has the instructor been afforded opportunity to do special work. Until within a short time this sin has been committed even in larger institutions. It is at this point that individualism passes into specialism and the connection between the two is close. The multiplication of the fields of knowledge makes necessary the cultivation of individuality; and it must be conceded that the very marked changes which have taken place in the college field are due to the rapidly increasing recognition of this great principle.

Progress in this particular has been slowest in the case of institutions themselves. It has been a common idea that every newly founded institution should duplicate the work of those which have preceded it, and as a consequence, with one or two notable exceptions, the higher institutions of our country are institutions of a single type. This means of necessity narrowness. It means more. Inasmuch as each institution tries to cover the same ground and all

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the ground, the result is that no effort has anywhere been undertaken to establish a school which will allow thoroughness or depth. The college with no endowment, or endowment of $100,000, seeks to do the same thing which the institution with an endowment of millions finds difficult to do. The technical school with no endowment, or $100,000 of endowment, seeks to cover every field of technological work. How much better it would be if institutions would cultivate individualism, the academy doing the work of an academy, and not that of a college; this institution devoting its strength and energy, so far as university work goes, to the development of departments of history and politics, this to the development of physics and chemistry, this to the development of the biological sciences, this one to throwing all its efforts into the great field of electricity. But no; the lowest tenth-rate college announces courses in every department of human knowledge, and students are compelled in self-defense to dabble in everything rather than to do work in a few things. Leaving individuality of curriculum, it is also true that almost nowhere is there cultivated individuality of spirit. There are perhaps four or five institutions in America in which there may be said to exist after years of culture an individual spirit. There is a Harvard spirit, a Yale spirit, a Princeton spirit, a Johns Hopkins spirit, a University of Virginia spirit. Where is there an other institution individual in its character? Of young institutions much may not be expected; but that institution which has done work fifty years without exhibiting to the world in the character of its men a distinctive individuality has, in one important respect at least, failed to accomplish that for which it was founded.

CO-ORDINATION—THE ADJUSTMENT OF PARTS.

In every scheme there are parts, and that these parts shall make a scheme or system, they must be adjusted to each other; they must be co-ordinated. I use the word now in its broader sense. Our educational work has divided itself into sections. Each section must be so arranged as to fit into that which is above and below it, as well as into that which is on each side of it. The arrangement, therefore, is a complicated one, and perhaps we are not to be surprised that no satisfactory adjustment has yet been made. Both of the adjustments referred to are needed in the educational development of every individual as well as in the organization of every institution.

In the case of an individual we seem to-day to be in utter confusion so far as concerns the arrangement of the definite steps in his education. Omitting for the sake of brevity any consideration of the earliest periods, it is evident that the grammar school, the grade preceding the high school or academy grade, is organized in most of

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our state systems with special reference to making provision for teachers and finding a market for text-books rather than for developing children. Bewildered by the multiplicity of subjects taught, subjects making a curriculum without unity of any kind, the pupil reaches the end of this period discouraged and distressed. Why do not more children proceed to the higher grades of study? Partly, it is true, because of poverty, but in large measure, I maintain, because of the inefficiency of the organization of the grammar grade. A few, comparatively, proceed higher, in spite of difficulties almost insurmountable, compelled by parental authority or impelled by a desire for study which even the most disadvantageous circumstances will not destroy. Here, again, the same confusion reigns, not only in the high school but in academies and preparatory schools. The connection between the work of this grade and that which precedes is not a logical one, and the various elements which ought together to form a plan at once unified and complete are thrown together in a most promiscuous manner. The higher we go the worse becomes the condition of things. Academies and high schools stand in no direct or indirect relation, except in individual instances, to the college work which follows. In the majority of schools the student finds upon graduation that he has not met the requirements for admission to college, and unable to go back and take up the work again in another form, he loses courage and gives up the effort. Still further, no connection of any kind exists between the college work and the professional. As a matter of fact, our professional schools are made up for the most part of men who could not gain admission to the freshman class of the colleges. The man who has by dint of hard work carried himself through college finds himself in the professional school side by side with men who have never been inside of college, or in many cases of high school or academy. Yet these men work together, and some educators tell us that it is profitable for both. What utter nonsense! The weakness of the situation is acknowledged openly by certain leading institutions, which have within recent years made strong effort in some way to adjust professional work to college work. But the adjustments cannot yet be said to have proved satisfactory. So far as it concerns the individual there is needed such an adjustment of parts as will allow him from the earliest age to the completion of his professional course, to move forward without interruption and without the loss which invariably follows transfer from one scheme to another, neither of which stands related to the other. The beginning of real university work is in the kindergarten. The day will come when this fact will be recognized. With a proper adjustment in the unity of arrangement, the time of at least three years

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could be saved to every individual who contemplates a college or professional course of study. When we consider the terrible cost of the present lack of adjustment, we are the more ready to consider propositions looking to the readjustment of the various disconnected parts. It is here that Germany forges ahead of us because of the close connection of the pupil's work, from the very beginning until he is ready to enter the university. Results are obtained which, from our point of view, seem almost incredible.

It is here, also, that adjustment of the parts is just as essential for the sake of the institution. It is difficult to show what is meant without a chart. The difference between the present situation and the ideal may be described roughly under the figure of a tree. We see before us the stump. Branches of different length and thickness are strewn about the stump. This material is, to be sure, most valuable and is available for use. But imagine, if you please, each branch assuming its former place in connection with the trunk of the tree; the sap once more flowing from the roots to the topmost limb; the foliage restored, and the fruitage. This is a fair representation of a system of education with its parts adjusted to each other. Or, better yet, since every institution should be in a proper sense such a tree, the assemblage of institutions forming the great system would be a magnificently planted grove, made up of a variety of trees, each the best of its kind, each contributing to the happiness and maintenance of mankind. The educational grove of America to-day consists for the most part of dismembered trunks, and these largely of the same species; most of them stunted in growth, a few here and there giving evidence of what might be under a different condition of things. A vital mistake in the history of education in New England has been the isolation of the academy from the college. A vital mistake in the history of education in the West and South has been the too close identification of the preparatory school and the college. The New England schools have been right in not permitting the academy to be joined closely with the college. They have erred in not securing direct control of the academies, in order that the step from the academy to the college might be taken without embarrassment and loss. Western and Southern institutions have done the right thing in recognizing the necessity of a close connection between the preparatory schools and the college, but have made the mistake of bringing the life of the preparatory school into too close connection with that of the college. There cannot be a university without colleges. No more can there be colleges without academies. The ideal institution will, therefore, cultivate the academic work as assiduously as any other, and will see to it that the connection between it and the college work is close and that the step from one to the other

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may be taken easily. The same principle would apply to the higher work. The future will see an adjustment made by which, after the first two years of a college course, the remaining work of the college shall be so closely connected with that of the professional school that the line between them will be drawn only with difficulty. Such an adjustment will be attended with two advantages. It will make all the more difficult any attempt to do professional work without an adequate training, and it will do much toward lessening the friction and loss of time which now invariably attend the passing from the college to the university. The more my mind dwells upon it, the more adequately do I find the figure of the tree to express my conception of our educational work. The roots running out in the various directions constitute the earlier and preparatory stage of work. Students of every condition of life and mental attainments are brought together in this period. The stock of the tree is the central or college period. The work of all students in this stage runs along much the same lines. It is here that the final testing takes place. Typical subjects are brought forward and the student led to grapple with them. The variety here is not great, nor should it be; but where this process has been complete, selection begins and division takes place. These divisions, as they move forward in a multitude of departments, make the branches of the great tree. Here is infinite variety, infinite possibility of development, yet everywhere the same characteristics. Because of the infinite variety, and because of the sameness of characteristics, adjustment of the parts is all the more necessary.

ASSOCIATION.

Finally, with your permission, I desire to present as an important characteristic of any adequate system, as a leading feature of the future work, the principle of association. This is a necessary concomitant of individualism and co-ordination. Association or combination is possible (1) in case the student or instructor is treated as an individual, and in case an institution, of whatever grade, has aimed to develop individuality. It is a remark of frequent occurrence that one of the common features of our present civilization is the emphasis laid upon specialism in every line of work. It is also to be noted, that, side by side with specialism, and because of specialism, another prominent feature of our modern civilization exists, namely, that of combinations and trusts, for it is only the specialists who combine. It was not until the day of specialism that combinations could occur. It is true that until individualism prevails, association to any considerable extent must be postponed. (2) Association implies co-ordination in both senses of that word. In

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order that men, either as students of professors, may come together; in order that institutions may co-operate, there must be a rigid classification according to the purpose, scope, and rank. It is here probably that the first radical steps in any educational reform must be taken. So long as institutions doing really the work of high schools call themselves colleges and universities, there can be no association other than a merely nominal one. The high schools of some of our Northern and Western States do a work vastly superior in quality and greater in quantity than many of the so-called colleges and universities.

Granting that these two principles have begun to operate, at least, slightly (and I think that every forward step taken during the past twenty-five years has been taken in accordance with these principles), there is opportunity—I may say, there is necessity—for the working out of the principles of association, or union of effort, or combination by whatever name we may decide to designate. Naturally it must first come in the form of institutional association.

The applications of this principle are so numerous that time will permit the mention of but a very few examples taken from a narrow field. As before, I pass over the lower grades.

The association of academies in relation to a college. Each college should have in the district tributary to it as many academies as the constituency will support. These academies should be under a local management distinct from that of the college, and yet there should be such a connection as would permit the college in large measure to direct the work of the academy. This is what has actually taken place between the high schools and the state university in certain states. But it must be recognized sooner or later that the high schools do not make preparation for college their chief work. It must be remembered that only ten per cent of those who finish the high school course ever enter college. The high school, therefore, has other work to do. The time will come when two-thirds of the present colleges and universities should, for lack of funds to do properly the work they are now trying to do, be made colleges of this same rank. When additional funds are secured higher work may be undertaken; but not till then. The larger the number of colleges we can have the better, so long as they are equipped to do the work of a college; but to make students believe that they are receiving a college education, to give them the degree which is supposed to stand for such an education, is a species of dishonesty and imposture for which there is no excuse and which our legislatures should take in hand. There will be, then, the academies and high schools, brought into vital relationship with the colleges which are nearest to them; the colleges of lower rank and of higher

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rank,—the two classes sharply distinguished. These, in turn, will be associated in relation to the university. The university of the future will make a clear distinction between its college work and its university work. Unless this is done, the Harvard and Yale types (both of which are to be regarded as overgrown colleges rather than as universities) will continue, and America will have no university. There is room to-day for ten or fifteen universities. The colleges, remaining colleges and doing college work, will sustain to the university the relation sustained by the academies to the colleges. The association of colleges may be either that of a state, as is already true of the State of New York, or that of a denomination (the bond in this case being very close), or that of a district, such as New England, or the Valley of the Mississippi. No one can fail to see the immense advantages of such an association. I may be permitted to go one step further. The universities, supposing the number to be ten, fifteen, or twenty, should, let me say, unite in a federation. This federation will be like that of the states of the Union. Through this federation of universities will come the crowning feature of our American system—a national university. We do not need a national university as an institution, distinct from other institutions and their rival. The existing universities will never consent to a national university organized upon such a basis. The history of the movement since the days of Washington demonstrates this.

Let the institutions doing real university work unite, and let great scholars and investigators be delegated by each university to go to Washington, and, with governmental assistance, make proper use of the great scientific treasures of all kinds which have been there collected; these professors all the while being members of the university which has thus delegated them, and yet, as a body, constituting the faculty of the national university. Let the students of all universities study at Washington, whenever it is to their advantage to do so, remaining, however, students of their own university. This plan is simple; it removes the whole matter from the field of politics; it can be introduced at a minimum of expense; it will lead to unity of effort; it will secure a system in our work, the lack of which all concede; it will not excite the rivalry of universities already established; it will permit the students to move about; it will set a standard by which institutions may judge themselves; it will secure an association of interests, and a recognition of scientific work which will lift the work of education in this country to the place it occupies in Germany.

Individualism, co-ordination, and association are the keynotes to future progress along educational lines.

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EDUCATIONAL PRIDE AND PREJUDICE.

BY A. E. WINSHIP, EDITOR "NEW ENGLAND JOURNAL OF EDUCATION," BOSTON, MASS.

Of all the sentiments to which man is heir none are more vicious than pride and prejudice, twin seducers of individuals, sections, and interests. Pride gains in intensity in proportion to its shallowness and prejudice in proportion to the virtue of that against which it is exercised. Education in kindergarten and university, North and South, has suffered as much from these companions in mischief as from any other causes. Champions of the schools take pride in the simplest attainments, while they are prejudiced against indispensable reforms.

It is humiliating to behold the pride of states and sections in the relative absence of illiteracy. A people who can read and write is as far beyond a people who cannot as a semi-civilized nation is beyond the cannibal tribes; but for a civilized community to boast of not being illiterate is like a man's claiming charity in this life and heaven in the next because he is not a convicted criminal.

There are no illiterates in the United States who have been born here in recent years. New England has a few because business enterprise has tempted adults from lands in which education is not universal. There are illiterates in the South from causes that are well understood, but, in these times, there are none North or South due to absence of school privileges or to neglect of such privileges.

A people that can only read and write is as far behind the people who have universal elementary education as the self-imprisoned Japan of 1865 was behind the triumphant Japan of 1895.

America can accept nothing less than universal elementary education as complete as human devotion and ingenuity can make it. Every American-born child is entitled to this much education, and the nation is entitled to as much protection from ignorance, pauperism, and crime as this affords.

Good schools, with ample accommodations and adequate equipment, must be provided, and if any parent does not avail himself of these opportunities for his child, there must be no escape from the righteous indignation of the public.

A people whose leaders in finance, statesmanship, and the professions had merely an elementary education would be as far behind a people of whom a fair per cent are especially educated as the most sluggish nation is behind America.

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Though many less educated statesmen and professional and literary men have distanced their college-bred neighbors, the pace has been set by the liberally educated. The only educational standard is the quality and universality of the elementary schools, and the character and popularity of the secondary schools and universities.

What signifies this wonderful exhibition of the industrial, commercial, and economic attainments of the United States? Every flash of inventive genius that has transformed the raising of wheat and ginning of cotton, that has electrified the passage of the message and of the messenger, that has brought to the humblest homes the comforts and the luxuries once reserved for the houses of wealth; every evidence of the pluck that pioneered the rails over the Rockies and the Sierras, and of the luck that tapped the foundations of the great deep for oil and gas; every glimpse of the heroism of inventors who have turned water into lightning and night into day; every revelation of the consecration of the public and private wealth in hospital and mission; every thrill of scientific power and touch of artistic skill are but slight tributes to the power and nobility of that education whose magic wand America has placed in the hand of artist and artisan alike. And yet America, which owes vastly more to her schools than is dreamed of in Atlanta or Chicago, is still in her youth, and her ultimate grandeur, the perpetuity of the patriotic spirit, the prosperity of all classes in all sections, must depend upon the individual and collective characteristics of the people. Men are rarely the same in action or opinion collectively that they are individually. Pride and prejudice control people in the mass where interest and conscience would influence them individually. The instinct, condition, and training that make up the sum of motive and influence in men, individually and collectively, are impulse, environment, and discipline. The responsibility for impulse is largely with the church, for environment with the home, for discipline with the school.

The church dissipates much of its energy in congratulating itself upon the security for time and eternity of its members, and misses many of its opportunities for usefulness through prejudice against anything that it has not labeled as virtues—everything that does not work through co-ordinating channels.

The home should be independent of both pride and prejudice; but the social and neighborhood tyranny of pride is as complacent as its prejudice is intense.

All discipline and training, intellectual, moral, and physical, are largely to be determined by the school. It is true that the church has done much by way of education, but usually under the spur of a public educational sentiment. One of the glories of the American

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public school idea is its record in stimulating the church and the home to do much for education, and to do it so well as to react through healthy rivalry upon the school.

With all the virtues of the church, its primal purpose is to magnify sentiment, devotion, and zeal rather than training in intellectual or moral activities. Exalt as we may every mission of philanthropy, statesmanship, and religion, the fact remains that Americans have no responsibility greater than the broadest, highest, best education of all the people.

Reward for industry, return for investment, economy in philanthropy, virtue in religion depend upon the intelligence of labor, the wisdom of leadership, the training of experts, the common sense of conscience. This places grave responsibility upon the schools, whose mission it is to disillusionize those who maintain the groundless pride of the churches, families, and states; to so disinfect all classes and conditions as to purify from prejudice. If pride and prejudice are to be eradicated and eliminated it must be through education; and if education is to accomplish this great work for humanity it must itself be free from all suspicion of either pride or prejudice. "Be noble, and the nobleness that lies in other men, sleeping but never dead, shall rise in majesty to meet thine own," was never more apt than when applied to the school in its effort to reform the other ministering forces of the world. Education is infinitely more than reading, writing, and arithmetic; than manual training and industrial art; than literature, science, and history; than mathematics and Greek. It is the disciplinary force—the training appliance of the nation. It is the main reliance in the struggle with the inertia of human nature.

It is education that must reform great wrong, and that must check reform before it becomes sentimental.

So long as prejudice is plotting, education must mass all its energies against rebellious scheming; and when it is suppressed, and pride crowns itself with Napoleonic conceit, education must rise against this tyranny until pride is exiled; and in exile it must stay until transferred to that Apollyonic realm where pride is supposed to dominate all hearts with its insatiable thirst begotten by fiery conceit. Both pride and prejudice are opposed to education. A schoolman whose inspiration is the boastful conceit of pride in theory, method, or device, in a glorious inheritance, or in the phenomenal popularity of some new idea is not an educator. The pretender is proud that he knows so much; the educator is humble that he knows so little.

We have become reconciled to prejudice in theology and politics, but we must not tolerate it in education. Education must wage

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relentless warfare against pride, whether its weird glamour halos brick and stone, frieze and fresco, the antiquity of Greek or the iniquity of Grube. Education must arouse all its energies against prejudice wherever it reveals its Satanic spirit, whether it be against principles old or new, methods tried or untried, devices correlated or relegated.

Look at the words themselves. Pride is inordinate self-esteem, an unreasonable estimate of one's own superiority. It may manifest itself in a haughty mien, in a frigid reserve, or open contempt. The primal idea of pride is ornament. It is always centered in self. It focuses all energy of mind in the individual. It says by every act and emotion, "Behold my ornamentation!" It is the same in essence whether the origin of pride is obedience to law or defiance thereof. The pride of the Philistine may be as conceited as that of the Hebrew. Indeed, the most conceited man that history has discovered or imagination devised is the critic in literature and education whose every comment on men, their works, or opinions simply calls attention to himself, speaking and writing others up or adorning and adoring himself. Conviction is the companion virtue to the vice of pride, and the two should not be confused, as is done by many a man who thinks to make his "ornamentation" more seductive by throwing a mist of assumed conviction over his pride, as if to veil it as something that ought not to be brazenly exposed.

Conviction never concentrates its energy upon non-essentials, but meets emergencies and makes great sacrifices regardless of self. Pride deals in non-essentials, meets no emergencies, makes no sacrifices except for self-glorification. Whoever poses as a reformer is a man of pride, not of convictions. Americus Vespucius was a man of pride, and this continent bears his name in consequence. Columbus was a man of convictions. The name of the man of pride, who has been in oblivion for 400 years, is used as the pedestal merely for the grandest monument of industrial, commercial, and political glory ever reared in the honor of any man. Pride robbed the land of the name of its discoverer, but the convictions of 70,000,000 people halo his memory with revential admiration.

Prejudice renders a decision before the proper tribunal has spoken its verdict. The decision may be right or wrong; that is not the question. It is venomous conceit first, last, and always. The judge is taking evidence under the rules of the court; is hearing everything that can be said on both sides; is seeking the truth under the responsibility that only he can feel who realizes the possibility of impeachment. No other man has any right to act upon a judgment formed before he has spoken, but prejudice forms its opinion because the judge has not; prejudice announces its irresponsible

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verdict in order that the public may know that it defies the wisdom of the court. Prejudice says "I, in my majestic conceit, will not wait for the judge; will not listen to the evidence." The man of prejudice is nowhere so vicious as in matters of education, for here judgment claims to be enthroned. The religionist and the politician are expected to be biased, as is the attorney in court; but the educator professes to be as unprejudiced as the judge upon the the bench. The solicitor is excused for being one-sided, but the prejudiced judge is impeachable.

No prejudiced schoolman can be an educator. He who is prejudiced in matters educational will be impeached by that sentiment whose verdict is eternal.

Heroism is to prejudice what conviction is to pride. It prejudges nothing but dares everything for the benefit of mankind when conviction is based on evidence. Prejudice magnifies selfishness; heroism magnifies sacrifice. Fame is the handmaid of heroism, but infamy of prejudice.

Conviction begets a great purpose and heroism enthrones it. Education presents the arena in which conviction and heroism must win their victories over pride and prejudice. Because of this, educators need deeper convictions and more intense heroism.

It should be ever borne in mind that pride may be as vicious in regard to the new as to the old, and prejudice may be as malicious with the old as the new.

Away forever with our pride in past glory and present achievement; away forever with the prejudices that will not patiently heed all testimony regarding the virtues of the old and the hopes of the new in psychology or philosophy, in methods or devices.

May we not hope to witness a scene of educational transfiguration in which pride and prejudice shall come forth in all the glory of educational conviction and heroism.

We have the good fortune to have at the head of the educational department of the national government a man who stands forth among the nations with breadth of scholarship, with height of culture, the leader of leaders in education, because he is the man of all men in educational conviction and educational heroism.

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PROGRESS IN PRIMARY EDUCATION.

BY MRS. EVA D. KELLOGG, EDITOR OF "PRIMARY EDUCATION," BOSTON, MASS.

If zigzag be the law of progress, the cause of primary education in America is certainly moving forward. The term "primary education" as used here means the education of the youngest children in our public schools.

In the rhythmic swing of events that have marked the distinctive efforts for the training of little children for the last fifty years, the tick-tack of the vibrating pendulum has touched the supremest limits of complete neglect on the one side and over-attention on the other.

Half a century ago the children in our primary rooms were only so many little people on their own unattended way from childhood to manhood. To-day they are the center of the universe. Then they were to "be seen and not heard." To-day every word from their childish lips is listened for lest some significant utterance be lost to the world. Then, if they were fed at all, it was on the driest, solidest meat. Now they are over-nursed on the bottled-up wisdom of the ages—with the usual result in such cases.

Then the child was not fashionable. The man or woman who does not talk the child to-day is a fossil.

Is this marvelous change in half a century all pure progress?

There is not time in this brief paper to look over the whole field for an answer. Let us confine ourselves to the consideration of two or three prominent subjects that are to-day receiving attention from every section of the country. Thoughtful teachers of the Maine coast, by the Pacific shores, in the breezy Northwest, and in the progressive schools of the Southern States that have "caught step" in the forward march of progress in the last twenty years with so much of skill and energy as to arouse the pride and admiration of the whole educational line—all are pursuing these subjects with such unity of purpose that it seems not unfitting to question a little concerning them at an educational congress at Atlanta.

These questions are not meant for assertions, but simply as one would examine milestones to see if they really mark off progress along the highway.

First, that of child study. He who "put a little child in the midst" nineteen hundred years ago, saying, "Except ye become as little children," pointed the whole world to child study—the study of the spirit and soul of the child. Have we entered upon this study

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with that same reverent spirit? When the doctors in psychology discuss the best ways of entering into the sacred temple of child nature, do they approach it as the three wise men of the East "followed the star to where the young child was?"

All honor, and sympathy, and co-operation with the avowed purposes of the societies formed for the pursuance of child study. The note of future reform is distinctly heard in their outlined plan for child investigation, and hope and faith revive and flutter again in the human heart when the experts in advanced psychology are willing to enter the child world as humble learners, convinced that all true education must be founded upon the discoveries made therein. How the hearts that have been heavy over existing wrongs in the schoolroom grow lighter, and the anxious eyes that are weary with watching for relief grow brighter, when the wisest, strongest, most influential men in the educational world, whose very names forecast victory, have joined together under the simple name of "Society for Child Study," and are willing to watch, and to work, and to wait for the light that dawns only upon conscientious, unselfish, intelligent, and persistent investigation!

Here, indeed, is progress, and herein lies the hope of the future for the education of little children.

But are there no dangers to be avoided; no pitfalls to escape even in such a glorious work as this? Every worthy cause, and especially every new cause, is threatened with the disintegrating elements of unwise discipleship, till the cry, "Save it from its friends!" is forced from loyal lips. Does not such a danger lie concealed in one phrase in the "purpose of child study," viz., "the collection and collation of the scientific data resulting from experiments and investigation?" Is there not danger that impetuous laborers in this unfamiliar field shall snatch this phrase as their especial ways and means for mental investigation, and with temperamental zeal push it forward out of all relation to the main purpose of the work? Is it not already being done? And is not this "collection and collation" being held aloft as education itself, instead of one single line of experiment toward the great end to be sought, viz., a bed-rock, basal foundation for an ideal course of study in our public schools?

To push forward the experimental tests upon the immature mental capacity of the child; to propound questions for the reasoning powers when such powers do not exist; to appeal to the judgment as yet undeveloped; to probe for individual decision in cases where such decision is the merest farce; to record such decisions in ponderous volumes, and to such a numerical extent that mathematics is brought in to assist, and upon her beloved handmaid, Percentage is laid the burden of a dry statistical classification that does not

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classify but only confuse—is all this that has been done, and is being done, a contribution of real value to the true purpose of child investigation? For example, is it a step forward when a thousand immature children have been asked to decide whether they have ever been unjustly punished? One natural outcome of this has already appeared in an educational journal, when the editor suggests that this question be given to children, miscellaneously, as "composition work." It is not difficult to fancy the atmosphere of the schoolroom when the martyred boy has his teacher's license for the first time to describe his method of unjust punishment and his opinion of it, to his admiring boy companions and sympathizers. Oh, the farce of it!

Is it not even at its best a pitiful attempt to arraign children in the name of child study, and propound to them the problem of ages, "Know thyself?" Burns voiced the need of humanity when he prayed for the "power to see ourselves as ithers see us."

The weak, irrelevant answers of these children to all such questions should be confirmation sufficient that this flippant, superficial method of child study is casting reproach upon a most worthy cause. Men in high places, engaged in this special form of investigation, working through immature student-teachers—the blind leading the blind—assert that they are prepared to accept the united decision of any thousand ordinary children as a guide to their own course of procedure in child education. If a thousand children call for harmful tragic stories; if they demand the murder of three bears to-day, and three bears plus a man or a woman to-morrow, shall not this thousandfold verdict be enough? A thousand children under a thousand varying influences of heredity and fashioned by the thousand influences of differing environment placed upon the throne of judgment to decide upon this or that method for their own personal training! Have we lost our anchorage that we can drift like this, at the mercy of the wind-tossed waves? Has the current phrase, "The children like it," become a siren to lure us on to rocks of destruction? And has it occurred to us that there is great danger that this generation of children may grow up conceited and priggish under a method of child study that invites them to sit as judge and jury over their own acts?

Let the children be studied, but let it be done mainly while in the enjoyment of their own unconscious and illimitable freedom, and *let the recording angel keep out of sight* and not load down these young people with the unsightly burden of self-consciousness. American children have too much of it already; have they not?

We pause at another milestone—nature study. Is not the first record of nature teaching when the Great Teacher taught the people

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to "consider the lilies of the field," and presented truth by means of "a grain of mustard seed?" Again we see we have waited all these hundreds of years before catching the full significance of this model teaching. But we have reached it at last so far as the subject-matter is concerned, but let us question here and see if we are not wandering away from the simplicity of Nature herself, and building up machinery for investigation instead of seeking to become the little children we must be if we enter into the kingdom of nature revelation.

It is wonderful how soon we lose simplicity in the consideration of any subject which we bring into the schoolroom. We stoop to gather a flower, and a simple, genuine worship goes out to the holy, unsolved mystery of the "flower in the crannied wall." Still holding the flower we pass into the schoolroom, and how long before the method passion dominates every other thought? As soon as that flower becomes the subject of a lesson, the rattle of the machinery begins to be heard, and with the inevitable, "Now, children," the God in the flower is forgotten and the science of the flower has taken its place. Stamens, petals, pistils must be counted, the velvety leaf torn from its center, and the heavenly fragrance spilled on the altar of technicalities. Do we not often analyze where we should worship, and rob the lesson of all soul cultivation because, by-and-by, this may perchance be gathered again into a language lesson? What a reason! Cannot some things in nature study be allowed to sink into the soul uncounted and unmeasured? Cannot beauty be enjoyed and assimilated into soul tissue without the constant feeling that some day it must be reproduced again and crystallized into mere words?

We who have lived long enough have found that it is great compensation that there are some things in this world that cannot be put into words.

Mathematics, too, has been known to stalk into this realm of nature study, and propound chilling questions in percentage—as to the roses one sees in a day, what proportion were pink or crimson, etc. If the dust on the butterfly's wing, glistening in heaven's own rainbow glory, is not safe from the Percentage demon,—and it has been proven that it is not, under the specious plea that our children must learn to see accurately,—then the intellectual Mephistopheles of modern education has full power to work his evil way, crushing out all highest aspirations for the soul of things. It is asked, perhaps, Does not nature study belong in primary schools? Certainly. Does not science belong in the primary schools? Certainly, again. But can we afford either in this nineteenth century, which, already, "with its knife and glass, makes thought physical," if at the cost

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of beauty or spiritual culture? As someone has pithily said, "Our scientist to-day intrudes into nature's sanctuary, lunches on its mercy seat, leans against its altar, studies the designs wrought into its holy hangings, and calculates the weight of metal in its consecrated utensils."

