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REPORT

OF THE

COMMISSIONER OF EDUCATION

FOR

THE YEAR ENDED JUNE 30, 1908

VOLUME 1

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THE UNITED STATES
BUREAU OF EDUCATION.

Created as a Department March 2, 1867.

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COMMISSIONERS.

HENRY BARNARD, LL. D.,
March 14, 1867, to March 15, 1870.

JOHN EATON, PH. D., LL. D.,
March 16, 1870, to August 5, 1886.

NATHANIEL H. R. DAWSON, L. H. D.,
August 6, 1886, to September 3, 1889.

WILLIAM T. HARRIS, PH. D., LL. D.,
September 12, 1889, to June 30, 1906.

ELMER ELLSWORTH BROWN, PH. D., LL. D.,
July 1, 1906, to date.

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REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 1, 1908.

SIR: The statistical chapters of these annual reports, which are to be now compressed each year into the second volume and constitute the greater part of that volume, can not be got ready under existing conditions in less than six months after the close of the scholastic year to which they relate. Indeed, the time actually required for the collection and tabulation of such statistical matter has generally been eight or nine months, or an even longer period. An effort is making, however, to prepare the manuscript of the second volume of the report now in hand, covering the year ending June 30, 1908, by the 1st of January, 1909, so that it may be put into type in the earlier months of the coming calendar year. The chapters, on the other hand, which are not mainly statistical in character, such as appear in this first volume of the report, are subject to less of unavoidable delay. Accordingly it has been thought best to prepare the first volume at the earliest possible date, without waiting for the completion of its companion volume of statistics. I have the honor to present herewith this earlier portion of the annual report for the year 1908.

It is hoped that this volume may be in the hands of readers by about six months after the expiration of the scholastic year of 1907–8. In that case the information it conveys respecting educational movements which are still current and the directories, announcements for the year 1908–9, and other timely matter, may serve immediate needs and be widely used for purposes of reference in the remaining months of this scholastic year.

The attempt has been made in this volume to present some of the leading facts concerning the educational history of the year to which it relates, with reference chiefly to our own country, but with some account also of occurrences in a few of the foremost of our sister nations. While attention has been centered upon this one year, the fact has not been ignored that the movements of the present proceed from movements of an earlier date, and the one-year limit has not been sharply drawn as against related occurrences of two or three previous years. The commissioner's introduction, under the new

arrangement of the report, naturally takes the form of a survey of the educational trend of the year. Such a survey is undertaken with a keen sense of its difficulty, because of the nearness of the movements brought under review, but in the belief that it may serve a useful purpose, even though its perspective must inevitably be corrected by later insight and information.

STATISTICS OF THE YEAR 1906–7.

While the discussion of the educational statistics of the year 1907–8 must be left to the second volume of this report, where it will be presented by Prof. G. D. Strayer, of Teachers College, Columbia University, a glance at the numbers of the preceding year may be taken here, to see to what proportions our educational systems had grown before the year 1907–8 was begun. These numbers were more fully discussed in the second volume of the preceding report by Prof. Edward L. Thorndike, of Teachers College. (Report, 1907, v. 2, pp. 523–541.)

Broadly speaking, then, and subject to such correction as is called for in any statistical report that can now be made, the educational systems and institutions of the United States, public and private, enrolled in that year, 1906–7, in the neighborhood of 19 millions of pupils of all grades and classes. About 20 per cent of the total population attended the common schools for a longer or a shorter period. This percentage had been pretty nearly stationary for thirty years. In the meantime, however, the average length of the common school year had advanced from 130 days to a little over 150 days, and the percentage of those enrolled who were, on the average, in actual attendance each day of this longer school year had advanced from 62 per cent to 70 per cent. While the proportion of the population who went to school at all had not increased, the remarkable increase in those attending high schools and other schools of middle grade still continued, reaching in that year, 1906–7, about 1.13 per cent of the whole population. In round numbers, one out of every 90 of our people was enrolled in a secondary school and one out of every 300 in a college or other institution of higher education. Inasmuch as an approach to these high proportions had been going on for many years, and the length of time any one pupil is in a school of any grade is only a fraction of the average length of a human life, it is clear that the proportion of our population who at any time had received education of one of the grades indicated was much higher than would appear from the number enrolled for the year under consideration.

Of the total number of teachers in the common schools of the country, about 475,000 in all in that year, 1906–7, less than 22½ per cent

were men; and not only this percentage but the actual number of men teachers had been steadily declining for ten years or more. The average monthly salary of both men and women teachers in the meantime had been slowly rising, yet so slowly that it had failed to keep pace with other expenditures for educational purposes. While the proportion of school moneys devoted to buildings and other "permanent improvements" had been advancing for nearly twenty years, the proportion devoted to the personal services of teachers had been slowly receding. In the year 1906–7 the distribution of our common-school fund was about as follows: For buildings, sites, etc., one-fifth; for teachers' salaries, three-fifths; for other purposes, one-fifth. The total expenditure so distributed amounted in the year 1906–7 to something over 330 millions of dollars. For the same year the expenditure for education of all grades, both public and private, in this country rose to approximately 442 millions of dollars.

The tables appended to this introduction, pages 27–31, give somewhat more detailed information concerning these and related items.

REVIEW OF THE YEAR 1907–8.

These few statistical notes relating to the preceding year, set forth in bare outline some of the external features of our educational systems as they were at the beginning of the year with which this report is concerned. We turn now to this latest scholastic year, that ending with the 30th day of June, 1908, and proceed to a consideration of some of our most recent educational movements, from which we are not yet far enough removed to weigh them and set them forth in statistical form.

In this survey attention should be called particularly to seven American movements, or sets of occurrences, which have commanded unusual attention and effort within this year and seem destined to leave some impress upon our educational history:

STATE EDUCATIONAL COMMISSIONS.

1. The first of these to be mentioned is the organization of special state educational commissions. There are eleven of these special commissions, according to reports that have come to this office, which are now engaged in formulating recommendations touching the revision of the school laws of ten States or in contributing in other ways to the improvement of the state educational systems of those States. The following tabular statement will serve for orientation with reference to their work and organization. Further information concerning them is presented in Chapter I, on current topics, page 42.

State educational commissions.

State.	When appointed.	By what authority.	For what purpose.	Number of members.	Report due.
Illinois	Dec. —, 1907	By the governor, under act of May 25, 1907.	To investigate the common-school system of Illinois and the laws under which it is organized and operated; to make a comparative study of other school systems, and to submit a report to the general assembly, including such suggestions, recommendations, revisions, additions, corrections, and amendments as may be deemed necessary.	7	1909.
Iowa	Dec. —, 1907	By the governor, under act of April 13, 1907.	To rearrange, revise, and codify existing laws relating to the public schools, and recommend additional needed legislation.	3	Nov. 1, 1908.
Kansas		By the governor	To consider the educational needs of the State and make recommendations as to needed legislation.	7	
Kentucky		Act of March 17, 1908	To investigate the whole school system and all the educational interests of the State and the laws under which the same are organized and operated; to make a comparative study of other school systems, and to submit a report to the next general assembly embracing such suggestions, recommendations, revisions, additions, corrections, and amendments as may be deemed necessary.	11	1910.
Maryland		By the governor, under act of April 6, 1908.	To make inquiry and report respecting industrial education in Maryland and elsewhere.	5	1910.
Massachusetts	Aug. 31, 1906	By the governor, under acts of June 21, 1906, and June 2, 1908.	To investigate methods of industrial training and local needs; to advise and aid in the introduction of industrial education in independent schools that may be established; to provide for lectures on the importance of industrial education and kindred subjects.	6	Annually; life of commission limited to 5 years.
New Jersey		By the governor, under joint resolution of April 9, 1908.	To examine the condition of the blind in New Jersey, and the provisions made and methods employed in other States to ameliorate the condition of their blind.	5	1909.
Do		By the governor, under joint resolution of April 14, 1908.	To inquire into and report upon the subject of promoting industrial and technical education.	5	1909.
Pennsylvania	Sept. 11, 1907	By the governor, under act of May 8, 1907.	To collate and reduce into one act all legislation relating to the public schools of Pennsylvania, and to recommend legislation needed to make the public schools more comprehensive, efficient, and adapted to the needs of the citizens.	7	Feb. 1, 1909.
Virginia	June 25, 1908	By the governor, under act of March 13, 1908.	To devise a stable and systematic method for the maintenance, management, and expansion of the higher educational institutions.	7	1910.
Washington	April 18, 1907	By the governor and legislature, under act of March 12, 1907.	To recodify and rearrange all legislation pertaining to the public-school system, the state educational institutions, and the making of reports by the heads of private institutions of learning, and to suggest amendments to existing laws for the betterment of the educational system or systems of the State.	5	1909.

For the most part these commissions seem to have come into existence without conscious reference to any common impulse or purpose. It was not so much that one or two States led and the others followed their example as that all of these States arrived, by fairly independent ways, at a point where a reexamination of their school system seemed called for, with a view to considerable improvements. This spontaneous movement in so many populous and prosperous commonwealths would seem to indicate that we have lighted on an epoch of readjustment in our public education. The last preceding period of extensive readjustment was that of a generation ago, in the years just following the civil war, although in some of the States there has been in the interim one general revision of the statutes relating to education (Illinois, 1889; Iowa, 1897; New Jersey, 1902; Virginia, 1887). Some of the questions now prominently under consideration by these commissions are those relating to more general and regular school attendance, closer and better supervision, the consolidation of rural schools, a more equitable distribution of school funds, a betterment of the teaching profession, interstate comity with reference to teachers' certificates, greater attention to hygienic conditions in schools, better regulations concerning the adoption of text-books, the extension of opportunities for high-school instruction, provision for education looking to industrial efficiency, evening schools, and special agencies for the training of exceptional pupils.

Members of five of these commissions met in informal conference at Cleveland, Ohio, at the time of the meeting of the National Education Association in July last. A brief account of this conference appears in Chapter I, page 48, of this volume.

No one of these commissions has attracted greater attention than the Massachusetts commission on industrial education. This body, following upon the work of the commission on industrial and technical education, which had been appointed in June, 1905, and had reported in January, 1906, was constituted in August, 1906, by appointment of the governor. It is engaged in the effort to build up a system of state industrial schools, in virtual independence of the earlier established school system of the State. Massachusetts has led in so many of our great educational movements that her experiment in this new field becomes a matter of national concern. It is of the utmost importance in its bearing on the efforts toward educational improvement now making throughout the country that a satisfactory adjustment should be reached between the historic educational system headed by the Massachusetts state board of education, and the new industrial school system of the State, headed by the industrial education commission. This commission has issued two important reports, in March, 1907, and January, 1908. By act of June 2, 1908,

the legislature of the State has extended the term of its service to the year 1911.

THE EDUCATION CAMPAIGN IN THE SOUTH.

2. These facts concerning special commissions in a number of widely scattered States, both north and south, should be considered in connection with the remarkable public school campaign now in progress in the most of the Southern States. It is doubtful whether the large vitality and significance of this campaign are generally appreciated. It is, indeed, one of the most striking educational movements of our time, and is making a chapter of surpassing human interest in the history of American civilization. In Tennessee, under the leadership of Prof. P. P. Claxton and State Superintendent Seymour A. Mynders, more than 300 public education meetings were held in the year 1905, and in 1906 every county in the State was visited. At the meetings of 1906 there was an average attendance of about 1,000 persons, making a total attendance of more than 100,000. It is said that this was a larger attendance than that at the public meetings of both of the leading political parties in the governorship campaign of the same year. Ex-Governor Aycock, of North Carolina, declared that his educational addresses were more largely attended than his political addresses. (G. S. Dickerman and Wickliffe Rose. Educational progress in the South, October, 1907; C. Alphonso Smith, Educational Statesmanship in the South. *University* [of North Carolina] *Record*, December, 1907.)

The specific object of the campaign in Tennessee was to influence the state legislature to make appropriations needed in the upbuilding of the educational system of the State. These were appropriations (1) for the ordinary purposes of the common schools, (2) for lengthening the school term in the poorer counties, (3) for the establishment of county high schools, (4) for normal schools, (5) for the University of Tennessee, and (6) for public libraries in rural districts. In other States attention has been directed to the increase of local taxation for school purposes, the consolidation of rural schools, the opening of rural school libraries, the improvement of schoolhouses, compulsory school attendance, the establishment of regular high schools, and the extension of industrial and agricultural education.

In many of these particulars the effort has been to bring up what might be called the arrears of educational opportunity in States which were relatively late in establishing free school systems. But new educational undertakings have been freely entered upon, as in the establishment of agricultural high schools in the State of Georgia and of a

public trade school at Columbus, in that State, and in the notable uplift given to the parish superintendency in the State of Louisiana. Marked progress has been made in the consolidation of rural schools. In December, 1906, it was reported that about 200 schools had been consolidated to 60 in the State of Virginia within the preceding year. About the same time a report from Tennessee showed that within four years the number of schools within that State had been reduced by 630 by a process of consolidation. Within the year to which this report relates a single county in Florida showed 15 schools which had been formed by the consolidation of 45, and from Louisiana the number of school districts transporting pupils to central schools was reported at 37, with 50 wagonettes used in the service, where two years earlier there had been none. The effort toward educational improvement in Louisiana has of late come into close relations with the effort toward the improvement of country roads.

This new educational movement throughout the South has been largely brought about by the combined efforts of a remarkable group of educational leaders, some of whom have now been in active cooperation in behalf of the desired improvements for a goodly term of years. President Edwin A. Alderman has declared in his recent article on "The growing South" (*The World's Work*, June, 1908, p. 10376):

> The ability of this generation to recognize education as something larger than mere learning or even discipline, to perceive it as a great force molding national character, has caused the enlistment into this field of work of young men and young women of creative capacity and exalted character, who, under other conditions in southern history, would have instinctively turned to political and social fields for distinction and service.

The movement has been greatly furthered by voluntary educational organizations, state and local, in which the educated women of the South have taken a leading part. Such are the Cooperative Educational Association of Virginia, with more than 300 local leagues scattered throughout the State, the School Improvement Associations of South Carolina, and similar organizations in North Carolina, Georgia, and Alabama. It has had, moreover, the powerful impulse of certain large, constructive organizations, the Southern Education Board, the General Education Board, and the more recent Negro Rural School Fund (the Anna T. Jeanes Foundation), which, in a marked degree, have massed public sentiment on the side of this educational propaganda and have made large resources available at particularly difficult points in the undertaking.

The following tables indicate the progress of the Southern States in certain important particulars in the three-year period, 1904–1907:

Southern States.

State.	Number of high schools.[a]		Local taxation.[a]		State appropriations, including income from permanent funds and rent of school lands.[a]		Date of compulsory education law.	Date of child labor law.
	1904.	1907.	1904.	1907.	1904.	1907.		
	1	2	3	4	5	6	7	8
Virginia	64	139	$1,008,542	$1,730,933	$1,062,981	$1,459,288	[b] 1908	1908
North Carolina	39	71	377,481	448,775	1,254,814	1,586,840	[b] 1907	1903
South Carolina	98	95	200,868	326,073	779,754	989,225	None.	1903
Georgia	136	158	593,257	701,720	800,000	1,591,441	None.	1889
Florida	48	75	729,662	999,547	199,615	238,756	None.	1907
Tennessee	92	98	1,828,002	1,724,429	407,644	1,030,524	[c] 1905 [c] 1907	1907
Alabama	76	102	115,155	447,000	987,092	1,041,561	None.	1907
Mississippi	99	120	296,668	228,918	1,437,746	1,250,000	None.	None.
Louisiana	45	62	890,372	1,570,597	548,837	779,438	None.	1906
Texas	300	367	1,441,960	1,865,640	3,724,442	4,596,721	None.	1903
Arkansas	54	88	1,240,648	1,583,316	542,685	679,131	None.	1903

[a] High school legislation of importance but of too recent a date to affect the figures included in this table has been enacted in Arkansas, Florida, South Carolina, Texas, and Virginia. Recent fiscal legislation touching education has been enacted in Alabama, Mississippi, North Carolina, and South Carolina.
[b] This is a local option compulsory law.
[c] Applies to but two counties.

Relation of four-year high schools to total number of high schools for years and States named.

State.	1904.			1907.		
	Total number of high schools.	Four-year high schools.	Ratio of latter to total.	Total number of high schools.	Four-year high schools.	Ratio of latter to total.
Virginia	64	20	0.31	139	64	0.46
North Carolina	40	13	.32	71	27	.38
Florida	48	34	.70	75	57	.76
Tennessee	92	26	.29	98	53	.54
Texas	300	165	.55	367	229	.62

FIRST CONFERENCE OF STATE SUPERINTENDENTS OF PUBLIC INSTRUCTION.

3. The conference of the chief school officers of the several States and Territories which was held at Washington on the 24th of February, 1908, on an invitation issued from this bureau, was related in character to the great meeting of the governors of the States held at the White House some ten weeks later, although in their origin the two gatherings were wholly independent. The educational conference was called by the Commissioner of Education on the suggestion of State Superintendent James Y. Joyner, of North Carolina, which had been followed by a similar suggestion from State Superintendent

(Miss) Katherine L. Craig, of Colorado, and seconded by the educational representatives of other States. Of the 50 chief educational officers of as many States and Territories who were invited to this conference, 37 were present in person, while some 15 or 20 other educators of prominence participated in the sessions, as representing state educational offices the chiefs of which could not be present, and other educational bodies, or on personal invitation.

This conference seems destined to mark an epoch of no small importance in the history of educational cooperation in this country. It revealed a strong disposition on the part of the state educational offices to strengthen the national office of education; and made clear the aim of the national office to accomplish its work through the rendering of assistance to the state offices. The special emphasis which was laid upon cooperation in the revision of statistical forms and reports and in the diffusion of information touching new legislation in the several States, will in all likelihood lead to definite improvements in the immediate future.

EDUCATIONAL STANDARDS.

4. For several years there has been a manifest tendency toward a "standardizing" of American education; for the unanimity with which many leaders in widely separate fields have turned to the effort to raise the standards of their several kinds of education and to give to those standards more exact definition, indicates nothing less than a national tendency. Sheer devotion to intrinsic excellence might sooner or later have given the requisite impulse to such a tendency. But certain practical needs have made it a real movement at this time. The persons educated in one State or institution have suffered tangible loss through the refusal of some other State or institution to accept their scholastic credentials. Graduates of American institutions have found themselves at a disadvantage owing to the refusal of foreign states and institutions to recognize their diplomas and certificates. The disadvantage has been keenly felt by those going from preliminary studies in one institution to advanced studies in a distant institution, but it has become most acute in the practice of the professions, where the very occupation of the practitioner who removes from one part of the world to another may depend upon the official acceptance of the documents attesting his professional competence.

It was inevitable that this practical necessity should force the question of standards to the front. It has been strongly accentuated in the field of collegiate education by the action of the trustees of the Carnegie Foundation for the Advancement of Teaching in defining the type of institution which should share the benefits of that found-

ation. Having once been brought into serious notice, it is emphasized by a variety of considerations, some of them in the nature of elevated sentiment. One can not permit the educational standing of one's own institution or state or nation to be left in question before the rest of the world, and if it is not what it should be to command the respect of the world it must be improved without delay. In its highest form this sentiment would go further, and demand that our institution or state or nation shall have such undoubted educational standing as shall enable it to do its part in determining the world standard in education, for there can be no doubt that we are to have a world standard and that it is already taking shape.

This standardizing movement is no more inevitable than is the reaction against it. The objection of mere academic inertia may be ignored. The objection of scholastic incompetence and false pretense will have to be overcome, and at this point conflicts are to be expected and even welcomed. There is objection of another kind, which rests upon conviction and must be seriously considered. According to this view, the very strength of our American institutions is their flexibility, their individuality, their freedom to make progress through experiment. There is a large measure of truth in this view, and it calls for unqualified support to this extent, that in the American contribution to the world standard there shall be insistence upon freedom for such variability as would assure to a people universal opportunity in the present and unlimited progress in the future.

But with this position fully secured, the need for defined standards remains. It is at bottom the permanent need of scholastic honesty. The standardizing movement in our education is the pure-food movement in our spiritual world. It is necessary indeed to the soundness of our educational freedom and experimentation.

In accordance with the spirit of our institutions, such standardizing must come about in a variety of ways, and must proceed mainly from the States, and even from within the classified institutions themselves. We have already a variety of state laws governing the practice of the several professions. Some of the most important steps in the fixing of professional requirements have been taken by voluntary national societies of professional practitioners, as by the American Medical Association, acting through its council for medical education. State requirements governing the issuance of teachers' certificates, and particularly certificates of high-school grade, have of late given added impetus to the standardizing movement. A like endeavor has appeared in so many different sections of the educational field that the demand for more satisfactory requirements may be said to have been "in the air," as an appreciable current of contemporary thought, in the period now under review. Three of its more definite manifestations within the past year may be mentioned

here: The resolution of the National Association of State Universities, at its meeting in Washington on the 19th of November, 1907, that the association "proceed to the work of standardizing the state universities, and direct its committee to bring in at a suitable time some scheme of organization for standardization;" the action of the Association of American Universities, at its meeting at Ann Arbor January 9–10, 1908, in defining the conditions of admission to that association, and in appointing a committee to prepare a list of colleges the degrees of which should be accepted as of equal value with the degrees conferred by members of the association; and the third annual meeting of the National Conference Committee on Standards of Colleges and Secondary Schools, in the city of New York, April 17, 1908.

Further information relative to these organizations appears in the chapter on Current topics, pages 49–78, of this volume.

INDUSTRIAL EDUCATION.

5. In one way and another the question of industrial education was kept well to the fore during the year. While it is one question, it falls into three fairly well-defined divisions, those relating, respectively, to agriculture, domestic economy, and the trades. Among the chief centers of this discussion during the year 1907–8 were the Davis Bill in Congress, "to provide an appropriation for agricultural and industrial instruction in secondary schools, for normal instruction in agricultural and industrial subjects in normal schools, and for branch agricultural experiment stations, and regulating the expenditure thereof," and other nearly related bills; the new legislation in the States of Connecticut, Mississippi, New York, Oklahoma, Virginia, and Wisconsin; the work of the Massachusetts industrial education commission; the annual meeting at Chicago in January, 1908, of the National Society for the Promotion of Industrial Education, and the publications of that society; and the experiment at the University of Cincinnati in the combination of apprenticeship in a shop with technical courses in college.

The Davis Bill was not reported from the House Committee on Agriculture during the first session of the Sixtieth Congress. An important hearing on the bill was held, however, on the 5th and 6th of May, 1908, which was printed by the House of Representatives. The text of the bill in the form in which it is before the House Committee on Agriculture appears on pages 85–87 of this report. It provides for national aid to industrial schools, not more in number than 1 for each district of 5 counties nor less than 1 for each district of 15 counties in each of the States, on condition that the schools shall be otherwise adequately supported by the States in which they are located. The measure takes account of all three kinds of industrial

education mentioned above, but the discussion of its provisions has largely turned upon its relation to the agricultural side of such instruction. An interesting exposition of the main features of the bill was presented before the department of superintendence of the National Education Association at its meeting in Washington in the month of February, 1908, by its foremost advocate outside of the Congress, the Hon. Willet M. Hays, Assistant Secretary of Agriculture, in an address which was published in the Proceedings of the Department of Superintendence for 1908, and was reprinted as a separate, with charts and illustrations.

The adoption of this measure would give national encouragement to the whole effort toward public industrial education. It would also, in the present form of the bill, throw the weight of such national encouragement decisively on the side of a system of secondary education which takes its pupils, for the most part, away from their homes. The attitude of this office toward the project is in substantial agreement with that taken by the Hon. Frank Pierce, then Acting Secretary of the Interior, in a letter addressed by him in March last to Senator Redfield Proctor, chairman of the Senate Committee on Agriculture, shortly before the Senator's death. This letter was written in reply to a request from Senator Proctor for an expression of opinion concerning the Burkett Bill, a measure providing national aid for the teaching of agricultural subjects in state normal schools, the chief provisions of which have since been incorporated in the Davis Bill. Acting Secretary Pierce's letter reads as follows:

> This bill is one of several which have been introduced at this session of Congress providing for national aid to education in the several States, and particularly for national aid as regards education in agriculture, home economics, and other industrial subjects. The fact that several bills touching in different ways upon this same subject have been brought before Congress is a clear indication of public interest in this matter. The principle involved in the granting of such aid to the States by the General Government has already found definite lodgment in the policy of the National Government, as is shown by the appropriations made under the second Morrill Act of 1890 and the Nelson amendment of 1907, providing for more complete endowment and support of agricultural and mechanical colleges.
>
> It is generally agreed that the working of this principle, in its bearing on the support of the land-grant colleges, has been extremely beneficial. One indication of the value of such appropriations is seen in the fact that they have encouraged rather than retarded the support of these state institutions by the several state governments. The information at hand in the Bureau of Education shows that in the year 1896 these land-grant colleges received in the aggregate 29 per cent of their support from the National Government. Ten years later, in 1906, owing to the increase of state appropriations, this proportion of their support from federal funds was reduced to 15.4 per cent. In this ten-year period the congressional grant was increased by 19 per cent. In the same time the amount which these institutions received from their several States was increased by about 240 per cent. Whereas in 1896, 25 of these institutions received more than one-half of their support from the National Government, in

1906 only 15 received more than one-half of their support from the National Government. These figures show a wholesome tendency. They would seem to indicate that the granting of national aid for the promotion of education might safely be extended to other classes of institutions, provided it can be shown that there is a national need that these institutions be advanced more rapidly in their educational efficiency than they can be advanced without such national aid.

* * * * * * *

It will appear from what has been said above that Senate bill 3392 seems to me to call for warm approval in principle. It seems proper also that the administration of any fund devoted to such purposes as those contemplated in this measure should devolve upon the Department of the Interior and be carried on through the Bureau of Education in that department. There are, however, numerous questions to be considered in connection with this bill, and with other proposed bills closely related thereto. It is clearly important that any forward step which the National Government may take in the encouragement of public education should be carefully weighed, and be given its proper place in a well-digested general policy. Furthermore, the conditions in the several States are widely different, and any bill should be framed with full knowledge of these differing conditions in order that it may be made sufficiently flexible to accomplish the best results in all parts of the country. It is conceivable that in some portions of the country money for the training of teachers of agriculture at the normal schools is more urgently needed at this time than money for the support of instruction in agriculture in schools of other kinds, while in other States this condition may be reversed. And still further, a wise economy in any one of the States might call for the concentration of such funds upon the training of teachers in the earlier years of the movement until a corps of competent teachers has been secured, while thereafter a larger proportion of the same funds might profitably be devoted to high schools of agriculture and the mechanic arts, a relatively smaller proportion being needed for the training of teachers. These considerations suggest the need of a thorough inquiry into the state and needs of industrial education in different parts of the country as a basis for a wise and economical appropriation of federal funds for the encouragement of such education. I respectfully recommend therefore that no appropriation be made at this time along the lines indicated by Senate bill 3392, but ask you to carefully consider an amendment of the bill by striking out all after the enacting clause and substituting the following:

That $100,000, or so much thereof as may be found necessary, is hereby appropriated, out of any funds in the Treasury not otherwise appropriated, and made available immediately and until expended, to be used by the Commissioner of Education, under the direction of the Secretary of the Interior, in an investigation and the preparation of a report to Congress concerning the needs and best methods of distribution and administration of federal appropriations in aid of industrial, agricultural, and related forms of education, such report to be made to Congress on or before the 1st of January, 1910.

Such an investigation will make it possible for Congress to act upon bills like S. 3392 with full knowledge of the situation and the needs of the country.

The pivotal problem in the trade-school movement is that relating to the connection between regular instruction and apprenticeship, the connection between the school and the shop. There can be little doubt that under differing conditions this problem must be approached from different sides, and much wise experimentation will be required to work out the most available modes of procedure. In the trade-school legislation of Massachusetts, Connecticut, New York, and Wisconsin,

this problem is approached from the side of the school. President Carroll D. Wright, in an issue of the bulletin of this office, now in press, pays particular attention to organized apprenticeship within the shop. The systematic combination of shop work and college work which is now on trial at the University of Cincinnati has commanded widespread attention. This experiment was described by President Charles William Dabney in an article entitled "The university and the city in cooperation," which appeared in The Outlook of July 25, 1908 (vol. 89, pp. 655–661); and a more detailed account of it by Dean Herman Schneider was read before the Society for the Promotion of Engineering Education at Detroit, Mich., in June, 1908, and published in Engineering News of July 9 (vol. 60, p. 37), under the title, "Two years of the cooperative engineering courses at the University of Cincinnati." The idea of this course is set forth as follows by Dean Schneider:

> The fundamental principle underlying this course is based upon the rational assumption that the proper way and the only way for a young man to learn the practical side of his profession, together with business details and an intimate knowledge of the labor problem, is by working as a regular employee in a commercial shop; and, further, that the only place where he can learn properly the scientific and the cultural subjects is at a school under trained teachers. This further implies that the school work and the practical work should, as far as possible, go hand in hand, so that the young man may step from school to business just as readily as he does from one promotion to another in after life. The writer believes this principle to be all-important and to apply to all engineering and industrial education.

The numbers going into the cooperative course are given by Dean Schneider as follows:

> The first year the course was put into operation about 60 young men came to the university to inquire concerning it. Of these 45 went into the shops, and when the university opened in the fall 28 were left. The second year there were 800 inquiries and applications; from these 60 were selected and sent into the shops, and when the college opened in September 44 were recommended to us and started their university work. This year the applications and inquiries approximate 2,000; from this number we expect to select less than 100 men, and, judging from last year's experience, about two-thirds of these will begin the course in the fall.

It is too early to pass a confident judgment upon this plan, but its intrinsic interest and its growing popularity encourage the hope that it may lead to lasting improvements in our system of training for mechanical pursuits. Proposals are under consideration looking to similar cooperation between the Massachusetts Institute of Technology and the shops of the General Electric Company at Lynn, Mass.

VOLUNTARY ORGANIZATIONS.

6. To a surprising extent the educational activities of recent months have taken shape in the organization of new voluntary societies, and

in the work of such societies established at an earlier date but still comparatively new. These nongovernmental agencies range in influence and seriousness from local groups, coming together for social intercourse and discussion, to national boards and associations aiming at large practical reforms and administering endowments that run even into the millions or tens of millions of dollars. A partial list of such recent establishments is presented in the following table:

Voluntary educational organizations recently established.

Name.	Date of regular establishment or incorporation.	Date of first regular meeting.	Address of secretary.
American Nature Study Society.....	1908	Jan. 2,1908	M. A. Bigelow, Teachers' College, New York City.
American School Hygiene Association.	1907	May 6,1907	Dr. Thomas A. Storey, College of the City of New York.
National Society for the Promotion of Industrial Education.	1906	Jan. —,1908	Dr. James P. Haney, 546 Fifth avenue, New York City.
Section L (for Education) of the American Association for the Advancement of Science.	1906	Dec. —,1907	Dr. C. R. Mann, University of Chicago.
Religious Education Association....	1903	Mar. 2,1904	Mr. Henry F. Cope, 153 La Salle street, Chicago.
General Education Board.....	1903	Jan. 29,1903	Dr. Wallace Buttrick, 2 Rector street, New York City.
Carnegie Foundation for the Advancement of Teaching.	1905	Nov. 15,1905	Mr. James G. Bowman, 576 Fifth avenue, New York City.
Anna T. Jeanes Fund for Negro Rural Schools.	1908	Feb. 29,1908	Mr. Robert R Moton, Hampton, Va.
Department of Technical Education of the National Education Association.	1906	July 10,1907	Mr. George A. Merrill, San Francisco, Cal.
Department of Rural and Agricultural Education of the National Education Association.	1907	July 2,1908	Mr. E. E. Balcomb, Stillwater, Okla.
Educational Department of National Organizations of Women, National Education Association.	1907	.....do.....	Mrs. Herbert W. Mengel, Louisville, Ky.

The General Education Board has continued during the past year its policy of aiding the state universities in the Southern States in the furtherance of the campaign for an increase of high-school facilities. A peculiarly effective procedure, adopted for carrying this policy into effect, is that of providing for the support at the state universities of "professors of secondary education." According to a recent statement by Dr. Wallace Buttrick, the secretary of the board, the principal work of one of these specialists in education of high-school grade—

shall be to ascertain where the conditions are favorable for the establishment of public high schools not now in existence; he shall visit such places and shall endeavor to organize in such places public high schools in accordance with the laws of the State, shall endeavor to create in such community a public sentiment that shall permanently sustain such high schools, and shall endeavor to place the high schools under such local leadership as shall give them intelligent and wise direction, and he and the university shall exercise a fostering care over such institutions. (Article on "The general education board" in The Independent of August 6, 1908, vol. 65, pp. 291–294.)

Such professors are now attached to eight state universities and one state department of education in the South, and steps have been taken toward a further extension of this arrangement. Organized assistance at this point is adding a powerful impetus to the southern educational campaign.

In its endeavor to promote the development of primary education in the South, the General Education Board found its best points of departure to be the systematic improvement of the farming industry, upon which the local support of schools chiefly depends. It has accordingly entered into active cooperation with the United States Department of Agriculture in the establishment and supervision of "demonstration farms," about 15,000 of which are now in operation in eight of the Southern States. This arrangement is another indication of the way in which education and industries are coming into vital association each with the other in this country, an association which promises a large and varied development in the near future.

The Carnegie Foundation for the Advancement of Teaching, established primarily to provide retiring allowances for college instructors who have passed the term of their most efficient service, is proving, under its extremely capable leadership, one of the most effective agencies in the determination of American standards in higher education. The regulation that no institution may share in the benefits of this foundation which does not attain to a certain scholastic level of facilities and requirements has called forth renewed efforts on the part of many institutions to advance to that level. Institutions under state control were not included in the beginning among the institutions aided by this foundation. This policy was changed, however, in pursuance of a communication from Mr. Andrew Carnegie under date of March 31, 1908, in which he undertook to add to the resources of the foundation a sufficient sum, estimated at $5,000,000, to extend its benefits to state institutions. An institution of this class will participate in the regular system of retiring allowances only on the formal request of its governing board, with the approval of the state legislature and the governor.

The recent publications of the Carnegie Foundation have proved of special interest and value. Attention should be called particularly to the second annual report of the president and treasurer for the year ended September 30, 1907, in which are discussed some of the large problems relating to our higher institutions of learning, and Bulletin No. 2, on "The financial status of the professor in America and in Germany."

The National Society for the Promotion of Industrial Education and the American School Hygiene Association were established near the same time for the promotion of wholly distinct but related educational interests. Both have begun the issuance of important pub-

lications. The improvement of the safety of school buildings, which lies near to the central interests of the American School Hygiene Association, has received a most painful impetus during the past year through losses of life by fire in such buildings, notably in the case of the public school building at Collinwood, Ohio, which was burned on the 4th day of March, 1908.

No one of the newer organizations offers greater promise, so far as the increase of positive knowledge in the educational field is concerned, than the section for education (Section L) of the American Association for the Advancement of Science. The first meeting of this section was held in connection with the meeting of the main association at Chicago in December, 1907. Its second meeting will take place at Baltimore during the holiday season of 1908–9.