Once we listened to the sea murmuring in the tinted ocean shell. Now, our school children, pushing away the shell without even seeing the most exquisite tints the human eye ever gazed upon, talk wisely of "sound waves," and give us the same effect on a tumbler at the dinner table.

Tennyson, walking with his ten-year-old boy one day, looked down by the roadside, and said, "Ah, the fairies were here last night. They danced in a circle. See their tiny umbrellas." "Fairies!" scornfully replied the boy. "Toadstools! That's all!" and actually began to explain to his father the process of their fungus formation. Tennyson groaned, and no wonder. The poetic fancy was too rudely shocked, and the boy was never allowed to finish his scientific explanation to his poet-father. Even our kindergartens—the very homes of the imagination—are not free from the literalism of extreme accuracy. A mother, running to pick up her little four-year-old who had tumbled down, exclaimed, "How did you fall, darling?" "Vertical, mamma," answered the child, between her sobs—true to her training. Now, is it not true, that, of all the children on the earth, our American children, with their inheritance of materialism, can least afford to lose the beauty side of life?

There are other milestones along the way which we have confidently placed as waymarks of our increasing progress, but we have not time to linger beside any of them longer now.

There is one, marked "Myth-Wave," that looks very tempting, but to those who know how to read the invisible this waymark is half covered with interrogation points.

We ask in closing one last question. How shall true progress be made in the education of little children? The agitation upon this subject has aroused public opinion, and what shall satisfy the just demand of thinking men and women—that every year shall show steps of genuine progress?

The educational leaders are thinking as never before. Such thinking can find its way to the truth only by the aid of experimental tests with the children themselves. Who can do this but the men and women already in the schoolrooms who come into direct contact with the children? Is not, then, the greatest need of to-day an intelligent and conscientious supervision by men and women who have brain and interest enough to follow the thought of the best educational leadership, and who possess heart enough and tact

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enough to inspire the great army of teachers to enter into the plans and imbibe the spirit of the few great leaders who are wrestling with these vast problems? With such supervision there is a power in the rank and file of teachers hardly to be estimated.

I have great faith in the heart and intention of the common school teacher, all untrained and faulty as she may be, if she can be aroused and inspired to see what are the great needs and the burning questions of the day and that her help is needed in their solution.

At present she moves about calmly—too often listlessly—in the narrow round of her school duties. *She* to look out over the educational field and think for herself! *She* to have opinions on such questions as the best methods in child study and nature study! It has never occurred to her. The "Course of Study" bounds her world. Any "Course of Study," however "all-around" it may be as a constructed work, is a piece of dead formalism unless it is made alive by the supervisory power of him who administers and broadens it out to cover the well-nigh boundless needs of the schoolroom.

Can all the teachers be made to think and discriminate wisely and fearlessly? No; but the comparatively small proportion of those who are unable and unwilling to do this would fall off, be cut off, and disappear, if the supervisors of every town and city were fearlessly alive and delegated with enough of executive power to carry out their purpose.

A harmonious force of able, conscientious, genuine men and women in the schoolrooms, taking up every new question without prejudice and without fear, applying to it the tests of principle, practicability, and common sense; not caught or swayed by temptation to follow every ephemeral innovation introduced under the name of progress, but determining always to "prove all things and hold fast that which is good"—is not this the ideal organization that shall, in all times and all places, be the permanent, well-grounded hope for true progress in education?

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RURAL SCHOOLS.

BY HON. CHARLES R. SKINNER, SUPERINTENDENT OF PUBLIC INSTRUCTION, NEW YORK.

Just at this time there seems to be an increasing interest in our rural schools. We frequently hear the inquiries: "Are our rural schools doing the best they can?" "Are they doing what we have a right to expect?" These are healthful inquiries made at an opportune time. I am free to say that I have an abiding faith in the rural schools. I believe that they are doing to-day all that they have encouragement to do. I have faith in their possibilities. While many of them may be weak, and poor, and miserable, they are not wholly responsible for these conditions. Usually the rural school may be considered the thermometer which marks the rise and fall of public interest and public sympathy. It will rise to the height or drop to the level of the conditions by which it is surrounded. My faith in the rural schools and their possibilities has its foundation in the belief that in them we are to find the most sacrificing and sympathetic teachers; in them we are almost sure to see the best results of personal influence of teachers upon our pupils, and the personal influence of teachers counts more than fine schoolhouses, modern furniture, or elegant text-books.

Our city schools work under many advantages, but in the crowd and hurry much of the personal influence of the teacher is lost. There must naturally be loss of personal interest where teachers fail to get close to their pupils. The country schools suffer by the constant tendency of the population toward our villages and cities. We do not make very attractive in our teaching the conditions of country life. We do not give much instruction in agriculture. Our boys and girls are not made to hold in high esteem the duties which attach to country life—to home life on the farm. The city and the village are too often made the goals of country children's ambition. It seems to me that there is an important question to be considered here. Are our larger schools, crowded too often, becoming too much like machines? Our cities are all struggling with the problem of how to accommodate the children who ask places in our schools. We are enforcing a compulsory education law in New York which says children must attend school, and we fail to provide seats for them after we send them into our schools. There must be some confusion, some failure to realize the best effects of personal attention to our children. There is danger that education may be-

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come too much a matter of form—just so many days in school, just so many subjects in our course of study, just so many examinations, just so many credits, and work finished at just such a time, with little allowance for varying conditions of mental and physical strength. Just so far as our schools are matters of form, just so far as they do not advance, just so far they are no better than they were fifty years ago.

There is less likelihood of form in our rural schools. Teachers are more apt to know their pupils personally, to know the homes from which they come, to know more of their likes and dislikes, their characteristics, and the conditions of the lives they live. For this reason there is a deeper personal interest for the pupils in the teachers in our rural schools.

Our city and village schools are doing a great work. Why should they not? They have almost every material advantage that wealth or prosperity can give. But I still maintain that our country—our rural—schools are doing relatively as well; for every dollar invested in them they are giving back as full value, if not more. If we want to get more out of them, we must put more into them.

When our good friend, the president of the National Association, extended his kind invitation to attend this gathering, it occurred to me that it would be interesting to secure fresh information concerning the rural schools of the country. With this purpose in view, I addressed the following inquiries to the state superintendents of public instruction in each state:

INQUIRIES CONCERNING RURAL SCHOOLS BASED ON OBSERVATIONS FOR THE PAST FIVE YEARS.

First—Is the average attendance of pupils in rural ungraded schools increasing or decreasing?

Second—If decreasing, is the decrease the result of a tendency on the part of patrons to send children to graded schools?

Third—Give the ratio of increase or decrease during the past five years.

Fourth—Is the condition of rural schoolhouses, as to heating, lighting, ventilation, and general surroundings, improved?

Fifth—Are higher standards required for the qualification of teachers in rural schools?

Sixth—Is there a noticeable increase or decrease in the professional spirit of teachers?

Seventh—Are the salaries of teachers in rural schools increasing or decreasing? If so, in what proportion?

Eighth—Is the public interest in education in the rural school districts increasing or decreasing? In what proportion is it increasing or decreasing, and for what reasons?

Ninth—What do you consider among the greatest needs of our rural ungraded schools?

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Although there was little time, replies to these inquiries were received from thirty-seven states and two territories, a much larger number than I anticipated. The prompt responses indicated a deep interest in the subject. I do not propose to weary you by giving in detail the full answers to these inquiries, but will state in a general way a synopsis, covering the principal topics, adding by way of preface the satisfaction I feel at the encouraging and hopeful nature of these responses. It justifies me in the confidence I hold that the rural school, as it has done a mighty work in the past, is still capable of greater possibilities in the future.

For the purpose of preserving the records received, and of extending the information given, I herewith append the answers to the above questions in detail:

Alabama.—1. Increasing. 2. ———. 3. Twenty per cent to twenty-five per cent. 4. Much improved. 5. Yes. 6. Increase. 7. Increase. Twenty per cent to fifty per cent. 8. ———. 9. Better teachers; more money; longer terms.

Arkansas.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. Decreasing. 8. Increasing. 9. More money and better teachers.

Arizona.—1. Increasing. 2. ———. 3. five per cent to ten per cent. 4. Improved. 5. Yes. 6. Notable increase. 7. Decreasing. 8. Increasing. 9. Well qualified, experienced teachers.

Connecticut.—1. Decreasing. 2. Yes. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. Decreasing. 8. Decreasing. 9. Union of schools in order that higher salaries may be paid.

California.—1. Increasing. 2. ———. 3. Increasing. 4. Improving. 5. Same. standard as for city schools. 6. Marked increase. 7. Not increasing. 8. Increasing. 9. Better professional training for teachers.

Colorado.—1. Increasing. 2. Yes. 3. Five per cent annually. 4. Four per cent annually. 4. Improving. 5. Yes. 6. Yes 7. Increasing. 8. Increasing. 9. Libraries and reference books.

Delaware.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. No change. 8. Increasing. 9. Better schoolhouses; better equipment; better teachers.

Florida.—1. Increasing. 2. ———. 3. Fifteen per cent. 4. Improving, but still very bad. 5. Yes. 6. Increasing. 7. Increase, thirty-three and one-third per cent. 8. Increase, threefold in ten years. 9. Professional teachers and longer terms.

Georgia.—1. Increasing. 2. Yes. 3. Five per cent annually 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. Up-to-date, well equipped, modern schoolhouses .

Illinois.—1. Increasing. 2. ———. 3. In 1890, 81.06 per cent; 1892, 83.09 per cent; 1894, 86.01 per cent. 4. Improving. 5. Yes. 6. Increasing. 7. Salaries—men—1890, $54.63; 1892, $56.92; 1894, $58.96; women—1890, $44.41; 1892, $46.06; 1894, $49.35. 8. Increasing. 9. Better teachers; better schoolhouses; better apparatus; working district libraries; wisely directed love for the child.

Indiana.—1. Increasing. 2. ———. 3. Ten per cent for past five years. 4. Improving. 5. Yes. 6. Increasing. 7. No change. 8. Increasing. 9. Establishment of township high schools.

Iowa.—1. Increasing. 2. ———. 3. Same ratio as the population. 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing slowly 9. ———.

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Kansas.—1. Increasing. 2. ———. 3. ———. 4. Yes. 5. Yes. 6. Decided increase. 7. Temporary decrease. 8. Increasing. 9. Opportunities for advanced work.

Kentucky.—1. Increasing. 2. ———. 3. Twenty-five per cent since 1891. 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. Change in trustee system; a longer term, and weeding out of unprofessional teachers.

Louisiana.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. ———. 6. Increasing. 7. ———. 8. Increasing. 9. ———.

Maryland.—1. Increasing except in colored schools. 2. ———. 3. Fourteen per cent in five years. 4. Improving. 5. Yes. 6. ———. 7. No change. 8. Increasing. 9. Free text-books.

Massachusetts.—1. Average number of children decreases year by year; percentage of attendance based on membership, increasing. 2. ———. 3. ———. 4. Much improved. 5. Yes. 6. Increasing. 7. No change. 8. Increasing. 9. Free text-books.

Michigan.—1. Decreasing slightly. 2. Yes. 3. Seven-tenths of one per cent in city schools; seven-tenths of one per cent decrease in rural schools. 4. Improving. 5. Yes. 6. Increasing. 7. Decreasing. 8. Increasing. 9. Better school officers, better teachers, and higher ideals of education.

Minnesota.—1. Increasing. 2. ———. 3. Increasing. 4. Decidedly improved. 5. Yes. 6. Increasing. 7, Increasing. 8. Increasing. 9. Better teachers.

Mississippi.—1. Increasing. 2. ———. 3. ———. 4. Improving slowly. 5. Yes. 6. Increasing. 7. Slight decrease, two or three per cent. 8. Greatly increased. 9. Thoroughly trained teachers and more money to pay them.

Missouri.—No material change in last five years. 2. ———. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. No change. 8. Increasing. 9. Better schoolhouses; better equipment; better teachers.

Montana.—1. Increasing. 2. ———. 3. Increasing daily attendance 1890, 10,614; 1892, 14,937; 1894, 16,423. 4. Improving. 5. Yes. 6. Increasing. 7. No change in five years past. 8. Increasing. 9. Professional teachers.

Nebraska.—1. Increasing. 2. ———. 3. 31.45 per cent to 31.03 per cent in past five years. 4. Very materially improved. 5. Yes. 6. Increasing. 7. Decrease owing to hard times. 8. Increasing. 9. Better trained teachers; more intelligent supervision; better financial support.

Nevada.—1. Decreasing. 2. ———. 3. ———. 4. Yes. 5. Yes. 6. Increasing. 7. Decreasing. 8. Increasing. 9. Good supervision and more intelligent school boards.

New Mexico.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. ——— 6. Increasing. 7. Increasing. 8. Increasing. 9. ———.

New Jersey.—1. Decreasing. 2. Yes. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. ———.

New York.—1. Increasing. 2. ———. 3. Five per cent. 4. Yes. 5. Yes. 6. Yes. 7. Increasing steadily. 8. Increasing. 9. Thoroughly qualified teachers; deeper public interest.

North Carolina.—1. Increasing. 2. ———. 3. Twenty per cent. 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. More money for longer school terms, better salaries, and better teachers.

North Dakota.—1. Increasing. 2. Increasing. 3. Increase, three per cent. 4. Somewhat improved. 5. Yes. 6. Satisfactory increase. 7. Unchanged. 8. Increasing. 9. More efficient instructors.

Ohio.—1. Decreasing slightly. 2. ———. 3. ———. 4. Slight improvement. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. Better organization, better teachers, better supervision.

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Oklahoma.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. Doubtful. 6. Increasing slowly. 7. Doubtful. 8. ———. 9. ———.

Pennsylvania.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. Better houses; higher salaries; longer terms.

Rhode Island.—1. Decreasing. 2. ———. 3. Fifteen per cent in last seven years. 4. Not improved except in few cases. 5. Yes. 6. Increasing. 7. About five per cent in five years. 8. Not much increase. 9. Skilled supervision, state certification of teachers, etc.

South Carolina.—1. Increasing. 2. Probably. 3. ———. 4. Gradually improving. 5. Yes. 6. Increase. 7. No change. 8. Increasing. 9. More money and better teaching force.

South Dakota.—1. Increasing. 2. ———. 3. ———. 4. Improving. 5. Yes. 6. Increasing. 7. Not much change. 8. ———. 9. Better teachers.

Texas.—1. Increasing. 2. Yes. 3 Fifty per cent in five years. 4. Improving. 5. Yes. 6. Noticeable increase. 7. Increase about eight per cent in five years. 8. Increasing. 9. More funds, better supervision, permanent courses of study, better schoolhouses, etc.

Vermont.—1. Decreasing. 2. Exodus from rural districts to villages. 3. Decrease ten per cent. 3. Yes. 4. Yes, because of examination system established in 1889. 5. Increasing. 6. ———. 7. ———. 8. ———. 9. ———.

West Virginia.—1. Increasing. . 2. ———. 3. Increase about one-half per cent greater than increase in population. 4. Yes. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. Professional teachers; co-operation between teachers and parents.

Washington.—1. Increasing. 2. ———. 3. Increase 1891, 64.47 per cent; 1892, 64.34 per cent; 1894, 66.95 per cent. 4. Improving. 5. Yes. 6. Increasing. 7. Decreasing. 8. Increasing. 9. More money; trained teachers.

Wyoming.—1. Increasing. 2. ———. 3 Six per cent per annum 4. Improving. 5. Yes. 6. Increasing. 7. Increasing. 8. Increasing. 9. Better methods; longer school terms; uniformity of text-books.

EXTRACTS FROM LETTERS.

IOWA.

The greatest question with us to-day in connection with the ungraded school is how to supply competent teachers. I look upon all other questions as vastly inferior to this. The teachers in our rural schools, too many of them, are not only untrained for their work but in the amount of knowledge which they possess, and in almost every qualification, are greatly wanting We must contrive some way to bring a small degree of professional training to the very doors of the common school teachers and then compel every one who desires to enter as teacher to obtain that amount of training.

HENRY SABIN.
State Superintendent Public Instruction.

NORTH CAROLINA.

In North Carolina the greatest needs of our rural ungraded schools are more money for longer school terms and better salaries, and well equipped, enthusiastic teachers.

JOHN C. SCARBOROUGH,
State Superintendent Public Instruction.

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RHODE ISLAND.

The greatest needs of our rural ungraded schools, in my opinion, are the overthrow of the district system, state certification of teachers, and skilled supervision.

THOMAS B. STOCKWELL,
Commissioner.

NEBRASKA.

The paramount need of our rural schools to-day is the employment of more competent and better trained teachers.

HENRY R. CORBETT,
State Superintendent Public Instruction.

WYOMING.

The greatest needs of our rural schools are increased interest by teachers and school trustees, longer terms of school, the latest apparatus for schooolroom work, and uniformity of text-books.

ESTELLE REEL,
State Superintendent Public Instruction.

CALIFORNIA.

We need better academic and professional training and a more secure tenure of office. The rural schools of California are all graded, and follow courses of study similar in every respect to those of the cities. Their graduates are recognized by all secondary schools as the equal of city grammar school graduates.

SAMUEL T. BLACK,
State Superintendent Public Instruction.

KANSAS.

We are trying to bring the high school in reach of the country school, and thus bring the instruction in sight of the pupil in the ungraded school. Efforts are being made to grade the district schools and unify their work.

EDMUND STANLEY,
State Superintendent Public Instruction.

CONNECTICUT.

In this state the problem is how to unite districts so as to have schools of reasonable size. This union of schools would permit the payment of larger salaries, and would concentrate the interest of more families upon the school. Without doubt this union of schools and the transportation of children are coming. In most districts the difficulty is to obtain money enough to pay a good teacher. Well qualified teachers cannot and will not go into schools where four to six dollars a week is the salary. The two aspects, the economical and the educational, are, therefore, united in such a way that they cannot be separated.

CHARLES D. HINE,
Secretary State Board of Education.

MISSOURI.

The greatest needs of our rural ungraded schools are: First, better school houses—as to architecture, plan of heating, lighting, ventilating, and indoor equipment; second, teachers having more general and accurate scholarship and higher pedagogical qualifications.

JOHN R. KIRK,
State Superintendent Public Schools.

NEW MEXICO.

Public interest in educational matters is increasing. Our native population are commencing to realize, that, unless their children are educated, they cannot compete in business affairs with the immigrants that are coming to this territory.

AMADO CHAVES,
Superintendent of Public Instruction.

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ILLINOIS.

We need (a) better teachers, (b) better schoolhouses, (c) better apparatus, (d) working district libraries, (e) wisely directed love for the child.

S. M. INGLIS,
State Superintendent of Public Instruction.

MONTANA.

I believe the greatest need of our rural ungraded schools at the present time is more proficient teachers.

E. A. STEERE,
State Superintendent Public Instruction.

WEST VIRGINIA.

Our greatest need is heartier co-operation between parents and teachers, and teachers and pupils, and more of professional spirit upon the part of teachers.

VIRGIL A. LEWIS,
State Superintendent of Free Schools.

I offer the following statistics from New York for the past ten years:

CHART.—WHOLE NUMBER OF PUPILS ATTENDING PUBLIC SCHOOLS IN CITIES AND TOWNS, NEW YORK STATE, 1885-94.

YEARS.	CITIES.	TOWNS.	STATE.
1885	449,879	574,966	1,024,845
1886	457,816	569,951	1,027,757
1887	479,923	557,889	1,037,812
1888	481,909	551,360	1,033,269
1889	488,203	545,610	1,033,813
1890	501,449	540,711	1,042,160
1891	513,066	540,978	1,054,044
1892	538,660	534,433	1,073,993
1893	550,634	532,594	1,083,228
1894	589,363	535,635	1,124,998

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AGGREGATE ATTENDANCE—STATE OF NEW YORK.

Years.	Cities.	Towns.	Total.
1885	58,758,222	53,916,987	112,675,409
1886	59,670,512	54,258,138	113,928,650
1887	60,465,251	53,539,351	114,004,602
1888	62,068,578	53,248,502	115,317,080
1889	62,250,098	53,063,998	115,314,096
1890	65,702,509	54,953,191	120,655,700
1891	67,918,815	54,965,670	122,884,485
1892	69,839,975	54,280,277	124,120,252
1893	69,980,096	53,551,451	123,531,547
1894	79,669,048	55,860,721	135,529,769

AVERAGE ATTENDANCE—STATE OF NEW YORK.

Years.	Cities.	Towns.	State.
1885	296,152	314,867	611,019
1886	304,667	321,146	625,813
1887	312,446	313,164	625,610
1888	318,763	311,832	630,595
1889	324,337	313,150	637,487
1890	336,018	306,466	642,984
1891	344,609	305,408	650,017
1892	361,767	303,807	665,574
1893	371,551	316 546	688,097
1894	407,955	313,108	721,063

AMOUNT EXPENDED FOR TEACHERS' SALARIES.

Years.	Cities.	Towns.	Total.
1885	$4,923,821	$3,839,128	$8,772,950
1886	5,236,730	3,865,537	9,102,268
1887	5,415,202	3,891,222	9,306,425
1888	5,683,855	3,992,236	9,676,091
1889	5,727,541	4,077,062	9,804,604
1890	6,120,229	4,202,942	10,422,171
1891	6,564,365	4,448,620	11,012,986
1892	7,048,412	4,572,653	11,621,066
1893	7,146,603	4,736,401	11,883,094
1894	7,264,613	4,788,404	12,053,017

AVERAGE ANNUAL SALARY OF TEACHERS.

Years.	Cities.	Towns.	State.	Years.	Cities.	Towns.	State.
1885	$682	$262	$401	1890	$694	$285	$436
1886	701	261	409	1891	719	292	452
1887	687	262	409	1892	740	297	467
1888	702	266	419	1893	728	303	467
1889	688	270	418	1894	707	306	465

AVERAGE WEEKLY SALARIES OF TEACHERS.

Years.	Cities.	Towns.	State.	Years.	Cities.	Towns.	State.
1885	$16.96	$7.84	$11.21	1890	$17.40	$8.00	$11.70
1886	17.66	7.78	11.46	1891	17.89	8.27	12.18
1887	17.39	7.76	11.44	1892	18.75	8.38	12.62
1888	17.70	7.89	11.68	1893	18.67	8.60	12.74
1889	17.47	8.08	11.79	1894	18.06	8.75	12.72

It will be interesting to know, that, wherever a decrease in attendance has been reported, it was due to loss of population, the desire to send children to graded schools, and a desire to give children the benefit of better teachers. I may perhaps be pardoned if I speak as a New Yorker, but my excuse shall be that it is my

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privilege to know something of her schools. But I find that a man cannot become deeply interested in the school work of his own state without gradually yielding to the temptation to know more of this work in other states. Speaking, then, for New York, let me say, that, for the past ten years, the attendance upon our city schools has shown a yearly increase. For nine years, from 1885, there was a steady decrease (with one exception) in the attendance upon our rural schools. The tenth year showed an increase—very slight but very encouraging. I hope the statistics for 1895 will show a still greater increase. I believe they will. I regard the increase shown in 1894 over 1893 to be the direct result of the better quality of work done in our rural schools; a more thorough preparation on the part of our teachers; a deeper professional spirit; the discouragement of unqualified, unprofessional teachers, due to the satisfactory working of our system of uniform examinations.

Under this system the state superintendent prepares all questions used in these examinations, and examines and marks all answer papers. This system has surely encouraged all who desire in any way to follow the profession of teaching. It has discouraged the idle and indifferent. Ever since this system became firmly established and well understood there has been a slight but steady increase in the salaries of the teachers in our rural schools. As an additional encouragement, we are doing much to make our rural schools better by the establishment of a course of study which has been prepared and extended by the school commissioners of our state. It has been growing steadily for many years, and is now in operation in nearly all our rural counties. It may not be found practicable to enforce a course of study strictly in every rural school; the conditions are not always the same by any means. There is a difference in school commissioners, in teachers, in pupils. But we have worked great good by what we have been able to do. The course of study has now been formally approved by the state superintendent, and is a part of our school system. There is little question that this course of study is doing something to hold our pupils in the rural schools. The figures above given show this. Of course, we have some small, poor, weak schools; schools with few scholars. We probably always shall have. The consolidation of small schools with larger ones will do much to improve them all. There is an enthusiasm and spirit which numbers give which can be secured in no other way. Our policy is to close up our smaller schools as rapidly as possible. It is urged that the township system will aid in this direction, and give an opportunity of testing more generally the plan of carrying our pupils to their schools.

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And now, what are we going to do to make our rural schools better? In my opinion, we must have, first, an aroused public sentiment toward our schools. We need an educational revival. We touch the people fairly well in their pockets; we must touch them in their hearts. We must draw our patrons as well as our pupils into the schools. Our parents must "go to school" to see how their children are being taught. There is still a mountain of indifference to overcome. We never can have the best rural schools until we have thus aroused public interest in them. And, second, we must furnish better schoolhouses. Why can we not insist that our schoolhouses shall be as pleasant as our homes? If we expect to have our children lovers of the beautiful in after life, we must surround them with beautiful influences in their schools as well as their homes. We should pay closer attention to the lighting and heating and ventilating of all our rural school buildings. One school commissioner writes: "Why do you want us to pay so much attention to ventilation?" Because I want to prolong the lives of our school children. Because I want to make healthy bodies. And then we must arouse and educate all our people to take deeper interest in our teachers. Good schools cost money; good teachers cost money; but it pays to have them. I wish the press and the pulpit would take hold of this matter and give us this educational revival. A low order of public sentiment in a community will be satisfied with a poor teacher and a poor school. A community with a higher grade of sentiment will insist on the good teacher as an essential requisite of a good school. If we permit the employment of poor teachers at poor salaries we will have poor schools, as the inevitable result. We must have more money: more money to build better schoolhouses; more money to employ good teachers. We cannot succeed in any other way. If we cannot get the money we must stop.

On the whole, the foundation requirement is the good teacher. No investment will pay the public a larger dividend than the money spent for good teachers. The uplifting power in a community of the influence of such a teacher cannot be over-estimated. Our teachers must be satisfied with their salaries or nobody will be satisfied with their work. We should, at least, pay our teachers as much as our hodcarriers, and a late estimate of the average salaries of teachers in the United States indicates that we are not doing this. As all depends upon the loyalty and happiness of the teacher, so everything depends upon our willingness to furnish the essential requisite—the proper salary. We gain much if we can aid all workers in education to look upon the bright side of education—to be happy and contented in their work. The greatest service, therefore, we can render our rural schools is to provide them with good teachers. This

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is the testimony which comes up to us from nearly every state in the Union. It is testimony which must have weight in the giving of the verdict. The greatest service we can render our teachers is to give them encouragement. If we require them to pass stipulated examinations and then to demonstrate over and above all that they have the true spirit of the teacher, we must pay them adequate salaries as we do all other public servants, make their tenure of office secure, and recognize that teaching is a profession, based upon broad scholarship, thorough professional training, the true spirit of a teacher, love for the work, and love of children. We must recognize teachers' rights, their social standing in the community, if we expect to get the best results. Teachers, too, must regard their own obligations, powers, duties, and responsibilities. They must be loyal, patient, loving; realizing that character comes of slow growth, and that their characters, such as they are, will be photographed upon the souls of their pupils, and that their example will be woven with their lives. They must be more than teachers; they must be counselors, guides, and friends.

A teacher who does not love teaching—who does not love children—can never be entirely successful. This is a broad and not a narrow conception. The lives and examples of teachers are to be the memories in the hearts of pupils. There is not one of us here but who carries in our heart the delightful memory of some loving, sympathetic teacher, who first inspired in our hearts a love for learning, an ambition to reach the crest of the beautiful mountain. If we could we would gladly send our words of thanks to-day to these faithful friends who have thus influenced our lives for good.

This love of children is coming to be a mighty element in our educational work. We are giving more and more attention to the kindergarten, and it will come into our schools as naturally as though it had always had its place there. We are making a closer study of the child along all lines. We are coming to study our children as open books, in which glad secrets are made known to us. The children are the hope of the world. We must learn from them great lessons in the possibilities of education.

Our good friend, Mrs. Kellogg, has told us that we must keep firm hold of childhood and its innocence. We must keep our children young and happy as long as we can. The fullest enjoyment does not come from much knowledge—much strength in the use of technical terms. Don't let us educate the beauty or happiness out of childhood. Imagine our children walking in the fields and woods, and as they spy in a modest corner a cluster of beautiful wild flowers, saying "Oh, how we could enjoy those flowers, if we only had our botany with us."

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There is one other great need of our rural schools, and that is closer and more intelligent supervision. We should have officers who can make inspection tell for good; who know what good schools are; who know what good teaching is, and then see that our schools have it.

It seems to me sometimes as if our rural schools were but just beginning a long career of usefulness and power. They must be largely the foundation upon which many of our higher institutions must rest. In the near future they are to receive careful study by a special committee appointed at Denver, and I shall be sadly disappointed if the result of this study does not prove to the rural schools of our country one of the greatest blessings that has fallen to them in half a century.

WHAT THE SOUTH IS DOING FOR EDUCATION AND WHAT EDUCATION IS DOING FOR THE SOUTH.

BY W. T. HARRIS, UNITED STATES COMMISSIONER OF EDUCATION.

In the past twenty years the South has increased fifty-four per cent in population, but its school attendance has increased 130 per cent; that is to say, more than twice as fast as the population. This means that there is a larger proportion of the population kept in school during the year. While in 1874 an average of fourteen and one-half out of every hundred were enrolled in school, ten years later (1884) the average had risen to eighteen and three-quarters per hundred, and in 1894, or twenty years later, the number enrolled is twenty-two in the hundred. Of all the people of the South, white and black, one in five is in attendance on school for some portion of the year. This is a large proportion of the people to be in school. Even in Saxony, which excels all countries of Europe in its school enrollment, the per centum in school is only twenty.

Even after making allowance for the fact that the South has a larger proportion of children in its population than any other section of the nation, this remains a wonderful showing for the wisdom and self-sacrifice of the Southern people. They are indeed building a "New South" and its corner stone is the school.

This appears in a stronger light if we take into consideration other statistics. In the twenty years from 1874 to 1894 the value of school property increased from $16,000,000 to $51,000,000—an addition of $40,000,000, or $2,000,000 a year. It built better school

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buildings and adopted modern improvements to such an extent, that, while in 1874 the average value of a schoolhouse in the South was only $373, in 1894 the value had risen to $643.

In the twenty years the average wages of the teacher have increased nearly sixteen per cent.

Higher education has also a good record. It did not have so far to climb as the elementary schools for all classes of people. But while in 1874 the college students for the South numbered 10,103, in 1894 the number is 25,304—or two and one-half times as many.

Turning to the important subject of race education, we find that the statistics are still more to the credit of Southern statesmanship.

In 1876 the South had an enrollment in its schools of 571,506 colored children and 1,827,139 white children. This was a good start for that time—more than half a million colored children were in actual attendance on school for some portion of a year. But in 1894—eighteen years later—the white pupils had increased to 3,835,593, while the colored pupils had increased to 1,424,995. The increase of white pupils for the eighteen years was 109 per cent, while that of the colored was 150 per cent. Twenty-three out of every one hundred white inhabitants are enrolled in school and nineteen out of every one hundred of the colored inhabitants.

It is true that with this fine showing as to numbers the length of the school term is not yet up to the average. The average number of days in which schools are taught is, for the whole nation, 139 days, while the average number of days for the South Atlantic division of states is only 106, and for the South Central division only ninety-three days. But the South had increased its school term twelve days. With the growth of cities and large villages the length of the annual school session will increase until it is quite as long as that of the North Atlantic States or that of France and Germany. The city schools keep their doors open about 200 days. In the agricultural districts there is a winter session of seventy to ninety days, and in many cases a shorter summer session.

In the rural districts of New England the school term was only seventy-five days, as a usual thing, until the growth of large villages and cities, with their ten-month schools, finally created a public sentiment which now insists on long terms for all districts.

The best device yet discovered to help the schools in sparsely settled districts is the payment of cost of transportation by the school committee and the consolidation of districts. The children from outlying districts are brought to the town center, where a large well-graded school is kept up for 200 days of the year. The cost of transportation for the pupils living more than a mile away is

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not so great an item as the cost of furnishing teachers and school buildings with half a dozen pupils each.

In the small rural school no classification can be attempted, and for the most part the pupils never get beyond the rudiments of reading, writing, and arithmetic. With good classification the city teacher can teach from forty to sixty pupils well. In the ungraded school not even sixteen to thirty pupils can be well taught.

This item explains how it is, that, in the South, with a great increase of expenditures and with a much longer school session, the average cost per pupil is not materially increased. Twenty years ago it was $8.40; last year it was only $8.62. But the pupil receives now better accommodations, better instruction, and a longer school session than then, and the newly established training schools are sending in to the work thousands of professionally trained teachers.

The South has done all these things for education. But what has education done for the South? It has increased the productive power of the individual by nearly fifty per cent. It has produced a laboring class that can use machinery to assist the strength of bone and muscle. It has made possible the great change of vocations from the production of mere raw materials to the production of the finished product. This is a change going on in all civilized countries. The machine is coming in at one end and the mere drudge is going out at the other. The uneducated, unskilled man is not needed, for his hands and muscles cannot compete with the machine. But he is needed in the work of directing the machine. He is therefore called upon to step up from the occupation of the mere drudge to the occupation of the overseer of the machine. The change from hand work to brain work is a necessity, but it cannot go on without schools that fit the pupils out with alert and versatile intelligence.

Even in the fertile fields of the South unskilled labor does not bring good wages. The skilled laborer in the city using tools and directing machinery earns and receives an average of double the wages that the farm hand gets.

But machinery is going out from the city to the farm, and the farm, too, needs fewer laborers and can furnish more productions. The surplus farmers must go into mechanical industries, into transportation and commerce. Fewer and fewer people are needed for the production of the raw materials of food, clothing, and shelter all the world over, thanks to mechanical inventions which are pushing the mere illiterate drudge out of his vocation. He must climb up or else starve in his attempt to compete with the machine.

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Here is the wisdom that founds a school system. It makes possible a change of vocations among its people. It puts alertness and versatility in place of mere brute strength and persistency. More than this the school puts aspiration and ambition into its pupils. It lifts the veil of distance in time and place, and shows them the achievements of the race. "You, too, can achieve the like." The school next proceeds to teach the sciences by which the wonders of the world have been accomplished; mathematics, the tool of thought, by which matter is moved and forces are tamed into the service of man; history, and geography, and grammar, and literature, by which man comes to know men, and gains the ability to combine with them in civilized effort.

Hence arise cities over the South ever growing in size and number; for the city is the necessary resort of the surplus laborers no longer needed on the farm. We do not need so many people to get for us the raw materials of food, clothing, and shelter, but we need more and more people to turn these raw materials into articles of comfort and luxury; we need more and more people to work at transportation and intercommunication; we need more persons in the work of giving culture to the rest. The savage tribe unaided by machinery can afford only one man for the production of ornament; nearly all are needed for the supply of food and clothing of the plainest sort. But the partly civilized tribe can afford ten persons for the production of ornament and luxury. The proportion increases rapidly as we ascend in the use of machinery, and the time is arrived now when more than a hundred in a thousand are needed for the production of ornament and luxury.

In transportation and intercommunication with railroads, telegraphs, postal systems, newspapers, books, libraries, schools, and churches—here the line rises from mere transportation through intercommunication up to culture. In these employments more and more will be needed.

Instead of ninety-nine drudges producing raw material and one person working to furnish and diffuse directive intelligence, it will come to pass in the distant future that one man will, by the aid of machinery, furnish the raw material; another man's labor will make the useful articles for food, clothing, and shelter; ten more will elaborate articles of comfort and luxury; the rest (more than eighty per cent of the community) will take up vocations having to do with protection and culture.

The work of education is the direct work of helping individuals to help themselves. It does not go on as fast as it should, nor as far as it should. Our comfort is, that it is making visible progress. The average schooling for the entire nation is at present only 860

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days for each person. This would give four years and three-tenths each year of 200 days—enough to take a pupil through the primary schools of a city. Even Massachusetts with all its schools, public and private, does not give enough schooling to amount to seven years apiece for its inhabitants. Some states of the Union give only a little more than two years for an average. But it is worthy of note that Massachusetts, with nearly twice the average schooling per individual, produces nearly or quite twice the amount of wealth per individual compared with the nation's average. In 1880 the census seemed to show that the average production of the whole nation was forty cents per day for each inhabitant. That of Massachusetts came nearly up to eighty cents.

It is in view of the fact that the laborers who produce raw material are paid only one-half of the wages paid to those engaged in skilled industries such as are carried on in cities that we find the significance of this great exposition in the city of Atlanta.

The symbols of the highest civilization are the railroad, the daily newspaper, and the school. Here we find the type of the bearer of civilization. It brings together the producer and the consumer. In the city the raw material brings the highest price and the manufactured product is found at its cheapest price.

The city makes combinations; it seeks out the producer and buys his product, selling him its equivalent of the merchandise of the world. The city thus connects the people of its environment with the world. The family that produces for itself its own food, clothing, and shelter is living on a low plane of civilization. It should produce some specialty for the market of the world and exchange it for a share in all the productions of mankind. Such process of exchange is like a sacramental consecration. Each person consumes or partakes of the product of the world of universal human society; each, himself, contributes to the supply of all others. It is this process of intercommunication of each with all that is the essence of civilization.

The family that produces all that it consumes does not enjoy luxury, or culture, as the result of its labor. But when it has access to the market of the world through the mediation of the city, then it may have endless variety in what it consumes. By the division of labor, skill and productive power are increased so that the share of each person is multiplied. Hence each gets more than he gives to the world market. It is a sort of living mirror of grace,—by giving one's product to the world one gets in return manifold. Hence I have called this mediation of one's labor by aid of the world market a sacrament.

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Here we may see the vast significance of the school education in enabling the citizen who shares in the productions of his fellowmen to know his fellows and understand their views of the world. It enables him to know their opinions and to share in their spiritual productions as well as in their material productions. It enables him to participate in the formation of national and international public opinion.

Small as is the schooling given by our nation to its people,—some four and one-half years apiece,—it suffices to make reading and writing universal, and with them gives also a limited acquaintance with the rudiments of arithmetic and geography. This fits the citizen to become a reader of the daily newspaper, and thus to bring him under an educating influence that will continue throughout his life. A newspaper civilization is one that governs by means of public opinion. The newspaper creates public opinion. No great, free nation is possible except in a newspaper civilization. By aid of the printed page the school-educated person makes present to himself daily the events of the world and lives an epic life; for the epic life is the life of nations. A certain portion of the day of each citizen is given to contemplating world events and to discussing them. He sees the doings of his state and nation, and forms his own opinion. His opinion in the aggregate with those of his fellow citizens is collected and offered to the world by the newspaper. That our schools suffice to produce a government by public opinion —this is a result of a higher order than the other good results which we have canvassed as among the benefits to the South of the education which it is giving to its children. To give people the power to readjust their vocations and to climb up to better paid and more useful industries out of lives of drudgery is a great thing—a sufficient reason in itself for establishing a public school system. But to give the people the power of participating in each others' thoughts —to give each one the power to contribute his influence to the formation of a national public opinion is a far greater good, for it looks forward to the millennium, when no wars will be needed for the mediation of hostile ideas. And this is the lesson of this great exposition here in Atlanta. This is the lesson of the educational history of the South for the past twenty years.

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APPENDIX TO ADDRESS OF DR. HARRIS.

THE STATISTICS OF SOUTHERN SCHOOLS.

The following three tables show the statistics of Southern schools for the past twenty years more or less. They indicate very clearly the rate of growth for the period named. Table I. is copied from the chart in the exhibit of the bureau of education in the United States building at the Atlanta Exposition. It shows the progress in decades 1874-84 and 1884-94. Noteworthy is the increase from the annual enrollment of pupils from 14.53 per cent to 21.80 per cent in the twenty years. Noteworthy also is the increase of female teachers and in the value of school property and the increase of the average value of school buildings. The great increase of students in universities and colleges—namely, from 10,103 in 1874 to 25,304 in 1894—deserves consideration; also, the increase of pupils in secondary schools.

Table II. gives a comparative view of the enrollment of the two races in the South for the past eighteen years, together with the total of expenditure. The statistics of expenditures do not show the separate amounts for the two races, but it may be safely estimated that the expenditure from public taxes and school funds for the colored race amount to about one-fourth of the whole, or upwards of $80,000,000 for the entire period of eighteen years.

Table III. shows the enrollment and average daily attendance of the two races and the per cent of the entire population enrolled in school for the year 1893-94.

Table IV. shows the valuation of real and personal property in the Southern States for 1880 and 1890. The first columns show the estimated true valuation, while the second set of columns shows the assessed and taxed valuation. The last column gives the ratio of the assessed value to the true value. The per capita of wealth is also shown. Although the population has increased rapidly in the past ten years it seems that the wealth has increased much faster.

TABLE I.

PROGRESS IN TWENTY YEARS OF EDUCATION IN THE SOUTH.

Comprising the States of Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas, and Missouri.

	1874.	1884.	1894.
Total population	15,687,900	20,087,300	24,135,900
School population (5-18)	5,204,100	6,675,940	8,221,330
The Public Schools—			
Pupils registered in the schools	2,279,614	3,773,477	5,260,588
Per cent of the population	14.53	18.78	21.80
Average daily attendance	1,407,830	2,445,959	3,384,050
Per cent of the registration	61.75	64.57	64.33
Male teachers	35,395	51,571	55,600
Female teachers	18,322	36,029	59,056
Whole number of teachers	53,717	87,600	114,656
Schoolhouses	44,695	73,561	86,880
Value of school property	$16,685,990	$26,009,295	$55,894,549
Average value of schoolhouses	$373	$353	$643

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Average number of school days in the year.	94	94	106
Expenditures for teachers' salaries.....	$9,200,909	$14,188,657	$22,714,010
Total expenditures.....	$11,823,775	$17,884,558	$29,170,351
Expended per capita of population.....	$0.75	$0.89	$1.21
Expended per pupil in attendance.....	$8.40	$7.34	$8.62
Universities and Colleges—			
Number of institutions.....	174	210	299
Professors and instructors.....	1,399	1,880	3,062
Students.....	10,103	16,304	25,304
	(1876.)	(1884-85.)	(1893-94.)
Secondary schools	34,927	76,069	98,195

The population was about one-half greater in 1894 than in 1874.

In the public schools the number of children and of teachers was about two and one-third times as great. There were nearly twice as many schoolhouses, and school property was over three and one-fourth times as valuable. The average school term was twelve days longer, and the expenditures were over two and one-half times more.

One hundred and twenty-five new colleges were established between 1874 and 1894; there were 1,663 more professors and two and one-half times as many students at the later date than at the former.

TABLE II.

GROWTH OF THE COMMON SCHOOLS IN THE SOUTHERN STATES.

YEAR.	White Pupils.	Colored Pupils.	Expenditure for Both Races.
1876-77.....	$1,827,139	$571,506	$11,231,073
1877-78.....	2,034,946	675,150	12,093,091
1878-79.....	2,013,684	685,942	12,174,141
1879-80.....	2,215,674	784,709	12,678,685
1880-81.....	2,234,877	802,374	13,656,814
1881-82.....	2,249,263	802,982	15,241,740
1882-83.....	2,370,110	817,240	16,363,471
1883-84.....	2,546,448	1,002,313	17,884,558
1884-85.....	2,676,911	1,030,463	19,253,874
1885-86.....	2,773,145	1,048,659	20,308,113
1886-87.....	2,975,773	1,118,556	20,821,969
1887-88.....	3,110,606	1,140,405	21,810,158
1888-89.....	3,197,880	1,213,092	23,171,878
1889-90.....	**3,402,420**	**1,296,959**	**24,880,107**
1890-91.....	**3,570,624**	**1,329,549**	**26,690,310**
1891-92.....	**3,607,549**	**1,354,316**	**27,691,488**
1892-93..	**3,697,899**	**1,367,515**	**28,535,738**
1893-94.....	*3,835,593	*1,424,995	*29,170,351

Total amount expended in eighteen years, $353,557,559.

*Approximately.

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TABLE III.

(1893-94)

COMMON SCHOOL STATISTICS—SOUTHERN STATES.

STATES.	Estimated Population.		Pupils Enrolled in the Common Schools.		Per Cent of the Population Enrolled.		Average Daily Attendance.		Per Cent of the Enrollment.		Number of Teachers.	
	White.	Colored.	White.	Colored.	White.	Col'd.	White.	Colored.	White.	Col'd.	White.	Colored.
Alabama	935,000	768,000	190,305	115,709	20.4	15.1	112,800	72,300	59.3	62.5	4,412	2,196
Arkansas	878,400	335,600	209,109	76,050	23.8	22.7	.....	.....	.....	.....	4,878	1,408
Delaware (1891-92)	143,400	29,800	28,316	4,858	19.7	16.3	19,746	2,947	69.8	60.7	734	106
District of Columbia	178,500	87,900	26,242	14,436	14.7	16.4	20,224	11,124	77.1	77.0	626	316
Florida	260,600	193,800	59,503	37,272	22.8	19.2	38,752	25,386	65.1	68.1	2,151	772
Georgia	1,085,000	919,000	262,530	174,152	25.4	18.9	157,626	104,414	60.0	60.0	5,827	3,206
Kentucky	1,646,000	284,000	394,070	73,381	23.9	25.8	243,433	25,031	61.8	34.1	8,494	1,314
Louisiana (1892-93)	584,400	593,600	92,816	62,654	15.9	10.6	65,352	42,018	70.4	67.0	2,338	911
Maryland	860,800	228,200	166,248	38,598	19.3	16.9	98,173	18,369	59.1	47.6	3,627	691
Mississippi	584,200	811,800	158,685	186,899	27.2	23.0	98,753	107,494	62.2	57.5	4,386	3,191
Missouri	2,728,000	167,000	623,589	33,916	22.9	20.3	.....	.....	.....	.....	13,766	755
North Carolina	1,115,000	604,000	242,572	128,318	21.8	21.2	154,361	75,940	63.6	59.2	5,235	3,075
South Carolina	485,900	734,100	106,176	120,590	21.9	16.4	77,987	87,128	73.4	72.2	2,636	1,958
Tennessee (1892-93)	1,362,000	444,000	368,481	94,980	27.0	21.4	266,851	64,127	72.4	67.5	6,949	1,863
Texas	2,011,000	571,000	463,888	134,720	23.1	23.6	334,884	83,185	72.2	61.7	9,960	2,502
Virginia	1,070,000	676,000	231,433	121,277	21.6	17.9	137,451	66,423	59.4	54.8	6,113	2,100
West Virginia	774,300	35,600	211,630	7,185	27.3	20.2	131,279	4,102	62.0	57.1	5,909	206
Totals	16,652,500	7,483,400	3,835,593	1,424,995	23.0	19.0	.....	.....	65.2*	60.1*	88,086	26,570
Totals for 1889-90	15,493,323	6,954,840	3,402,420	1,296,959	22.0	18.6	.....	.....	63.8*	62.4*	78,908	24,072

*In fifteen states.

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TABLE IV.

(1890-1880.)

REAL ESTATE AND PERSONAL PROPERTY—SOUTHERN STATES.

STATES.	THE VALUATION OF REAL AND PERSONAL PROPERTY.				ASSESSED VALUATION OF REAL ESTATE TAXED.			True Valuation of Real Estate Taxed.	Ratio of Total Assessed to Total True Valuation. (Per Cent.)
	Total.		Per Capita.		Total.	Real Estate.	Personal Property.		
	1890.	1880.	1890.	1880.					
Alabama	$622,773,504	$428,000,000	$412	$339	$258,979,575	$154,706,484	$104,273,091	$252,833,299	41.58
Arkansas	455,147,422	286,000,000	403	356	174,77,3755	109,417,158	65,320,597	214,559,964	38.39
Delaware	175,678 795	136,000,000	1,043	928	66,210,519	63,346,513	2,864,006	101,282,029	37.69
District of Columbia	343,596,733	220 000,000	1,491	1,239	153,307,541	141,609,891	11,697,650	141,609,891	44.62
Florida	389,489,388	120,000 000	995	445	91,761,711	60,596,574	31,165,137	182,553,238	23.56
Georgia	852,409,449	606,000,000	464	393	415,828,945	225,054,915	190,774,030	382,999,745	48.78
Kentucky	1,172,232,313	902,000,000	661	547	547,596,788	376,788,792	170,807,996	652,168,008	46.71
Louisiana	495,301,597	382,000,000	443	406	234,320,780	159,619,875	74,700,905	239,142,588	47.31
Maryland	1,085,473,048	837,000,000	1,041	895	529,494,777	411,900,246	117,594,531	589,015,067	48.78
Mississippi	454,242,688	354,000,000	352	313	166,772,279	117,004,402	49,767,877	195,864,374	36.71
Missouri	2,397,902,945	1,562,000,000	895	720	887,975,928	599,859,331	288,116,597	1,356,866,163	37.03
North Carolina	584,148,999	461,000,000	361	329	235,300,674	142,068,932	93,231,742	260,191,465	40.28
Oklahoma Territory	48,285,124	.....	781	.....	.....	.....	.....	.....	.....
South Carolina	400,911,303	322,000,000	348	323	168,262,669	90,042,723	78,219,946	168,179,119	41.99
Tennessee	887,956,143	705,000,000	502	451	382,760,191	292,872,811	89,887,380	459,186,911	43.11
Texas	2,105,576,766	825,000,000	942	518	780,898,605	523,893,098	257,005,507	1,130,341,854	37.09
Virginia	862,318,070	707,000,000	521	467	415,249,107	272,311,276	142,937 831	449,562,737	48.15
West Virginia	438,954,881	350,000,000	575	566	186,964,770	121,202,365	65,762,405	236,659,954	42.59
Southern States	$13,932,164,630	$9,203,000,000	.....	.....	$5,696,422,614	$3,862,295,986	$1,834,127,228	$7,013,016,406	.....

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EDUCATIONAL PRESS ASSOCIATION OF AMERICA.

During the session of the National Educational Association, at Denver, the representatives of twenty-two educational journals held several very pleasant meetings which resulted in the preliminary organization of the Educational Press Association of America.

The purpose of this organization is to develop fraternal feeling, mutual benefit, and united strength in advancing educational sentiment along lines upon which there is common agreement.

The advantages of the organization were apparent at each successive meeting, and at the final meeting every educational paper represented was committeed to this organization and was conditionally accepted as a charter member of the association.

The officers of the temporary organization are: A. E. Winship, Boston, President; William G. Smith, Minneapolis, Secretary; Geo. P. Brown, Bloomington, Treasurer.

CHARTER MEMBERS OF THE EDUCATIONAL PRESS ASSOCIATION OF AMERICA.

Paper.	Postoffice.
American Teacher	Boston, Mass.
American School Board Journal	Milwaukee, Wis.
Colorado School Journal	Denver, Colo.
Educational Review	New York, N. Y.
Education	Boston, Mass.
Iowa Normal Monthly	Dubuque, Iowa.
Michigan Moderator	Lansing, Mich.
New England Journal of Education	Boston, Mass.
Northwestern Journal of Education	Lincoln, Neb.
Ohio Educational Monthly	Columbus, Ohio.
Primary Education	Boston, Mass.
Popular Educator	Boston, Mass.
Public School Journal	Bloomington, Ill.
Pennsylvania School Journal	Lancaster, Pa.
Primary School	New York, N. Y.
School Review	Hamilton, N. Y.
School Bulletin	Syracuse, N. Y.
School Education	Minneapolis, Minn.
The School Journal	New York, N. Y.
Teachers' Institute	New York, N. Y.
Texas School Journal	Austin, Texas.
Western School Journal	Topeka, Kan.

The above list of papers names only those which were represented at the Denver meeting. Others equally prominent will doubtless be included at an early date. Applications for membership received by the Secretary subsequent to the Denver meeting will be acted upon at the meeting of the Press Association to be held in connection with the meeting of the Department of Superintendence at Jacksonville, Fla., in February, 1896.

The officers of the National Educational Association commend this movement in the highest terms, and heartily favor giving the Educational Press Association due recognition and assistance. To this end the Executive Committee for 1895-96 have voted not to publish an official bulletin, but to rely upon the educational press for the publication of all advance information regarding programs and plans for the annual meeting.

W. G. SMITH,
Secretary, Minneapolis, Minn.

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VOLUMES OF PROCEEDINGS
NATIONAL EDUCATIONAL ASSOCIATION.

Prior to 1870 there were three National Associations in the United States considering educational work, each independent of the others—"The National Teachers' Association," organized in 1857; "The American Normal Association," and "The National Superintendents' Association." At the joint annual meetings in August, 1870, these associations united, forming "The National Educational Association" of the United States, with departments for the consideration of distinct phases of educational work.

The joint publication of the proceedings of these associations began with the volume for 1870. It is now hardly possible to find copies of the proceedings of either of these associations prior to that date. They were generally issued in pamphlet form, and seldom contained all the papers read at the meetings. Beginning with 1870, each volume is bound in cloth. A copy of the "History of the National Educational Association," 140 pp. 8vo, containing a classified list by subjects, of papers read, with name of writer, in each case, from 1870 to 1891,, inclusive, will be sent by mail on receipt of twenty-five cents.

The volumes for 1870 and 1872 are now out of print. A limited number of copies remain for the years 1871, 1882, 1883, 1885. These are sold only with sets. All the other volumes can be supplied singly or in sets. The volume for 1893 contains the proceedings of the International Congress of Education.

N. B.—Orders for volumes should be accompanied with check or money order, with directions for sending them.

Volumes for Years.	Number Pages in Volume.	Price per Volume in Sets.	Price per Single Volume.
1895	1116	$1.75	$2.00
1894	1071	1.75	2.00
1893	1006	2.00	2.50
1892	848	1.75	2.00
1891	892	1.75	2.00
1890	929	1.75	2.00
1889	723	1.75	2.00
1888	194	1.75	2.00
1887	829	1.75	2.00
1886	605	1.50	1.75
1885	551	2.00	....
1884	531	1.50	1.75
1883	253	2.00	....
1882	315	2.00	....
1881	359	1.25	1.50
1880	379	1.25	1.50
1879	457	1.25	1.50
No meeting.	...	....	....
1877	286	1.25	1.50
1876	307	1.25	1.50
1875	195	1.25	1.50
1874	471	1.25	1.50
1873	272	1.25	1.50
1872	287	....	....
1871	237	2.00	....
1870	260	....	...

Orders for the volumes of the proceedings of the National Educational Association may be sent to the Custodian, Z. Richards, No. 1301 Corcoran Street, Washington, D. C., to the Treasurer, or to the Secretary of the National Educational Association, at their respective addresses.

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LIST OF LIFE AND ACTIVE MEMBERS

Arranged by States, Classes, and Years of Continuous Annual Membership.

In preparing this list the Secretary has found the records of annual membership very imperfect, especially in the earlier years. Every effort has been made, with the assistance of the members, to correct all errors. It is too much to hope that this has been fully accomplished. Further corrections will be made as errors are discovered. It is proposed to issue a revised and enlarged list about April 1, 1896. All whose names appear in the following list are invited to send to the Secretary, at once, corrections of errors and omissions.

Many early members of the association who have contributed largely to its growth and success are enrolled under recent dates because their membership has not been continuous and no plan for indicating irregular memberships has been adopted. Many others have paid the dues for omitted years, received the volumes of proceedings, and obtained credit for all the years of their attendance. This privilege is still extended to all who wish to avail themselves of it.

All active members are urged to co-operate with the executive committee in extending this list until it includes the leading educators of every state, to the end that the association may receive their active support, and may in turn render most efficient service through its meetings, its organized plans for educational investigation, and its published reports.

The annual active membership fee will be due at the time of the annual meeting, and may be paid by a railroad membership coupon delivered to the Treasurer, by payment to the Treasurer during the annual meeting, or by remittance to the Secretary before September 1st of each year.

The marginal years indicate the date of the commencement of continuous annual membership for those whose names immediately follow. The indented years indicate date of appointment to present educational position.

ALABAMA.

ACTIVE MEMBERS.

1888. J. H. Phillips, A. M., Marietta Coll., Ohio; Ph. D., Southern Univ., Ala.
1883. Superintendent of Schools, Birmingham.

1892. F. M. Roof.
1887. Principal of Public Schools, 513 19th St., Birmingham.

Henry Talbot.
1892. Superintendent of Manu-Mental Training, State Normal School, Montgomery.

1894. T. J. Hassett.
Agent American Book Company, Box 636, Birmingham.

Lucien V. La Taste.
Agent University Publishing Company, Box 558, Montgomery.

John Massey, A. M., '74, LL.D., '79, Univ. of Ala.
1876. President Alabama Conference Female College, Tuskegee.

1895. John T. Gregory, C. E., '89, Alabama Polytechnic Inst.
1894. Principal Grammar School, 996 Government St., Mobile.

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ALABAMA—*Continued.*

1895. KATE E. MOON.
Grammar Department, Public Schools, 110 N. Conception St., Mobile.

SOLOMON PALMER, Ph. D., '92, State Nor. Coll. of Ala.
President of Atheneum College for Girls, East Lake.

JAMES K. POWERS, A. M., '73, Univ. of Ala.
1888. President State Normal College, Florence.

JULIA S. TUTWILER.
Principal Alabama Normal College for Girls, Livingston.

CHARLES BEN VAN WIE, Ph. M., Ph. D., '94, Ill. Wesleyan Univ.
1888. Department of Pedagogics, State Normal College, Florence.

JOHN D. YERBY, A. B., '79, Southern Univ.
1894. Superintendent of Schools, 906 Government St., Mobile.

ARIZONA.

ACTIVE MEMBERS.

1895. THEO. B. COMSTOCK, B. Sc., '70, D. Sc., '86, Cornell Univ.
Ex-President University of Arizona, Prescott.

ARKANSAS.

ACTIVE MEMBERS.