INTERNATIONAL EDUCATION.

7. The educational conventions held of late by organizations of many kinds in and for this country are matched by a remarkable series of international congresses, some of which have been held within the past few months, while others are announced for the near future. A list of the more important of these congresses convening within a period of two or three years is given herewith:

Title.	Place of meeting.	Date.
International Congress on the Welfare of the Child.	Washington, D. C	March, 1908.
Third International Congress for the Advancement of Drawing and Art Teaching.	London, England	August, 1908.
International Congress for Moral Education	do	September, 1908.
International Congress of Household Economy and Arts.	Fribourg, Switzerland	Do.
International Congress on Historical Sciences.	Berlin, Germany	August, 1908.
First Pan-American Scientific Congress	Santiago, Chile	December, 1908.
International Congress on Tuberculosis	Washington, D. C	September–October, 1908.
International Geographical Congress	Geneva, Switzerland	July, 1908.
International Congress on Popular Education.	Paris, France	October, 1908.

It is clear that the international movement in educational affairs is gaining momentum and commanding serious interest. While the congresses referred to are drawing together those engaged in education in all parts of the world for the discussion of a common cause, more intimate connections are forming through exchanges of various kinds between neighborly nations. Among these may be mentioned an interchange of teachers of foreign languages between educational institutions of the United States and the Kingdom of Prussia; the return visit of American teachers to European countries, initiated by Mr. Mosely after the manner of the pedagogic pilgrimage from England to America arranged by him two years ago; the new interchange of university lecturers between the United States and Scandinavian countries, in which Chancellor MacCracken and President Nicholas

Murray Butler have already appeared as American representatives; the tentative plan for cooperation between universities of North and South America; and the consideration by the National Council of Education, at its recent Cleveland meeting, under the leadership of Dr. William T. Harris, of the possibility of closer cooperation between the teachers' organizations of different lands.

Various other related arrangements of considerable significance are reported from time to time as in the making, and doubtless some of these will show substantial progress in the immediate future.

Widespread interest has been manifested in the observance of the 18th day of May, variously named as Hague Day, Peace Day, or Arbitration Day, as a time for accentuating the endeavor to arrive at a fair understanding of the other nations of the earth, which is the surest basis of honorable and fruitful peace and an indispensable element in modern education. No complete record has been made of the States and cities in which this day is regularly observed. But it is known that such observance has been recommended by the state superintendents of public instruction in at least fourteen of the States and by the city school superintendents in at least five of our larger cities.

The steady increase of attention in this country to the educational progress of the world at large lends an especial interest to such studies of foreign school systems as have for many years appeared in the annual reports of this office. The chapters embodying such studies which appear in this volume will be found to offer the usual amount of valuable information. The growing importance of our relations with South American countries and with the Latin countries of North America, has led to the assignment of one of the specialists in this office, Mr. Robert L. Packard, to the work of reporting on the official documents and other publications relating to education which come to this office from that great field. Attention is called to the account of recent tendencies in Spanish-American universities which Mr. Packard has prepared for this volume. (Chapter V.)

Some of the salient facts reported from the foreign field should be noted here:

SPANISH AMERICA.

There has been an awakening of interest recently on the part of certain universities in this country with respect to the new higher education in Spanish America, while the desire to strengthen the Pan-American sentiment through meetings which should include the representatives of the different States of both Americas has been fostered by the leading public men of the United States and the South American countries. Indeed, the Bureau of the American Republics was established in Washington with a view to furthering this Pan-

American spirit. The growth of fellowship between North and South American universities has just now received an illustration in the admission of Prof. Leo S. Rowe, of the University of Pennsylvania, to honorary membership in a faculty of the ancient University of San Marcos at Lima, Peru, the ceremony having taken place on the 4th of September, 1908. The disposition to foster or create a Pan-American spirit in South American countries is further illustrated by the declaration contained in official letters relating to the meeting of the Fourth Scientific Congress, to be held at Santiago, Chile, in December, 1908, which is designated as the First Pan-American Scientific Congress. The managers of that congress set forth, in the letters referred to, that it is proposed to discuss at the coming meeting questions which relate peculiarly to America, in the conviction that a public opinion and mode of thought peculiarly American—applying the term to both North and South America—should be formed on this continent. This country is to be represented at that congress by ten delegates. A list of these delegates appears on page 41 of this report.

In order to provide some material for making comparisons between the instruction afforded at the South American universities and those of the United States, there is presented in this report a review of the programmes and journals published under the authority of a number of South American universities. From this review it appears that Spanish-American universities are giving a decisively scientific and technical bent to their instruction, with a view to meeting certain practical needs of their respective countries. The published programmes give the lists of studies at the various universities, while the theses of the students and a few papers by the professors, published in the journals referred to, show the quality of the work done. It will be seen from a survey of these two sets of publications that, while the ancient faculties of law and medicine which the South American universities inherit from the European university system are retained, the faculties of theology and philosophy have, for the most part, been subordinated to the more modern scientific and technical studies. Courses in engineering, architecture, and agriculture are found to occupy a large space in the course of study. The graduation theses of the students, too, and the papers of the professors, are mainly upon scientific and technical or sociological subjects. Theses by students in the law and medical faculties are upon scientific points in the studies belonging to those faculties.

GREAT BRITAIN AND IRELAND.

For the year 1907–8, as for several preceding years, the salient features of the educational record of Great Britain and Ireland are

legislative measures. The most important of these is the bill submitted by the Liberal government in March, renewing the effort to place all of the public elementary schools of England upon a common basis. The bill, which is purely a financial measure, provides that all schools sharing in local taxes shall be under the management of local authorities. It prohibits religious tests for the teachers of such schools, but makes provision for continuing parliamentary grants to denominational schools in cities. This "contracting out," as it is termed, will be allowed only under strict regulations as to the efficiency of the schools.

The discussion of this bill revived for a time the opposition of interests aroused by the bill of 1906. As the contest proceeded, however, the spirit of compromise developed, and at the adjournment of Parliament, early in August, the opinion was expressed by leading members on the government side that a basis of agreement, acceptable to moderate men of both parties, would be reached before the session should be resumed. This conciliatory spirit is due in part to the desire of conscientious men to end a controversy injurious to the cause both of religion and of education. It is undoubtedly strengthened by influences that are gradually changing the spirit and scope of popular education in England. The increasing demands upon schools which can be met only by public appropriations; the necessary coordination of all agencies of education; the impulse toward civic control imparted by the law of 1902—all of these influences are making the continuance of church schools more and more difficult. This is clearly shown by the very slight increase in their attendance as compared with that of schools under public control during the decade 1897 to 1907. The proportion was 28,000 to 700,000, or 1 new pupil in church schools to 25 in schools of the state.

The educational bill for Scotland, which, like the government bill for England, is set down for early consideration in the autumn session, makes increased provision for secondary education, for the compulsory establishment of continuation classes, for medical inspection of schools, and for the use of public money to supply the wants of needy children and to maintain employment committees in the interests of children who have finished school. In these respects it accords with the newer ideas as to the extent of public responsibility for the welfare of the child population.

The passage of the Irish universities bill, it is believed, will put an end to a grievance from which Ireland has long suffered and which has been a perpetual source of trouble to the Government. The bill received the King's sanction on the 1st day of August, 1908. It is a cause of satisfaction that Trinity College, Dublin, is not affected by the measure, but remains intact in its historic prestige and independence. Two new universities are to be created, the one at Dublin, the

other at Belfast, each of which will be free to develop according to circumstances. They will have power to affiliate other institutions with them, but under severe restrictions as to standards, control, etc. There is to be no test whatever of religious belief for professors or students, nor are professors to make preliminary declarations as to how they purpose to perform their academic duties. It is foreseen, however, that by virtue of their respective environments the Dublin University will have a Roman Catholic and the Belfast University a Presbyterian complexion.

London is an exceptional unit of educational administration by reason of its enormous population and its vast industrial problems. At the same time it is typical of English cities in general as regards its system of school organization and its pressing educational needs. The completeness with which the entire child population of this metropolitan district has been brought under surveillance is one of the impressive facts brought out in the record of its recent educational achievements. Even more significant is the completeness of the provision for the training of the defective and feeble-minded and for promoting the physical well-being of the school population by an organized system of medical inspection, by open-air schools, vacation colonies, the supply of food for hungry pupils, and other recent undertakings. Much of this work is accomplished by cooperation with private agencies, a new example of which appears in the development of employment bureaus intended to assist children in their search for work when their school life is ended. This idea is rapidly spreading, and, as already noted, it has been embodied in the Scotch education bill. In respect to these social services London affords an example of what is going on in several cities of Great Britain. The legislative measures intended to extend these provisions to the entire nation simply follow the lead of the cities in these matters.

London is greatly inferior to New York in the extent of its public provision for education beyond the elementary stage. On the other hand, by a liberal system of scholarships, which carry free tuition and living allowances, young Londoners of exceptional ability are enabled to continue their education through the higher technical institutions. Even London University itself is brought within the municipal system by means of such scholarship grants. Whereas in the United States there is a disposition to open opportunities for higher education freely to all children, the effort in England is to discover and encourage special ability. In this "capacity catching" spirit, as Mr. Sidney Webb calls it, London is typical of the Kingdom.

Several interesting aspects of the recent educational history of Great Britain and Ireland in addition to those mentioned above are set forth in Chapter VI of this volume.

FRANCE.

For nearly a decade interest in educational movements in France has been centered in measures directed against the clerical teaching orders. This question having been settled by law for the present, problems more directly related to education, in itself considered, have come to the front.

The most comprehensive of these problems is that of the coordination of different parts of the state system of public education, which, in spite of its centralized control and uniform organization, lacks internal unity. In particular, primary and secondary education are separated, as a consequence of their historic origin and the influences under which they have hitherto developed, to a degree that is seen to be prejudicial to the national spirit as well as to economic administration.

The development of higher primary schools and their adaptations to modern needs has brought them into collision, as it were, with the secondary schools—the culture schools of the nation. Many of the latter, yielding to the pressure of circumstances, have organized new sections which, in a measure, duplicate the work of the higher primary schools. The situation in this respect in France is similar to that in England, but whereas in the latter country local action determines the necessary readjustments, in France these wait upon official decrees. The measures taken in both countries, however, to prevent a wasteful duplication of appliances and expenditures have tended to facilitate the advancement of pupils from the lower grades to the higher. They are accordingly approaching that continuous and coherent arrangement of the several parts of the educational system which is characteristic of our American school organization.

The scientific ideal has received new emphasis in French education in the recent development of the science section of the secondary schools and of the university faculties of science. It was expressly emphasized in an address recently delivered before the French Association for the Advancement of Science by Professor Appell of the Sorbonne, who may be regarded as the leading exponent in France of the scientific view of education. In opposition to the encyclopedic extension of courses of study by the addition of new subjects, Doctor Appell advocated a reorganization of the whole scheme of higher education with a view of developing the essential elements of the scientific spirit, intellectual curiosity, and forceful initiative. On the other hand, strong protests have been heard of late against a departure from the culture ideal that has pervaded liberal education in France. These protests were excited by the inauguration of special licenses in the Sorbonne to replace the single diploma that formerly attested for all licentiates the possession of a common fund

of general knowledge. The new diplomas, which encourage specialization by immature students who have simply attained the bachelor's degree, constitute, in the opinion of eminent critics, a serious peril to French scholarship.

University equipment for instruction in the sciences is steadily increasing. This extension has been necessary to meet the pressing needs of medical science as well as those of the various technical professions. The popularity of the technical courses of instruction, recently developed in close relation with the scientific section of the principal universities, is shown by the increase in the number of technical students from 760 in 1902 to 1,260 in 1907.

Although, for the moment, the needs of science have been particularly considered, the Government has shown itself alive to the importance of dealing with the interests of higher education in a comprehensive manner, and the customary procedure by the preliminary commission has been employed in preparation for measures of improvement. Three great commissions have been appointed—the commission on salaries, the commission on medical studies, and the commission on the proposed law relative to higher education; and these, taken together, have covered the whole field of higher education. Their inquiries are not confined to the organized system of public education, but extend also to those miscellaneous educational activities of the Government which have been established under other ministries than that of education. The secretary of the financial committee of the Chamber of Deputies, appointed to consider the budget for 1908, expresses the opinion that the time has come when a union of these diverse agencies under one ministry should be seriously considered.

This movement toward unity includes, in a measure, all the other problems of special moment that are at present engaging attention in France. Tentative experiments have already been made by the union of the École Normale Supérieure with the University of Paris, and the extension of the scope of the Musée Pédagogique to include in its activity every department of public instruction.

The details of the current record of education in France, comprised in Chapter VII, indicate plainly that scientific and economic considerations are subordinating all others in the present conduct of this great interest.

CENTRAL EUROPE.

A survey of recent educational movements in German-speaking countries must give a leading place to the results of the latest Prussian quinquennial school statistics, those of 1906, as compared with those of 1901 and of 1896. These statistics were published in the

spring of 1908 and gave rise to many critical remarks in the German educational press. Especial attention was called to the fact that the average number of pupils to a teacher was still 60 (53 in cities and 65 in rural districts). The expenditure per pupil had risen from $11.75 in 1896 to $17.75 in 1906 in cities and from $7.50 to $10 in rural districts. These increases show a wholesome interest in public education all over the Kingdom, in view of the fact that the administration and support of schools is to a large extent an affair of local government. The number of pupils has increased by 1,000,000 in 10 years, namely, from 5,250,000 to 6,250,000, 2,250,000 of whom are still taught in classes in which the sexes are separated, while about 4,000,000 are taught in mixed schools.

Interesting summaries of these statistics are presented in Chapter VIII of this volume.

In the German States as well as in France and England the problem of the integration of the educational system is slowly coming into prominence. The Prussian middle schools (Bürgerschulen) have been under fire, attention being sharply called to the fact that they are neither one thing nor another, neither elementary nor secondary. They carry their pupils beyond the studies of the elementary grade, but do not prepare them for a university or other higher institution of learning. The attack has called forth an able response from Dr. B. Maennel, of Halle.

Attention has also been directed of late to the anomalous position of graduates of teachers' seminaries. These graduates in some instances aspire to university courses. The question of their admission to the universities is now under discussion. An important contribution to this discussion has been made by Prof. Rudolph Eucken, of Jena, who holds that regularly trained German teachers might fairly be admitted to the philosophical faculties of the universities.

Since the close of the year to which this report relates, in August, 1908, a reorganization of girls' schools of the middle grade in Prussia has been decreed, which places those schools more directly in the line of preparation for the universities.

The German press meets the proposed exchange of high-school teachers between the United States and Prussia sympathetically, and points out in what respects the two countries may learn from each other. Innovations in minor States of the Empire in the way of agricultural instruction in the schools are reported. An account of trade and other vocational schools in Prussia has recently appeared, which reports especially large increases in expenditures for such schools, and quotes a number of courses of study of leading industrial schools in Prussia. This work, the second Verwaltungsbericht des Königlich Preussischen Landesgewerbeamts, 1907, will be welcomed by Ameri-

can school authorities who desire to know what is taught in such schools abroad and how much time is devoted to each branch. The first report of the same office, issued in 1905, contained a general account of the schools controlled by the Prussian minister of commerce and industry. A review of these several movements appears in Chapter VIII of this volume.

BUREAU OF EDUCATION.

The service rendered during the year by the Bureau of Education of the United States may be briefly summarized as follows:

The annual reports have been brought up to the earliest practicable date of publication.

Several important numbers of the Bulletin have been issued and others made ready for publication. A complete list of the numbers published and now in press is appended to this introduction.

The statistical blanks have again been carefully revised, with a view to offering them as a basis for uniform statistical reports by States, cities, and institutions, in so far as such uniformity is desirable. The conference of state and territorial school officers referred to on page 8 gave a strong impetus to this undertaking.

Under the direction of the librarian of the bureau, Mr. William Dawson Johnston, whose service began on the 1st of September, 1907, the library has been carefully winnowed, by the removal to the Library of Congress and the District library, of 26,851 bound volumes and 31,753 other pieces. The collection remaining, amounting to 62,002 bound volumes and 84,588 other pieces, has been thoroughly reorganized and put in the way of rendering a direct and extensive service to the educational institutions of the country.

In the years 1907 and 1908 the Alaska division has erected 23 new school buildings for natives in Alaska; has strengthened the provision for the industrial training of natives, including provision for the teaching of agriculture and other industries in the southern districts and the establishment of nine new centers for the reindeer industry and the distribution of reindeer to natives in the more northern region; and has initiated a campaign for sanitary education and the improvement of sanitary conditions, with particular reference to combating tuberculosis. Dr. Harlan Updegraff, chief of the division, who has recently spent several months in southern Alaska, brought the government teachers of that region together for the first time in a general teachers' institute after the close of the year with which this report is concerned.

The appropriations for the support of this office, in all of its divisions, for three years, are shown in the following table:

Appropriations for objects under the Bureau of Education.

Object.	1907.	1908.	1909.
Salaries	$54,940	$55,500	$56,500
Books for library	250	250	500
Distributing documents	2,500	2,500	2,500
Collecting statistics	2,500	4,000	4,000
Rent	4,000	4,000	4,000
Printing annual reports	20,000	40,000	20,000
Education in Alaska	100,000	200,000	200,000
Reindeer for Alaska	9,000	9,000	15,000
Total	193,190	315,250	302,500

A certain amount of haste has necessarily attended the preparation of this portion of the report for 1908 within six months after the completion of its predecessor and only three months after the close of the year to which it relates. Some matter that was to have been included has been omitted because of the impossibility of getting it ready for so early publication. It has been found necessary to defer to the second volume the official report of educational operations in Alaska. It had been intended that a list of state teachers' associations and other matters belonging to a complete educational calendar should be presented, but these, too, are unavoidably left over. Some defects of this kind, and doubtless some minor inaccuracies, will perhaps be condoned by any readers and users of the Annual Report who may find that the value of the work as a whole is increased for them by its appearance at the earlier date.