1887. THOMAS A. FUTRALL, A. M., Univ. of Tenn.
Superintendent of Schools, Marianna.

1890. JOSIAH H. SHINN, A. B., A. M., '70, Northwestern Univ.
Editor "Southern School Journal," 2121 Cumberland St., Little Rock.

1895. J. L. HOLLOWAY, A. M., Missouri State Normal.
1889. Superintendent of Schools, 1109 12th St., Fort Smith.

CALIFORNIA.

LIFE DIRECTORS.

1881. ANDREW J. RICKOFF, A. M., LL.D., Univ. of Ohio.
2429 Bancroft Way, Berkeley.

1888. LE ROY D. BROWN, A. B., '79, A. M., '82, Ohio Wesleyan Univ.; Ph. D., '83, Baker Univ.
1895. Principal High School, San Luis Obispo.

LIFE MEMBERS.

1877. ANNA KALFUS DE JARNETTE.
Publisher, San Jose.

1879. JAMES H. HOOSE, A. M., '64, Ph. D., '73, Syracuse Univ.
255 S. Euclid Ave., Pasadena.

1880. MRS. REBECCA D. RICKOFF.
2429 Bancroft Way, Berkeley.

1884. NATHAN C. TWINING, A. M., '61, Milton Coll., Wis.
1895. Principal of Victoria School, 1224 Walnut St., Riverside.

1886. C. Y. ROOP.
1893. Superintendent of Schools and Principal of High School, Santa Barbara.

1888. REBECCA F. ENGLISH.
1891. Critic Teacher, State Normal School, 141 S. 10th St., San Jose.

1889. AUGUSTA W. HOBE.
1888. Teacher in Grammar Grade, 1633 Hyde St., San Francisco.

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CALIFORNIA—*Continued.*

ACTIVE MEMBERS.

1887. EDWARD T. PIERCE, LL.B., '77, Union Univ.; Ph. D., '92, N. Y. Nor. Coll.
1892. President State Normal School, Los Angeles.

1891. EARL BARNES, M. Sc., '90, Cornell Univ.
Department of Education, Leland Stanford Jr. University, Stanford University.

ELMER E. BROWN, Ph. D., '90, Halle.
1893. Prof. of Science and Art of Teaching, Univ. of Cal., 2341 Channing Way, Berkeley.

1892. FREDERIC L. BURK, B. L., '83, Univ. of Cal.; A. M., '92, Stanford Univ.
1893. Principal of Schools, Santa Rosa.

1893. JAMES A. FOSHAY.
1895. Superintendent of Schools, 2341 Scarff St., Los Angeles.

1895. LEWIS B. AVERY, B. Sc., '83, Tabor Coll., Iowa.
1895. Principal Union High School, Redlands.

MELVILLE DOZIER, Pd. B., '67, Furman Univ., S. C.
1895. Vice Principal State Normal School, 829 W. 11th St., Los Angeles.

ALLIE M. FELKER, Grad., '84, State Nor. Sch., San Jose.
1892. Critic Teacher, State Normal School, 468 S. 6th St., San Jose.

CHARLES EDWARD HUTTON, A. B., '53, A. M., '61, St. John's Coll., Md.
1890. Instructor in State Normal School, 1007 W. 21st St., Los Angeles.

CHARLES H. KEYES, A. B., '78, St. John's Coll.
1891. President of Throop Polytechnic Institute, 71 Mary St., Pasadena.

JOSEPH LE CONTE, A. B., '41, A. M., '45, LL.D., '79, Univ. of Ga.; M. D., '45, Coll. of Phys. & Surg., N. Y.; B. Sc., '51, Harvard Univ.
1868. Prof. Geology and Nat. Hist., Univ. of Cal., 2739 Bancroft Way, Berkeley.

COLORADO.

LIFE DIRECTOR.

1888. AARON GOVE.
1874. Superintendent of Schools, High School, Denver.

LIFE MEMBER.

1886. FRANK HOWARD CLARK.
Superintendent of Schools, 613 W. Bleeker St., Aspen.

ACTIVE MEMBERS.

1884. JAMES H. BAKER, A. B., '73, A. M., '75, LL.D., '92, Bates Coll.
1892. President University of Colorado, Boulder.

ROBERT H. BEGGS, B. Sc., '68, Illinois Coll.
1880. Principal Grammar School, 2427 Ogden St., Denver.

1887. CHARLES V. PARKER.
1891. Superintendent of Schools, Fort Collins.

Z. X. SNYDER, A. B., '76, Ph. D., '84, Waynesburg Coll., Pa.
President State Normal School, Greeley.

1890. WARREN E. KNAPP.
1884. Principal of Franklin School, 507 South Tremont St., Denver.

1891. MARY D. REID.
1890. Instructor in Mathematics, State Normal School, 717 10th St., Greeley.

A. D. SHEPARD.
1887. County Superintendent of Schools, 1345 S. 10th St., Denver.

1892. CHARLES M. CARTER, Grad. '79, Mass. State Nor. Art School.
1889. Director of Drawing, Dist. No. 17, 71 Kittredge Bldg., Denver.

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COLORADO—*Continued.*

1892. L. C. GREENLEE, Grad. State Nor. Sch., Edinboro, Pa.; A. M., '95, Waynesburg Coll., Pa.
1890. Superintendent of Schools, Dist. No. 2, 549 S. Tremont St., Denver.

WM. H. SMILEY, A. B., '77, Harvard Univ.
1892. Principal High School, District No. 1, 2112 Lincoln Ave., Denver.

JAMES H. VAN SICKLE.
1891. Superintendent of Schools, District No. 17, 338 Gallup Ave., Denver.

MARIE L. WARNECKE.
Teacher of German, Gilpin School, 1741 High St., Denver.

1893. HENRIETTA B. AYRES.
1882. Teacher in Public Schools, 2314 Clarkson St., East Denver.

CHARLES A. BRADLEY, Grad., '77, U. S. Military Acad.
1894. Principal Manual Training High School, 1341 Corona St., Denver.

1894. EDGAR ROLLIN DOWNS, A. B., '76, A. M., '81, Williams Coll.
1894. Principal North Side High School, 12 17th Ave., Denver.

ADELA MCCLURE.
1889. Teacher in Public Schools, District No. 2, 48 W. 2d Ave., Denver.

1895. FRANCES O. ANDERSON.
Teacher in Ebert School, District No. 1, 1852 Lincoln Ave., Denver.

HELEN M. BROWN.
1894. Principal Sheridan School, 1541 Race St., Denver.

GEORGE L. CANNON, JR.
1887. Instructor in Geology and Biology, High School, District No. 1, Denver.

WILLIAM V. CASEY.
1893. Superintendent of Schools, 820 Pine St., Boulder.

L. S. CORNELL, A. M., Western Coll., Iowa; B. Sc., Westfield Coll., Ill.
36 West 3d Ave., Denver.

FRED DICK, A. M., Hamilton Coll., N. Y.
Principal Normal and Preparatory School, Kittredge Block, Denver.

HERBERT GRIGGS.
Director of Music, Public Schools, Box 765, Denver.

LOUISE GUIBOR.
1888. Teacher in Public Schools, 738 Goss St., Denver.

ROLAND W. GUSS, Grad. '83, State Normal School, Pa.; A. B., '88, A. M. '91, Wesleyan Univ., Conn.
1891. Instructor in Physical Sciences, State Normal School, 1203 11th St., Greeley.

JOHN A. HANCOCK, M. L., '90, Univ. of Wis.; A. M., '93, Stanford Univ.
1894. Superintendent of Schools, 929 8th St., Durango.

ED. F. HERMANNS.
1891. Principal of High School, District No. 2, 400 Broadway, Denver.

JOSEPH P. JACKSON, LL.B., '79, Iowa Univ.; A. M., '80, Oskaloosa Coll.
1894. Superintendent of Schools, 212 W. 5th St., Leadville.

EVELYN M. JACOBS.
Teacher of Third Grade, 1646 Clarkson St., Denver.

NORA JONES.
1895. Teacher in Public School, Ramah, El Paso County.

ELIZABETH LIDDELL, M. D., '89, Denver Univ.
1891. Assistant Principal Broadway School, 1549 Logan Ave., Denver.

MAY L. MARTIN.
Teacher in Edison School, 1644 Lincoln Ave., Denver.

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COLORADO—*Continued.*

1895. MAGGIE J. MCCOY.
1890. Principal Ninth Street School, 224 E. 8th St., Leadville.

A. N. MILLER.
1887. Principal Garfield School, 1037 S. 9th St., Denver.

ALICE S. MITCHELL.
1887. Teacher in Public Schools, 2108 Grant Ave., Denver.

DORA M. MOORE.
1893. Principal Corona School, 1031 Emerson St., Denver.

C. M. OSENBAUGH.
1891. Principal Swansea School, 224 W. 4th Ave., Denver.

CHARLES SKEELE PALMER, A. B., '79, A. M., '82, Amherst; Ph. D. '86, Johns Hopkins.
1887. Professor of Chemistry, University of Colorado, Box 643, Boulder.

MRS. ANGENETTE PEAVEY.
1895. Superintendent of Public Instruction, Sherman Ave., Denver.

H. E. ROBBINS, M. Sc., '91, Univ. of Ill.; A. M., '93, Ill. Wesleyan Univ.
1894. Superintendent of Schools, 615 Broadway, Pueblo.

JAMES E. RUSSELL, A. B., '87, Cornell; Ph. D., '94, Leipzig.
Professor of Philosophy and Pedagogy, University of Colorado, Boulder.

MARY S. SABIN, A. B., '91, Smith Coll.
1891. Teacher in High School, District No. 1, 415 21st St., Denver.

SIDNEY FULLER SMITH.
Instructor in Physics, High School, District No. 1, 1470 Steele St., Denver.

E. H. STEVENS.
1895. Principal Public Schools, Platteville.

W. J. WISE, B. Sc., '84, A. M., '88.
1893. Superintendent of Schools, 1864 South Washington St., South Denver.

LINA WISEBART.
1890. Principal Ironton School, 1646 Clarkson St., Denver.

J. S. YOUNG, A. B., '90, A. M., '94, Kan. Nor. Coll.
Professor of U. S. History and Grammar, State Normal School, Greeley.

CONNECTICUT.

LIFE MEMBERS.

1884. HENRY BARNARD, LL.D., '52, Yale, Harvard, and Union; L. H. D., '87, Columbia.
Ex-U. S. Commissioner of Education 1866-1870, 28 Main St., Hartford.

BIRDSEY GRANT NORTHROP, LL. D., '72, Williams Coll.
Lecturer, Clinton.

ACTIVE MEMBERS.

1888. GEORGE B. HURD.
1885. Principal Winchester School District, 59 Lake Place, New Haven.

1892. DAVID N. CAMP, A. M., '53, Yale.
1854. Manager of New Britain Library, 9 Camp St., New Britain.

1893. CHAS. W. DEANE, A. M., '86, Ph. D., '92, Allegheny Coll.
1893. Superintendent of Schools, Bridgeport.

1894. FREDERICK A. CURTISS.
1892. Principal High School, Old Saybrook.

1895. NATHAN L. BISHOP.
1877. Superintendent of Schools, Central District, 7 Huntington Place, Norwich.

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DELAWARE.

ACTIVE MEMBERS.

1891. EDWINA B. KRUSE.
1876. Principal High and Grammar School, No. 16, 206 E. 10th St., Wilmington.

1892. ALBERT N. RAUB, A. M., '67, Princeton; Ph. D., '79, Lafayette; LL. D., '95, Ursinus Coll.
1888. President Delaware College, Newark.

1894. ISAAC T. JOHNSON, A. B., '81, A. M., '86, Haverford Coll., Pa.
1881. Principal Friends' School, 4th and West Sts., Wilmington.

DISTRICT OF COLUMBIA.

LIFE MEMBERS.

1864. ZALMON RICHARDS, A. B., '36, A. M., '39.
Custodian National Educational Association, 1301 Corcoran St., Washington.

1876. WILLIAM TORREY HARRIS, A. M., '69, Yale; LL.D., '70, Univ. of Mo., '94, Univ. of Pa., '95, Yale, Ph. D., '93, Brown Univ.
1889. United States Commissioner of Education, Washington.

1880. JOHN HITZ.
1887. Superintendent of Volta Bureau, Washington.

J. ORMOND WILSON, A. M., '74, Dartmouth Coll.
1892. Secretary American Colonization Society, 1439 Mass. Ave. N. W., Washington.

1884. ALEX. GRAHAM BELL.
1331 Connecticut Ave., Washington.

1889. RT. REV. JOHN J. KEANE, D. D., Laval; LL.D., Harvard.
1886. Rector Catholic University of America, Washington.

ACTIVE MEMBERS.

1879. W. N. HAILMANN, A. M., '64, Univ. of Louisville; Ph. D., '85, Ohio State Univ.
1894. National Superintendent of Indian Schools, 930 F St., N. W., Washington.

1883. MRS. EUDORA L. HAILMANN.
Principal Kindergarten Training School, "The Cairo," Washington.

1892. WM. BRAMWELL POWELL, A. M., '67, Lombard Univ.
1885. Superintendent of Schools, Franklin School, Washington.

MRS. SARA A. SPENCER.
1891. President of Spencerian Business College, corner 7th and D Sts., Washington.

1893. JOHN EATON, Ph. D., Rutgers Coll.; LL.D., Dartmouth Coll.
Ex-U. S. Commissioner of Education, "The Concord," Washington.

C. M. LACEY SITES, A. M., '90, Ohio Wesleyan Univ.; LL.B., '90, Nat. Law School, Washington.
1890. Principal Eastern High School, 1315 Clifton St., Washington.

HENRY C. SPENCER.
Teacher in Spencerian College, corner 7th and D Sts., Washington.

1894. SUSAN PLESSNER POLLOCK, Grad. of Kg. Nor. Inst., Berlin, '69.
Principal Froebel Normal Institute and Kindergarten, 1426 Q St. N. W., Wash.

1895. ANNA TOLMAN SMITH.
Specialist, Bureau of Education, Washington.

B. L. WHITMAN, A. B., '87, A. M., '90, Brown Univ.; D. D., '94, Bowdoin Coll.
1895. President of Columbian University, Washington.

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FLORIDA.

ACTIVE MEMBERS.

1893. WM. N. SHEATS, A. M., '76, Emory Coll., Ga.
1892. State Superintendent of Public Instruction, Tallahassee.

1895. O. CLUTE, LL.D., Agri. Coll., Mich.
1893. President of State Agricultural College, Lake City.

GEORGIA.

LIFE MEMBERS.

1870. R. M. MANLEY.
Dalton.

1890. W. H. BAKER.
1868. Superintendent of Schools, Chatham Academy, Savannah.

ACTIVE MEMBERS.

1894. OTIS ASHMORE, A. M., Univ. of Ga.
1887. Instructor in Natural Science, High School, 15 Tattnall St., Savannah.

WILLIAM M. SLATON, A. M., '91, Univ. of Ga.
1892. Principal Boys' High School, 142 Jackson St., Atlanta.

1895. ATLANTA UNIVERSITY.
Atlanta, Ga.

JOSEPH S. STEWART, A. B., '83, Emory Coll.
1890. Superintendent of Schools, Marietta.

IDAHO.

ACTIVE MEMBER.

1886. F. B. GAULT, M. Sc., '80, Cornell Coll., Iowa.
1892. President University of Idaho, Moscow.

ILLINOIS.

LIFE DIRECTORS.

1887. NEWTON CHARLES DOUGHERTY, A. M.
Superintendent of Schools, Peoria.

CHAS. I. PARKER.
Principal South Chicago High School, 893 71st Place, Chicago.

1890. STATE TEACHERS' ASSOCIATION OF ILLINOIS.

1891. JOSHUA PIKE, A. M., '65, Univ. of Chicago.
1874. Superintendent of Schools, Jerseyville.

LIFE MEMBERS.

1870. IRA WILDER ALLEN, A. B., '50, Hamilton Coll., N. Y.; A. M., '52, Antioch Coll., Ohio.; LL. B., '63, Albany Law School; LL. D., '74, Union Christian Coll., Ind.
612 W. 60th Place, Station O, Chicago.

1876. ALEX. FORBES, A. M.
262 Wabash Ave., Chicago.

1880. GEO. P. BROWN.
Editor "Public School Journal," Bloomington.

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ILLINOIS—*Continued.*

1882. HARRIET N. MORRIS, A. M., '86, Nat. Normal Univ.
Upper Alton.

1884. AUGUSTUS J. CHENEY, B. Sc., '57, Dartmouth Coll.
Western Agent G. & C. Merriam Co., 316 N. Grove Ave., Oak Park.

EMILY A. HAYWARD, A. B., '74, A. M., '78, Antioch Coll., Ohio.
1892. Teacher in Public Schools, 1233 Irving Park Boulevard, Chicago.

EDWIN C. HEWETT.
Associate Editor "Public School Journal," Normal.

HENRY RAAB, LL. D.
Belleville.

ACTIVE MEMBERS.

1880. FRANCIS W. PARKER, A. M., Dartmouth Coll.
1883. Principal Cook County Normal School, 6640 Honore St., Station O, Chicago.

1884. L. M. DILLMAN.
Assistant Manager American Book Co., 521 Wabash Ave., Chicago.

MRS. EVA D. KELLOGG.
Editor of "Primary Education," 6521 Yale Ave., Station O, Chicago.

ALBERT G. LANE.
1891. Superintendent of Schools, 430 W. Adams St., Chicago.

ALBERT R. SABIN.
1887. Assistant Superintendent of Schools, 513 W. Congress St., Chicago.

1886. DAVID S. GEER.
1886. Official Stenographer Nat. Educa. Assn., 520 Chicago Opera House, Chicago.

WILLIAM JENKINS, A. M., '86, Hamilton Coll.
1894. Superintendent of Schools, Dixon.

A. F. NIGHTINGALE, A. B., '66, A. M., '69, Wesleyan Univ., Conn.; Ph. D., '91, Upper Iowa Univ.
1892. Superintendent of High Schools, 2175 Sheridan Road, Station X, Chicago.

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Educational Publisher, 211 Wabash Ave., Chicago.

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1890. President Illinois State Normal School, Normal.

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Principal Training Department, Illinois State Normal School, Normal.

WILLIAM LUCAS STEELE, A. M., '80, Monmouth Coll., Ill.
1885. Superintendent of Schools, 356 N. Cherry St., Galesburg.

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1888. Prin. Academy and Prof. of Ped., Northwestern Univ., 1625 Judson Ave., Evanston.

DANA W. HALL, A. M., '93, Colby Univ., Me.
1894. High School and College Department, Ginn & Co., 355 Wabash Ave., Chicago.

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Educational Publisher, 3935 Ellis Ave., Chicago.

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1876. Principal Girls' Collegiate School, 481 Dearborn Ave., Chicago.

LUCY S. SILKE.
1890. Assistant Special Teacher in Drawing, Public Schools, 3307 Rhodes Ave., Chicago.

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1895. Dean Morgan Park Academy, Morgan Park.

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1875. Principal Carpenter School, 296 S. Paulina St., Chicago.

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1892. Superintendent of Schools, 525 21st St., Moline.

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Dept. of Reading and Asst. in Pedagogy, Illinois State Normal School, Normal.

1895. A. W. BEASLEY, A. B., '74, Dartmouth Coll.
1888. Principal High School, 519 Hamilton St., Peoria.

JULIA E. BULKLEY, Ph. D., Zurich.
1892. Associate Professor of Pedagogy, University of Chicago, Chicago.

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1888. Superintendent of Schools, 1054 Boston Ave., Monmouth.

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Principal Froebel Grammar School, 451 Irving Ave., Chicago.

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Teacher in Sixth Grade, Hall School, 421 N. 2d St., Rockford.

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1894. Teacher in Mathematics, Eighth Grade, 300 N. Central Ave., Austin.

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1890. President of University of Chicago, 59th St. and Ellis Ave., Chicago.

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SAMUEL A. HARRISON, A. B., '82, A. M., '88, Univ. of Ill.
1892. Principal Burroughs School, 3104 South Park Ave., Chicago.

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MARY HARTMANN, A. M., '88, Lombard Univ.
1882. Instructor in Mathematics, Illinois State Normal School, 109 Normal Ave., Normal.

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Dept. of Nat. Sci., Cook Co. Nor. School, 6916 Perry Ave., Station O, Chicago.

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1894. Head Assistant, Kenwood School, 4123 Lake Ave., Chicago.

ALICE M. KRACKOWIZER.
1889. Primary Teacher, Public Schools, 6246 Madison Ave., Chicago.

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1889. Assistant Superintendent of Schools, 5605 Madison Ave., Chicago.

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1889. Principal Washington School, 846 Walnut St., Chicago.

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1883. Teacher in High School, 1204 Third Ave., Rockford.

J. W. WARR.
Editor of "Business Education," 1723 6th Ave., Moline.

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1895. Teacher in Public School, 305 W. Elm St., Urbana.

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1891. Head Assistant, Bismarck School, 1051 N. Central Park Ave., Chicago.

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1879. American Book Co., 521 Wabash Ave., Chicago.

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Principal of Tilden School, E. Circle and Ceylon Ave., Norwood Park, Chicago.

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ORA E. COX.
Teacher of Grammar in Eighth Grade, 806 North St., Logansport.

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1894. Superintendent of Schools, 153 N. East St., Indianapolis.

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1891. Superintendent of Schools, 805 Douglas St., Sioux City.

1891. O. P. BOSTWICK, A. B., '78, Lombard Univ., Ill.
1889. Superintendent of Schools, 313 8th Ave., Clinton.

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1884. President Capital City Commercial College, Y. M. C. A. Building, Des Moines.

1893. MARY A. GRANDY.
1889. Supervisor of Music, Public Schools, 1000 Pierce St., Sioux City.

IDA K. GREENLEE, A. B., '84.
1000 Pierce St., Sioux City.

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1860. Professor in Cornell College, Mt. Vernon.

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Rock Rapids.

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Superintendent of Schools, Storm Lake.

FLORENCE L. STRASSER, B. D., '91, Iowa State Normal School.
1893. Teacher in Primary Grade, 3d St., Bellevue.

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1888. Superintendent of Schools, 910 Main St., Cedar Falls.

ELIZABETH K. MATTHEWS.
1893. Prin. Private Train. School for Teachers, 2801 Cottage Grove Ave., Des Moines.

J. J. MCCONNELL, A. M., '80, State Univ. of Iowa.
1891. Professor of Pedagogy, State University of Iowa, 331 Summit St., Iowa City.

J. J. NAGEL.
1870. Principal Grammar School No. 4, 906 W. Locust St., Davenport.

GEORGE T. W. PATRICK, Ph. D., '88, Johns Hopkins Univ.
1888. Professor of Philosophy, State University of Iowa, Iowa City.

JOHN F. RIGGS, M. Sc., '88, Iowa Wesleyan Univ.
1891. Superintendent of Schools, Mount Pleasant.

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1886. Principal of Schools, Farley.

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1893. Principal of Douglas School, 216 W. 4th St., Ottumwa.

LAURA SIMCOKE.
Teacher in Primary Grade, Public School, Redfield.

FANNIE SUPLEE.
1894. Principal of Grant School, 1045 9th St., Des Moines.

ELIZABETH A. TOWER.
1885. Teacher in Primary Grade, Public Schools, Iowa Falls.

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1885. Superintendent of Schools, 1201 6th St., Harlan.

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535 Kansas Ave., Topeka.

A. H. LIMERICK.
Teacher in Public Schools, 902 E. 9th St., Winfield.

JOHN MACDONALD.
Editor "Western School Journal," Topeka.

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Editor of "Concordia Empire," Concordia.

AARON SCHUYLER, A. M., Ohio Wesleyan Univ.; LL.D., Otterbein.
Prof. of Phil. & Higher Math., Kan. Wesleyan Univ., 1316 S. Santa Fe St., Salina.

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1887. Professor of Mathematics, Baker University, Baldwin.

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1892. Superintendent of Schools, Topeka.

ARVIN S. OLIN, A. B., '92, Ottawa Univ.: A. M., '94, Univ. of Kan.
1894. Associate Professor of Pedagogy, Univ. of Kansas, 1133 Tenn. St., Lawrence.

WILLIAM C. STEVENSON.
1889. Dept. of Book-keeping and Penman., State Nor. Sch., 1017 Mechanics St., Emporia.

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O. P. M. MCCLINTOCK.
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1892. County Superintendent of Schools, Osborne City.

JOHN GROENDYKE, B. Sc., '93, National Univ., Lebanon, Ohio.
1892. Superintendent of Schools, Russell.

W. C. LANSDON.
Teacher of Intermediate Grade, Public Schools, Garnett.

LEIDA H. MILLS.
1895. Assistant in High School, 1203 N. Market St., Wichita.

MISS C. S. NEWELL.
1890. Teacher in Third Grade, Public Schools, 817 W. 14th St., Topeka.

J. D. ORR.
1890. Principal of Main Street School, Fort Scott.

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1894. Librarian State Agricultural College, Manhattan.

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President State Normal College, Fort Scott.

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1892. Principal of High School, 132 Steele St., Frankfort.

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Assistant Superintendent of Schools, 1719 Hollens St., Baltimore.

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Prin. State Nor Sch. and ex-officio State Supt. Pub. Instr., 1200 Lafayette Ave., Baltimore.

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1865. Principal of State Normal School, 12 Summer St., Salem.

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1877. Editor of American Teacher, and Bus. Dept., Journal of Edu., 3 Somerset St., Boston.

1870. DANIEL W. JONES.
1859. Master Lowell Grammar School, Boston, 4 Hawthorn St., Roxbury.

1880. A. P. MARBLE, A. M., '63, Ph. D., '83, Colby Univ., Me.
55 Pearl St., Worcester.

1884. JOHN BASCOM, LL.D., '73, Amherst Coll.; D. D., '75, Iowa Coll.
1891. Professor of Political Science, Williams College, Williamstown.

1886. WILLIAM A. MOWRY, A. M., Brown Univ.; Ph. D., Bates Coll.
Lecturer and Writer, 17 Riverside Square, Hyde Park.

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55 Franklin St., Boston.

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1860. Principal State Normal School, Bridgewater.

MRS. MARY DANA HICKS.
1887. Director Prang Normal Art Classes, 646 Washington St., Boston.

H. E. HOLT.
1868. Supervisor of Music, Boston Public Schools, Box 109, Lexington.

ARTHUR P. SMITH.
Principal South Grammar School, 11 High St., Waltham.

1891. HENRY W. BLAKE, A. B., '71, A. M., '74, Williams Coll.
Editor of Kindergarten News, care of Milton Bradley Co., Springfield.

G. STANLEY HALL.
President of Clark University, 94 Woodland St., Worcester.

D. C. HEATH, A. B., '68, A. M., '71, Amherst Coll.
1876. Educational Publisher, 110 Boylston St., Boston.

AMY MORRIS HOMANS.
Director Normal School of Gymnastics, 9 Appleton St., Boston.

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Head Master of English High School, 101 Trowbridge St., Cambridge.

A. EUGENE NOLEN, A. B., '67, A. M., '70, Yale.
1881. Teacher of Greek and Latin, High School, 3 Wood Place, Fitchburg.

ALVIN F. PEASE, A. B., '75, A. M., '78, Brown Univ.
1888. Superintendent of Schools, 77 Round Hill, Northampton.

ELIZABETH H. PERRY.
1891. Teacher of Drawing, Normal School, Bridgewater.

JOHN T. PRINCE, A. M., Ph. D., '89, Leipzig.
Agent Massachusetts Board of Education, West Newton.

LUCY WHEELOCK.
Kindergarten Training, "The Oxford," Boston.

1892. O. W. BAKER.
Publisher, 499 Main St., Springfield.

MILTON BRADLEY.
Kindergarten Publisher, Springfield.

JOHN S. CLARK.
Manager of Prang Educational Co., 646 Washington St., Boston.

VIRGIL G. CURTIS, A. M., Tufts Coll.
231 Elm St., Northampton.

CHARLES W. ELIOT, A. B., '53, Harvard; LL.D., '69, Princeton, '70, Yale.
1869. President of Harvard University, Cambridge.

HERMAN T. LUKENS, A. M., '88, Univ. of Pa.; Ph. D., '91, Jena.
1895. Docent in Psychology, Clark University, Worcester.

ROBERT C. METCALF.
1882. Supervisor of Schools, Boston, 32 Alaska St., Roxbury.

WILLIAM W. TAPLEY.
Assistant Manager, Educational Department, Milton Bradley Co., Springfield.

HENRY N. WHEELER, A. B., '71, A. M., '75, Harvard
1882. Supt. of Educational Department, Houghton, Mifflin & Co., 4 Park St., Boston.

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1891. Superintendent of Schools, Lowell.

ALBERT E. WINSHIP.
Editor of "Journal of Education," 3 Somerset St., Boston.

1893. FRANCIS COGSWELL, A. M., '81, Harvard.
1874. Superintendent of Schools, 257 Prospect St., Cambridge.

FRANK IRVING COOPER.
53 Devonshire St., Boston.

GEO. B. KILBON.
Principal Springfield Normal Training School, 41 Orleans St., Springfield.

GEORGE H. MARTIN, A. M., '81, Amherst Coll.
1892. Supervisor of Schools, Boston, 388 Summer St., Lynn.

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Principal of B. M. C. Durfee High School, 424 Prospect St., Fall River.