All of which is respectfully submitted.

ELMER ELLSWORTH BROWN,
Commissioner.

The SECRETARY OF THE INTERIOR.

STATISTICAL SUMMARY.

TABLE I.—*School and college enrollment in 1906–7.*

Grade.	Number of pupils.		
	Public.	Private.	Total.
Elementary (primary and grammar)	16,069,305	1,304,547	17,373,852
Secondary (high schools and academies)	771,687	190,099	961,786
Universities and colleges	53,623	96,077	149,700
Professional schools	11,517	51,739	63,256
Normal schools	62,428	8,011	70,439
Total	16,968,560	1,650,473	18,619,033
Enrollment in special schools.			
City evening schools	315,093	.....	315,093
Business schools	.....	137,364	137,364
Reform schools	35,231	.....	35,231
Schools for the deaf	11,701	533	12,234
Schools for the blind	4,359	.....	4,359
Schools for the feeble-minded	16,639	584	17,223
Government Indian schools	26,186	.....	26,186
Indian mission schools	.....	4,307	4,307
Schools for natives in Alaska supported by the Government	2,639	.....	2,639
Schools for whites in Alaska supported by incorporated municipalities and by the Government (estimated)	1,780	.....	1,780
Orphan asylums and other benevolent institutions (estimated)	.....	15,000	15,000
Private kindergartens (estimated)	.....	105,932	105,932
Miscellaneous (including schools of music, oratory, elocution, cookery, and various special arts), (estimated)	.....	50,000	50,000
Total in special schools	413,628	313,720	727,348
Grand total	17,382,188	1,964,193	19,346,381

TABLE II.—*Common school statistics of the United States.*

	1869–70.	1879–80.	1889–90.	1899–1900.	1900–1901.	1901–2.	1904–5.[a]	1905–6.[a]	1906–7.[a]
I.—*General statistics.*									
Total population	[b] 38,558,371	[b] 50,155,783	[b] 62,622,250	[b] 75,602,515	[c] 77,274,967	[c] 78,576,436	[c] 82,584,061	[c] 83,935,399	[c] 85,526,761
Persons 5 to 18 years of age	[b] 12,055,443	[b] 15,065,767	[b] 18,543,201	[b] 21,404,322	[c] 21,908,636	[c] 22,278,693	[c] 23,410,800	[c] 23,792,723	[c] 24,262,936
Pupils enrolled (duplicates excluded)	6,871,522	9,867,505	12,722,581	15,503,110	15,702,517	15,917,385	16,468,300	16,641,970	16,820,386
Per cent of total population enrolled	17.82	19.67	20.32	20.51	20.32	20.26	19.94	19.94	19.82
Per cent of persons 5 to 18 years of age enrolled	57.00	65.50	68.61	72.43	71.67	71.45	70.35	70.43	69.88
Average daily attendance	4,077,347	6,144,143	8,153,635	10,632,772	10,716,094	11,064,164	11,481,531	11,712,300	11,817,834
Relation of same to enrollment (per cent)	59.3	62.3	64.1	68.6	68.2	69.5	69.7	70.4	70.3
Average length of school term (days)	132.2	130.3	134.7	144.3	143.7	144.7	150.9	150.6	151.2
Total number of days attended by all pupils	539,053,423	800,719,970	1,098,232,725	1,534,822,633	1,539,576,527	1,601,169,762	1,732,845,238	1,763,512,391	1,787,135,440
Average number of days attended by each person 5 to 18	44.7	53.1	59.2	71.8	70.3	71.9	74.0	74.1	74.3
Average number of days attended by each pupil enrolled	78.4	81.1	86.3	99.0	98.0	100.6	105.2	106.0	106.2
Male teachers	77,529	122,795	125,525	126,588	125,838	120,883	110,532	109,179	105,773
Female teachers	122,986	163,798	238,397	296,474	306,080	320,936	349,737	356,884	369,465
Whole number of teachers	200,515	286,593	363,922	423,062	431,918	441,819	460,269	466,063	475,238
Per cent of male teachers	38.7	42.8	34.5	29.9	29.1	27.4	24.0	23.6	22.3
Average monthly wages of male teachers[d]				$46.53	$47.55	$49.05	$55.04	$56.31	$56.10
Average monthly wages of female teachers[d]				$38.93	$39.17	$39.77	$42.69	$43.80	$43.67
Number of schoolhouses[e]	116,312	178,122	224,526	248,279	251,487	254,655	256,826	257,729	259,115
Value of all school property	$130,383,008	$209,571,718	$342,531,791	$550,069,217	$572,125,215	$599,449,384	$733,446,805	$783,128,140	$843,309,410
II.—*Financial statistics.*									
Receipts:									
From income of permanent funds and rents			$7,744,765	$9,152,274	$9,767,110	$10,022,843	$13,194,042	$11,641,059	$16,579,551
From state taxes			$26,345,323	$37,886,740	$36,281,256	$39,215,910	$44,349,295	$47,942,509	$46,281,501
From local taxes			$97,222,426	$149,486,845	$163,897,478	$173,151,453	$210,167,770	$223,491,405	$230,424,554
From all other sources			$11,882,292	$23,240,130	$25,393,493	$23,107,392	$34,107,962	$39,031,031	$50,317,132
Total received			$143,194,806	$219,765,989	$235,339,337	$245,497,598	$301,819,069	$322,106,004	$343,602,738
Per cent of total derived from—									
Income of permanent funds and rents			5.4	4.2	4.2	4.1	4.4	3.6	4.8
State taxes			18.4	17.2	15.4	16.0	14.7	14.9	13.5
Local taxes			67.9	68.0	69.6	70.5	69.6	69.4	67.1
All other sources			8.3	10.6	10.8	9.4	11.3	12.1	14.6

Expenditures:									
For sites, buildings, furniture, libraries, and apparatus	.....	.....	$26,207,041	$35,450,820	$39,872,278	$39,962,863	$56,416,168	$60,608,352	$65,817,870
For salaries of superintendents and teachers	$37,832,566	$55,942,972	$91,836,484	$137,687,746	$143,378,507	$151,443,681	$177,462,981	$186,483,464	$196,980,919
For all other purposes	.....	.....	$22,463,190	$41,826,052	$44,272,042	$46,855,755	$57,737,511	$60,673,843	$67,882,012
Total expended	$63,396,666	$78,094,687	$140,506,715	$214,964,618	$227,522,827	$238,262,299	$291,616,660	$307,765,659	$330,680,801
Expenditure per capita of population	$1.64	$1.56	$2.24	$2.84	$2.94	$3.03	$3.53	$3.67	$3.90
Expenditure per pupil (of average attendance):									
For sites, buildings, etc	.....	.....	$3.21	$3.33	$3.72	$3.61	$4.91	$5.17	$5.37
For salaries	$9.28	$9.10	$11.26	$12.95	$13.38	$13.69	$15.46	$15.92	$16.67
For all other purposes	.....	.....	$2.76	$3.93	$4.13	$4.23	$5.03	$5.18	$5.74
Total expenditure per pupil	$15.55	$12.71	$17.23	$20.21	$21.23	$21.53	$25.40	$26.27	$27.98
Per cent of expenditure devoted to—									
Sites, buildings, etc	.....	.....	18.6	16.5	17.5	16.8	19.3	19.7	19.9
Salaries	59.7	71.6	65.4	64.0	63.0	63.5	60.9	60.6	59.6
All other purposes	.....	.....	16.0	19.5	19.5	19.7	19.8	19.7	20.5
Average expenditure per day for each pupil (cents):									
For salaries	7.0	7.0	8.4	9.0	9.3	9.5	10.2	10.6	11.2
For all purposes	11.8	9.7	12.8	14.0	14.8	14.9	16.8	17.4	18.5

[a] The figures for this year are subject to correction.
[b] United States census.
[c] Estimated.
[d] Several States are not included in this average.
[e] Including buildings rented.

TABLE III.—*Number of pupils and students of all grades in both public and private schools and colleges, 1906–7.*

NOTE.—The classification of States made use of in the following table is the same as that adopted by the United States census, and is as follows: *North Atlantic Division:* Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. *South Atlantic Division:* Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida. *South Central Division:* Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas, Oklahoma, and Indian Territory. *North Central Division:* Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. *Western Division:* Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, and California.

Division.	Pupils receiving elementary instruction (primary and grammar grades).		Pupils receiving secondary instruction (high-school grades).[a]		Students receiving higher instruction.										
					In universities and colleges.[c]			In schools of medicine, law, and theology.[e]			In normal schools.[g]			Total higher.	
	Public.	Private (largely estimated).	Public.[b]	Private (in preparatory schools, academies, seminaries, etc.).	Public.[d]	Private.	Total.	Public.[f]	Private.	Total.	Public.	Private.	Total.	Public.	Private.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
United States	16,069,305	1,304,547	771,687	190,099	53,623	96,077	149,700	11,517	51,739	63,256	62,428	8,011	[h]70,439	127,568	155,827
North Atlantic Division	3,739,961	490,143	246,852	61,392	5,482	40,537	46,019	361	18,572	18,933	19,169	1,268	20,437	25,012	60,377
South Atlantic Division	2,330,836	105,800	44,340	29,338	6,088	12,948	19,036	1,546	7,526	9,072	4,661	1,099	5,760	12,295	21,573
South Central Division	3,391,945	174,800	64,301	29,941	5,765	11,513	17,278	1,445	6,749	8,194	6,878	1,495	8,373	14,088	19,757
North Central Division	5,609,337	467,100	349,296	57,999	28,094	26,284	54,378	7,242	17,240	24,482	26,843	4,072	30,915	62,179	47,596
Western Division	997,226	66,704	66,898	11,429	8,194	4,795	12,989	923	1,652	2,575	4,877	77	4,954	13,994	6,524

[a] Including pupils in preparatory or academic departments of higher institutions, public and private, and excluding elementary pupils, who are classed in columns 2 and 3. A classification of public and of private secondary students, according to the character of the institutions in which they are found, is given in chapter of statistics of secondary schools, Volume II.

[b] This is made up from the returns of individual high schools to the bureau, and is somewhat too small, as there are many secondary pupils outside the completely organized high schools whom there are no means of enumerating.

[c] Including colleges for women, agricultural and mechanical (land-grant) colleges, and scientific schools. Students in law, theological, and medical departments are excluded, being tabulated in columns 9–11. Students in academic and preparatory departments are also excluded, being tabulated in columns 4 and 5.

[d] Mainly state universities and agricultural and mechanical colleges.

[e] Including also schools of dentistry, pharmacy, and veterinary medicine.

[f] Mainly in schools or departments of medicine and law attached to state universities.

[g] Nonprofessional pupils in normal schools are included in columns 4 and 5.

[h] There are, in addition to this number, 27,102 students taking normal courses in universities, colleges, and public and private high schools. (See chapter of statistics of normal schools, Volume II.)

TABLE III.—*Number of pupils and students of all grades in both public and private schools and colleges, 1906–7*—Continued.

Division.	Summary of pupils by grade.			Summary according to control.		Grand total.	Per cent in each grade of the whole number of pupils.			Per cent of public pupils.			Per cent of the total population enrolled in each grade			
	Elementary.	Secondary.	Higher.	Public.	Private.		Elementary.	Secondary.	Higher.	Elementary.	Secondary.	Higher.	Elementary.	Secondary.	Higher.	Total.
1	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
United States	17,373,852	961,786	283,395	16,968,560	1,650,473	18,619,033	93.31	5.17	1.52	92.49	80.23	45.01	20.31	1.13	0.33	21.77
North Atlantic Division	4,230,104	308,244	85,389	4,011,825	611,912	4,623,737	91.49	6.66	1.85	88.41	80.08	29.29	17.79	1.30	.36	19.45
South Atlantic Division	2,436,636	73,678	33,868	2,387,471	156,711	2,544,182	95.77	2.90	1.33	95.66	60.18	36.30	21.05	.64	.29	21.98
South Central Division	3,566,745	94,242	33,845	3,470,334	224,498	3,694,832	96.53	2.55	.92	95.10	68.23	41.63	21.80	.58	.21	22.59
North Central Division	6,076,437	407,295	109,775	6,020,812	572,695	6,593,507	92.16	6.18	1.66	92.31	85.76	56.64	20.94	1.40	.38	22.72
Western Division	1,063,930	78,327	20,518	1,078,118	84,657	1,162,775	91.50	6.74	1.76	93.73	85.41	68.20	22.25	1.64	.43	24.32

BULLETIN OF THE BUREAU OF EDUCATION.

1906.

No. 1. The Education Bill of 1906 for England and Wales, as it past the House of Commons. By Anna Tolman Smith, of the Bureau of Education. 2d edition, 1907. pp. 39.

No. 2. German views of American education, with particular reference to industrial development. Collated from the Reports of the Royal Prussian Industrial Commission of 1904. By William N. Hailmann, Professor of the History and Philosophy of Education, Chicago Normal School. 2d edition, 1907. pp. 55.

No. 3. State school systems: Legislation and judicial decisions relating to public education, October 1, 1904, to October 1, 1906. By Edward C. Elliott, Professor of Education in the University of Wisconsin. 2d edition, revised, 1907. pp. 156.

1907.

No. 1. The continuation school in the United States. By Arthur J. Jones, Fellow in Education, Teachers College, Columbia University. pp. 157.

No. 2. Agricultural education, including nature study and school gardens. By James Ralph Jewell, sometime Fellow of Clark University. 2d edition, revised, 1908. pp. 148.

No. 3. The auxiliary schools of Germany. Six lectures by B. Maennel, Rector of Mittelschule in Halle. Translated by Fletcher Bascom Dresslar, Associate Professor of the Science and Art of Teaching, University of California. pp. 137.

No. 4. The elimination of pupils from school. By Edward L. Thorndike, Professor of Educational Psychology, Teachers College, Columbia University. pp. 63.

1908.

No. 1. On the training of persons to teach agriculture in the public schools. By Liberty Hyde Bailey, Director of the New York State College of Agriculture, at Cornell University. pp. 53.

No. 2. List of publications of the Bureau of Education, 1867–1907. pp. 69.

No. 3. Bibliography of education for 1907. By James Ingersoll Wyer, jr., and Martha L. Phelps, of the New York State Library. pp. 65.

No. 4. Music education in the United States: Schools and departments of music. By Arthur L. Manchester, Director of the Department of Music of Converse College, Spartanburg, S. C. pp. 85.

No. 5. Education in Formosa. By Julean H. Arnold, American Consul at Tamsui, Formosa. pp. 70.

No. 6. The apprenticeship system in its relation to industrial education. By Carroll D. Wright, President of Clark College, Worcester, Mass. pp. 116.

CHAPTER I.

CURRENT TOPICS.

CONTENTS.

1. International educational relations.
2. International congresses.
3. Educational commissions.
4. Educational boards and associations.
5. Teachers' colleges.
6. Training of teachers of agriculture and mechanic arts.
7. Graduate schools.
8. National University.
9. Industrial education.
10. Courses in journalism.
11. Coeducation.
12. School hygiene.
13. Compulsory education and child labor laws.
14. Public school fraternities.
15. Student advisers.
16. Pension funds for teachers.
17. Changes in school officials.
18. Miscellaneous notes.

1. INTERNATIONAL EDUCATIONAL RELATIONS.

EXCHANGE OF PROFESSORS.

In December, 1904, the University of Berlin and Harvard University entered into an agreement for an annual exchange of professors for about one-half of the academic year. The agreement provides for the continuance of the regular salary of each professor, and that each professor be allowed $1,200 in addition to his salary to cover traveling and living expenses. The exchange system went into effect with the scholastic year 1905–6. The Harvard professors who have served at the University of Berlin under this agreement are as follows:

1905–6. Francis G. Peabody, D. D., LL. D., Plummer professor of Christian morals.
1906–7. Theodore W. Richards, Ph. D., Sc. D., professor of chemistry.
1907–8. William H. Schofield, Ph. D., professor of English.

The professors who have been sent to Harvard by the University of Berlin are as follows:

1905–6. Friedrich Wilhelm Ostwald, Chem. D., M. D., Sc. D., professor of chemistry at the University of Leipzig.

1906–7. Dr. Eugen O. K. Kühnemann, professor of philosophy in the University of Breslau.

1907–8. Paul Clemen, Ph. D., professor of the history of art in the University of Bonn.

In the year 1906–7 was inaugurated an exchange system between Columbia University and the University of Berlin. Through the generosity of Mr. James Speyer, of New York, there has been established by Columbia University at the University of Berlin a permanent and endowed professorship with the title of the Theodore Roosevelt Professorship of American History and Institutions, which is filled annually by the Prussian ministry of education, with the approval of the German Emperor, upon the nomination of the trustees of Columbia University. The incumbents of the professorship are required to lecture in the German language. The appointments made to the professorship have been as follows:

1906–7. John W. Burgess, Ph. D., LL. D., Ruggles professor of political science and constitutional law, and dean of the faculty of political science in Columbia University.

1907–8. Arthur T. Hadley, Ph. D., LL. D., president of Yale University.

1908–9. Felix Adler, Ph. D., professor of social and political ethics in Columbia University.

1909–10. Benjamin Ide Wheeler, LL. D., president of the University of California.

The Prussian ministry of education has established in Columbia University the Kaiser Wilhelm Professorship of German History and Institutions, which is filled each year by the trustees of Columbia University upon the nomination of the Prussian ministry of education. The incumbents of this professorship are required to lecture in the English language. The appointments made to this professorship have been as follows:

1906–7. Hermann Schumacher, ordinary professor of political economy in the University of Bonn.

1907–8. K. G. Rudolf Leonhard, J. U. D., professor of legal science in the University of Breslau.

1908–9. Albrecht F. K. Penck, Ph. D., professor of geography and director of the Geographical Institute at the University of Berlin.

Through the efforts mainly of Prof. Carl C. Lorentzen, of New York University, who is a graduate of the naval academy at Copenhagen, an exchange of professors between the United States and Denmark has been inaugurated. Professor Lorentzen procured, through a number of Danes, the funds necessary to put the plan into operation. The first American professor who went to the University of Copenhagen under the exchange system is Chancellor Henry M. MacCracken, of New York University, who lectured also at the University

of Christiania in Norway. His topic was American Ideals and Aims in the Twentieth Century. In September, 1908, President Nicholas Murray Butler, of Columbia University, gave three lectures at Copenhagen.

A movement is on foot to effect a Scandinavian-American exchange of professorships, but no definite statement in regard to it can be made at this time.

EXCHANGE OF TEACHERS BETWEEN PRUSSIA AND THE UNITED STATES.

In the summer of 1907 the department of ecclesiastical affairs, instruction, and medical affairs of Prussia laid before the Carnegie Foundation for the Advancement of Teaching a plan for an exchange of teachers between Prussia and the United States, and requested the foundation to arrange the details of the exchange for the United States.

The details of the system are given very fully in a bulletin issued in March, 1908, by the Carnegie Foundation, from which the following points are taken:

The plan is to effect a permanent arrangement by which teachers of the United States shall be assigned for a year or half year to schools in Prussia and vice versa. The instruction to be given in Prussia will be the teaching of English in a conversational way. "In no case are teachers to take part in the formal instruction of the institution which they visit. * * * The plan is for the visiting teacher to teach conversation in his own language in an informal manner for not more than two hours each day, his classes being small groups of upper classmen who wish to perfect themselves in the language of the teacher. The students and the teacher discuss the manners and customs of the teacher's home, the school arrangements, the family life, the conditions of public life, the social usages, etc."

All matters of business connected with the exchange of teachers are transacted either through the Prussian minister whose address is Berlin W, 64, Wilhelmstrasse 68, or through the Carnegie Foundation for the Advancement of Teaching, 576 Fifth avenue, New York City. All communications from those interested in the matter in the United States should be addressed to the president of the Carnegie Foundation for the Advancement of Teaching.

All applications from institutions for teachers from Prussia and for appointments of individuals to go to Prussia should be filed at the office of the foundation not later than June 15, to go into effect in October. In making application a teacher should give his full name, address, date and place of birth, citizenship, religious faith, academic preparation for teaching, and information concerning his fitness for the work, and preference in regard to situation in Prussia. Formal

application blanks for this purpose may be had upon request from the offices of the foundation.

The candidate for appointment to a position in Prussia should be a graduate of a college which requires for admission the usual four-year high school course. He must have been for at least one year a teacher, though not necessarily a teacher of languages, and must have reasonable facility in the German language. The teacher who goes to Prussia will enter a gymnasium or a realgymnasium. His work will be the informal teaching of the English language by means of conversation. The remuneration is 100 to 110 marks a month, paid by the Prussian Government in monthly installments.

A teacher coming to the United States from Prussia may enter a college or a high school of good standing. His work, similar to that of the American teacher assigned to a post in Prussia, will be the teaching of the German language by means of conversation. The Prussian teacher for appointment in the United States must be a graduate of a German university and must have served for at least a year as a probationary teacher under the director of a gymnasium.

Any educational institution or city school board which makes application for a Prussian teacher must agree to pay the visiting teacher a sufficient sum to meet modest living expenses, such as board, room, laundry, etc. In no case should this amount be less than the monthly allowance which the Prussian Government pays to an American teacher in Prussia. An amount of approximately $50 a month for a period of eight months will usually meet the requirement. The amount will vary according to location.

Many colleges, universities, and normal schools which have departments of German will probably be glad not only to select a representative to go to Prussia, but also to receive in return a Prussian teacher who would doubtless stimulate a new interest in the work of the department. It is not necessary, however, that an institution which receives a Prussian teacher should also nominate a teacher to go to Prussia; nor that if an institution sends a teacher to Prussia it receive a foreign teacher in return.

The Prussian Government pays all the necessary traveling expenses of the teachers selected to come to America. While many of the American teachers will probably be willing to pay their own traveling expenses to Prussia, it is hoped that institutions which nominate the individual teacher will also pay the transportation to Prussia, thus making the appointment one of distinction and honor, as well as an educational opportunity.

All appointments are made either for one academic year or for one-half of the academic year. The year begins at Easter and is divided into two terms, the second term beginning about October 1. There are generally 2 weeks' vacation at Easter, 2 weeks at Christmas,

1 week at Whitsuntide, and about 4 weeks in July or August, according to the arrangement of the ministry.

Women are not eligible to appointments as exchange teachers. American teachers are expected to render a report at the end of their service to the president of the Carnegie Foundation on such matters as seem to them important or to have educational value.

EXCHANGE OF STUDENTS.

On June 25, 1907, the corporation of Harvard University authorized the president to enter into an arrangement with the University of Lyon whereby an accredited graduate from that university might be admitted to the graduate school of arts and sciences without payment of any tuition fee, it being understood that a similar privilege would be offered in exchange to a graduate of Harvard University by the University of Lyon.

The corporation of Harvard University at a meeting, November 18, 1907, voted that the president be authorized to make standing agreements with European universities whereby one accredited student or graduate of a European university may in any year be admitted to the graduate school of arts and sciences, a reciprocal privilege being offered to a student or graduate of Harvard University.

TEACHERS' VISIT TO EUROPE.

The National Civic Federation, through the cooperation of the International Mercantile Marine Company and of Mr. Alfred Mosely, of London, England, has undertaken to arrange for a visit of 500 or more selected American teachers to inspect the schools and colleges of Great Britain and Ireland during the school year 1908–9. About 50 of the number, who have a sufficient acquaintance with the French or German language to profit by such a visit, may go to the Continent, landing at Antwerp. The selection of teachers is made by the National Civic Federation from persons nominated by boards of education, boards of trustees of individual institutions, or other appropriate educational authorities. The selection of teachers will be confined to those engaged in elementary and secondary schools, in industrial and technical schools of elementary and secondary school grade, and in institutions for the training of teachers.

The White Star, Red Star, American, and Dominion lines of steamships have granted a reduced rate of $25 for the round trip to teachers who are designated for the visit by the National Civic Federation.

It may be interesting to note in this connection that when the British teachers visited the United States, Mr. David Davis, of Wales, gave to each Welsh teacher the sum of $150 to assist them in the payment of the expenses of the trip.

2. INTERNATIONAL CONGRESSES.

FIRST INTERNATIONAL CONGRESS OF MOTHERS.

The First International Congress of Mothers was held in Washington, March 10–17, 1908. The widespread interest excited by the work of this organization was evidenced by the presence of delegates from nearly every State of the Union and from ten foreign governments. At the request of the President, the Commissioner of Education of the United States appeared as his official representative at the congress and delivered an address on " Children in the United States," having special reference to the means of promoting the general welfare by the betterment of the children.

The reports from state delegates showed the practical work accomplished by the local branches of the congress in securing legislation for the protection and education of children, i. e., child-labor laws, compulsory school-attendance laws, provision for defective and dependent children, recreation centers, etc. Full accounts of the proceedings have been published in the National Congress of Mothers Magazine for April, May, and June, 1908.

PARENTS NATIONAL EDUCATIONAL UNION.

The Parents National Educational Union held its twelfth annual conference in Bristol, England, June 12–16, 1908. The object of the union is to promote the interest of parents in the education of their children, to assist them in understanding the best principles and methods of education in all its aspects—moral, physical, and intellectual—and to bring about the cooperation of parents and teachers in the effort to train and educate the young.

INTERNATONAL CONGRESS FOR THE ADVANCEMENT OF DRAWING AND ART TEACHING.

The Third International Congress for the Advancement of Drawing and Art Teaching met in London in August, 1908. The importance of the work of these congresses is now appreciated everywhere, and the excellence of the exhibits from the United States at the former congress excited the most favorable comments from European experts. As there was no appropriation by Congress for an American exhibit and representation, the expenses for such purposes were paid by private subscription, which was effected through a committee. This committee consisted of Mr. James Hall, director, art department, Ethical Culture School, Sixty-third street and Central Park west, New York City; Mr. Charles M. Carter, director of art education, Denver, Colo.; Mr. William Woodward, professor of art, Newcomb

College, Tulane University, New Orleans, La., together with an advisory committee.

Through the efforts of the American committee an admirable collection of material was made for the congress, illustrating the methods and results of art training in our public schools. The Department of the Interior was officially represented at the congress by Mr. Charles M. Carter, director of art education, Denver, Colo., and Mr. Henry T. Bailey, secretary of the advisory committee.

INTERNATIONAL CONGRESS OF HISTORICAL SCIENCES.

The International Congress of Historical Sciences met in Berlin, Germany, from August 6 to 12, 1908. The special subjects were assigned to sections as follows: (1) History of the Orient; (2) history of Greece and Rome; (3) political history of the middle ages and modern times; (4) intellectual and spiritual history of the middle ages and modern times; (5) history of law and political economy; (6) church history; (7) history of art; (8) auxiliary historical sciences (archives and libraries, chronology, diplomacy, inscriptions, genealogy, historical geography, heraldry, numismatics, paleography, and sphragistics).

UNIVERSAL CONGRESS ON THE ESPERANTO LANGUAGE.

The Fourth Universal Congress on the Esperanto Language met at Dresden, August 16–22, 1908. The last congress at Cambridge received respectful attention from the English press, while the mayor and corporation of the city gave Doctor Zamenhof, the inventor of the language, an official welcome, and the meetings of the congress were held in the buildings of the university. The idea of an international language, easy to learn, to be used in international business, is looked upon so favorably by the educational authorities that it was proposed to introduce Esperanto as a subject of study into the French schools, and a report was made upon Esperanto as an auxiliary international language to the French minister of public instruction. The movement is therefore attracting serious attention.

INTERNATIONAL CONGRESS OF ORIENTALISTS.

The fifteenth meeting of the International Congress of Orientalists was held at Copenhagen in the latter half of August, 1908. Several universities and learned societies of this country arranged to send delegates to the congress, and this Government delegated Dr. John Fryer, professor of Oriental languages and literature in the University of California, as its official representative.

INTERNATIONAL CONFERENCE ON THE BLIND.

The Second Triennial International Conference on the Blind, and exhibition, was held at Manchester, England, July 27 to August 1, 1908, under the presidency of the Right Honorable the Earl of Derby.

Papers were presented on the methods of instruction employed in the leading institutions for the blind and upon the problems of their industrial training and employment. The exhibition included educational appliances suited to the blind, and goods manufactured by them.

INTERNATIONAL MORAL EDUCATION CONGRESS.

An International Moral Education Congress met in London, September 23–26, 1908. The programme included the following subjects: (1) Biological factors in moral education; (2) modes of teaching; (3) moral instruction, direct and indirect; (4) school organization in relation to the formation of character; (5) border questions; (6) general survey; (7) report on the state of moral education in various countries; (8) specimen moral instruction lessons in various languages. The Commissioner of Education of the United States designated Prof. Charles A. Kofoid, of the University of California, to represent the Bureau of Education at the congress, and the National Education Association designated Supt. E. G. Cooley, of Chicago; President Samuel T. Black, of the State Normal School, San Diego, Cal.; President David B. Johnson, of the Winthrop Normal and Industrial College, Rockhill, S. C.; and Rev. Clifford W. Barnes, secretary of the international committee on moral education, as delegates.

INTERNATIONAL CONGRESS ON INSTRUCTION IN DOMESTIC ECONOMY AND HOME INDUSTRIES.

An International Congress on Instruction in Domestic Economy and Home Industries (enseignement ménager) was held at Fribourg, Switzerland, September 29 and 30, 1908.

INTERNATIONAL CONGRESS ON THE PENINSULAR WAR.

The International Congress on the Peninsular War (called the war of independence) and its epoch (1807–1815) is to meet at Saragossa, Spain, from the 14th to the 20th of October, 1908, to commemorate the famous siege of Saragossa (1808–1809). The Spanish Parliament, with the sanction of the King, provided that a historical congress should meet at that city as part of the commemoration. The programme of the congress is as follows: (1) Political history of the peninsula (1807–1815); (2) military history; (3) internal history; (4) relations between peninsular history and that of other countries;

(5) the siege of Saragossa; (6) bibliography, memoirs, biographies, correspondence, unpublished material.

The following-named persons were delegated to represent the Government of the United States: Prof. Archibald Cary Coolidge, of Harvard University; Prof. Henry Rossman Lang, of Yale University; and Mr. William H. Buckler, of Johns Hopkins University.

PAN-AMERICAN SCIENTIFIC CONGRESS.

The First Pan-American Scientific Congress will meet at Santiago, Chile, December 25, 1908. The congress will be under the auspices of the Government of Chile. The executive committee is divided into subcommittees, each having in charge one of the following special subjects: (1) Mathematics, (2) physical sciences, (3) natural sciences and anthropology, (4) engineering, (5) medical science and hygiene, (6) the science of law, (7) sociology, (8) the science of pedagogy and philosophy, (9) agriculture and zootechny. The following persons shall be considered members of the congress: (1) All official delegates from cooperating countries; (2) delegates from universities, institutes, scientific societies and organizations, both Chilean and from other American countries; (3) all persons present invited by the executive committee and proposed by the respective subcommittees or by the committees of concurring countries; (4) adherents who pay the fee of 1 pound sterling and are accepted by the executive committee. The congress is to be called Pan-American because it will discuss questions which relate peculiarly to America, and a systematic effort will be made to create a Pan-American public opinion and mode of thought; that is to say, an intercontinental American sentiment, which shall include the Anglo-Saxon States, and so break down the exclusiveness of the Latin-American countries.

Cooperative committees exist in all the Latin-American countries, including Cuba and Santo Domingo. The committee for the United States consists of Prof. Leo S. Rowe, University of Pennsylvania; Prof. William R. Shepherd, Columbia University; and the universities of California, Chicago, Columbia, Cornell, George Washington, Harvard, Illinois, Johns Hopkins, Michigan, Minnesota, Pennsylvania, Princeton, Texas, Wisconsin, and Yale.

The United States will be represented at the congress by the following-named official delegates: W. H. Holmes, Bureau of American Ethnology; Col. W. C. Gorgas, U. S. Army; Prof. Bernard Moses, University of California; Prof. William B. Smith, Tulane University of Louisiana; Prof. Paul S. Reinsch, University of Wisconsin; Prof. L. S. Rowe, University of Pennsylvania; Prof. William R. Shepherd, Columbia University; Prof. A. C. Coolidge, Harvard University; Dr. Hiram Bingham, Yale University; and Mr. George M. Rommel, United States Department of Agriculture.

3. EDUCATIONAL COMMISSIONS.

ILLINOIS.

By an act approved May 25, 1907, the legislature of Illinois created an educational commission to consist of the state superintendent of public instruction and of six persons representing the various phases of educational work within the State, to be appointed by the governor. It is the duty of the commission "to make a thorough investigation of the common school system of Illinois and the laws under which it is organized and operated; to make a comparative study of such other school systems as may seem advisable; and to submit to the forty-sixth general assembly a report including such suggestions, recommendations, revisions, additions, corrections, and amendments as the commission shall deem necessary." The members of the commission, appointed in December, 1907, are Hon. F. G. Blair, state superintendent of public instruction; President E. J. James, University of Illinois; Superintendent E. G. Cooley, of the Chicago public schools; Superintendent A. F. Nightingale, of Cook County; Principal Alfred Bayliss, of the Western Illinois State Normal School; President R. E. Hieronymus, of Eureka College; and Principal Harry Taylor, of the Harrisburg High School. Dr. Ira W. Howerth, of the University of Chicago, is the secretary of the commission. The legislature appropriated $10,000 for the expenses of the commission. The members of the commission are to receive only their actual personal and traveling expenses. The secretary receives $4,000 per annum.

The commission has rearranged, rewritten, and greatly reduced in bulk the body of the present school law and has taken up the consideration of changes that should be made in the school system. It has issued four numbers of a bulletin, each of which is devoted to a tentative plan proposed by the commission for a particular feature of the system. The topics treated in the bulletin are as follows: (1) State board of education; (2) County board of education, with some suggestions in regard to the county superintendency; (3) Certification of teachers; (4) The township the unit of school organization.

IOWA.

The Iowa educational commission was created by an act of the legislature approved April 13, 1907. The act provides that the commission shall consist of three members, one of whom shall be an educator of the State and two of whom shall be practicing attorneys, to be appointed by the governor. The commission "shall have power to

rearrange, revise, and codify the existing laws relating to the public schools and recommend additional needed legislation." It "shall report the results of its labor and its recommendation to the thirty-third general assembly." The act appropriates $3,000 for the expenses of the commission and provides that the members shall receive as compensation $8 per day each and actual traveling and personal expenses while actually engaged in said work. The commission consists of Prof. Frederick E. Bolton, of the University of Iowa; Mr. Arthur Springer, of Wapello, secretary; and Mr. W. H. Baily, of Des Moines.

KANSAS.