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1880. Superintendent of Schools, School Committee Rooms, Boston.

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1891. Director of Music, Cambridge Public Schools, 126 Oxford St., North Cambridge.

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LARKIN DUNTON, LL.D., '80, Colby Univ.
1872. Head Master of Boston Normal School, 16 Ashford St., Allston, Boston.

S. T. DUTTON, A. B., Yale.
1890. Superintendent of Schools, Colbourne Crescent, Brookline.

GEORGE R. FOWLER, A. B., Dartmouth Coll.; LL.B., Albany Law School.
1894. Member of School Board, 220 Devonshire St., Boston.

ISAAC FREEMAN HALL.
1895. Superintendent of Schools, Box 793, North Adams.

PAUL H. HANUS, B. Sc.
Asst. Prof. of His. and Art of Teaching, Harvard Univ., 5 Walker St., Cambridge.

ALBERT BUSHNELL HART, A. B., '80, Harvard; Ph. D., Freiburg, Baden.
1887. Assistant Professor of History, Harvard University, 15 Appian Way, Cambridge.

HARVARD UNIVERSITY.
Cambridge.

FRANK A. HILL, A. B., '62, A. M., '65, Lit. D., '94, Bowdoin.
1894. Secretary State Board of Education, 366 Harvard St., Cambridge.

ALONZO MESERVE.
1886. Master of Bowdoin School, 87 Linden St., Allston, Boston.

CHARLES H. MORSS, A. B., '80, A. M., '82, Harvard.
1895. Superintendent of Schools, Medford.

JAMES PHINNEY MUNROE, B. Sc., '82, Mass. Inst. of Technology.
Author, 179 Devonshire St., Boston.

CHAS. W. PARMENTER, A. B., '77, A. M., '86, Ph. D., '95, Tufts Coll.
1894. Head Master of Mechanic Arts High School, Boston, 19 Fayette St., Cambridgeport.

BARONESS ROSE POSSE.
1892. Editor "Posse Gymnasium Journal," 23 Irvington St., Boston.

JOHN G. THOMPSON, A. B., '86, A. M., '94, Dartmouth Coll.
1895. Principal of State Normal School, 96 Rollstone St., Fitchburg.

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1883. Superintendent of Schools, 34 Appleton St., Waltham.

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1893. Principal of State Normal School, 730 Forest Ave., Ypsilanti.

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1887. Prof. of Science and Art of Teaching, Univ. of Mich., 74 Washtenaw Ave., Ann Arbor

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1885. Principal of Duffield Grammar School, 258 Park St., Detroit.

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Ex-State Superintendent of Public Instruction, 49 Williams St., Pontiac.

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1894. Superintendent of Schools, 517 Washington Ave., Bay City.

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1891. Superintendent of Schools, 502 Cross St., Ypsilanti.

1892. ADELLA HUTCHINS.
1888. Teacher in Primary Department, 973 13th St., Detroit.

MYRA JONES.
1883. Supervisor of Drawing, 53 Piquette Ave., Detroit.

JOHN B. NYKIRK, A. B., A. M., Hope Coll., Mich.
1895. Professor of English Language and Literature, Hope College, Holland.

HENRY R. PATTENGILL, B. Sc., '74, Univ of Mich.
1893. State Superintendent of Public Instruction, 420 Townsend St., Lansing.

W. S. PERRY, A. B., '61, A. M., '71, Univ. of Mich.; M. Ped., '90, Mich. State Nor. Sch.
1870. Superintendent of Schools, 61 Washington St., Ann Arbor.

EDWIN A. STRONG, A. B., '57, A. M., '61, Union Coll.
Professor of Physical Sciences, State Normal School, 127 Normal St., Ypsilanti.

A. W. TRESSLER, A. B., '91, Univ. of Mich.
1893. Superintendent of Schools, Monroe.

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1890. Supervisor of Physical Training, Public Schools, 78 W. Elizabeth St., Detroit.

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1886. Principal of High School, Lake Linden.

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Principal of Jefferson St. School, 68 Lagrave St., Grand Rapids.

FLORA A. KEELER.
1888. Principal of Grant St. School, 59 Grant St., Mt. Clemens.

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1893. Director Business Department, High School, 48 E. University Ave., Ann Arbor.

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68 Marshall St., Battle Creek.

FREDERICK L. BLISS, A. B., '77, Univ. of Mich.
1887. Principal High School, 46 Alexandrine Ave. E., Detroit.

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1893. Superintendent of Schools, Coldwater.

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1890. Superintendent of School, 422 Lyon St., Grand Rapids.

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1887. Superintendent of Schools, 18 S. Main St., Vassar.

H. H. FROST, A. B., '85, Univ. of Mich.
1894. Superintendent of Schools, 407 Litchfield St., West Bay City.

AUSTIN GEORGE, A. B., '66, A. M., '69, Kalamazoo Coll.; M. Ped., '93, Mich. State Normal School.
1879. Director Training Department, State Normal School, 111 Normal St., Ypsilanti.

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1895. ADA VAN STONE HARRIS.
1895. Assistant Director Training Department, State Normal School, 502 Cross St., Ypsilanti.

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1891. Teacher of Psychology, Normal School, 41 N. Union St., Grand Rapids.

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1885. Principal of Cass School, 23 E. Adams Ave., Detroit.

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1895. Teacher in Public Schools, 320 27th Ave. W., Duluth.

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1895. State Inspector of Graded Schools, 1529 University Ave., Minneapolis.

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1893. State Inspector of High Schools, 1601 University Ave. S. E., Minneapolis.

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Supervisor of Kindergartens and Primary Work, 631 Westminster St., St. Paul.

C. H. CONGDON.
1886. Supervisor of Music, 643 St. Anthony Ave., St. Paul.

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1881. County Superintendent of Schools, Cannon Falls.

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1894. Superintendent of Schools, Benson.

S. S. PARR.
1889. Superintendent of Schools, 520 2d Ave., S., St. Cloud.

EDWARD SEARING.
1880. President State Normal School, Mankato.

HIRAM W. SLACK, Ph. B.
1884. Principal Edmund Rice School, 735 Olive St., St. Paul.

WALTER WYMAN SMITH, A. B., '93, Dartmouth Coll.
1894. Superintendent of Schools, Slayton.

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1870. President of Carleton College, 108 College Ave., Northfield.

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1893. Professor of Pedagogy, University of Mississippi, University.

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1875. Professor of Phys. and Astronomy; 1892. Chanc., Univ. of Mississippi, University.

1895. E. E. BASS, B. L., '83, Mo. State Univ.
1884. Superintendent of Schools, 16 Shelby St., Greenville.

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1883. Professor of English, State Agricultural College, Agricultural College.

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1895. Principal Switzer School, 1840 Jefferson St., Kansas City.

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Professor of Math.; Dean School of Engineering; Director Manual Training School, Washington University, 3013 Hawthorne Ave., St. Louis.

1889. T. E. MCNEELY, B. A. D., '78, M. S. D., '82, State Nor. Sch., Cape Girardeau; A. B., '88, A. M, '91, Univ. of Missouri.
1895. Professor of Greek and Latin, Jackson Training School, Jackson.

GEO. L. OSBORNE, A. M., Waynesburg Coll., Pa.; LL.D., Georgetown Coll., Ky.
1875. President of State Normal School, 136 E. Market St., Warrensburg.

1890. JOHN T. BUCHANAN.
1887. Principal of Central High School, 1520 Charlotte St., Kansas City.

MRS. MATILDA EVANS RILEY.
1887. Director of Drawing, Public Schools, 9th and Locust Sts., St. Louis.

L. E. WOLFE.
1894. High School, 2212 Charlotte St., Kansas City.

1891. JOHN R. KIRK.
1895. State Superintendent of Public Schools, Jefferson City.

GEORGE T. MURPHY.
Assistant Superintendent of Schools, 4946 Berlin Ave., St. Louis.

F. D. THARPE.
1884. Principal of Webster School, 3216 Anderson Ave., Kansas City.

1892. MARY C. MCCULLOCH.
1885. Supervisor of Kindergartens, 3851 Washington Ave., St. Louis.

I. C. MCNEILL.
1890. Assistant Superintendent of Schools, 1315 E. 22d St., Kansas City.

MRS. I. C. MCNEILL.
1315 E. 22d St., Kansas City.

C. W. ROBBINS.
President of Central Business College, Massachusetts and 6th Sts., Sedalia.

1893. JAMES C. BLACK, Pd. M., '94, Pd. D., '95, School of Pedagogy, Univ. of City of New York.
Student, 2816 Stoddard St., St. Louis.

O. M. WOOD.
Principal of L'Ouverture School, 2612 Papin St., St. Louis.

1894. GEORGE V. BUCHANAN, A. M., '94, McKendree Coll., Ill.
1893. Superintendent of Schools, 1002 Ohio St., Sedalia.

JOSEPH HISEY.
1890. Principal of Scarritt School, 498 Woodland Ave., Kansas City.

EDWIN D. LUCKEY, B. S. D., '87, State Normal School, Kirksville, Mo.
1893. Principal Ellcardville School, 5121 Bell Ave., St. Louis.

CHARLES W. THOMPSON.
1885. Principal of Garfield School, Wabash and Amie Sts., Kansas City.

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1889. President of Missouri Valley College, Marshall.

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1895. ADELAIDE BROWN.
1885. First Assistant Grammar Grade, Box 173, Hannibal.

IRA I. CAMMACK, B. Sc., '84, Earlham Coll., Ind.
1886. Principal of Lathrop School, 1424 Jefferson St., Kansas City.

SARAH E. CROUCH.
1890. Longfellow School, 2910 Campbell St., Kansas City.

ARTHUR A. DODD, M. S. D., '86, State Normal School, Warrensburg, Mo.; B. Sc., '95, Harvard.
1895. Teacher of Sch. Management and Psych., State Nor. Sch., 323 South St., Warrensburg.

ELIZA C. GILL.
Teacher in Public Schools, 2310 Lydia Ave., Kansas City.

RICHARD HENRY JESSE, LL.D., '91, Tulane Univ., La.
1891. President of University of State of Missouri, Columbia.

WILLIAM HENRY LYNCH, A. M., '68, Univ. of Missouri.
1895. President of West Plains College, West Plains.

R. C. NORTON.
1893. Teacher in State Normal School, Kirksville.

CHARLES B. REYNOLDS.
1881. Superintendent of Schools, 308 E. Franklin St., Clinton.

W. R. ROTHWELL, A. M., D. D., Missouri Univ.
Professor of Moral Phil., William Jewell College, Liberty.

LOUIS THEILMANN, B. Sc., '85, M. Sc., '88, Missouri Univ.
1888. Associate Principal of Academy, Appleton City.

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1891. Principal of Public School, Clayton.

FRIDA VON UNWERTH.
1892. Teacher of German, Central High School, 2005 Locust St., Kansas City.

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1894. J. C. TEMPLETON, B. Sc., '85, National Normal Univ., Ohio.
1890. Teacher of Higher Math. and Vice Pres. of Mont. Wesleyan Univ., Univ. Pl., Helena.

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1887. Superintendent of Schools, 1322 N. 26th St., So. Omaha.

C. G. PEARSE.
1895. Superintendent of Schools, 508 City Hall, Omaha.

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1893. Superintendent of Schools, Blair.

J. K. STABLETON, B. Sc., '82, A. M., '87, Ohio Wesleyan Univ.
Superintendent of Schools, Box 41, Lexington.

1893. A. W. NORTON, A. B., '73, A. M., '76, Rochester Univ.
1892. President State Normal and Training School, Peru.

1894. ROSA BOUTON, B. Sc., '91, A. M., '93, Univ. of Neb.
1893. Instructor in Chemistry, University of Nebraska, P. O. Box 675, Lincoln.

EDNA T. MESERVE.
1895. Teacher in Public Schools, 806 Marshal St., McCook.

ANNA TIBBETS.
1892. Principal of Grammar School, 658 S. 17th St., Lincoln.

1895. CHARLES E. BESSEY, B. Sc., '69, Mich. Agr.; Ph. D., '79, Univ. of Iowa.
1884. Professor of Botany, University of Nebraska, 1228 R St., Lincoln.

EDWIN J. BODWELL, B. Sc., '88, Dartmouth Coll.
Superintendent of County Schools, Omaha.

W. A. CLARK, A. B., '72, A. M., '85, Pd. D., '94, National Normal Univ.
1895. Instructor in Mathematics, State Normal School, Peru.

MARY A. FITCH.
1887. Principal of Leavenworth School, Omaha.

A. K. GOUDY, A. M., '84, Monmouth Coll.
303 Brace Building, Lincoln.

E. T. HARTLEY, A. B., '70, A. M., '73, Ohio Wesleyan Univ.
1895. Member Board of Education, 441 N. 10th St., Lincoln.

THOMAS MOREY HODGMAN, A. B., '84, A. M., Rochester Univ.
1884. Associate Professor of Mathematics, University of Nebraska, 709 N. 16th St., Lincoln.

JESSIE IRELAND.
1895. Teacher, Papillion.

NELLIE IRELAND.
1887. Teacher in Grades, 3153 Farnum St., Omaha.

IRWEN LEVISTON, A. B. '82, A. M., '88, Dartmouth Coll.
1890. Assistant Principal of High School, 312 N. 21st St., Omaha.

GRACE LILLIE.
1895. Substitute Teacher, 1808 Webster St., Omaha.

J. T. MCKINNON, Grad., '83, State Normal School, Neb.
1892. Superintendent of Schools, Exeter.

JENNIE L. REDFIELD.
1887. Principal of Lincoln School, 2115 S. 11th St., Omaha.

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1894. President of State University of Nevada, Reno.

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1895. Teacher of Drawing, State Normal School, Plymouth.

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1892. Teacher of History, Geography, and French, State Normal School, Plymouth.

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1894. Principal of High School, Somersworth.

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1889. Supervisor of Drawing, Public Schools; 1893, Principal Metropolitan Normal Art School, 30 Park St., Jersey City.

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1880. District Principal, 572 Clinton St., Camden.

1890. LEVI SEELEY, A. M., '83, Williams Coll.; Ph. D., '86, Leipzig.
1895. Professor of Pedagogy, State Normal School, 482 W. State St., Trenton.

1891. AUGUSTUS SCARLETT.
1863. Principal of South Eighth Street School, 56 S. 11th St., Newark.

1892. SARAH Y. ELY.
1887. Supervisor of Grammar Grades, State Model School, 46 Carroll St., Trenton.

JAMES M. GREEN, A. M., '84, Dickinson Coll.; Ph. D., '90, Ill. Wesleyan Univ.
1889. Principal of State Normal and Model Schools, Trenton.

JANE M. LEWIS.
1866. Principal of Primary School, 99 Mercer St., Jersey City.

BYRON C. MATHEWS, A. B., '77, A. M., '92, Ph. D., '93, Syracuse Univ.
1885. Instructor in Greek and Economics High School, 36 Kearney St., Newark.

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NEW JERSEY—*Continued.*

1892. HENRY M. MAXSON, A. M., '80, Amherst Coll.
1892. Superintendent of Schools, 429 W. 6th St., Plainfield.

ADDISON B. POLAND.
State Superintendent of Public Instruction, Trenton.

JAMES M. RALSTON, A. M., '82, Dickinson Coll.
1890. Superintendent of Schools, 707 Grand Ave., Asbury Park.

RANDALL SPAULDING, A. B., '70, Yale.
1874. Superintendent of Schools, 14 Clinton Ave., Montclair.

WM. R. WRIGHT.
1893. Principal of Franklin Public Schools, Nutley.

1893. MARTIN LUTHER COX.
1893. County Superintendent of Schools, 4 Blackwell St., Dover.

CHARLES M. DAVIS, A. B., '45, A. M., '47, Princeton.
Superintendent of Schools, 766 Avenue A, Bayonne.

HENRY E. HARRIS.
1879. Principal School No. 1, 74 Trask Ave., Bayonne.

LAWRENCE C. HULL, A. B., '77, Univ. of Mich.
1887. Latin Master, Lawrenceville School, Lawrenceville.

1894. WM. N. BARRINGER, A. M., Princeton; Pd. D., Univ. of City of N. Y.
1877. Superintendent of Schools, City Hall, Newark.

RICHARD CASE, A. M., '81, Brown Univ.
1890. Superintendent of Schools, 71 Wallace St., Red Bank.

MARY J. DONOHOE.
1895. Principal School No. 4, 33 Dodge St., Bayonne.

RUSSELL M. EVERETT, B. Sc., '91, State Coll., N. H.
1895. Supervising Principal of Schools, Chatham.

BENJAMIN C. GREGORY, A. B., Coll. of City of New York.
1888. Supervising Principal of Schools, Box 522, Trenton.

ANNA J. GUDEN.
1892. Assistant, School No. 4, 202 Avenue D, Bayonne.

M. ALICE GULICK.
1893. Teacher in Primary Grade, Chatham.

JOSEPH A. HALLOCK.
1854. Elliot Street School, 329 Summer Ave., Newark.

J. F. D. HEINEKEN.
1894. Principal School No. 1, Sayreville.

AMELIA COOPER HEWITT.
1894. Teacher of Chemistry, State Normal School, 33 Prospect St., Trenton.

GAIUS HOFFMAN.
1885. Principal of Schools, Bound Brook.

JAMES WILMER KENNEDY.
1889. Principal of Miller Street Gramar School, 3 Emmett St., Newark.

M. H. KINSLEY, B. Sc., '88, St. Lawrence Univ.
1895. Superintendent of Schools of Kearney, Arlington.

N. W. PEASE.
1867. Principal of School No. 2, 31 Morrell St., Elizabeth.

GEO. G. RYAN, A. B., '74, A. M., '77, Middlebury Coll., Vt.
1891. Superintendent of Schools, 71 Patterson St., New Brunswick.

FRANK H. SCOBEY.
1884. Teacher of Arithmetic, Algebra, and Methods, State Normal School, Trenton.

HENRY SNYDER, A. B., '78, A. M., '88, Lafayette Coll.
1892. Superintendent of Schools, High School, Bay St., Jersey City.

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NEW MEXICO.

ACTIVE MEMBERS.

1866. ULYSSES T. CURRAN, A. B., A. M., Miami Univ., Ohio.
Superintendent of Schools, Santa Fe.

ACTIVE MEMBERS.

1891. HIRAM HADLEY, A. M.
1894. Vice President, in charge of Univ. of New Mexico, 321 S. Walter St., Albuquerque.

1892. ALLEN ALLENSWORTH, A. M.
1886. Superintendent of Post Schools, Fort Bayard.

1895. CHARLES E. HODGIN, Grad., '81, Ind. State Normal; B. Ped., '93, Univ. of N. Mex.
1891. Superintendent of Schools, 402 S. Edith St., Albuquerque.

MRS. ELIZABETH R. JACKSON.
1893. Member of Examining Board, Grant County, Silver City.

NEW YORK.

LIFE DIRECTOR.

1885. CALEB G. HALL.
New Berlin.

LIFE MEMBERS.

1864. JAMES CRUIKSHANK, LL.D.
1875. Principal of Grammar School No. 12, 206 S. Oxford St., Brooklyn.

1870. OLIVER CROMWELL AREY, A. M., '65, Union Coll.
229 Averill Ave., Rochester.

1871. JOHN JACOB ANDERSON, A. M., '67, Rutgers Coll.; Ph. D., '76, Univ of City of N. Y.
Author of School Histories, 343 Adelphi St., Brooklyn.

1879. *N. A. CALKINS, LL.D., Marietta Coll., Ohio.
1863. Assistant Superintendent of Schools, 124 E. 80th St., New York City.

1880. EMILY M. COE.
Principal of American Kindergarten Normal School, 70 5th Ave., New York City.

1882. JOSEPHINE E. HODGDON, Pd. M., '91, Univ. of City of New York.
1886. Public School No. 6, 80 Willoughby St., Brooklyn.

MENCO STERN.
1879. Professor of German Language and Lit., Stern School of Language, New York City.

1884. MRS. GEORGIANA VAN AKEN.
1858. Principal of Day School, Ladies' Home Mission, 63 Park St., New York City.

1885. THOMAS HUNTER, A. M., '66, Columbia Coll.; Ph. D., '77, Williams Coll.
President of Normal College, Park Ave. and 68th St., New York City.

1891. MRS. M. J. B. WYLIE.
334 15th St., Buffalo.

ACTIVE MEMBERS.

1882. WALTER S. GOODNOUGH.
Director of Drawing, Public Schools, 267 Lewis Ave., Brooklyn.

1884. E. H. COOK, A. M., '69, Ph. D., '89.
Alta Ave., Park Hill, Yonkers.

* Deceased.

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NEW YORK—*Continued.*

1884. EDWARD N. JONES, A. B., A. M., Ph. D., Hamilton Coll.
1892. Principal of State Normal School, 100 Brinkerhoff St., Plattsburgh.

SELIM H. PEABODY, A. B., '52, A. M., '55, Ph. D., '77, Univ. of Vt.; LL.D., '83, Univ. of Iowa.
113 American Tract Society Building, New York City.

1885. NICHOLAS MURRAY BUTLER, A. B., '82, Ph. D., '84, Columbia Coll.
1889. Professor of Philosophy and Education, Columbia College, 119 E. 30th St., New York.

1887. GUSSIE POWER.
1880. Teacher, 535 Warren St., Hudson.

1889. GRATIA L. RICE.
1892. State Director of Drawing, Box 321, Buffalo.

1890. C. W. BARDEEN, A. B., '69, Yale.
1874. Editor of "School Bulletin," 411 S. Franklin St., Syracuse.

A. B. BLODGETT.
1889. Superintendent of Schools, 127 Burnet Ave., Syracuse.

JOHN W. CHANDLER, Ph. D., '77, Univ. of State of New York.
1894. Superintendent of Schools, Ellenville.

EDWARD D. FARRELL.
1889. Assistant Superintendent of Schools, 163 124th St., New York City.

MARY A. FLEMING.
1878. Teacher in Grammar School No. 13, 13 W. Chippewa St., Buffalo.

AMOS M. KELLOGG, A. M., '57, Hamilton Coll.
Editor of "School Journal," 61 E. 9th St., New York City.

JAMES M. MILNE, Ph. D.
Principal State Normal School, Oneonta.

MRS LEONTINE T. NEWCOMB.
1894. Superintendent of Kindergarten and Primary Methods, State Normal Sch., Fredonia.

FRANCIS B. PALMER, A. B.,'58, A. M.,'63, Ph. D., '79, Univ. of Rochester.
Principal of State Normal School, Fredonia.

CHARLES R. SKINNER.
State Superintendent of Public Instruction, Albany.

ISAAC H. STOUT, A. M., '88, Hobart Coll.
1887. State Conductor of Teachers' Institutes, 58 Genessee St., Geneva.

1891. FRANCIS J. CHENEY, A. B., '72, A. M., '75, Ph. D., '88, Syracuse Univ.
Principal of State Normal and Training School, 45 Church St., Cortland.

A. S. DOWNING, A. M., Pennsylvania Coll.
1895. Supervisor of Teachers' Inst. and Train. Classes, State Dep't of Pub. Instr., Albany.

MATTHEW J. ELGAS, A. B., '62, A. M., '63, Montreal Coll.; Ph. D., '69 St. Johns Coll.
Principal of Grammar School No. 69, 121 W. 87th St., New York City.

HARLAN P. FRENCH, A. B., '68, A. M., '71, Amherst Coll.
Manager Albany Teachers' Agency, 24 State St., Albany.

DAVID M. KELSEY, Grad., '88, N. E. Conservatory of Music.
Director of Music, Public Schools, 228 Spring St., Saratoga Springs.

OSSIAN H. LANG.
1895. Man. Editor "School Journal and Educational Foundations," 61 E. 9th St., New York.

HENRY M. LEIPZIGER, A. M., Coll. of City of N. Y., Ph. D., Columbia Coll.
1891. Assistant Superintendent of Schools, 324 E. 5th St., New York City.

ALBERT LEONARD, A. B., '88, A. M., '91, Ohio Univ.; Ph. D., '94, Hamilton Coll.
1893. Prin. of High Sch. and Editor of "Journal of Pedagogy," 112 Murray St., Binghamton.

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1891. JOHN M. MILNE, A. M., '82, Rochester Univ.; Ph. D., '90, Univ. of State of N. Y.
1889. Principal of State Normal School, Geneseo.

E. A. SHELDON, A. M., '70, Hamilton Coll.; Ph. D., '75, Univ of New York.
1862. Principal of State Normal and Training School, 7th Ave., Oswego.

THOMAS B. STOWELL, A. M., '65, Genesee Coll.; Ph. D., '81, Syracuse Univ.
1889. Principal State Normal and Training School, 6 Le Roy St., Potsdam.

SAMUEL G. WILLIAMS, A. B., '52, A. M., '55, Ph. D., '71, Hamilton Coll.
1879. Professor in Cornell University, 155 E. Seneca St., Ithaca.

1892. THOMAS O. BAKER, A. M., '92, Ph. D., Univ. of City of New York.
1895. Principal of High School, Yonkers.

ELIAS J. BEARDSLEY, C. E., A. B., '55, A. M.
Superintendent of Schools, 110 Baldwin St., Elmira.

EMMET BELKNAP, A. B., '80, A. M., '83, Marietta Coll.
1889. Superintendent of School, 206 East Ave., Lockport.

W. H. BENEDICT, A. B., '75, A. M., '78, Hamilton Coll.
1889. Principal of School No. 8, 508 W. 3d St., Elmira.

A. HALL BURDICK.
1890. Superintendent of Union Free School, 35 Jackson St., Stapleton.

CHAS. W. COLE, A. B., A. M., Ph. D., Hamilton Coll.
1878. Superintendent of Schools, 354 Hudson Ave., Albany.

WILLIAM B. FRIEDBERG, B. Sc., '73, Coll. of New York; LL. B., '77, Columbia Law School.
1890. Principal of Grammar School No. 95, 13-17 E. 125th St., New York City.

EMILY J. HAWKINS.
1873. Principal of Grammar School No. 17, 368 West Ave., Buffalo.

H. E. HAYES.
72 5th Ave., New York.

MARY F. HYDE.
208 Main St., Binghamton.

WILLIAM H. MAXWELL, A. B., '72, A. M., '74, Queens Univ., Ireland.
Superintendent of Public Instruction, 131 Livingston St., Brooklyn.

R. V. K. MONTFORT, M. D., '56, Albany Medical Coll.
1887. Superintendent of Schools, 22 Montgomery St., Newburgh.

M. V. O'SHEA, B. L., '92, Cornell.
1895. Professor of Educational Psychology and Child Study, School of Pedagogy, University of Buffalo, 77 Hodge Ave., Buffalo.

S. S. PACKARD.
President of Packard's Business College, 17 W. 82 St., New York.

CHARLES L. PATTON.
43 E. 10th St., New York.

OSCAR D. ROBINSON, A. B., '69, A. M., '72, Ph. D., '87, Dartmouth Coll.
1886. Principal of High School, 501 State St., Albany.

EDWARD SMITH.
Principal of Prescott School, 922 Madison St., Syracuse.

JAMES WINNE, A. M., '80, Hamilton Coll.
1886. Principal of High School, 12 Noxon St., Poughkeepsie.

1893. HENRY P. EMERSON, A. B., A. M., Univ. of Rochester.
Superintendent of Education, 122 College St., Buffalo.

JOHN ARTHUR GREENE.
Supt. of Agency Department, American Book Co., 31 Washington Place, New York.

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NEW YORK—*Continued.*

1893. GEORGE GRIFFITH, A. B., '77, Hamilton Coll.; Ph. D., '93, Ill. Wesleyan.
1892. Superintendent of Schools, 32 Jewett Place, Utica.

JENNY B. MERRILL, Pd. D., '92, Univ. of City of New York.
1878. Tutor in Pedagogy, Normal College, 112 E. 81st St., New York City.

JOSEPHINE E. ROGERS.
Principal of Grammar School No. 75, P. D., 314 E. 20th St., New York City.

EDWARD RICHARD SHAW, B. L., '78, Delaware Coll.; Ph. B., '81, Lafayette Coll.; Ph. D., '90, Univ. of City of New York.
1894. Dean of School of Pedagogy, New York Univ., Washington Square, New York City.

1894. J. W. BABCOCK, A. B., '78, Cornell Univ.
1881. Superintendent of Schools, 627 Washington Ave., Dunkirk.

EUGENE D. BAGEN, C. E., Univ. of City of New York.
1894. Superintendent of Schools, 532 E. 87th St., New York City.

FRANK D. BEATTYS, A. M., '88, Wesleyan Univ.
Publisher, 31 E 17th St., New York City.

MRS. B. ELLEN BURKE.
1895. Institute Instructor, Malone.

CYNTHIA LAGOMARSINO.
1884. Teacher in Ladies' Home Mission School, 63 Park St., New York City.

ALMON G. MERWIN.
1867. Principal of Public School No. 74 and Branches, 668 Hancock St., Brooklyn.

HESTER A. ROBERTS.
1886. Principal of Primary Department No. 10, 149 W. 128th St., New York City.

CHARLES B. SCOTT, A. M., '87, Rutgers Coll.
Instructor in Nature Study Methods, Geology, and Geography, State Nor. Sch., Oswego.

JOSEPH S. TAYLOR, Pd. D., '92, New York Univ.
1885. Teacher in Public Schools, Sedgwick Park, Fordham Heights, New York City.