The Kansas state educational commission was appointed by the governor in response to a request of the State Teachers' Association "to consider the educational needs of the State, and to make such recommendations as to needed legislation, as in their judgment seems best." The members of the commission are State Superintendent E. T. Fairchild, chairman, Topeka; Superintendent L. A. Lowther, secretary, Emporia; Hon. J. W. Gleed, Topeka; Superintendent R. F. Knight, Wichita; Superintendent W. D. Ross, Peabody; Principal W. S. Pate, Cherokee; County Superintendent A. J. Stanley, Lincoln.

KENTUCKY.

By an act approved March 17, 1908, the legislature of Kentucky created an educational commission of eleven members. The act provides that the commission shall consist of the governor, superintendent of public instruction, one member of the senate to be chosen by the senate, one member of the house of representatives to be chosen by the house of representatives, one woman to be chosen by the Kentucky Federation of Women's Clubs, the president of the State University, the president of the Eastern State Normal School, the president of the Western State Normal School, one representative of the colleges of Kentucky, one superintendent of city schools, and one superintendent of county schools, the three members last named to be appointed by the governor. The act provides that the superintendent of public instruction shall be chairman of the commission. It is the duty of the commission "to make a thorough investigation of the whole school system and all the educational interests of Kentucky and the laws under which the same are organized and operated; to make a comparative study of such other school systems as may seem advisable and to submit to the next general assembly a report embracing such suggestions, recommendations, revisions, additions, corrections, and amendments as the commission shall deem necessary." The members shall receive only their actual personal and traveling expenses. The commission, appointed in April, 1908, consists of

Governor A. E. Wilson; State Superintendent J. G. Crabbe; Senator J. J. Watkins; Representative J. H. Jackson; President J. K. Patterson, State University; President R. N. Roark, Eastern State Normal School; President H. H. Cherry, Western State Normal School; President F. W. Hinitt, Central University; Superintendent E. H. Mark, Louisville; Superintendent L. N. Taylor, Pulaski County; and Miss Virginia E. Spencer, Richmond, Ky. The officers of the commission are Hon. J. G. Crabbe, chairman; Dr. Geo. J. Ramsey, Danville, Ky., secretary.

MARYLAND.

By an act approved April 6, 1908, the legislature of Maryland authorized the governor to appoint a commission to consist of not more than five citizens of the State "to make inquiry and report to the legislature at its next session, by bill or otherwise, respecting the subject of industrial education, including an examination of the extent to which it is already carried on in Maryland and elsewhere, the best means of promoting and maintaining it in its several grades, whether by state or local action alone or by both combined; how far it is possible or desirable to incorporate it into the existing system of public instruction; the best method of training teachers for such schools or departments, and what changes, if any, are required in the existing system of schools to enable them to provide such training, or to meet more fully the needs of the system of public instruction as now organized in this State, with such other inquiries as the commission may itself institute or be requested by the governor to undertake." The members of the commission shall serve without compensation, except for necessary expenses and clerk hire actually incurred and approved by the governor, not to exceed the sum of $300. The members of the commission appointed on May 2, 1908, are Dr. Richard Grady, Annapolis, chairman; Carroll Edgar, Howard Melvin, John T. Foley, and Lorie C. Quinn.

MASSACHUSETTS.

By a resolve of the legislature of Massachusetts approved May 24, 1905, the commission on industrial and technical education to consist of nine members was authorized. On June 7, 1905, the governor appointed the following-named persons as members of the commission: Carroll D. Wright, Warren A. Reed, John Golden, Mrs. Mary Morton Kehew, George H. Martin, Nathaniel I. Bowditch, John P. Murphy, Simeon B. Chase, and George E. Keith. The commission was authorized for the purpose of investigating "the needs for education in the different grades of skill and responsibility in the various industries of the Commonwealth;" also, to investigate "how far the

needs are met by existing institutions" and to "consider what new forms of educational effort may be advisable." It was required to report to the general court on the second Wednesday of January, 1906, on which date the powers of the commission terminated. In its report to the legislature in 1906 it recommended the creation of a commission on industrial education to aid in the introduction of industrial education and to assist in the establishment of independent industrial schools and the establishment of a normal department at the Massachusetts Agricultural College for the purpose of giving instruction in the elements of agriculture to persons desiring to teach such elements in the public schools.

As a result of the recommendations contained in that report, the Massachusetts commission on industrial education was authorized by an act of the legislature approved June 21, 1906. The members of the commission were appointed by the governor on August 31, 1906. The members originally appointed were Paul H. Hanus, chairman, A. Lincoln Filene, Charles H. Winslow, Carlton D. Richardson, and Mary Morton Kehew. The secretary is Charles H. Morse. On January 17, 1907, the governor appointed Mr. Milton P. Higgins a member of the board to fill a vacancy caused by the resignation of Mrs. Kehew, the only woman member of the commission. By an act approved June 2, 1908, the governor is required to appoint a woman as an additional member of the board. The act authorizing the commission charged it with the duty of "extending the investigation of methods of industrial training and of local needs;" advising and aiding "in the introduction of industrial education in the independent schools" provided for in the act; providing "for lectures on the importance of industrial education and kindred subjects;" visiting and reporting "upon all special schools in which such education is carried on." The commission is required to present an annual report to the legislature relative to the condition and progress of industrial education during the year, making such recommendations as it may deem advisable. The first report was made in March, 1907, and the second in January, 1908.

According to the latter report, there have been established through the commission one agricultural school and evening industrial schools in Beverly, Cambridge, New Bedford, Taunton, and Waltham. The agricultural school is located at Northampton, Mass., and is known as the Smith Agricultural School. It was opened for instruction in the fall of 1908 and includes instruction in domestic science and the mechanic arts as applied in agriculture, as well as all branches of agriculture proper. The director of the school is Rufus Whittaker Stimson, formerly president of the Connecticut Agricultural College. In Beverly, evening industrial courses in engineering mathematics and in architectural and industrial drawing were established in Octo-

ber, 1907; in Cambridge, evening industrial courses in machine-shop work, pattern making, forging, architectural, mechanical, and free-hand industrial drawing, dressmaking, and millinery were established in October, 1907; in New Bedford, evening industrial classes offering instruction in electrical subjects were established in November, 1907; in Taunton, evening classes in clay modeling and in dressmaking were organized on January 1, 1908; in Waltham the commission established evening industrial courses in machine-shop practice, shop mathematics, and industrial drawing in December, 1907.

NEW JERSEY.

New Jersey, by a joint resolution approved April 9, 1908, provided for the appointment by the governor of a commission of five persons to examine the condition of the blind in that State and the provisions made and methods employed by other States to ameliorate the condition of their blind. The sum of $1,000 is appropriated for the expenses of the commission.

A joint resolution approved April 14, 1908, authorizes the governor of New Jersey to appoint a commission of five persons to inquire into and report to the next legislature upon the subject of promoting industrial and technical education. The commission " shall investigate the needs for education in the different grades of skill and responsibility in the various industries of the Commonwealth. They shall investigate how far the needs are met by existing institutions, and what new forms of educational effort shall be advisable, and shall make such investigations as may be practicable through printed reports as to similar educational work done by other States, the United States Government, and by foreign governments." The commissioners shall serve without compensation, but shall be repaid the expenses actually incurred in the performance of their duties. The sum of $3,000 is appropriated to cover the expenses of the commission. The commission consists of George R. Howe, president, Newark, N. J.; George G. Tennant, treasurer, Jersey City, N. J.; William A. Bembridge, Roselle Park, N. J.; and John W. Ferguson, Paterson, N. J. The secretary is Dr. Albert A. Snowden, Newark, N. J.

PENNSYLVANIA.

A joint resolution of the legislature of Pennsylvania approved May 8, 1907, provides for the appointment by the governor of seven competent citizens, of whom the state superintendent of public instruction shall be one, as commissioners " to revise, collate, and digest all the acts and statutes relating to or touching the laws of the public schools of the Commonwealth." The duties of the said commissioners shall be " to collate and reduce into one act all the acts and

statutes and parts of acts and statutes relating to or touching public schools of this Commonwealth, and arrange the same systematically, under proper titles, divisions, and sections, to omit in such revisions all acts and parts of acts that have been repealed or supplied by subsequent acts or which have expired, and to prepare and submit such bills to the legislature as they shall deem necessary to make the public schools of this Commonwealth more comprehensive, efficient, and adapted to the needs of its citizens." The sum of $5,000 was appropriated for the purpose of the commission. The members of the commission appointed on September 11, 1907, are Hon. N. C. Schaeffer, state superintendent of public instruction, president; Dr. Martin G. Brumbaugh, superintendent of public schools, Philadelphia; David B. Oliver, president of board of school controllers, Allegheny; William Lauder, member of school board, Riddlesburg; John S. Rilling, attorney at law, Erie; James M. Coughlin, superintendent of public schools, Wilkes-Barre; Dr. G. M. Philips, principal of State Normal School. West Chester, secretary.

VIRGINIA.

An act of the legislature of Virginia approved March 13, 1908, provides for the appointment, by the governor, of a commission consisting of seven persons, four of whom shall be experienced educators, "whose duty it shall be, after investigation, to devise stable and systematic method for the maintenance, management, and expansion of these (higher educational) institutions, according to the needs of each of them, and with reference to a definite and harmonious educational system." The members of the commission shall be reimbursed for their actual expenses incurred in the discharge of their duties, and the sum of $500 is appropriated therefor. The members appointed by the governor on June 26, 1908, are Dr. Edwin A. Alderman, University of Virginia, chairman; Dr. J. L. Jarman, Farmville; Dr. Charles M. Hazen, Bon Air; Hon. E. E. Holland, Suffolk; Hon. R. E. Byrd, Winchester; Dr. W. W. Smith, Lynchburg; Hon. J. D. Eggleston, Richmond.

WASHINGTON.

By an act approved March 12, 1907, the legislature of Washington created a state board of commissioners "whose duty it shall be to recodify, rearrange, and bring into harmony all laws and parts of laws pertaining to the public school system of the State of Washington, the state educational institutions of said State, the making of reports by the executive heads of private institutions of learning, and suggesting such amendments to existing laws as it may deem proper and for the best interests of the educational system or systems of this State." The act provides that the commission shall con-

sist of the state superintendent of public instruction, the attorney-general, and three members to be appointed by the governor, one of whom shall be a county superintendent of common schools, one a member of a city board of education of a school district containing a city of 10,000 or more inhabitants, and one shall be a principal of a state normal school, president of the University of Washington, or the president of the State College. The sum of $500 is appropriated for the necessary expenses of the commission. The appointed members are Principal W. E. Wilson, of the Ellensburg Normal School; N. D. Showalter, county superintendent of schools, Colfax; and E. C. Hughes, president of the board of education of Seattle. Hon. Henry B. Dewey, Olympia, is secretary of the commission.

JOINT MEETING.

A joint meeting of representatives of the educational commissions of Illinois, Iowa, Kansas, Pennsylvania, and Washington was held at Cleveland, Ohio, July 2, 1908. The topics discussed were as follows: State boards of education; school districts; closer rural supervision; school census; registration of certificates; blind, deaf and dumb, and imbecile children; enforcement of compulsory school laws; teachers' certificates, age limit, etc.; qualifications and election of superintendents; selection and adoption of text-books; state school funds and their distribution. The following principles were unanimously adopted as a part of the proceedings of the meeting:

On motion of State Superintendent Blair, of Illinois, on the certification of teachers, as follows:

1. Any plan for the certification of teachers shall recognize and place a premium upon academic and professional preparation for teaching with a view of encouraging such preparation.

2. After admission into the teaching profession, the continuation or renewal of a teaching certificate shall depend upon successful experience and professional growth rather than upon recurrent examinations.

3. Certificates of higher grade shall be issued in recognition of continued professional growth and successful experience.

4. There should be interstate recognition of state certificates and diplomas of recognized normal schools, colleges, and universities.

On motion of Prof. Frederick E. Bolton, of Iowa City, Iowa, on the promotion of higher standards of efficiency in public schools, as follows:

We believe that the State should encourage high standards of efficiency in all grades of public schools by granting special state aid to all rural, graded, and high schools which reach certain standards in equipment and teaching force.

Concerning the state appropriations for the support of public schools, State Superintendent Blair, of Illinois, moved that it be the sense of the members of these state commissions that not less than

one-fourth of the cost of maintaining the schools of a State should come from the state treasury, and that when the major corporations of a State can not be taxed by the school districts, but pay state taxes only, not less than one-half the expense of maintaining the schools of the State should come from the state treasury or the state school funds.

NORTH DAKOTA.

An act of the legislature of North Dakota approved March 12, 1907, provides that the attorney-general, acting under the supervision of the governor, "shall revise, compile, arrange, simplify, and classify the school laws" which may be in force on July 1, 1907. The governor and attorney-general shall report to the next session of the legislature any contradictions, inconsistencies, and omissions found in the laws, and shall draft and report such school laws as, in their judgment, would be of use and benefit to the State.

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4. EDUCATIONAL BOARDS AND ASSOCIATIONS.

SECTION L (FOR EDUCATION) OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

During the December, 1906, meeting the American Association for the Advancement of Science created a section for education, known as Section L, with Dr. Elmer Ellsworth Brown, Commissioner of Education, as vice-president, and Prof. Edwin G. Dexter, of the University of Illinois, as secretary. Doctor Dexter was shortly thereafter appointed commissioner of education for Porto Rico and resigned his office as secretary. Prof. Edward L. Thorndike, of Teachers College, Columbia University, was appointed secretary ad interim. The first meeting of the new section for education was held at Chicago, December 31, 1907, to January 2, 1908. There were held three independent sessions of the section and two joint sessions with other organizations. One of the joint sessions was with the American Psychological Association and the other with the American Society of Naturalists. The following papers were presented: The Outlook of the Section for Education, by Vice-President Elmer Ellsworth Brown; The Ethical Judgments of School Children, by Prof. H. A. Aikens, Western Reserve University; The Practise Curve as an Educational Method, by Prof. J. McKeen Cattell, Columbia University; Practise Curves in Learning, by W. F. Dearborn, University of Wisconsin; The Effect of Practise on the Range of Visual Atten-

tion, by Prof. Guy M. Whipple, University of Missouri; A Method of Concentration in Teaching Medicine, by Prof. W. T. Porter, Harvard University; The Grading of Students, by Prof. Max Meyer, University of Missouri; Scales of Measurements in Education, by Prof. E. L. Thorndike, Teachers College, Columbia University; The Place and Content of a Course in Biology in the High School, by Mr. G. W. Hunter, De Witt Clinton High School, New York; The Scientific Basis of High School Studies, by Prof. Charles De Garmo, Cornell University; The Pedagogy of the Danish People's High Schools, by Prof. J. A. Bergström, of Indiana University; The Teaching of Spelling as a Scientific Problem, by Prof. Henry Suzzallo, of Teachers College, Columbia University; An Experiment in the Teaching of Homonyms, by Principal H. C. Pearson, Horace Mann School, New York City; Psychological Experts in Public School systems: the Experience of Chicago, by Dr. D. P. MacMillan, director of department of child study, city school system, Chicago; Objective Measurements of the Efficiency of School Systems, by Dr. J. D. Burks, Albany Training School for Teachers; Reasons for the Existence of Schools of Education in American Universities, by Prof. G. W. A. Luckey, University of Nebraska.

The average attendance at the sessions of the section was 40. The officers chosen for the year 1908 are: Vice-president, Prof. John Dewey, Columbia University; secretary, Prof. C. R. Mann, University of Chicago.

AMERICAN NATURE-STUDY SOCIETY.

The American Nature-Study Society was organized at Chicago, Ill., January 2, 1908. Its purposes, as stated in the constitution, are, "by publications and by national and local meetings, (1) to promote critical investigation of all phases of nature study (as distinguished from technical science) in schools, especially all studies of nature in elementary schools, and (2) to work for the establishment in schools of such nature study as has been demonstrated valuable and practicable for elementary education." Any person interested in any phase of nature study or elementary science may become a member upon election by the council. The constitution provides for the organization, with the approval of the council, of sections in any city, State, group of States, or Canadian province. The Nature-Study Review has been adopted as the official organ of the society.

Among the officers elected for 1908 are the following: President, Director L. H. Bailey, New York State College of Agriculture, Cornell University, Ithaca, N. Y.; secretary-treasurer, Prof. M. A. Bigelow, Teachers College, Columbia University, New York City.

AMERICAN SCHOOL HYGIENE ASSOCIATION.

The American School Hygiene Association held its organization meeting in Washington, D. C., May 6–7, 1907. The objects of the association are "to stimulate research and to promote discussion of the problems of school hygiene" and "to take an active part in movements wisely aiming to improve the hygienic conditions surrounding children during school life." The second meeting of the association was held at Atlantic City, N. J., April 17–18, 1908. The programme included papers on the following subjects: Preliminary report of Committee on Medical Inspection; Medical and Sanitary Inspection of Schools in Vermont; The Medical and Sanitary Inspection of Schools and Their Relation to the Tuberculosis Problem; Medical Inspection in California; Medical Inspection in the Schools of Baltimore; Recent Medical Reforms in Massachusetts Law; Statutory Enactments Relating to the Medical and Sanitary Inspection of Schools; Playground Legislation; The Status of Hygiene in the American College; Provision for Exceptional Children in Public Schools; What do the Histories of the Cases of Insanity Teach Us Concerning Mental Hygiene of the School Year? A Brief for the Organization of Departments of School Hygiene Within Boards of Education; Schoolhouse Construction as Affecting the Health and Safety of Children; The Inspection of the Ventilating and Lighting of Cleveland School Rooms; School Illumination; The Readjustment of the Elementary and High Schools Upon the Basis of Physiological Age; Medical Inspection in the School of Education, University of Chicago.

The association was represented at the Second International Congress on School Hygiene in London, August 5–10, 1907, by twenty delegates, three of whom were appointed also by the Department of State to represent the General Government at the congress. The report of the delegates representing the United States at the congress was printed in the Annual Report of the Commissioner of Education for 1907. The principal officers of the association for 1908–9 are Dr. H. P. Walcott, president; Dr. Thomas A. Storey, College of the City of New York, secretary.

AMERICAN SOCIETY OF RELIGIOUS EDUCATION.

The American Society of Religious Education in May, 1908, completed its nineteenth year. It "seeks to increase the popular regard for the Bible as a Divine revelation, the text-book of morals and religion, and the basis of American institutions; to promote more and better study of the Bible for spiritual profit; to institute an exhaustive study of man's spiritual nature in order to determine the best methods

of its cultivation; to exalt the home to its rightful place in public thought, and to provide helps for parents in training their children; to maintain a system for the thorough preparation of Sunday-school teachers; to encourage religious instruction in institutions of learning; and to form a bond of union among pastors for the spiritual benefit of their churches.

"Courses of study have been prepared for parents, teachers, pastors, and others. Documents treating on important themes are published free to members and sold to others at a moderate price. Institutes and conventions are held in churches and cities wherever practicable. Auxiliaries are being formed in the various States."

The society comprises the following departments: College of fellows, religious library union, Bible college at home, Christian mother's union, college Bible union, Sunday teacher's college, Sunday-school extension, biblical lectureship, biblical assemblies. The principal officers are Hon. John M. Harlan, president; Dr. James E. Gilbert, secretary, Washington, D. C.

ANNA T. JEANES FOUNDATION.

The Anna T. Jeanes Foundation was organized for the purpose of administering a fund given by Miss Anna T. Jeanes, of Philadelphia, Pa., for negro rural schools. The board of trustees was formally organized on February 29, 1908, and its officers are James H. Dillard, New Orleans, La., president; George Foster Peabody, treasurer; Robert R. Moton, Hampton, Va., secretary. In his first statement to the board of trustees, June 1, 1908, the president suggests that the best line of work in using the money placed at the disposal of the board is "(1) to get something additional from the school authorities, whether lengthening of term, or better pay, or larger teaching force, or better house; (2) to get the cooperative effort of the people themselves; (3) to improve the effectiveness of the school and widen its neighborhood influence by introducing industrial features." The actual work of assisting schools will not begin until the fall of 1908.

ASSOCIATION OF AMERICAN UNIVERSITIES.

The Association of American Universities was founded in February, 1900, "for the purpose of considering matters of common interest relating to graduate study." According to its constitution, "it is composed of institutions on the North American Continent engaged in giving advanced or graduate instruction." At the ninth annual conference, which was held at the University of Michigan on January 9–10, 1908, the association unanimously adopted the report of a committee on the aim and scope of the association which had been appointed at the conference of 1906.

With respect to the aim of the association the report recommends as follows:

It is thought desirable to include within the scope of the discussions of the association all those questions and problems which arise in organizing really advanced instruction in the various departments of university life. It is impossible to draw a distinction between studies which are nonprofessional and those which are professional in their character, because in our modern institutions much of the so-called nonprofessional work of the graduate department is intended as a preparation for the calling of the teacher, and much of the work of the professional schools is occupied with actual research. The problems of the different departments are so connected and interwoven that they have to be treated together in the universities themselves, and it seems desirable that a body like the association should treat them in the same way.

The report contained also a recommendation in the following language with respect to the conditions to be met by institutions to be admitted to membership in the association:

Of all the matters considered, the educational standards which any university maintains are in the estimation of your committee the most important. Hitherto this association has made the existence of a strong graduate department the sole condition of membership. Your committee believe that if the association is to undertake—as they think it should undertake—the standardizing of American universities, another criterion should also be enforced. The policy contemplated has to do with the conditions of admission to professional courses. Your committee are of the opinion that the best American universities will in the future rest their professional courses on a basis of college work, which shall range from 1 to 4 years, and that the professional student will spend at least 5 or 6 years in study from the day he matriculates in the college to the day he receives his professional degree. Your committee accordingly recommend that the association adopt as a second criterion for membership the requirement of one or more years of college work as a prerequisite for admission to professional courses, the combination being so arranged that no professional degree shall be given until the satisfactory completion of at least 5 years of study.

The ideal of your committee is the combination of this requirement with the present requirement of a strong graduate school as a condition for membership in this association. But they recognize that a strict enforcement of both requirements might work substantial hardship at the present time. Nevertheless they think that in universities which have professional schools and a graduate department it is not too much to ask at the present time that the graduate department shall be at least creditable and that the arts and technical work prescribed for professional degrees in at least one professional school shall be not less than 5 years. It is the thought of your committee that if this dual standard of admission be now accepted by the association it may be possible to enforce it with increasing strictness as the years go by. They feel, however, that a step of the utmost importance would be taken if the association now insisted on the dual requirement, even though in administering it concessions were, for a few years, made to some universities which were strong in the one direction, but not so fully developed in the other. Your committee are of the opinion that American universities can not be justly standardized with reference to graduate departments alone; the requirement of a general or liberal education as a prerequisite to professional study along with an extension of the period

of study for professional students being in the estimation of the committee an important consideration. They are of the opinion that American universities should be standardized with reference to these two criteria.

The association decided also to attempt through a special committee the standardization of the colleges of the country and to make a list of the colleges whose degrees it regards as of equal value with the college degrees conferred by the members of the association. The proceedings are published annually. The officers for 1908–9 are as follows: President, the representative of the University of Michigan; vice-president, the representative of the Leland Stanford Junior University; secretary, the representative of Harvard University (to serve for a period of 5 years).

ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS OF THE MIDDLE STATES AND MARYLAND.

On November 30, 1907, the Association of Colleges and Preparatory Schools of the Middle States and Maryland took action toward the establishment of a college entrance certificate board of the Middle States and Maryland. The executive committee of the association was authorized to appoint a committee to take preliminary steps for the organization of the board; also to appoint five representatives of secondary schools to take part in the organization.

CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING.

On April 16, 1905, Mr. Andrew Carnegie placed in the hands of trustees $10,000,000 in 5 per cent first-mortgage bonds of the United States Steel Corporation, the income from which is applied to the payment of retiring allowances to professors and officers of universities, colleges, and technical schools in the United States, Canada, and Newfoundland. The trustees of the foundation were incorporated first under the laws of the State of New York, but on March 10, 1906, an act of incorporation passed by Congress was approved by the President and accepted by the trustees. (See Annual Report of the Commissioner of Education for 1906, pp. 1249–1250.) The following account of the work of the foundation has been furnished by Mr. John G. Bowman, secretary:

The year 1907–8 has produced a notable widening in the scope of the Carnegie Foundation for the Advancement of Teaching. By his original gift the donor did not include state or provincial institutions, considering that the States and provinces might desire to provide retiring allowance systems of their own for their collegiate professors. The Association of State Universities, however, urgently requested that the tax-supported institutions in the United States should be made eligible to the foundation, and the University of Toronto, the largest government university in Canada, was equally desirous of this inclusion. The admission of these institutions was urged not only on account

of the apparent hopelessness of a retiring-allowance system being instituted through any other instrumentality, but also because it seemed advisable that the tax-supported and privately endowed institutions should have the mutual benefit of being associated together in the same educational agency. After attentive consideration to these requests of the tax-supported institutions, Mr. Carnegie, on March 31, 1908, added $5,000,000 to the endowment of the foundation in order that the trustees might admit to the retiring-allowance system the colleges and universities supported by the States of the Union and the provinces of the Dominion.

These colleges and universities, being created and supported by the people, Mr. Carnegie stipulated that the scope of the foundation should not be extended to include these institutions until the foundation had been requested to do so by the governor and legislature of the State or province. The legislature of Massachusetts was the first to make such a request, and this has been followed by similar action on the part of the legislatures of Louisiana and of Georgia. His Majesty's ministers in Ontario, by a formal order in council, have resolved to lay a similar resolution as a government measure before the next session of Parliament. Few legislatures have been in session during the spring and summer, but numerous governors and prime ministers have written to the foundation to express the desire of their State or province to join in the foundation's activities.

With this exception, made necessary by their support by taxation, the state institutions will be eligible for admission upon the same terms as the privately endowed colleges and universities. All institutions which share in the retiring-allowance system must possess a revenue sufficient to guarantee stability; they must maintain adequately organized collegiate departments; and they must require for admission enough training to insure real college work in the freshman class, namely, 14 units, as such units have previously been defined by the foundation.

To comply with this last requirement many state institutions will be required to raise their standards of admission. This will be in harmony with a notable educational movement throughout the country, both in public and privately supported colleges. About one-third of the institutions upon the accepted list have raised their entrance requirements in order to be eligible for acceptance, and others are gradually doing so in order to be eligible at some future time. The system of units in which the foundation has expressed its valuation of standards has been largely adopted as a convenient common denominator of the various methods of expression in practice in different institutions, and thus an easy means of comparison has been furnished leading toward a better unification of the amount of preparation required throughout the country for college admission. The publication by the foundation of its system of units, and its insistence upon 14 such units being maintained in entrance requirements as a prerequisite for eligibility to the accepted list, have had much to do with the discussion throughout the country and the revision of college requirements for admission.

Seven institutions have been admitted to the accepted list of the foundation during the academic year 1907–8, making the total roll of colleges, universities, and technical schools now participating in the retiring-allowance system of the foundation 62. This list is as follows:

Amherst College, Amherst, Mass.
Bates College, Lewiston, Me.
Beloit College, Beloit, Wis.
Bowdoin College, Brunswick, Me.
Carleton College, Northfield, Minn.
Case School of Applied Science, Cleveland, Ohio.

Central University of Kentucky, Danville, Ky.
Clark University, Worcester, Mass.
Clarkson Memorial School of Technology, Potsdam, N. Y.
Colorado College, Colorado Springs, Colo.
Columbia University, New York City.
Cornell University, Ithaca, N. Y.
Dalhousie College and University, Halifax, Nova Scotia.
Dartmouth College, Hanover, N. H.
Dickinson College, Carlisle, Pa.
Drake University, Des Moines, Iowa.
Drury College, Springfield, Mo.
Franklin College, Franklin, Ind.
George Washington University, Washington, D. C.
Hamilton College, Clinton, N. Y.
Harvard University, Cambridge, Mass.
Hobart College, Geneva, N. Y.
Iowa College, Grinnell, Iowa.
Johns Hopkins University, Baltimore, Md.
Knox College, Galesburg, Ill.
Lawrence University, Appleton, Wis.
Lehigh University, South Bethlehem, Pa.
Leland Stanford Junior University, California.
McGill University, Montreal, Canada.
Marietta College, Marietta, Ohio.
Massachusetts Institute of Technology, Boston, Mass.
Middlebury College, Middlebury, Vt.
Mount Holyoke College, South Hadley, Mass.
New York University, New York City.
Oberlin College, Oberlin, Ohio.
Polytechnic Institute, Brooklyn, N. Y.
Princeton University, Princeton, N. J.
Radcliffe College, Cambridge, Mass.
Randolph-Macon Woman's College, Lynchburg, Va.
Ripon College, Ripon, Wis.
Rose Polytechnic Institute, Terre Haute, Ind.
Smith College, Northampton, Mass.
Stevens Institute of Technology, Hoboken, N. J.
Trinity College, Hartford, Conn.
Tufts College, Tufts College, Mass.
Tulane University of Louisiana, New Orleans, La.
Union University, Schenectady, N. Y.
University of Cincinnati, Cincinnati, Ohio.
University of Pennsylvania, Philadelphia, Pa.
University of Pittsburg, Pittsburg, Pa.
University of Rochester, Rochester, N. Y.
University of Vermont, Burlington, Vt.
Vassar College, Poughkeepsie, N. Y.
Wabash College, Crawfordsville, Ind.
Washington and Jefferson College, Washington, Pa.
Washington University, St. Louis, Mo.
Wellesley College, Wellesley, Mass.
Wells College, Aurora, N. Y.
Western Reserve University, Cleveland, Ohio.

Williams College, Williamstown, Mass.
Worcester Polytechnic Institute, Worcester, Mass.
Yale University, New Haven, Conn.

To the professors in these 62 institutions, retiring allowances come to themselves or to their widows as a right inherent in their professional status, not as a courtesy to be granted or withheld at the discretion of the foundation. Misconceptions existing in the early days of the foundation that it was a charitable fund for teachers have been gradually cleared away, and it has been increasingly recognized during the past year that the endowment of the foundation is an addition to the resources of higher education in the three English-speaking countries of North America, whereby college and university professors by appointment to professional rank receive indefeasible right, if their service continue a sufficient number of years, to an adequate provision for retirement. To the professors in the accepted institutions this has already brought a sense of security and a relief from anxiety, and it is expected that such an increase of dignity and of opportunity for effective work will make the profession of college teaching more attractive to the best of our American youth.

In the annual reports of the foundation the president endeavors to present important statistics of the higher education, and to discuss higher educational phases and problems. The viewpoint of the material and the criticism is that of all English-speaking North America, not local, nor sectional, nor even national. The foundation also published during the year, in Bulletin No. 2, a study of the financial status of the American college professor. For purposes of comparison the bulletin included a similar study of the financial condition of the German professor. These publications were distributed among college presidents and professors, government officials, and among those interested in teaching and educational administration, and probably served to aid institutions by presenting to them the problems and solutions of other colleges and universities. The foundation has a large collection of data concerning the thousand degree-conferring institutions of the United States and Canada, and is always pleased to furnish information from this material to education. It is too much to expect that each college office shall duplicate this collection of data, and the foundation considers that it can perform a very useful function in acting as a sort of clearing house of educational information.

The foundation, on account of its international character, can act with advantage as an agency in furthering a better international understanding of educational problems. At the request of the Prussian minister of public instruction, the foundation has acted as the intermediary whereby a number of Prussian teachers selected by the Royal Government will give informal instruction in the German language and institutions in various academies and colleges of the United States, and a dozen American teachers will reside at Prussian Gymnasia, under the care of the Royal Government, to give a similar instruction in speaking English and in American institutions. The opportunities for the study of American and Prussian systems and ideals of education will doubtless be most fruitful.

The officers of the foundation for 1908 are: Henry S. Pritchett, president; T. Morris Carnegie, treasurer; John G. Bowman, secretary. The annual meeting of the trustees is held at the offices of the foundation in New York, 576 Fifth avenue, on the third Wednesday in November.

CARNEGIE INSTITUTION OF WASHINGTON.

The Carnegie Institution of Washington was founded by Mr. Andrew Carnegie, January 28, 1902, when he gave to a board of trustees $10,000,000 in bonds, yielding 5 per cent annual interest. His purpose was to "found in the city of Washington an institution which, with the cooperation of institutions now or hereafter established, there or elsewhere, shall in the broadest and most liberal manner encourage investigation, research, and discovery—show the application of knowledge to the improvement of mankind, and provide such buildings, laboratories, books, and apparatus as may be needed." On December 10, 1907, at the annual meeting of the trustees, Mr. Carnegie added $2,000,000 to the endowment fund. The institution was incorporated by an act of Congress approved April 28, 1904, and was placed under the control of a board of 24 trustees, who meet annually. The officers of the institution are Robert S. Woodward, president; Cleveland H. Dodge, secretary. The offices are at present in the Bond Building, Washington, D. C.; an administration building is now in course of construction at Sixteenth and P streets NW.

The work fostered by the institution may be divided into four classes: (1) Large projects whose execution requires continuous research by a corps of investigators during a series of years; (2) small projects which may be carried out by individual experts in a limited period of time; (3) tentative investigations, carried on by young men and women who have shown unusual aptitude for research and have desired to pursue specific problems for one or two years; (4) the publication of the year books of the institution and of certain works which would not otherwise be readily printed. In addition to the year book, there were issued during the year 36 publications.

The departments of investigation which have been established by the institution, with their directors, are as follows:

Department of botanical research, Dr. D. T. MacDougal, Tucson, Ariz.

Department of economics and sociology, Dr. C. D. Wright, Clark College, Worcester, Mass.

Department of experimental evolution, Dr. C. B. Davenport, Cold Spring Harbor, Long Island, N. Y.

Geophysical laboratory, Dr. A. L. Day, Upton street, Washington, D. C.

Department of historical research, Prof. J. F. Jameson, Bond Building, Washington, D. C.

Department of marine biology, Dr. A. G. Mayer, Maplewood, N. J.

Department of meridian astrometry, Dr. Lewis Boss, Dudley Observatory, Albany, N. Y.

Nutrition laboratory, Dr. F. G. Benedict, Vila street, Boston, Mass.

Mount Wilson Solar Observatory, Dr. G. E. Hale, observatory office, Pasadena, Cal.

Department of terrestrial magnetism, Dr. L. A. Bauer, The Ontario, Washington, D. C.

To these departments are allotted the larger grants made by the trustees. The report of the president for the year 1907 shows that during the past six years there has been expended from the income of the institution the sum of $2,683,073.16, as follows: Administration, $233,943.87; publication, $140,587.93; large projects, $1,202,310.20; minor projects, special projects, and research associates and assistants, $692,643.85; investment in bonds and on account of administration building, $413,587.31. At the annual meeting in December, 1907, the following general appropriations were made for 1908: Publication fund, $50,000; administration, $50,000; grants for departments and large projects, $379,940; previously implied grants, new minor grants, and research associates and assistants, $50,000.

CATHOLIC EDUCATIONAL ASSOCIATION.