MARTHA VAN RENSSELAER.
1894. School Commissioner Second District, Cattaraugus County, Randolph.

1895. ELLA CALKINS.
124 E. 80th St., New York City.

COLUMBIA COLLEGE.
New York City.

FANNIE S. COMINGS.
1893. Principal of Public School No. 77, 651 Carroll St., Brooklyn.

JOHN W. DAVIS.
1886. First Ass't Grammar Sch. No. 66, and Sec. New York Soc. of Pedagogy, Kingsbridge.

ANNA K. EGGLESTON.
1894. Instructor in Primary Work, Teachers' Institutes, 45 Wadsworth St., Buffalo.

GEORGE W. FRENCH, LL. B., '78, Columbia Coll.
1881. Principal of Public School, Jamaica Ave., opp. Enfield St., Brooklyn.

WELLAND HENDRICK, A. B., '80, A. M., '83, Colgate Univ.
1893. Conductor of Institutes, Dep't of Public Instruction, 32 Lincoln Ave., Cortland.

SETH LOW, LL.D., '89, Harvard, Amherst, Univ. of Pa.; '90, Trinity.
1889. President of Columbia College, 63 E. 49th St., New York City.

F. M. MCMURRY, Ph D., Jena.
1895. Dean of School of Pedagogy, University of Buffalo, 322 W. Utica St., Buffalo.

ANDREW V. V. RAYMOND, A. B., '75, D. D., '86, Union Coll.; LL.D., '94, Williams Coll.
1894. President of Union College, College Hill, Schenectady.

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NEW YORK—*Continued.*

1895. ROVILLUS R. ROGERS.
1890. Superintendent of Schools, 627 E. 6th St., Jamestown.

JANE A. SCHERMERHORN.
1889. Kindergarten in Union Free Sch., White Plains, 1899 Bathgate Ave., New York City.

S. R. SHEAR.
Principal of Pulaski Academy, Pulaski.

CHARLES F. WHEELOCK.
Head Inspector, Regents Office, Albany.

NORTH CAROLINA.

LIFE MEMBER.

1884. ROBERT BINGHAM, A. M., '60, LL. B., '90, Univ. of N. C
1873. Superintendent of Bingham School, Asheville.

NORTH DAKOTA.

ACTIVE MEMBERS.

1893. EMMA F. BATES.
1895. State Superintendent of Public Instruction, Bismarck.

1894. WALTER L. STOCKWELL, B. Sc., '89, Univ. of Minn.
1891. Superintendent of Schools, Grafton.

1895. GEO. A. MCFARLAND, M. Sc.
Principal State Normal School, Valley City.

LURA L. PERRINE, A. B., '80, Albion Coll., Mich.
1892. Teacher of Natural Sciences, State Normal School, Valley City.

UNIVERSITY OF NORTH DAKOTA.
University, Grand Forks.

OKLAHOMA.

ACTIVE MEMBERS.

1892. DAVID R. BOYD, A. B., '78, A. M., '81, Univ. of Wooster.
1892. President of University of Oklahoma, Norman.

1894. MATTIE JONES.
1892. Teacher in Washita School, Anadarko.

OHIO.

LIFE DIRECTOR.

1888. L. W. DAY, A. M., '74, Hillsdale Coll.; Ph. D., '85, Baldwin Univ.
1895. Superintendent of Schools, 178 W. Tuscarawas St., Canton.

LIFE MEMBERS.

1870. WILLIAM H. COLE, A. M., Ohio Wesleyan Univ.
1878. Superintendent of Schools, Marysville.

EMERSON ELBRIDGE WHITE, A. M., Western Reserve Coll.; LL. D., '76, Indiana Univ. and Marietta Coll.
Author and Lecturer, Columbus.

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OHIO—*Continued.*

1870. MRS. DELIA LATHROP WILLIAMS, Ped. D., '94, State Nor. Coll., Albany, N. Y.
1879. Instructor in Normal Department, Ohio Wesleyan University, Delaware.

1879. REUBEN MCMILLAN, A. M., '67, Western Reserve Coll.
Ex-Superintendent of Schools of Youngstown, Canfield.

1880. HAMPTON BENNETT.
Franklin.

J. J. BURNS, A. M., Washington and Jefferson Coll.; Ph. D., '79, Ohio State Univ.
167 N. Walnut St., Canton.

CHARLES C. DAVIDSON, A. M., '86.
59 W. Ely St., Alliance.

BETTIE A. DUTTON.
1870. Principal of Kentucky Street School, 94 State St., Cleveland.

MRS. REUBEN MCMILLAN.
Canfield.

LEWIS MILLER.
Pres. of Bd of Trustees, Mt. Union Coll., and Pres. of Chautauqua Assembly, Akron.

JOHN B. PEASLEE, A. B., '63, A. M., '66, Dartmouth; LL. B., '67, Cincinnati Coll.; Ph. D., '69, Ohio State Univ.
182 Race St., Cincinnati.

ESTHER A. WIDNER.
1224 N. Main St., Dayton.

1882. JAMES A. ROBERT, A. M., '67, Yale; Ph. D., '84, Dennison.
230 Sunset Ave., Dayton.

1883. E. W. COY, A. M., '58, Brown Univ.; Ph. D., '86, Princeton.
1873. Principal of Hughes High School, Cincinnati.

1884. C. W. BENNETT, A. B., '66, A. M., '69, Ohio Wesleyan Univ.; Ph. D., '89, Moores Hill Coll., Ind.
1874. Superintendent of Schools, 218 W. Ash St., Piqua.

1894. J. A. SHAWAN, A. B., '80, A. M., '83, Oberlin Coll.; Ph. D., '93, Muskingum Coll.
1889. Superintendent of Schools, Columbus.

ACTIVE MEMBERS.

1884. JAMES H. CANFIELD, A. B., '68, A. M., '77, LL. D., '93, Williams Coll.
1895. President of Ohio State University, 1873 N. High St., Columbus.

1886. CHRISTINE SULLIVAN, A. M., Ph. D.
1885. Superintendent of Art Instruction, Public Schools, 1208 Elmwood Ave., Cincinnati.

1887. O. T. CORSON, A. M., '87.
1891. State Commissioner of Common Schools, Columbus.

1889. EDWIN B. COX, A. B., '74, Ohio Wesleyan Univ.
1881. Superintendent of Schools, 205 W. Church St., Xenia.

NATHAN L. GLOVER.
1872. Teacher of Music, Public Schools, 627 E. Mill St., Akron.

L. H. JONES.
1894. Superintendent of Schools, 190 Euclid Ave., Cleveland.

1890. MRS. ADA E. LAIRD.
1892. Principal of Waverly School, 266½ Franklin Ave., Cleveland.

ANNA M. OSGOOD.
1893. Principal of Avondale School, 1348 Oak St., Columbus.

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OHIO—*Continued.*

1890. J. P. SHARKEY.
1885. Superintendent of Schools, and 1893 Member of State Board of Examiners, Eaton.

SOPHIE VANCE.
1876. Grammar Department, Van Wert.

1891. ARTHUR O. JONES.
1890. Teacher of Drawing, Public Schools, 83 Highland Ave., Walnut Hills, Cincinnati.

R. ANNA MORRIS, Grad., '88, Anderson Nor. Sch. of Physical Training.
1894. Special Teacher of Physical Culture Public Schools, 564 Prospect St., Cleveland.

ELLEN G. REVELEY, Pd. D., '94, State Nor. Coll., Albany, N. Y.
1891. Supervisor of Schools, 190 Euclid Ave., Cleveland.

CHARLES W. SUPER, A. B., '66, Dickinson Coll.; A. M., '82, Syracuse Univ.; Ph. D., '74, Ill. Wesleyan Univ.; LL. D., '94, Dickinson Coll.
1883. President of Ohio University, Athens.

F. TREUDLEY, A. B., '78, Univ. of Ind.
1885. Superintendent of Schools, 623 Elm St., Youngstown.

W. J. WHITE.
1888. Superintendent of Schools, 1410 E. 3d St., Dayton.

1892. H. T. LOOMIS.
Principal of Spencerian Business College, 422 Superior St., Cleveland.

T. J. MITCHELL, A. B., A. M., Ph. D.
"The Lennox," Cleveland.

N. COE STEWART, F. C. M.
Director of Music Public Schools, 71 Jennings Ave., Cleveland.

WM. H. VOGEL.
1886. Assistant Superintendent of Drawing, 1028 Linn St., Cincinnati.

MATILDA L. WALKE.
Twenty-sixth District School, Riddle Road, Clifton, Cincinnati.

1893. E. R. BOOTH, A. M., '95, Univ. of Wooster.
1889. Principal Technical School, 14th and Elm Sts., Cincinnati.

CHARLES HAUPERT, A. B., '80, A. M., '83, Heidelburg Univ.
1893. Supt. of Sch., and 1894 Member State B'd of Examiners, 20 E. Bowman St., Wooster.

M. A. KIMMEL.
1880. Superintendent of Schools, Poland.

MRS. CAROLINE NEWHALL LATHROP.
Principal of Normal School, 9th St., W. of John, Cincinnati.

H. H. RASCHIG.
1874. Principal of District School, Mound St., Avondale.

S. D. SANOR, M. Sc., '92, Mt. Union Coll.
1893. Superintendent of Schools, 250 4th St., East Liverpool.

JAMES W. SCOTT, A. B., Duquesne Coll.
1890. Superintendent of Schools, Loudonville.

WILLIAM H. SCOTT, A. M., '65, Ohio Univ.; LL.D., '84, Ohio Univ. and Ohio Wesleyan Univ.
1883. Professor of Philosophy, Ohio State Univ., 131 15th Ave., Columbus.

LUCIA STICKNEY, A. M., '95, Oberlin Coll.
1877. Hughes High School, Cincinnati.

A. D. WILT.
President of Miami Commercial College, Dayton.

1894. JAMES W. BASHFORD, A. B., '73, A. M., '76, Univ. of Wis.; S. T. B., '76, Ph. D., '81, Boston Univ.; D. D., '90, Southwestern Univ.

1889. President of Ohio Wesleyan University, 23 Oak Hill Ave., Delaware.

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OHIO—*Continued.*

1894. J. REMSEN BISHOP, A. B., '82, Harvard.
Principal of High School, Alpine Place, Walnut Hills, Cincinnati.

W. W. BOYD, A. B., '84, A. M., '86, Marietta Coll.
1891. Superintendent of Schools, 501 5th St., Marietta.

EDWARD L. HARRIS, A. B., A. M., Ph. B.
1889. Principal of Central High School, Cleveland.

JULIA A. HARRIS.
1874. Prim. Dept., 13th Dist. School, Cleneay and Spencer Aves., Norwood, Cincinnati.

HARRIET L. KEELER, A. B., '70, Oberlin Coll.
1878. Assistant Central High School, 93 Olive St., Cleveland.

MARY MCGOWAN.
1888. Teacher in Mornington School, Cincinnati, Madisonville.

GEO. ROBBINS.
Industrial Department, Cincinnati Union Bethel, 750 W. 7th St., Cincinnati.

ELLA M. SNYDER.
1889. Teacher in Grammar Grade, 70 Rose St., Salem.

WILLIAM O. THOMPSON, D. D., '91, Muskingum Coll.
1891. President of Miami University, Oxford.

1895. EMMA BROOKE, B. L., Ohio Wesleyan Univ.
1890. Principal of Grammar School, 60 Griswold St., Delaware.

ANNIE LAWS.
President Cincinnati Woman's Club, etc., 818 Dayton St., Cincinnati.

WILLIAM Z. LAZENBY, B. Agri., Cornell; M. Agri., Iowa Agri. Coll.
1881. Professor of Horticulture and Forestry, Ohio State University, Columbus.

CHAS. L. LOOS, JR., A. B., '69, A. M., '71, Bethany Coll., W. Va.
1888. Head of English Department, Steele High School, 132 Salem St., Dayton.

J. S. LOWE, A. M., '67.
1891. Superintendent of Schools, Ashtabula.

HENRY N. MERTZ, A. M., '80, Bethany Coll.
1891. Superintendent of Schools, La Belle Ave., Steubenville.

MIAMI UNIVERSITY.
Oxford.

HENRY M. PARKER, A. B., A. M., Marietta Coll.
1873. Superintendent of Schools, Elyria.

J. W. PFEIFFER, B. Sc., Hopedale Nor. Coll.
1888. Superintendent of Schools, 141 Wooster Ave., Canal Dover.

E. H. PRICHARD.
Teacher in Intermediate Grade, Cincinnati.

MARGARET W. SUTHERLAND.
1889. Principal of Normal School, 1076 Neil Ave., Columbus.

CHARLES F. THWING, D. D, LL.D.
Pres. of Western Reserve Univ. and Adelbert Coll., 55 Bellflower Ave., Cleveland.

OREGON.

LIFE DIRECTOR.

1888. C. C. STRATTON, D. D.
Portland University, University Park.

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ACTIVE MEMBERS.

1895. J. H. ACKERMAN.
Principal Harrison St. Grammar School, Portland.

E. B. MCELROY, A. M., '83, Christian Coll.; Ph. D., '84, Williamette Univ.
1895. Professor of Ethics, University of Oregon, Eugene.

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Dept. of Physics and Biology, State Normal School, 610 S. High St., West Chester.

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1892. Teacher of Mathematics, State Normal School, River Falls.

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Professor of Philosophy and Pedagogy, Univ. of Wis., 512 Wisconsin Ave., Madison.

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Superintendent of Schools, 512 Wilson Ave., Menomonie.

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1894. Supervisor of Practice, State Normal School, Platteville.

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1034 Spaight St., Madison.

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1892. Editor Western Teacher, 141 W isconsin St., Milwaukee.

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1894. Teacher of American History, State Normal School, River Falls.

ROSE C. SWART, A. M., '95, Univ. of Wis.
1884. Inspector of Practice Teaching, State Normal School, 37 Elm St., Oshkosh.

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Board of Regents, State Nor. Sch., Wis., 1884, L.
Bobo, Sophia H., Kan., 1895, A.
Bodwell, Edwin J., Neb., 1895, A.
Bomberger, F. J., Minn., 1895, A.
Boone, Richard G., Mich., 1884, A.
Booth, E. R., Ohio, 1893, A.
Bostwick, O. P., Iowa, 1891, A.
Bouton, Rosa, Neb., 1894, A.
Boyd, David R., Okla., 1892, A.
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Boyden, Albert G., Mass., 1890, A.
Braden, John, Tenn., 1895, A.
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Bradley, Milton, Mass., 1892, A.
Bradley, John E., Ill., 1889, A.
Brier, Warren J., Wis., 1895, A.
Briggs, Egbert L., Mich., 1895, A.
Bright, O. T., Ill., 1893, A.
Brooke, Emma, Ohio, 1895, A.
Brooks, Edward, Pa., 1876, L.
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Brown, Helen M., Colo., 1895, A.
Brown, Jesse H., Ind., 1891, A.
Brown, Le Roy D., Cal., 1888, D.
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Bruce, Wm. G., Wis., 1893, A.
Brumbaugh, M. G., Pa., 1893, A.
Bryan, Wm. L., Ind., 1893, A.
Buchanan, Geo. V., Mo., 1894, A.
Buchanan, John T., Mo., 1890, A.
Buehrle, R. K., Pa., 1892, A.
Bulkley, Julia, Ill., 1895, A.
Burdick, A. Hall, N. Y., 1892, A.
Burk, Frederic L., Cal., 1892, A.
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Burns, James C., Ill., 1895, A.
Burns, J. J., Ohio, 1880, L.
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Butler, Nicholas M., N. Y., 1885, A.
Calkins, Ella, N. Y., 1895, A.
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Camp, David N., Conn., 1892, A.
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Cammack, Ira I., Mo., 1895, A.
Canfield, James H., Ohio, 1884, A.
Cannon, Geo. L., Colo., 1895, A.
Carpenter, J. H., Wis., 1884, L.
Carter, Chas. M., Colo., 1892, A.
Case, Richard, N. J., 1894, A.
Casey, Wm. V., Colo., 1895, A.
Cassidy, Rose, Ill., 1896, A.
Carlisle, James M., Tex., 1895, A.
Chalmers, W. W., Mich., 1895, A.
Chandler, John W., N. Y., 1890, A.
Chandler, Willard H., Wis., 1884, L.
Chapman, Frederick E., Mass., 1894, A.
Charlton, Edwin A., Wis., 1884, L.
Cheney, Augustus J., Ill., 1884, L.
Cheney, Francis J., N. Y., 1891, A.
Church, George E., R. I., 1892, A.
Clancy, Albert W., Ill., 1892, A.
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Clark, Frank H., Colo., 1886, L.
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Coe, Emily M., N. Y., 1880, L.
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Cole, Chas. W., N. Y., 1892, A.
Cole, Wm. H., Ohio, 1870, L.
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Collin, Alonzo, Iowa, 1894, A.
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Cross, Etta, Kan., 1895, A.
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Crouch, Sarah E., Mo., 1895, A.
Crouse, Mrs. J. N., Ill., 1893, A.
Cruikshank, James, N. Y., 1864, L.
Curran, Ulysses T., N. M., 1866, L.
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Davidson, Charles C., Ohio, 1880, L.
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Day, L. W., Ohio, 1888, D.
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Delano, Edward C., Ill., 1895, A.
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English, Rebecca F., Cal., 1888, L.
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Fairchild, E. T., Kan., 1886, L.
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Farrell, Edward D., N. Y., 1890, A.
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Fernald, M. C., Me., 1890, A.
Fisher, Gilman C., R. I., 1892, A.
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Fiske, Herbert F., Ill., 1891, A.
Fitch, Ferris S., Mich., 1890, A.
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Fitzgerald, Ella, Ill., 1895, A.
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Flavin, John F., Wis., 1884, L.
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Forbes, Alexander, Ill., 1876, L.
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Foshay, James A., Cal., 1893, A.
Foster, Chas. F., Pa., 1892, A.
Fowler, George R., Mass., 1895, A.
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Freer, H. H., Ia., 1884, A.
French, Harlan P., N. Y., 1891, A.
French, Geo. W., N. Y., 1895, A.
Friedberg, William B., N. Y., 1892, A.
Frost, H. H., Mich., 1895, A.
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Fulton, Robert B., Miss., 1894, A.
Futrall, Thomas A., Ark., 1887, A.
Galbreath, Louis H., Minn., 1887, A.
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Gilchrist, J. C., Iowa, 1880, L.
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Glover, Nathan L., Ohio, 1889, A.
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Goudy, A. K., Neb., 1895, A.
Gove, Aaron, Colo., 1888, D.
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Gregory, John T., Ala., 1895, A.
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Greenwood, J. M., Mo., 1886, D.
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Grossman, John H., Ill., 1895, A.
Guden, Anna J., N. J., 1894, A.
Gulbar, Louise, Colo., 1895, A.
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Hadley, Hiram, N. Mex., 1891, A.
Hagar, Daniel Barnard, Mass., 1864, L.
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Hall, Dora W., Ill., 1891, A.
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Harrison, Elizabeth, Ill., 1895, A.
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Hart, Albert Bushnell, Mass., 1895, A.
Hartigan, Mary S. L., Ill., 1895, A.
Hartley, E. T., Neb., 1895, A.
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Harvard University, Mass., 1895, A.
Harvey, G. I., Mo., 1886, L.
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Hayward, Emily A., Ill., 1884, L.
Heath, D. C., Mass., 1891, A.
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Heineken, J. F. D., N. J., 1894, A.
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Hewett, Edwin C., Ill., 1884, L.
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Hicks, Lou Alice, Wis., 1895, A.
Hicks, Mrs. Mary Dana, Mass., 1890, A.
Hill, Frank A., Mass., 1895, A.
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Hisey, Joseph C., Mo., 1894, A.
Hitz, John, D. C., 1880, L.
Hobe, Augusta W., Cal., 1889, L.
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Hodgin, Charles E., N. Mex., 1895, A.
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Hofer, Amalie, Ill., 1895, A.
Hoffman, Gains, N. J., 1894, A.
Hogg, Alex., Tex., 1874, A.
Holloway, J. L., Ark., 1895, A.
Holt, H. E., Mass., 1890, A.
Homans, Amy Morris, Mass., 1891, A.
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Hoose, James H., Cal., 1879, L.
Hornberger, J. A., Ill., 1895, A.
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Humke, Albert E., Ind., 1893, A.
Hunt, Mary H., Mass., 1887, D.
Hunter, Thomas, N. Y., 1885, L.
Hurd, George B., Conn., 1888, A.
Hutchins, Adella, Mich., 1892, A.
Hutton, A. J., Wis., 1884, L.
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Hyde, C. W. G., Minn., 1895, A.
Hyde, Mary F., N. Y., 1892, A.
Ireland, Jessie, Neb., 1895, A.
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Irwin, John S., Ind., 1880, L.
Jackman, Wilbur S., Ill., 1895, A.
Jackson, Mrs. Elizabeth R., N. Mex., 1895, A.
Jackson, Joseph P., Colo., 1895, A.
Jacobs, Evelyn M., Colo., 1895, A.
Jacobs, Walter Ballou, R. I., 1895, A.
James, Henry M., Wash., 1884, L.
Jarnette de, Anna K., Cal., 1877, L.
Jay, Walter M., Kan., 1886, L.
Jenkins, Wm., Ill., 1886, A.
Jesse, Richard H., Mo., 1895, A.
Jewett, A. V., Kan., 1886, D.
Johnson, A. A., Wyo., 1895, A.
Johnson, D. B., S. C., 1895, A.
Johnson, Ernest Henry, R. I., 1893, A.
Johnson, Isaac T., Del., 1894, A.
Jones, Arthur O., Ohio, 1891, A.
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Jones, Myra, Mich., 1892, A.
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Jordon, Chas. M., Minn., 1893, A.
Kane, T. F., Pa., 1889, A.
Keane, John J., D. C., 1889, L.
Keeler, Flora A., Mich., 1894, A.
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Kelsey, David M., N. Y., 1891, A.
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Kerr, William J., Utah, 1895, A.
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Kimmel, M. A., Ohio, 1893, A.
King, Wm. F., Iowa, 1884, A.
Kinsley, M. H., N. J., 1894, A.
Kirk, John R., Mo., 1891, A.
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Knapp, Warren E., Colo., 1890, A.
Krackowizer, Alice M., Ill., 1895, A.
Kratz, H. E., Iowa, 1890, A.
Kruse, Edwina B., Del., 1891, A.
Lagomarsino, Cynthia, N. Y., 1894, A.
Laird, Mrs. Ada E., Ohio, 1890, A.
Lamberton, Mary J., Pa., 1892, A.
Lane, Albert G., Ill., 1884, A.
Lang, Ossian H., N. Y., 1891, A.
Lansdon, W. C., Kan., 1895, A.
Larimer, Henry G., Kan., 1886, L.
La Taste, Lucien V., Ala., 1894, A.
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Lyte, E. Oram, Pa., 1891, L.
MacAlister, James, Pa., 1895, A.
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Mack, Wm. S., Ill., 1895, A.
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Main, Julia B., Wis., 1895, A.
Malone, W. R., Utah, 1891, A.
Manley, R. M., Ga., 1870, L.
Marble, A. P., Mass., 1880, L.
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Marshall, T. Marcellus, Ky., 1877, D.
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Massey, John E., Va., 1891, A.
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McMurry, F. M., N. Y., 1895, A.
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McNeal, Florence, Kan., 1892, A.
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McVicar, Peter, Kan., 1886, L.
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Moore, Dora M., Colo., 1895, A.
Moreton, J. B., Utah, 1895, A.
Morris, R. Anna, Ohio, 1891, A.
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Munroe, Alexander A., Neb., 1891, A.
Munroe, James Phinney, Mass., 1895, A.
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Northrop, B. G., Conn., 1884, L.
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O'Shea, M. V., N. Y., 1892, A.
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Page, Mrs. Mary B., Ill., 1895, A.
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Parkinson, John B., Wis., 1884, L.
Parmenter, Chas. W., Mass., 1895, A.
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Payne, William H., Tenn., 1892, A.
Peabody, Selim H., N. Y., 1884, A.
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Pease, Alvin F., Mass., 1891, A.
Pease, N. W., N. J., 1894, A.
Peaslee, John B., Ohio, 1880, A.
Peavey, Mrs. A. J., Colo., 1895, A.
Pendergast, W. W., Minn., 1894, A.
Pennell, Calvin S., Minn., 1864, L.
Perrine, Lura L., N. D., 1895, A.
Perry, Elizabeth H., Mass., 1891, A.
Perry, W. S., Mich., 1892, A.
Pfeiffer, J. W., Ohio, 1895, A.
Phelps, William F., Minn., 1870, L.
Philips, Geo. M., Pa., 1894, A.
Phillips, J. H., Ala., 1888, A.
Pickard, Josiah L., Iowa, 1886, L.
Pierce, H. B., Iowa, 1894, A.
Pierce, Mrs. Ida L., Iowa, 1894, A.
Pierce, Edward T., Cal., 1887, A.
Pike, Joshua, Ill., 1891, D.
Piper, Jonathan, Ill., 1895, A.
Poland, A. B., N. J., 1892, A.
Pollock, Susan P., D. C., 1894, A.
Posse, Baroness Rose, Mass., 1895, A.
Powell, W. B., D. C., 1892, A.
Powell, W. F., N. J., 1889, A.
Power, Gussie, N. Y., 1887, A.
Powers, James K., Ala., 1895, A.
Pray, T. E., Wis., 1891, A.
Preston, J. R., Miss., 1890, A.
Prettyman, E. B., Md., 1892, A.
Prichard, E. H., Ohio, 1895, A.
Prince, John T., Mass., 1891, A.
Principals' Association, Wis., 1884, L.
Principals' Association, Milwaukee, Wis., 1884, L.
Prillerman, Byrd, W. Va., 1891, A.
Pritchett, H. C., Tex., 1892, A.
Public School Teachers, Janesville, Wis., 1884, L.
Putnam, Mrs. Alice H., Ill., 1893, A.
Raab, Henry, Ill., 1884, L.
Ralston, James M., N. J., 1892, A.
Ramsey, Charles C., Mass., 1893, A.
Ramsey, Geo. J., La., 1889, A.
Rankin, A. W., Minn., 1893, A.
Raschig, H. H., Ohio, 1893, A.
Raub, A. N., Del., 1892, A.
Raymond, Andrew V. V., N. Y., 1895, A.
Redfield, Jennie L., Neb., 1895, A.
Reed, A. A., Neb., 1895, A.
Reel, Estelle, Wyo., 1894, A.
Reid, Mary D., Colo., 1891, A.
Reveley, Ellen G., Ohio, 1891, A.
Reynolds, Chas. B., Mo., 1895, A.
Rhoads, McHenry, Ky., 1891, A.
Rice, Gratia L., N. Y., 1889, A.
Rice, Rebecca S., Ill., 1893, A.
Richards, Zalmon, D. C., 1864, L.
Richmond, Sarah E., Md., 1876, L.
Rickoff, Andrew J., Cal., 1881, D.

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Rickoff, Rebecca D., Cal., 1880, L.
Riggs, John F., Iowa., 1895, A.
Riley, Mrs. Matilda E., Mo., 1890, A.
Robbins, H. E., Colo., 1895, A.
Robbins, Geo., Ohio, 1894, A.
Robbins, C. W., Mo., 1892, A.
Robert, James A., Ohio, 1882, L.
Roberts, Hester A., N. Y., 1894, A.
Robinson, Albert R., Ill., 1895, A.
Robinson, Oscar D., N. Y., 1892, A.
Rogers, C. P., Iowa, 1884, A.
Rogers, Josephine E., N. Y., 1893, A.
Rogers, Rovillus R., N. Y., 1895, A.
Roof, F. M., Ala., 1892, A.
Roop, C. Y., Cal., 1886, L.
Rose, Geo. E., Kan., 1886, L.
Ross, W. D., Kan., 1894, A.
Rothwell, W. R., Mo., 1895, A.
Rounds, Chas. C., N. H., 1876, L.
Rounds, Katharine E., N. H., 1894, A.
Rourke, Mary, Iowa, 1895, A.
Rowe, Alex M., S. D., 1894, A.
Rowe, Alice E., Utah, 1894, A.
Russell, James E., Colo., 1895, A.
Russell, J. A., N. H., 1894, A.
Russell, J. M., N. H., 1894, A.
Ryan, Geo. G., N. J., 1894, A.
Ryan, Mamie E., S. D., 1895, A.
Ryan, Kate G., S. D., 1895, A.
Sabin, Albert R., Ill., 1884, A.
Sabin, Ellen C., Wis., 1895, A.
Sabin, Henry, Iowa, 1889, A.
Sabin, Mary S., Colo., 1895, A.
Salisbury, Albert, Wis., 1887, A.
Samuel, Wm. H., Pa., 1893, A.
Sanders, D. E., Kan., 1895, A.
Sanor, S. D., Ohio, 1893, A.
Savage, Reed, Ill, 1889, A.
Sawhill, Thoms A., Kan., 1886, L.
Sawyel, Franklin B., Pa., 1895, A.
Scarlett, Augustus, N. J., 1891, A.
Schaeffer, Nathan C., Pa., 1887, A.
Schell, Ida L., Iowa, 1894, A.
Schermerhorn, Jane A., N. Y., 1895, A.
Schmucker, S. C., Pa., 1892, A.
Schofield, Martha, S. C., 1891, L.
Schuyler, Aaron, Kan., 1886, L.
Scobey, Frank H., N. J., 1894, A.
Scott, Charles B., N. Y., 1894, A.
Scott, James W., Ohio, 1893, A.
Scott, Wm. H., Ohio, 1893, A.
Searing, Edward, Minn., 1895, A.
Seaver, Edwin P., Mass., 1893, A.
Seeley, Levi, N. J., 1891, A.
Seerley, H. H., Iowa, 1884, A.
Seifert, Eda N., Iowa, 1895, A.
Sharkey, J. P., Ohio, 1890, A.
Shaw, Edward R., N. Y., 1893, A.
Shaw, Samuel, Wis., 1884, L.
Shawan, J. A., Ohio, 1894, L.
Shear, S. R., N. Y., 1895, A.
Sheats, W. N., Fla., 1893, A.
Sheldon, E. A., N. Y., 1891, A.
Sheldon, William Evarts, Mass., 1865, L.
Shelley, W. H., Md., 1895, A.
Shepard, A. D., Colo., 1891, A.
Shepard, Irwin, Minn., 1883, A.
Shields, D. W., W. Va., 1895, A.
Shinn, Josiah H., Ark., 1890, A.
Shippen, Edward, Pa., 1879, L.
Silke, Lucy, Ill., 1893, A.
Silver, Edgar O., Mass., 1894, A.
Simcoke, Laura, Iowa, 1895, A.
Sinclair, S. B., Canada, 1891, A.
Singer, Edgar A., Pa., 1880, L.
Sites, C. M. L., D. C., 1893, A.
Skidmore, Sydney T., Pa., 1895, A.
Skinner, Chas. R., N. Y., 1890, A.
Skinner, W. H., Neb., 1895, A.
Slack, Hiram W., Minn., 1895, A.
Slade, James P., Ill., 1895, A.
Slaton, W. M., Ga., 1894, A.
Slauson, H. M., Ill., 1894, A.
Smart, James H., Ind., 1877, L.
Smiley, Wm. H., Colo., 1892, A.
Smith, Arthur P., Mass., 1890, A.
Smith, A. Thomas, Pa., 1893, A.
Smith, Anna T., D. C., 1895, A.
Smith Carrie J., Wis., 1895, A.
Smith, Edward, N. Y., 1892, A.
Smith, Geo. M., S. D., 1895, A.
Smith, Mollie Va., W. Va., 1894, A.
Smith, Sydney F., Colo., 1895, A.
Smith, Walter W., Minn., 1895, A.
Smyth, W. S., Ill., 1895, A.
Snyder, Ella M., Ohio, 1894, A.
Snyder, Henry, N. J., 1894, A.
Snyder, J. L., Pa., 1889, A.
Snyder, Lydia E. Ill., 1895, A.
Snyder, W. R., Ind., 1895, A.
Snyder, Z. X., Colo., 1887, A.
Soldan, F. Louis, Mo., 1877, L.
Sollett, Alice E., Ill., 1893, A.
Soule, Geo., La., 1892, A.
Spaulding, Randall, N. J., 1892, A.
Spencer, Henry C., D. C., 1893, A.
Spencer, Pauline W., Pa., 1893, A.
Spencer, Robert C., Wis., 1884, L.
Spencer, Mrs. Sara A., D. C., 1892, A.
Springer, Durand W., Mich., 1894, A.
Stableton, J. K., Neb., 1892, A.
Stanley, Edmund, Kan., 1886, L.
Stark, Joshua, Wis., 1884, L.
State Historical Society, Wis., 1884, L.
State Normal School, Athenaeum Literary Society, Wis., 1884, L.
State Normal School, Phila. Soc., Wis., 1884, L.
State Normal School, Platteville, Wis., 1884, L.
State Teachers' Association of Ill., 1890, D.
Stearns J. W., Wis., 1884, L.
Steele, Wm. L., Ill., 1890, A.
Stephenson, Lillie S., Ill., 1895, A.
Stern, Menco, N. Y., 1882, L.
Stevens, E. H., Colo., 1895, A.
Stevens, Moses C., Ind., 1876, L.
Stevenson, Wm. C., Kan., 1890, A.
Stewart, I N., Wis., 1884, L.
Stewart, John A., Mich., 1890, A.
Stewart, Joseph S., Ga., 1895, A.
Stewart, N. Coe, Ohio, 1892, A.
Stewart, Sarah A., Pa., 1884, L.
Stickney, Lucia, Ohio, 1893, A.
Stockwell, Thomas B., R. I., 1891, A.
Stockwell, Walter L., N. D., 1894, A.
Storm, A. V., Iowa, 1894, A.
Stout, Geo. H., Pa., 1884, A.
Stout, Isaac H., N. Y., 1890, A.
Stowell, Thomas B., N. Y., 1891, A.
Strasser, Florence L., Iowa, 1894, A.
Stratton, C. C., Ore., 1888, D.
Stratton, Frederick E., Minn., 1886, A.
Straus, W. M., W. Va., 1895, A.
Strong, Edwin A., Mich., 1892, A.
Strong, James W., Minn., 1895, A.

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Stubbs, J. E., Nev., 1895, A.
Sudborough, Mrs. Grace B., Neb., 1880, L.
Sullivan, Christine, Ohio, 1886, A.
Super, Chas. W., Ohio, 1891, A.
Suplee, Fannie, Iowa, 1895, A.
Suter, Anna, Ind., 1890, A.
Suter, Miss H. A., La., 1894, A.
Sutherland, Margaret W., Ohio, 1895, A.
Sutton, W. S., Tex., 1895, A.
Swain, Joseph, Ind., 1893, A.
Swart, Rose C., Wis., 1895, A.
Sylvester, Carrie, Wis., 1895, A.
Sylvester, C. H., Wis., 1895, A.
Taber, Mary E., Kan., 1895, A.
Tadd, J. Liberty, Pa., 1892, A.
Talbot, Henry, Ala., 1892, A.
Talmage, James E., Utah, 1895, A.
Tapley, William W., Mass., 1892, A.
Tarbell, Horace S., R. I., 1891, A.
Taylor, A. R., Kan., 1886, D.
Taylor, Mrs. A. R., Kan., 1895, A.
Taylor, Henry J., Iowa, 1884, L.
Taylor, Joseph S., N. Y., 1894, A.
Teachers' Associa. of Cowley Co., Kan., 1886, L.
Teachers' Associa. of Riley Co., Kan., 1886, L.
Teachers' Association, Wis., 1884, L.
Teachers' Corps, Intermediate and Upper Sec., Wis., 1884, L.
Teachers' Corps, Primary Section, Wis., 1884, L.
Teachers' Institute, Philadelphia, Pa., 1879, D.
Tear, John H., Ill., 1895, A.
Templeton, J. C., Mont., 1894, A.
Tharpe, F. D., Mo., 1891, A.
Thayer, J. B. Wis., 1884, L.
Theilman, Louis, Mo., 1895, A.
Thompson, Charles W., Mo., 1894, A.
Thompson, John G., Mass., 1895, A.
Thompson, J. W., Kan., 1895, A.
Thompson, Langdon S., N. J., 1876, L.
Thompson, N. B., Kan., 1895, A.
Thompson, Wm. O., Ohio, 1894, A.
Thurber, Chas. H., Ill., 1893, A.
Thwing, Charles F., Ohio, 1895, A.
Tibbets, Anna, Neb., 1894, A.
Tillotson, D. C., Kan., 1886, L.
Todd, Samuel B., Wis., 1895, A.
Tower, Elizabeth A., Iowa, 1895, A.
Tressler, A. W., Mich., 1892, A.
Treudley, F., Ohio, 1891, A.
Turner, Alfred, Vt., 1895, A.
Turner, Marie L., Mo., 1895, A.
Tutwiler, Julia S., Ala., 1895, A.
Twining, Nathan, Cal., 1884, L.
Underhill, Volney, Ill., 1893, A.
University of North Dakota, N. D., 1895, A.
University of Utah, 1895, A.
Unwerth von, Frida, Mo., 1895, A.
Valle, E. O., Ill., 1895, A.
Van Aken, Mrs. Geo., N. Y., 1884, L.
Vance, Sophie, Ohio, 1890, A.
Van Liew, Chas. C., Ill., 1894, A.
Van Rensselaer, Martha, N. Y., 1894, A.
Van Sickle, James H., Colo., 1892, A.
Van Wie, Charles B., Ala., 1895, A.
Veatch, Nathan T., Ill., 1895, A.
Vert, Edmund J., S. D., 1895, A.
Vogel, Wm. H., Ohio, 1892, A.
Wabash College, Ind., 1895, A.
Waldo, Adelaide C., Ill., 1895, A.
Waldo, Jennie E., Ill., 1895, A.
Walke, Matilda L., Ohio, 1892, A.
Warnecke, Marie L., Colo., 1892, A.
Warner, A. B., Iowa, 1895, A.
Warr, J. W., Ill., 1895, A.
Webber, Anna B., Ill., 1895, A.
Wernick, E. V., Wis., 1895, A.
Wheeler, Henry N., Mass., 1892, A.
Wheelock, Chas. F., N. Y., 1895, A.
Wheelock, Lucy, Mass., 1891, A.
Whitcomb, Arthur K., Mass., 1892, A.
White, Charles G., Mich., 1895, D.
White, Mrs. C. G., Mich., 1893, A.
White, Emerson E., Ohio, 1870, L.
White, R. Mabel, Ill., 1895, A.
White, W. J., Ohio, 1891, A.
White, W. T., Tenn., 1889, A.
Whitford, William C., Wis., 1884, L.
Whitman, B. L., D. C., 1895, A.
Whitney, M. A., Mich., 1891, A.
Whitney, S. Emory, Mich., 1895, A.
Whittemore, Henry, Mass., 1895, A.
Widner, Esther A., Ohio, 1882, L.
Wilkins, A. H., Utah, 1894, A.
Wilkinson, J. N., Kan., 1886, A.
Williams, Mrs. Delia, Ohio, 1870, L.
Williams, Philo J., Kan., 1886, L.
Williams, Wm. J., Neb., 1895, A.
Willis, W. A., Iowa, 1884, L.
Williams, Samuel G., N. Y., 1891, A.
Willson, William E., R. I., 1890, A.
Wilson, Harry G., Ill., 1895, A.
Wilson, J. Ormond, D. C., 1880, L.
Wilt, A. D., Ohio, 1893, A.
Winchell, Harriet N., Ill., 1895, A.
Winchell, S. R., Ill., 1895, A.
Winne, James, N. Y., 1892, A.
Winship, Albert E., Mass., 1892, A.
Wise, Henry A., Md., 1885, A.
Wise, W. J., Colo., 1895, A.
Wisebart, Lina, Colo., 1895, A.
Wisely, J. B., Ind., 1895, A.
Wolfe, L. E., Mo., 1890, A.
Wood, Emory M., Kan., 1889, A.
Wood, O. M., Mo., 1893, A.
Woodward, C. M., Mo., 1887, A.
Woody, H. G., Ind., 1893, A.
Worthington, John D., Md., 1893, A.
Wright, Edmund W., N. H., 1889, L.
Wright, Wm. R., N. J., 1892, A.
Wylie, Mrs. M. J. B., N. Y., 1891, L.
Yerby, John D., Ala., 1895, A.
Young, Geo. C., Utah, 1892, A.
Young, J. S., Colo., 1895, A.
Young, Robert G., Mont., 1889, A.
Zimmerman, Chas. F. A., Wis., 1895, A.

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LIST OF ADVANCE ANNUAL MEMBERS

FROM THE

STATE OF COLORADO.

This list of annual members is published in accordance with assurances given the teachers of Colorado, previous to the amendment to the constitution, dating July 12, 1895, providing that the names of active and corresponding members only will be published hereafter.

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Abrahams, Annie E., Denver.
Adams, Jessie F., Georgetown.
Adams, Helen, Aspen.
Adams, Matt, Denver.
Adams, Alice, Leadville.
Akin, Laura E., Fort Collins.
Alderman, Sara A., Denver.
Aldinger, Alice, Golden.
Allan, Mrs. Cora, Denver.
Allen, Lou M., Colorado Springs.
Allen, Mary L., Denver.
Allen, Sarah D., Denver.
Allen, Mame C., Greeley.
Allen, Mrs. Jennie A., Arvada.
Allen, S. B., Julesburg.
Ammons, T. G., Denver.
Ammons, Theodosia G., Denver.
Anderson, Frances O., Denver.
Anderson, Katherine, Aspen.
Arasmith, J. W., Holden.
Arkush, S., Denver.
Armstrong, Catherine, Boulder.
Arnold, E. G., Denver.
Arundel, Walter C., Berkeley.
Auld, Clara, Globeville.
Auld, Emma, Globeville.
Ayres, Henrietta B., Denver.
Bach, P. M., Colorado Springs.
Backus, May, Black Hawk.
Bagiel, Lou, Akron.
Bailey, Anna B., Boulder.
Baker, J. H., Boulder.
Baker, S. C., Denver.
Baldwin, May, Denver.
Ball, Frank D., Castle Rock.
Banter, Edith M., Denver.
Barbee, J. S., Loveland.
Barber, Blanche M., Colorado Springs.
Barker, Mrs. H. C., Boulder.
Barnes, Lulu, Denver.
Barrett, Jessie, Kokomo.
Barrett, Harry M., Denver.
Barrow, Alida J., Denver.
Barrows, R. W., Denver.
Barthell, M. L., Glenwood.
Bashor, Fetta E., Longmont.
Bassett, Mrs. O. P., Leadville.
Bateman, O., Grand Junction.
Bates, Dr. Mary Barker, Denver.
Batterson, Chas., Erie.
Beadle, Mary E., Denver.
Bearce, E. B., Lamar.
Beardsley, A. E. (2), Greeley.
Beardsley, Rose M., Platteville.
Beattie, D. S., Denver.
Becker, Emma H., Denver.
Beegs, Dorothea C., Denver.
Beggs, Gertrude H., Denver.
Belcher, Winnie E., Colorado Springs.
Bell, C. F., Del Norte.
Benedict, Flora, Pueblo.
Bennett, Leona, Longmont.
Bennett, Helen, Denver.
Berry, Julia, Colorado Springs.
Berrey, B. F., South Denver.
Berryman, Eliza E, Denver.
Bethel, E., Denver.
Beuck, Ella, Agate.
Bigelow, C. W., Denver.
Biggs, Alice, Denver.
Bird, T. B., Highlands.
Blair, F. H., Sterling.
Blakeby, Myra, Cripple Creek.
Blakeley, Geo. J., Denver.
Blanchard, Dora M., Boulder.
Blattenburg, Edna, Trinidad.
Bliss, Lillian N., Greeley.
Bliss, Sadie, Highlands.
Bliss, Clara S., Greeley.
Bloom, Leonora E., Denver.
Bonnett, Ella H., Fort Collins.
Booton, Mary A., Golden.
Bortree, Mrs. Otto C., Colorado Springs.
Bostwick, Mrs. E. L., Denver.
Bostwick, D. L., Denver.
Bourgin Florence E., Silver Plume.
Bowman, Charles W., Pueblo.

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Boyd, David (2), Greeley.
Boyd, Psyche E., Greeley.
Boyer, Miss Monta, Denver.
Boylan, M. Nora, Greeley.
Brackett, J. R., Boulder.
Bradburn, Edith, Barnum.
Bradley, Chas. A., Denver.
Bremer, Josephine, Denver.
Bronton, Mrs., Aspen.
Brooks, Mrs. L., Denver.
Brooks, Nona L., Denver.
Brother, Edgar L., Denver.
Brotherton, S. H., Silver Plume.
Brown, Mrs. A. D., Delta.
Brown, J. Sherman, Denver.
Brown, Bessie, Lafayette.
Brown, G. E., Las Animas.
Brown, Grace, Denver.
Brown, Mrs. C. M., Trinidad
Brown, E. G., Highlands.
Brown, Helen M., Denver.
Brown, Mary C., Trinidad.
Brown, H. J., Littleton.
Brown, S. Ella, Denver.
Brown, Miriam, St. Elmo.
Brownell, Carrie E., Denver.
Bruce, Edith, Denver.
Buck, Sally F., Denver.
Buell, M. D. L., Salida.
Buell, Mrs. M. D. L., Salida.
Buger, Alex., Denver.
Bullock, R. W., Silver Plume.
Burger, Charles R., Denver.
Burnett, Wm. H., Burlington.
Burnett, Ruth, Burlington.
Bush, Mrs. S. E., Boulder.
Butler, Grace E., Denver.
Butler, O. P. M., Denver.
Bybee, W. F., Lafayette.
Byers, Georgia Phoebe, Denver.
Cain, Martha E., Denver.
Caldwell, Wilhelmina, Denver.
Calkins, Maud L., Denver.
Cameron, Grace A., Denver.
Campbell, C. M., Denver.
Campbell, Robert A., Central City.
Campbell, Christabel, Denver.
Campbell, Emma, Denver.
Canning, Annetta B., Aspen.
Cannon, George L., Highlands.
Cantril, Mary, Hill Top.
Capellier, Prof. L., Denver.
Capellier, Leon, Denver.
Care, Lutie, Buena Vista.
Carkener, Nettie, Corno.
Carlin, Mary, Denver.
Carlin, J. S., Denver.
Carr, Mrs. Mary L., Longmont.
Carrigin, Vora, Yuma.
Carter, O. M., Denver.
Carter, Cora L., Denver.
Carter, C. M., Denver.
Carter, A. L., Denver.
Carter, Lillian, Denver.
Casey, Wm. V., Boulder.
Catlin, F. D., Montrose.
Catlin, Alice, Montrose.
Cessna, J. P., Leadville.
Chadsey, C. E., Durango.
Chadsey, Miss E. M., Durango.
Chapman, Clara M., Grand Junction.
Chase, Edith R., Denver.
Cheney, L., Boulder.
Cherrington, Mary, Pueblo.
Christenson, Dora C., Morrison.
Churchill, Mrs. Belle S., Greeley.
Clark, A. K., Greeley.
Clark, W. T., Denver.
Clark, Frederick T., Denver.
Clark, Mrs. Hulda M., Denver.
Clark, Anna M., Denver.
Clark, K., Denver.
Clark, W. H., Las Animas.
Clay, M. A., Aspen.
Clemens, Clara, Boulder.
Clifford, Norman, Denver.
Cline, Edith A., Hazeltone.
Coberly, Mrs. Emma H. (2), Univ. Park.
Dunn, Angie, Colorado Springs.
Dunn, Lou, Colorado Springs.
Coffin, Geneva, Longmont.
Cogswell, Maud, Leadville.
Cole, Helen, Denver.
Cole, Ada E., Denver.
Cole, Edward E., Pueblo.
Coleman, C. M., Monument.
Coleman, Mrs. C. M., Monument.
Collar, Emily, Denver.
Collier, Elsie J., Denver.
Clooins, O. E., Denver.
Combs, G. W., Chivington.
Condit, Adella, Denver.
Coney, Clara J., Denver.
Connelly, Kate M., Denver.
Cooper, Ella M., Denver.
Cooper, W. B., Denver.
Cooper, Lottie, Denver.
Copeland, W. S., Aspen.
Copeland, A. B. (2), Greeley.
Cordes, Carrie, Greeley.
Cordingly, Lizzie, Denver.
Cornell, Laura E., Denver.
Cornell, L. S., Denver.
Cornish, Lydia R., Denver.
Corpe, May, Julesburg.
Corson, Cora M., Denver.
Corwin, Martha J., Denver.
Costin, Viola, Greeley.
Cotten, Ella, Denver.
Courtney, A. C., Denver.
Courtney, Alice, Denver.
Cowles, Ollie J., Pueblo.
Cowperthwaite, Ellanora, Denver.
Coy, Nathan B., Denver.
Coy, Mrs. N. B., Denver.
Crandall, L. A., Denver.
Crater, Mary, Denver.
Cregan, Katie, Denver.
Cretney, Edith, Leadville.
Crews, Geo. B., Denver.
Crombil, Edith, Trinidad.
Cronkhite, Dora, Greeley.
Cullacott, Bertha, Salina.
Cummings, J. W., Colo. Springs.
Curnow, Emma, Denver.
Curnow, Hannah, Denver.
Dace, Mary, Denver.
Dalrymple, Miss, Montrose.
Dana, J. C., Denver.
Daniel, Emma J., Denver.
Daniels, Mary, Trinidad.
Daniels, Joseph F., Greeley.
Danielson, Cora, Cotopaxi.
Darling, M. L., Leadville.
Davidson, Elanor, Golden.
Davidson, Josephine, Golden.
Davis, Ida F., Pueblo.
Davis, Cora B., Leadville.
Day, Nellie R., Central City.
Day, Anna P., Trinidad.
Deamer, Eugenia H., Denver.
De Lan, Louise, Glenwood Springs.
De Lan, Anna, Glenwood Springs.
Delbridge, Eloise N., Greeley.
Delongs, Ira M., Boulder.
Denbo, Hannah H., Denver.
Dennison, Ida M., Denver.
Delavon, Elizabeth, Denver.
De Volt, Etta, Colorado Springs.
Dewey, Lova C., Denver.
Dick, Fred, Denver.
Dicker, Lora, Longmont.
Dickerson, Mamie, Sterling.
Dickie, Alice, Aspen.
Dobbins, Nettie, Longmont.

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Dodds, J. H., S. Denver.
Doll, Mrs. H. C., Denver.
Downs, Edgar R., Denver.
Drake, R. C., Brush.
Draper, Carrie E., Hudson.
Dreisbach, Cora, Carthage.
Dresser, Helen C., Greeley.
Dunlap, Annie, Denver.
Dunn, A. H., Fort Collins.
Dwyer, Helen, Denver.
Eagleton, M. E., Littleton.
Eagleton, W. H., Denver.
Eagleton, J. S., Morrison.
Eastman, Sue, Trinidad.
Eaton, Evangeline, Berkley.
Eaton, Mrs. Flora Hunt, Eaton.
Eaton, Della, Bryant.
Eckman, Rena S., Denver.
Edgerton, Mrs. Hattie B., Denver.
Edwards, Belle, Colorado Springs.
Edwards, Mrs. Emma C., Denver.
Ege, Hettie B., Denver.
Eichel, Dena, Burlington.
Elder, Dorothy E., Denver.
Elder, E. W., Denver.
Elder, Andrew W., Denver.
Eldridge, Madge, Denver.
Ellis, Alston, Ft. Collins.
Ellis, Elizabeth, Denver.
Ellsberry, M. E., Victor.
Elmore, Mary E., Colorado Springs.
Emerson, Laura, Gunnison.
Emmon, Helen C., Denver.
Erwin, Joseph M., Denver.
Evans, Elizabeth, Highlands.
Evans, Sadie A., Edgewater.
Everett, H., Denver.
Ewan, Bessie, Morrison.
Ewing, Carrie, Louisville.
Fairfield, Olive J., Denver.
Faris, Fannie E., Denver.
Farnsworth, Olive, Highlands.
Farrington, Tidie, Saguache.
Fashbaugh, Carrie E., Evans.
Faulkner, Nellie, Yuma.
Fiest, Caroline, Denver.
Ferguson, Belle C., Denver.
Field, Clara E., Denver.
Field, Mrs. Lillian, Denver.
Finch, Clarence O., Colorado Springs.
Finding, Ethel L., Denver.
Firth, W. H., Denver.
Fisher, Edward, Grand Junction.
Fitzgerald, Mary E., Manitou.
Flanagan, Mary, Ft. Collins.
Fletcher, G., Denver.
Flower, Elizabeth, Denver.
Floyd, A. J., Greeley.
Flynn, A. J. Alamosa.
Flynn, P. J., Denver.
Foljambe, Eugene S., Denver.
Folsom, John H., Cripple Creek.
Foote, Addie, Loveland.
Force, Laura, Highlands.
Foreman, Ida M., Boulder.
Foster, June, Longmont.
Foster, Nellie, Como.
Fowler, Mrs. M. C. Dwyer, Boulder.
Fraizer, Mrs. Belle V., Denver.
Francis, F. J., Lafayette.
Frazer, Sadie, Howard.
Frazier, Addie E., Idaho Springs.
Freeman, Bertha, Canon City.
Freeman, C. Y., Denver.
Freeman, Maud, Greeley.
French, Mrs. H. A., Greeley.
Frey, Minnie, Central City.
Frickes, Lulu, Trinidad.
Frink, Effie, Morrison.
Frye, Elnora, Villa Park.
Frye, Mrs. May D., Denver.
Fulham, Fannie B., Denver.
Gallagher, Katie, Longmont.
Garard, G. A., Golden.
Gard, Clara F., Denver.
Gard, E. C., Denver.
Gardiner, Miss K., University Park.
Gardner, Julia, Denver.
Garrigues, Harriet, Greeley.
Garvin, John B., Denver.
Garwood, Norma, Denver.
Gass, B. R., Denver.
Gass, Della M., Denver.
Gass, Maud B., Denver.
Gibbie, Jeania, Colorado Springs.
George, May, Pueblo.
Gettings, Cecilia, Ft. Collins.
Gibhart, George, Hannan.
Gibony, Mrs. Alice C., Altona.
Gibson, Mrs. L., Denver.
Gibson, Mrs. N. M., Greeley.
Giddings, Marguerite, Denver.
Giffin, Miss M. E., Montrose.
Gilbert, Annie, Aspen.
Gilbert, Ella, Aspen.
Gill, Mary, Ft. Collins.
Girardot, Gussie, Denver.
Goddard, Susan, Castle Rock.
Goodell, Grace, Ward.
Goodfellow, Margaret, Denver.
Goodwin, M. E., Denver.
Gove, Frank W., Denver.
Grace, Alice, Denver.
Grant, James B., Denver.
Gray, Mrs. Cornie Jackson, Delta.
Gray, Mrs. Sarah N., Denver.
Grayson, Effie, Berkley.
Green, Mrs. Isabella, Denver.
Green, W. E., Greeley.
Greene, Sarah M., Pueblo.
Greenlee, L. C., Denver.
Greenlee, Viola, Bald Mountain.
Greer, Emma, Aspen.
Gregg, Mabel, Boulder.
Griffin, J. L., Boulder.
Griffith, P. A., Denver.
Griggs, Herbert, Denver.
Grossmayer, Clara, Denver.
Guest, Amelia, Denver.
Gulbor, Mrs. Louise, Denver.
Gumlick, A. J., Denver.
Guss, Roland, Greeley.
Gwynn, Maud, Denver.
Hadley, A. Laurie, Eagle.
Hadley, Lella, Eagle.
Haggott, W. A., Idaho Springs.
Haines, Alice, Ft. Collins.
Hale, Horace M., Denver.
Hall, Fannie L., Denver.
Hall, J. N., Denver.
Hall, J. P., Denver.
Hall, Luella, Canon City.
Hadlam, Miss Ez, Denver.
Hamer, Ethel, Denver.
Hamilton, Helen E., Trinidad.
Hamilton, Ida M., Greeley.
Hamilton, Ida M., Greeley.
Hamilton, S. T., Ft. Collins.
Hancock, J. A., Durango.
Hanna, Mrs. Ione T., Denver.
Hannah, Luan, Denver.
Hansen, Miss Dagmar, Denver.
Harding, Geo. L., Boulder.
Hardy, Emma, Las Animas.
Harper, L. C., Lamar.
Harper, May, Denver.
Harris, Alice C., Buena Vista.
Harris, E. J., Denver.
Harris, Jennie M., Denver.
Harris, Miss Joe, Denver.
Harris, Susie J., Colorado Springs.
Harris, W. G., Delta.
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Hayden, Mary D., Denver.
Hayden, N. H., Grand Junction.
Haynes, Lutie, Denver.
Hays, Ada, Ray.
Hays, C. I., Denver.
Hays, J. H., Greeley.
Healy, Nellie A., Leadville.
Hedger, Cecilia M., Denver.
Helander, Amelia, Denver.
Hemberger, E., Golden.
Henderson, John R., Denver.
Henderson, Luella, Denver.
Hendry, H. A., Manitou.
Hennessey, Elizabeth, Denver.
Henthorn, Myncie, Pueblo.
Henry, L., Teluride.
Herey, Emma M., Denver.
Herman, Bertha C., Denver.
Hermanns, Ed F., Denver.
Hewett, Edgar L., Greeley.
Hice, Edna, Ft. Collins.
Hicks, Annie, Highlands.
Hicks, E. C., Highlands.
Highshew, Mattie, Akron.
Hill, Anna L., La Junta.
Hill, Clara E., La Junta.
Hill, Mrs. C. W., Delta.
Hill, C. W., Delta.
Hill, Lottie A., Denver.
Hinchliff, Mary E., Colorado Springs.
Hitchcock, Luella R., Mosca.
Hougland, Cora R., Denver.
Hoehn, Mathilde, Denver.
Holland, Anna B., Denver.
Holman, Mrs. Cordelia E., Highlands.
Holt, Mrs. Lelia, Leadville.
Holtschneider, Mrs. Laura, Buena Vista.
Homsher, Minnie F., Denver.
Honan, Miss, Denver.
Hood, Mrs. Lena, Pueblo.
Hooper, Lydia, Idaho Springs.
Hooper, S. K., Denver.
Hopkins, Carrie D., Denver.
Horton, Jennie D., Denver.
Houchens, Mollie, Trinidad.
Houghan, Mrs. F. R., Denver.
Houran, Bird, Highlands.
Howard, Hattie, McFerran.
Howard, Mary, Denver.
Howard, Nellie V., South Denver.
Howard, Oliver, Greeley.
Howe, H. A., Denver.
Howerton, Mary E., Denver.
Hoy, Fannie, Pueblo.
Hubbard, Nettie S., Greeley.
Huffman, Della, Boulder.
Hull, D., Pueblo.
Hull, Mrs. D., Pueblo.
Hummer, May, Buena Vista.
Hunt, W. A., Canon City.
Hurford, Alice M., Pueblo.
Hurst, Madge T., South Denver.
Hutchings, May C., Denver.
Hutchings, Hattie B., Denver.
Hyde, A. B., Denver.
Ingersoll, Katharine J., Denver.
Ingraham, Harriet, Denver.
Ireland, A. H., Canon City.
Ireland, Ed, Canon City.
Irwin, Elizabeth F., Denver.
Jackson, J. P., Colorado City.
Jackson, O. E., Berthoud.
Jacobs, Evelyn, Denver.
Jameson, R. E., Salida.
Jenkins, Filmon, Mosca.
Johns, T. Ada, Denver.
Johnson, Anna, Denver.
Johnson, Emma R., Denver.
Johnson, Mrs. J. E., Denver.
Johnson, Mary B., Denver.
Johnson, Mrs. R. C., Central City.
Johnston, Clara T., Denver.
Jolley, Marie, Aspen.
Jones, Edith, Denver.
Jones, Laura T., Pueblo.
Jones, Nora, Mattison.
Jones, Winifred, Denver.
Jorgenson, Maud, Denver.
Joseph, Ella J., Denver.
Kaltenbach, Frances, Denver.
Kaltenbach, Millicent, Denver.
Kantner, Carrie L., Denver.
Karnes, Mattie, Fowler.
Kastle, J., Denver.
Kastle, Lizzie, Denver.
Keating, J. F., Aspen.
Keepers, Mrs. Julia, Highlands.
Kenagy, J. B., Buena Vista.
Kendell, Elizabeth H., Greeley.
Kendrick, Addie, Boulder.
Kenton, Ida H., Woodland Park.
Kenton, Mina, Woodland Park.
Kepner, Harry V., Denver.
Kerr, Anna M. L., Denver.
Kesner, Edgar, Boulder.
Killgore, Emma, Pueblo.
Killgore, Mary, Greeley.
Kilroy, Cecelia E., Denver.
King, Mrs. L. C., Greeley.
King, Mary E., Idaho Springs.
Kingsbury, Lillian V., Denver.
Kingsley, C. M., Boulder.
Kinney, Miss A. B., Denver.
Klein, Louise, Denver.
Kline, E. S., Yuma.
Kline, Mrs. E. S., Yuma.
Knapp, Warren E., Denver.
Knight, Marion, Castle Rock.
Kollack, Maud, La Junta.
Kollack, W. M., La Junta.
Kortz, W. H., Julesburg.
Kram, Mrs. C. V., Denver.
Krusen, Alma, Denver.
La Due, Mrs. I. C., Denver.
Laird, Grace, Denver.
Lake, Fannie K., Denver.
Lamb, M. Adda, Denver.
Lamberson, Dora B., Denver.
Langley, May O., Denver.
Langley, Pearl, Red Cliff.
Lansing, Alida P., Denver.
Laurie, Rose M., Denver.
Lawrence, Daniel L., Denver.
Lawrence, Effie L., Denver.
Lawrence, Miss M. A., La Veta.
Lawson, Candace B., Denver.
Lay, H. C., Telluride.
Lazear, James B., Denver.
Leach, Minna, Grand Junction.
Leake, Mrs. E. G., Florence.
Lee, Josephine, Boulder.
Lee, Rose E., Boulder.
Lees, Mary P., Denver.
Lees, S. Alice, Denver.
Legett, Mary E., Erie.
Lemon, T. G., Grand Junction.
Lesler, Josephine K., Denver.
Lessley, Alice B., Denver.
Libby, Geo. H., Denver.
Liddell, Elizabeth, Denver.
Lilley, Josepha, Littleton.
Lindsley, C. F., Elizabeth.
Ling, Chas. J., Denver.
Little, Clara L., Denver.
Logan, Miss, Canon City.
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Long, Geo. B., Denver.
Loomis, Adelaide G., Denver.

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MacDonald, Flora, Leadville.
MacDonald, Myra M., Denver.
MacDonald, Rebecca, Leadville.
Mace, Clara, Lamar.
Mace, Elizabeth D., Colorado Springs.
Mack, Mary S., Denver.
Mack, Mate F., Denver.
Maclear, Jessie M., Denver.
MacNitt, Alice, Longmont.
Maddox, A. G. B., Moscow.
Magraw, Jean, Denver.
Mallinckrodt, Miss D. S., Denver.
Malone, Rose, Denver.
Manifold, W. H., Elbert.
Manly, Fanny, Denver.
Manners, Effie M., Monument.
Marsh, C. T., Greeley.
Marsh, Mary, Gunnison.
Martin, Earnest A., Parachute.
Martin, May L., Denver.
Matthews, J. H., Black Hawk.
Maxwell, Miss E. E., Denver.
Maxwell, Flora, Lamar.
McAlpine, Mrs. Jack, Denver.
McCafferty, Mrs. Lydia, Montrose.
McCarn, Roccena, Salida.
McChesney, K. D., Harmon.
McChesney, Tude E., Harmon.
McClave, A. G. (2), Platteville.
McClelland, Lizzie, Salida.
McClelland, Nellie B., Haworth.
McClung, J. S., Pueblo.
McClure, Miss F. C., Denver.
McClure, Kate, Denver.
McClure, Miss, Canon City.
McClure, Z. B., Denver.
McComb, James, Colorado Springs.
McCoy, Mrs. John, Leadville.
McCoy, Maggie, Leadville.
McCoy, Maud, Longmont.
McCrimmon, Flora, Denver.
McCune, Adella, Denver.
McDonald, Alice, Pueblo.
McDonough, T. G., Leadville.
McDowell, Wm. F., Denver.
McElrey, Ada, Denver.
McFadden, Katherine, Boulder.
McGourty, Mrs., New Castle.
McInhill, Bee, Denver.
McIntyre, Gussie, Leadville.
McKay, Alice C., Denver.
McKay, Margaret L., Denver.
McKinley, Hattie, Idaho Springs.
McKinney, Bertha, Longmont.
McLain, Minnie E., Ft. Collins.
McNair, Agnes, Denver.
McNany, Nellie, Denver.
McNaughton, Sarah, Canon City.
McPherson, Honora R., Denver.
McPherson, W. A., Denver.
McRay, Beulah, Canon City.
McRay, Marian, Canon City.
Mellon, Laura S., Highlands.
Menelmer, Julia, Golden.
Mendenhall, Mrs. Margaret, Denver.
Mero, M. Carrie, Falcon.
Merrell, Charlotte C., Denver.
Messinger, Edna F., Denver.
Meyers, Mrs. A. W., Walsenbury.
Miles, Mrs. Cornelia, Denver.
Miles, Emily, Denver.
Miller, A. N., Denver.
Miller, Caroline, Leadville.
Miller, C. M., Grand Junction.
Miller, Jessie, Denver.
Miller, Jessie M., Denver.
Miller, Miss K. A., Littleton.
Miller, L. L., Denver.
Millee, Mary E., Gold Hill.
Miner, Agnes I., Highlands.
Mitchell, Alice S., Denver.
Mitchell, Julia M., Denver.
Mitchell, Martha C., Ft. Logan.
Mohr, Miss M. A., Durango.
Moles, O. S., Denver.
Molnar, Laura, Greeley.
Montgomery, Ida M., Denver.
Moore, Clara, Pueblo.
Moore, Dora M., Denver.
Moore, James D., Brighton.
Moore, Josephine G., Denver.
Moore, May E., Golden.
Moorehouse, Geneva, Lamar.
Morehouse, Mrs. Z. B., Denver.
Morey, C. S., Denver.
Morgenstern, Caroline O., Denver.
Morris, B., Colorado Springs.
Morrison, Alice, Denver.
Morrison, Cora B., Denver.
Morrison, Mrs. Georgia A., Salida.
Morrison, L. J., Howard.
Morse, Ida B., Denver.
Moseley, Frank Y., Boulder.
Moses, Matye, Pueblo.
Moss, Chas., Denver.
Moss, Emma, Housted.
Moving, Lizzie F., Denver.
Mower, E. T., Denver.
Moynahan, M. M., Alma.
Mumper, Anna, Greeley.
Murphy, A. M., Fruita.
Murphy, Ellen H., Denver.
Murphy, Kate, Denver.
Murphy, Mary, Trinidad.
Murry, C. Maude, Denver.
Murray, Edith, Longmont.
Muse, N. W., Pueblo.
Myer, Emma G., Delta.
Myers, Nellie, Denver.
Nairne, Bessie D., Denver.
Nauman, Minnie A., Greeley.
Nay, Ida V., Morrison.
Nebber, Amelia, Denver.
Neumann, Emma, Denver.
Newcomb, Clarrissa, Denver.
Newcomb, Nettie, Highlands.
Newson, Kate, Longmont.
Nichols, Rachel A., Denver.
Noble, Fannie, Rifle.
Nomell, Mildred, Ft. Collins.
Nontin, Lettie G., Lake City.
Norris, M. A., La Veda.
Norvell, L. P., Denver.
Olmsted, Nellie, Ordway.
Orahood, Harper, Denver.
Orton, Elizabeth, Poncha Springs.
Osborne, G. E., Highlands.
Osenbaugh, C. M., Denver.
Osgood, Celia F., Denver.
Osmond, Mary G., Denver.
Overton, Hattie C., Denver.
Overton, Marie, Denver.
Palmer, Chas. S., Boulder.
Palmer, Nettie, Denver.
Parce, Jos. Y., Denver.
Park, Martha, Denver.
Parker, A. W., Fort Lupton.
Parker, B. D., Jr., Holyoke.
Parker, C. F., Julesburg.
Parker, C. V., Ft. Collins.
Parker, H. C., Colorado Springs.
Parker, Josephine, Pueblo.
Parker, Mary C., Greeley.
Parker, Mary E., Greeley.
Parsons, John, Denver.
Parsons, R., Dillon.
Patterson, J. P., Denver.
Pattison, P. K., Colorado Springs.
Paul, S. Isabel, Denver.
Paulding, Maggie, Denver.
Pearce, Stella, Aspen.
Pease, Martha A., Denver.

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Peck, Mrs. Emma, Craig.
Pederson, Hilda, Central City.
Peebles, Ruth, Denver.
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Pelta, A. J., Buena Vista.
Pemberton, Jennie, Fowler.
Pendleton, Beulah, Gunnison.
Penhallow, A. L., Denver.
Perkins, Miriam, Denver.
Peters, Anna, Trinidad.
Petrie, Amy, Yuma.
Phillips, H. S., Denver.
Phillips, F. E., Denver.
Pike, Lillian, Denver.
Pitt, Marion S., Denver.
Platt, Geo. A., Denver.
Plimpton, Grace G., Colorado Springs.
Plumb, May, Longmont.
Polhannes, A. F., Symes.
Post, Alfred C., Denver.
Post, Maud, Denver.
Potter, Alice, Denver.
Potter, Charles A., Denver.
Pratt, Helen M., Denver.
Pratt, Louis I., Denver.
Price, Miss E. A., Denver.
Price, Mrs. E. O., Durango.
Price, Minnie, Denver.
Pulford, Mrs., Durango.
Putnam, Kate, Denver.
Putnam, V. R., Denver.
Putnam, W. W., Boulder.
Pyrtle, Emma R., Julesburg.
Quiner, Emilie C., Denver.
Rainbow, Emily R., Gunnison.
Raine, Ruth W., Denver.
Rainey, Anna R., Pueblo.
Rainstern, Alice, Denver.
Ralston, Mrs. Allie S., Rouse Junction.
Raney, Jennie, Denver.
Rank, Margaret L., Central City.
Rankin, Pearl B. (2), Greeley.
Reed, Daisy, Colorado Springs.
Reed, Mary D., Greeley.
Reed, Ruth, Denver.
Reid, Miss M. D., Greeley.
Reinhardt, Mrs., Denver.
Remington, Lillian, Fairplay.
Repton, Mary, Boulder.
Reynolds, Miss A. R., Alpine.
Reynolds, E. K., Pueblo.
Reynolds, Mrs. E. K., Pueblo.
Rhoads, A. G., Denver.
Rhodes, Lizzie, Denver.
Rice, Caroline, Denver.
Rice, Elizabeth, Denver.
Rice, Harriet W., Highlands.
Richards, C. C., Denver.
Richards, Carrie E., Denver.
Richards, Elizabeth, Boulder.
Richardson, Edith M., Denver.
Riggs, Emma, Denver.
Riggs, Eva V., Colorado Springs.
Riley, Mary F., Denver.
Rinker, John E., Cripple Creek.
Risley, Adna W., Denver.
Robbins, H. E., Pueblo.
Roberts, Dimon, Pueblo.
Robin, Susanna deQ., Denver.
Robinson, Fannie, Denver.
Roeschlaub, C., Denver.
Rooney, Alice, Denver.
Ross, Kittie M., Montrose.
Ross, Dr. Lydia, Denver.
Ross, Miss M. A., Durango.
Ross, Maud, Montrose.
Rothrock, J. E., Lake City.
Royal, Sarah C., Denver.
Royce, Eudora D., Highlands.
Russell, J. E., Boulder.
Russell, Nettie, Denver.
Ryan, Anna, Denver.
Ryan, Jennie J., Denver.
Ryder, Miss, Denver.
Sabin, Mary S., Denver.
Sackett, A. C., Gilman.
Sander, M. Allien, Denver.
Sanders, C. C., Aspen.
Sanley, Hattie O., Denver.
Savory, Ada, Boulder.
Satu, Lena I., Pueblo.
Sawyer, Laura E., Akron.
Sayre, Louis K., Denver.
Scanlan, E. M., Aspen.
Scanlon, Marie, Lyons.
Schadbolt, Jessie, Colorado Springs.
Schayer, Fannie.
Scheller, Anna M., Central.
Schleicher, Alice, Denver.
Schmit, Elizabeth, Pueblo.
Schmitt, Jacob, Denver.
Schordemauth, H. W., Denver.
Scison, Bertha, Yuma.
Scott, Izore, Pueblo.
Scott, Jessie M., Denver.
Scoville, Anna, Denver.
Scudder, Adah, Denver.
Searle, Amy, Akron.
Seed, Stella, Greeley.
Seem, Chas. J., Greeley.
Sewall, Jennie, Denver.
Shafer, Etta, Boulder.
Shattuck, J. C., Denver.
Shattuck, Mrs. Laura, Denver.
Shaw, Marie H., Highlands.
Shaw, Marie L., Pueblo.
Shaw, Sarah E., Highlands.
Shay, Gertrude, Denver.
Sheldon, Josie, Boulder.
Shell, Fred W., Greeley.
Shelpman, Miss L., Jamestown.
Shiland, Helen E., Denver.
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Shepard, Mrs. A. D., Denver.
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Sheppard, Ruble E., Greeley.
Sherwood, Clara S., La Junta.
Shields, B. H., Denver.
Shields, David B., Cripple Creek.
Shipman, S. T., Denver.
Short, Metella, Palisade.
Shull, Grace, Ft. Collins.
Simmons, Bessie O., Denver.
Simms, Caroline E., Ft. Collins.
Singletary, D., Denver.
Sisson, Bertha, Echley.
Sisson, Mary I., Salida.
Sisters of Mercy, Cripple Creek.
Sisters of Mercy, Durango.
Sisters of Mercy, Denver.
Skinner, Belle, Highlands.
Skinner, Elizabeth, Highlands.
Slavin, J. J., Denver.
Small, Edith, Gunnison.
Smedley, Wm., Denver.
Smeigh, Mary S., Denver.
Smiley, Wm. H., Denver.
Smith, Addie, New Windsor.
Smith, Belle W., Denver.
Smith, Carolina A., Denver.
Smith, C. W., Flagler.
Smith, Hester, Denver.
Smith, Hetty H., Denver.
Smith, Jeanette, Longmont.
Smith, Jessie G., Loveland.
Smith, John J., Denver.
Smith, Josephine R., Denver.
Smith, Julia B., Canon City.
Smith, J. W., Denver.
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Smith, Mary, Denver.
Smith, Mary A., Aspen.
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Smith, Miss M. E., Denver.
Smith, Mary I., Denver.

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Snook, James E., Eaton.
Snyder, Dora A., Henderson.
Snyder, E. R., Greeley.
Snyder, Z. X., Greeley.
Songer, Myrtle, Berkeley.
Sorin, Elizabeth, Erie.
Spann, Ella M., Denver.
Spears, W. M., Denver.
Spence, Claudius B., Denver.
Spencer, F. Clarence, Montevista.
Stanton, Jessie, Boulder.
Stanton, Kate M., Boulder.
Stanton, L. H., Boulder.
Starkey, Eliza, Yuma.
Stevens, Eugene C., Trinidad.
Stevens, E. H., Platteville.
Stevens, Fremont C., La Veta.
Stevens, J. C., Villa Park.
Stevens, L. B., Denver.
Stevens, Miss L. E., Villa Park.
Stebes, Sadie, Boulder.
Stevenson, D. E., Denver.
Stevenson, Hattie E., Denver.
Stiles, Bessie, Georgetown.
Stilty, Flora B., Denver.
Stogsville, Eva, Denver.
Stokes, Jennie, Colorado Springs.
Stokely, Minnie, Greeley.
Stone, Mayma, Pueblo.
Stracy, Clara, Trinidad.
Stracy, Geo., Trinidad.
Stracy, Mrs. Geo., Trinidad.
Strain, Ella B., Grand Junction.
Strain, Lois, Grand Junction.
Stratton, Sophia, Fort Collins.
Stricker, Mattie, Denver.
Strickland, A. I., Morrison.
Strock, Frances, Grand Junction.
Strong, R. W., Denver.
Strong, Wm. C., University Park.
Struble, Lizzie, Greeley.
Stueland, I. A., Brighton.
Stukey, Magdalena, Idaho Springs.
Sturgeon, Agnes L., Denver.
Sullivan, Margaret F., Pueblo.
Swan, Alice C., Denver.
Swansom, Etta, Denver.
Snyder, Myrtle, Las Animas.
Sykes, Clara, Fairplay.
Sylvester, Myrtie, Denver.
Sylvester, Rena, Denver.
Taggart, Inez L., Denver.
Tallman, Elizabeth, Denver.
Tarbert, J. T., Oaks.
Taylor, F. A., Limon.
Templeton, Margaret, Denver.
Terrill, Mrs. A. W. (2), Colorado Springs.
Thero, Mrs. Chas., Idaho Springs.
Thoman, Cora, Denver.
Thomas, Cora, Greeley.
Thomas, Mrs. F. E., Canon City.
Thomas, Helen M., Denver.
Thomas, N., Ft. Collins.
Thomas, Mrs. N., Ft. Collins.
Thomas, W. C., Longmont.
Thompson, Helena, Denver.
Thompson, Lucy, Denver.
Thompson, Jennie M., Denver.
Thompson, L. E., Denver.
Thompson, Flora C., Pueblo.
Thompson, Alice M., Denver.
Timberlake, Mrs. Chas., Holyoke.
Tisdale, Grace S., Denver.
Tisdel, P. A., Greeley.
Tulles, J. W., Cheyenne Falls.
Turnbull, G. B., Colorado Springs.
Tupper, Luella, Denver.
Turner, Susie S., Longmont.
Turner, Susy S., Berthond.
Upton, W. L., Highland Lake.
Van Arsdale, Edith, Buena Vista.
Van Craig, Edna E., Greeley.
Vandagrift, Florence, Denver.
Vandeman, A. W., Denver.
Van Deren, S. E., Springfield.
Van Long, C. M., Denver.
Van Sickle, J. H., Denver.
Varney, Julia, Idaho Springs.
Vaughan, Mary St. C., Denver.
Vella, Mary M., Colorado Springs.
Wade, Louisa, Buena Vista.
Walker, F. A., Russel Gulch.
Walker, Mattie, Kokomo.
Walker, Nannie, Pueblo.
Wallace, Margaret M., Denver.
Walters, Ella, Denver.
Wanless, Mary H., Denver.
Ward, Margaret, Highlands.
Ware, Minnie, Lamar.
Ware, L. E., Lamar.
Warnecke, Marie L., Denver.
Warner, Horace E., Denver.
Warren, Sarah, Denver.
Watkins, Mrs. J., Pueblo.
Weaver, Alice, Denver.
Webb, Della, Denver.
Webster, Helen M., Denver.
Weed, J. M., Canon City.
Weil, I. C., Denver.
Weil, Mrs. I. C., Denver.
Welch, Minnie M., Denver.
Weld, Amy P., Colorado Springs.
Welfley, Elmer S., Denver.
Wellman, Mrs. Jennie B., Fairmont.
Westhaver, James B., Edgewater.
Westhaver, Harry, Edgewater.
Wetzel, C. E., Deer Trail.
Wheeler, D. B., Denver.
Whipple, Annetta, Durango.
Whitehead, Katherine, Denver.
Whitehead, Sarah K., Denver.
Whiteman, W. J., Denver.
Whittlesey, Fannie R., Denver.
Wickham, Mrs. Emma L., Denver.
Wickard, Lina, Denver.
Wiechert, Mayme L., Denver.
Wilcox, Clara, Denver.
Wilder, Bertha, Pueblo.
Wiley, Mrs. E. M., Colorado Springs.
Williams, Nellie, Greeley.
Willson, A. M., Golden.
Wilson, Mrs. Ada C., Denver.
Wilson, Elma A., La Salle.
Wilson, G. M., Denver.
Wilson, Stella, Denver.
Winkenwerder, C. H., Denver.
Wise, Miss, Denver.
Wise, W. J., South Denver.
Wisebart, Lina, Denver.
Witte, Clara A., La Veta.
Witter, Miss M. A., Denver.
Wolcott, Mrs. H. H., Delta.
Wolfe, Burleigh, Meeker.
Wolfersberger, Mary, Denver.
Wood, Alice, Denver.
Woodruff, Mabel L., Denver.
Woodruff, Myrna (2), Greeley.
Woodson, Marie L., Athens.
Woodward, J. C., Denver.
Woody, C. A., Ft. Collins.
Wooldredge, Mrs. Hattie R., Denver.
Worcester, Mabel F. (2), Leadville.
Work, C. T., Greeley.
Work, Ella, Denver.
Working, Daniel W., Fort Collins.
Wren, Lena, Pueblo.
Wright, J. P., Cripple Creek.
Wrisley, Jennie M., Denver.
Wyatt, G. W., Denver.
Wygant, Thos. H., Jr., Denver.
Young, Edith, Durango.
Young, J. S., Greeley.
Young, Lillian K., Denver.
Zearing, Marguerite, Denver.
Zirkle, H. W., Denver.

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RECORD OF MEMBERSHIP BY STATES

IN THE

NATIONAL EDUCATIONAL ASSOCIATION,

FOR EACH YEAR FROM 1884 TO 1895 INCLUSIVE,

Excepting for 1893, when no regular meeting was held. Boldface figures show membership from the state in which the meeting for the year was held.

PLACE AND DATE OF MEETING.	Madison.	Saratoga.	Topeka.	Chicago.	San Francisco.	Nashville.	St. Paul.	Toronto.	Saratoga.	Asbury Park.	Denver.	Total.	Average Membership
	1884	1885	1886	1887	1888	1889	1890	1891	1892	1894	1895	.....	.....
North Atlantic.													
Maine	21	2	5	25	11	.....	32	30	10	5	24	165	15
New Hampshire	64	6	10	23	11	.....	32	9	5	7	27	194	18
Vermont	43	8	3	41	4	.....	40	4	20	4	13	180	16
Massachusetts	310	145	85	277	206	28	290	114	212	52	191	1,910	174
Rhode Island	50	13	13	29	30	4	31	42	23	12	55	302	27
Connecticut	40	18	23	26	48	4	31	18	63	13	26	320	29
New York	143	**159**	91	211	210	29	228	117	**611**	326	521	2,648	241
New Jersey	40	27	35	23	41	13	12	16	65	**969**	168	1,409	128
Pennsylvania	81	28	121	108	242	23	99	76	178	323	432	1,717	156
South Atlantic.													
Delaware	1	.....	4	.....	3	1	2	5	6	8	17	47	4
Maryland	5	1	10	8	17	3	7	13	49	45	53	211	19
Dist. of Columbia	30	4	7	12	32	13	21	10	35	24	47	235	21
Virginia	6	3	3	2	18	12	2	8	2	24	36	118	11
West Virginia	15	2	3	8	6	6	27	49	20	37	49	222	20
North Carolina	3	4	.....	2	8	12	2	13	17	15	5	81	7
South Carolina	5	1	1	2	13	22	4	18	14	52	1	133	12
Georgia	11	1	2	10	16	43	23	31	163	64	62	426	39
Florida	1	.....	1	.....	.....	16	7	4	3	2	19	53	5
South Central.													
Kentucky	33	2	8	151	22	114	39	57	42	128	176	772	70
Tennessee	12	6	5	62	83	**607**	97	124	57	124	66	1,243	113
Alabama	9	1	1	16	45	123	35	79	51	41	41	442	40
Mississippi	7	1	2	7	10	87	44	42	36	20	49	305	28
Louisiana	3	7	8	11	7	19	13	25	21	35	108	257	23
Texas	22	1	15	55	29	89	20	53	9	82	294	669	61
Arkansas	22	. ...	8	67	12	29	12	34	33	25	84	326	30
North Central.													
Ohio	121	43	67	581	225	60	361	355	178	990	592	3,573	325
Indiana	54	15	46	418	71	89	206	149	65	258	321	1,692	154
Illinois	354	38	164	**1750**	222	204	625	666	214	871	1,495	6,598	600
Michigan	77	12	20	273	40	29	137	259	285	155	204	1,461	133
Wisconsin	**546**	18	18	486	57	28	443	222	72	143	188	2,241	204
Iowa	304	18	87	1,146	96	67	572	278	110	164	1,086	3,928	357
Minnesota	132	9	11	649	58	16	**933**	118	54	86	193	2,259	205
Missouri	46	11	73	625	133	68	249	320	189	435	1,118	3,262	297
North Dakota	23	1	5	149	8	7	99	32	16	8	28	623	57
South Dakota							109	31	20	9	78		
Nebraska	39	5	27	634	40	10	147	220	126	127	742	2,117	192
Kansas	16	11	**190**	960	124	64	275	283	127	111	1,171	3,327	302
Western.													
Montana	3	1	1	9	4	5	37	24	9	3	15	111	10
Wyoming	1	2	2	8	8	.....	5	13	4	2	48	93	8
Colorado	12	2	11	40	109	8	56	114	59	58	**1136**	1,605	146
New Mexico	.....	.....	.....	2	26	2	1	7	5	.....	26	69	6
Arizona	.....	.....	.....	1	45	1	1	.....	2	2	11	63	6
Utah	.....	1	3	4	127	.....	.....	10	8	4	89	246	22
Nevada	1	.....	1	6	134	.....	1	.....	.....	.....	2	145	13
Oklahoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	58	31
Indian Territory	3	1	.....	1	8	6	1	3	4	1	23	50	5
Idaho	.....	.....	1	.....	12	.....	.....	.....	.....	1	1	3	18	2
Washington	1	.....	1	3	27	1	6	18	1	2	6	66	6
Oregon	3	1	1	11	204	8	7	5	5	.....	14	259	24
California	5	.....	4	18	**4278**	13	8	5	10	1	53	4,395	400
Miscellaneous	11	..	.....	143	16	.....	.....	5	3	2	1	181	16
Canada	.....	1	.....	12	20	1	45	**650**	48	41	32	850	77
Total	2,731	624	1,197	9,086	7,230	1,984	5,474	4,778	3,390	5,915	11,297	53,696	4,881

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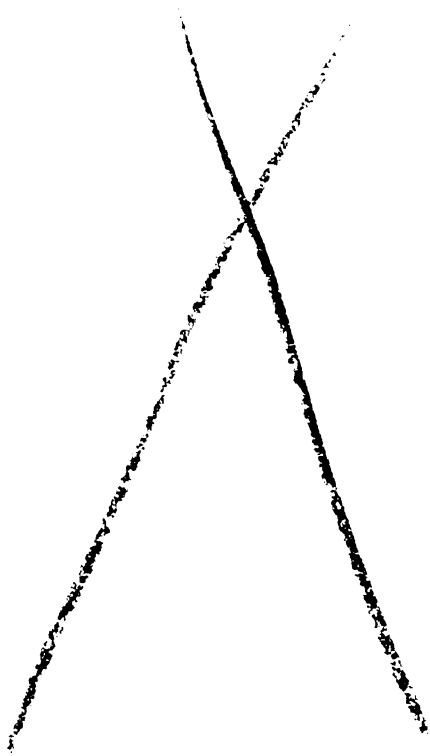
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