The Catholic Educational Association was organized at St. Louis, Mo., July 14, 1904, by a union of the Association of Catholic Colleges and Universities of the United States, the Conference of Diocesan Representatives of Catholic Parish Schools, and the Educational Conference of Seminary Faculties. The object of the association is "to keep in the minds of the people the necessity of religious instruction and training as the basis of morality and sound education, and to promote the principles and safeguard the interests of Catholic education in all its departments; to advance the general interests of Catholic education; to encourage the spirit of cooperation and mutual helpfulness among Catholic educators; to promote, by study, conference, and discussion, the thoroughness of Catholic educational work in the United States; to help the cause of Catholic education by the publication and circulation of such matter as shall further these ends." The association consists of three departments—the Catholic seminary department, the Catholic college and university department, and the Catholic school department. It holds annual meetings and publishes an annual volume of proceedings and addresses. It has, in 1908, an enrollment of 364 members in the school department, 52 in the college department, and 14 in the seminary department. The latest annual meeting was held at Cincinnati, July 7–9, 1908, at which there were registered 769 persons. The officers for 1908–9 are Right Rev. D. J. O'Connell, president-general; Rev. Francis W. Howard, 1651 East Main street, Columbus Ohio, secretary-general; Rev. Francis T. Moran, treasurer-general.

CLASSICAL ASSOCIATION OF THE ATLANTIC STATES.

This association, which was organized in 1907 as the Classical Association of the Middle States and Maryland, held its second annual meeting in Washington, D. C., April 24–25, 1908. During the year it increased its membership from 160 to 287, and has undertaken the

publication of The Classical Weekly under the editorship of Prof. Gonzalez Lodge, of Teachers College, Columbia University, New York City. The objects of the association and of its official organ are to further the interests of the classics in every possible way. At the second annual meeting resolutions were approved looking toward the securing of greater uniformity in entrance requirements, and empowering the executive committee to take all possible steps to induce the colleges in the territory of the association to agree upon a reform of the entrance examinations in Latin. The officers for 1908–9 are Franklin A. Dakin, president; Charles Knapp, Barnard College, New York City, secretary.

THE COLLEGE PRESIDENTS OF WISCONSIN.

Upon the invitation of President Charles R. Van Hise, of the University of Wisconsin, the representatives of the several colleges of the State met in Madison for conference on February 27, 1908. The following is a list of the colleges, with their representatives:

1. Beloit College (Beloit)——Dean Collie.
2. Carroll College (Waukesha)——President Carrier.
3. Lawrence University (Appleton)——President Plantz.
4. Marquette College (Milwaukee)——Vice-President Spaulding.
5. Milton College (Milton)——President De Land.
6. Milwaukee-Downer College (Milwaukee)——President Sabin.
7. Northwestern University (Watertown)——President Ernst (absent).
8. Ripon College (Ripon)——President Hughes.
9. University of Wisconsin (Madison)——President Van Hise.

A permanent organization of "The college presidents of Wisconsin" was effected; each college to be entitled to one vote, and to be represented by the dean or other members of the faculty at the election of the college.

President Van Hise was selected as chairman, and President Hughes as secretary. The annual meetings of the association will be held in October, the next meeting to be held in Beloit.

At the first meeting the following topics were discussed: (*a*) The charter privileges of the institutions of higher learning in Wisconsin; (*b*) the oratorical association of the various colleges of the State; (*c*) the undesirability of interscholastic athletics for women; (*d*) the curriculum of the college; what it should include. The last topic is to be discussed in detail by President Van Hise at the October (1908) meeting of the association.

CONFERENCE FOR EDUCATION IN THE SOUTH.

The Eleventh Conference for Education in the South was held at Memphis, Tenn., April 22–24, 1908. The members of the conference were welcomed by Gen. Luke E. Wright, now Secretary of War;

Hon. J. H. Malone, mayor of Memphis; and Hon. J. M. Hill, chief justice of the supreme court of Arkansas. President Robert C. Ogden, in outlining the aims and purposes of the conference, said:

> The main purpose of the conference is to generate a dynamic force that will radiate to all the States and communities of the South. The conference devotes itself more to spirit than to form—to the creation of a public opinion that will make school improvement mandatory upon the body politic—to the development of an intelligent public conscience that will maintain the schools upon a continually rising and ever-forward movement. Science, money, literature, the fine arts, the mechanic arts, the growth of population with all the possibilities of thought and action that they create, with their effects upon mental, spiritual, and material things, will evolve questions numerous and startling that will confront humanity for solution. Heaven and hell will lie within them, and the answer will decide which shall be revealed. And who must give that answer? The child of to-day must answer the questions of to-morrow.

On the morning of April 23 the state superintendents of public instruction held their annual meeting, at which the following questions were discussed: Public High Schools, by Hon. J. D. Eggleston, of Virginia; Public School Funds, by Hon. O. B. Martin, of South Carolina; County Supervision, by Hon. J. B. Aswell, of Louisiana. The evening meeting was given to addresses on The Methods of an Educational Campaign, by Prof. P. P. Claxton, of the University of Tennessee; The Christian South and Negro Education, by Bishop T. D. Bratton, of Mississippi; Popular Education and National Efficiency, by Hon. James Bryce, British ambassador to the United States.

On the morning of April 24 Mrs. B. B. Mumford, of Virginia; Mrs. Charles D. McIver, of North Carolina; and Mrs. J. D. Matlock, of Alabama, reported on the work of the women of the South for the betterment of the conditions of the rural schools. Addresses were given at that session by Miss Lillian D. Johnson, of Memphis, on the Higher Education of Women in the Southern States, and by Dr. Georgia L. White, of Smith College, Massachusetts, on The Higher Education of Women. In the afternoon of that day compulsory education was discussed by Mr. C. H. Poe, of North Carolina; Hon. H. E. Reynolds, of Alabama; Prof. W. H. Hand, of the University of South Carolina; and Prof. Wickliffe Rose, of the Peabody Education Board. In the evening addresses were given on The South's Need of Educational Theory, by Prof. W. H. Heck, of the University of Virginia; Industrial Education, by President Henry S. Pritchett, of the Carnegie Foundation for the Advancement of Teaching; and Impressions of the Conference, by Bishop Thomas F. Gailor, of Tennessee.

The officers for 1908–9 elected by the conference are as follows: President, Robert C. Ogden; vice-president, Edgar G. Murphy; secretary, Dr. B. J. Baldwin, Montgomery, Ala.

CONFERENCE OF CHIEF SCHOOL OFFICERS OF THE STATES AND TERRITORIES.

The first conference of the chief school officers of the several States and Territories with the United States Bureau of Education was held in Washington, D. C., February 24, 1908. The conference was called by the Commissioner of Education of the United States for the purpose of considering educational interests which are common to all of the States and which might presumably be furthered by a free comparison of views. Two interesting sessions were held, at which the state superintendents of 37 States and Territories were present. The educational commissions of Illinois and Iowa, the General Education Board, the Southern Education Board, and the Peabody Education Fund were represented in the conference, as were also a number of other organizations. The Hon. James B. Aswell, of Louisiana, was made temporary chairman of the meeting, and the Hon. James Y. Joyner, of North Carolina, who first suggested the holding of such a conference, made an introductory statement. The Commissioner of Education of the United States was elected president of the conference, and Miss S. Belle Chamberlain, of Idaho, secretary.

The first paper at the morning session was given by Prof. Edward C. Elliott, of the University of Wisconsin, on Methods of Mutual Help.

As a result of the conference formal action was taken requesting the Commissioner of Education to prepare bulletins of general information at such times as may be convenient, so that the officers of the state department of education of any one State and other interested persons may be apprised of the progress of educational matters in each of the other States. The point was emphasized that the United States Bureau of Education may be made especially serviceable to the chief school officers by the timely dissemination of information with respect to educational legislation enacted by the several state legislatures and by the publication of information respecting important educational movements throughout the country. A committee of five members of the conference, consisting of State Superintendents F. G. Blair of Illinois, G. H. Martin of Massachusetts, J. Y. Joyner of North Carolina, and R. L. Jones of Tennessee, and Prof. E. C. Elliott of the University of Wisconsin, were delegated to present to Congress a petition asking for additional appropriations for the Bureau of Education, to enable it to render better service to the educational public. The chief needs of the bureau were emphasized, particularly the need of a number of highly trained specialists, in addition to the specialists it now has, to study and report upon such subjects as industrial education, rural schools, agricultural and mechanical colleges, higher education, construction and equipment of

school buildings, the hygiene of education, the welfare of children as affecting educational efficiency, educational legislation, etc., and to enable it to make the results of such investigations available to officers in charge of educational systems and institutions. The great need of information with respect to the construction of school buildings is strongly emphasized by the awful calamity at Collinwood, Ohio, March 4 last.

The subject of statistical records and reports was presented by Dr. Roland P. Falkner, ex-commissioner of education for Porto Rico, and by Mr. Alexander Summers, statistician of the Bureau of Education, and was discussed by a number of the members of the conference. The need of greater uniformity and accuracy in the compilation of educational statistics and of more promptness in furnishing them to the central office was brought out forcibly. A committee of five members of the conference consisting of State Superintendents H. C. Morrison, of New Hampshire; J. D. Eggleston, of Virginia; Payson Smith, of Maine; M. Bates Stephens, of Maryland; and J. H. Ackerman, of Oregon, were appointed to confer with the Commissioner of Education of the United States with reference to the improvement of statistical forms and reports.

The Commissioner of Education was requested by vote of the conference to call a meeting of the chief school officers of the several States at such times as in his judgment may seem best.

GENERAL EDUCATION BOARD.

The General Education Board is an organization chartered by Congress under an act approved January 12, 1903, and the permanent organization was completed at a meeting held in Washington on the 29th of January, 1903. The object of the corporation, as defined in the charter, shall be "the promotion of education within the United States of America, without distinction of race, sex, or creed." The scope of its work as described in section 3 of the act of Congress is as follows:

That for the promotion of such object the said corporation shall have power to build, improve, enlarge, or equip, or to aid others to build, improve, enlarge, or equip, buildings for elementary or primary schools, industrial schools, technical schools, normal schools, training schools for teachers, or schools of any grade, or for higher institutions of learning, or, in connection therewith, libraries, workshops, gardens, kitchens, or other educational accessories; to establish, maintain, or endow, or aid others to establish, maintain, or endow, elementary or primary schools, industrial schools, technical schools, normal schools, training schools for teachers, or schools of any grade, or higher institutions of learning; to employ or aid others to employ teachers and lecturers; to aid, cooperate with, or endow associations or other corporations engaged in educational work within the United States of America, or to donate to any such association or corporation any property or moneys which shall at any time be held by the said corporation hereby constituted; to collect educational statistics and information,

and to publish and distribute documents and reports containing the same, and in general to do and perform all things necessary or convenient for the promotion of the object of the corporation.

The corporation employs a force of experts in a systematic study of educational conditions and is thus enabled to use wisely the funds which have been placed at its disposal. In June, 1905, Mr. John D. Rockefeller contributed to the board, in addition to $1,000,000 given in 1902, the sum of $10,000,000 as a permanent endowment for the purposes of the board, and in the early part of the year 1907 the further sum of $32,000,000, one-third of which was to be added to the permanent endowment fund and two-thirds to be applied to such specific objects as Mr. Rockefeller or his son might designate.

The three principal objects for which the funds are expended are the increasing of endowments of universities and colleges, the support of professors of secondary education in the state universities of the South, and the maintenance of demonstration farms in the Southern States. Professors of secondary education have been appointed in the state universities of Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia, and at the department of education in Louisiana.

The report of this corporation shows that the capital account on July 1, 1908, amounted to $38,313,100.29, a net reduction of $4,186,860.69 during the year. Gifts from the capital account amounting to $1,783,549.92 were made during the year to the University of Chicago, and $2,620,610 was given to the Rockefeller Institute for Medical Research.

The receipts for the year, including a balance from the preceding year of $980,139.31, were $3,291,072.61. Of this amount $203,151.21 was appropriated as reserve fund and is accounted for in the capital account; $643,526.19 was appropriated to 34 educational institutions and for cooperative farm work in 6 Southern States; $2,222,666.64 was invested in stocks and bonds; miscellaneous expenses amounted to $31,043.56; and there was a balance on hand July 1, 1908, of $190,685.01. Pledges amounting to $2,227,171.03 have been made to 46 educational institutions and for agricultural demonstration work in the United States. The pledges are payable in installments covering from two to five years, as conditions shall be fulfilled.

The capital account of the Anna T. Jeanes fund for negro rural schools amounts to $200,000. The amount available in the income account was $15,447.51, including a balance of $6,254.54 from the preceding year. Of this amount $13,643.79 was expended for negro rural schools and $195.59 for miscellaneous expenses, leaving a balance on hand of $1,608.13.

The officers of the board in 1908 are Frederick T. Gates, chairman; George Foster Peabody, treasurer; Wallace Buttrick, secretary. The office of the board is at 2 Rector street, New York City.

LINCOLN EDUCATIONAL LEAGUE.

The Lincoln Educational League has been incorporated in New York as a permanent institution to inculcate Abraham Lincoln's principles and patriotism, more particularly among the children. Its first undertaking is the placing in the schoolhouses throughout the country bronze tablets bearing the full text of Lincoln's address at Gettysburg. It has a fund of $20,000, which is devoted to defraying one-half of the cost of each tablet. The president of the league is Wilson W. Hoag; secretary, Francis D. Tandy.

MISSOURI ASSOCIATION OF APPLIED ARTS AND SCIENCES.

This association was organized February 28 and 29, 1908, at Sedalia, Mo., for the advancement of the applied arts and sciences in education and the fostering of a true professional spirit among all teachers actuated by this motive. Teachers of manual training, art education, domestic science and art, agriculture, and any other form of applied arts and sciences are eligible to active membership. Prof. August Ahrens, of Warrensburg, Mo., was elected president and Miss M. Bertha Fletcher, of Warrensburg, Mo., secretary-treasurer.

MUSIC TEACHERS' NATIONAL ASSOCIATION.

The object of this association, which has held 29 annual meetings, is the advancement of musical knowledge and education in the United States. It adopted a new constitution at the Oberlin meeting in 1906 and formulated a new policy. The old plan of isolated meetings devoted largely to concerts and recitals was given up and a new plan of continuing constructive effort in music pedagogy, science, history, and æsthetics was adopted. An executive committee of nine members was provided for and elected and to this committee was delegated the work of investigation and research. Subcommittees were appointed and work was undertaken along various lines. Reports of the work of the various committees were made during the past year and the activities are continuing. Some of the principal measures under consideration of the association are as follows:

The taking of a music census, in collaboration with the United States Bureau of Education; an effort to unify courses of study in colleges and universities; an effort to extend the adoption of entrance credits in music by colleges and universities; an effort to secure a wider adoption of elective advanced courses in music in secondary schools; an attempt to erect a standard requirement in music for graduation from grammar schools; an effort to construct a graded curriculum for pianoforte study; an investigation of the subject of hymn tunes.

The twenty-ninth annual meeting of the association was held at New York, at Columbia University, December 27–31, 1907. The papers and proceedings of the meeting, with lists of officers, members, and subscribers, are published by the association under the title "Studies in Musical Education, History, and Æsthetics," second series. The thirtieth meeting of the association will be held at the George Washington University, Washington, D. C., December 28–31, 1908. The officers for 1908 are Waldo S. Pratt, president; Ralph L. Baldwin, Hartford, Conn., secretary-treasurer.

NATIONAL ASSOCIATION FOR THE STUDY AND EDUCATION OF EXCEPTIONAL CHILDREN.

This is an eleemosynary association incorporated under the laws of New Jersey in March, 1905. Its purposes as specified in the articles of incorporation are:

To acquire and take over the school and educational institution now carried on at Johnston Drive, Plainfield, N. J., under the name Groszmann School, and any and all the assets and liabilities of said school; to establish and conduct schools and institutions for the treatment, care, and education of nervous and atypical children and others.

To provide for the delivery and holding of lectures, exhibitions, public meetings, classes, and conferences calculated directly or indirectly to advance the cause of education.

To establish and maintain a laboratory or laboratories, either in the State of New Jersey or elsewhere, for the scientific study of the problem of the nervous and atypical child; to print, publish, and cause to be circulated books, pamphlets, or periodicals embodying the results of such investigations, and to advance the knowledge and understanding of the condition and needs of nervous and atypical children and others.

To establish and maintain a library, and also reading and writing rooms with a reference library, and to furnish the same with books, reviews, magazines, newspapers, and other publications.

To establish courses of instruction for the education of any and all persons as teachers, nurses, and employees of such schools and institutions, to take and hold by lease, purchase, grant, devise, or bequest any property, real or personal, for the objects or purposes of the corporation, etc.

The principal activity of the association at the present time is the maintenance of the Groszmann School for nervous and atypical children. It has issued a number of publications on the education of exceptional children. The officers for 1908 are Maximilian P. E. Groszmann, president; Waldemar H. Groszmann, Plainfield, N. J., secretary and treasurer. An annual meeting of the patrons of the association is held in January of each year.

NATIONAL ASSOCIATION OF STATE UNIVERSITIES.

The association was organized in Denver, Colo., July 12, 1895, and the first annual meeting was held in Buffalo, N. Y., in 1896. The purpose of the association is "the consideration of questions relating to the promotion of higher education in all its forms in the universities of the several States of the Union, and the discussion and prosecution of such questions and plans as may tend to make more efficient in their work the institutions included in the membership of the association." The twelfth annual meeting was held in Washington, D. C., November 18–19, 1907. At that meeting the association adopted the report of its committee on a national university recommending the introduction of a bill into Congress for the creation of a national university. The text of the bill may be found on pages 82–84 of this report. Another important step was the adoption of a motion that the association "proceed to the work of standardizing the state universities, and direct its committee (on standardization) to bring in at a suitable time some scheme of organization for standardization." The principal officers for 1908 are Dr. Charles R. Van Hise, president; Dr. George E. Fellows, University of Maine, Orono, Me., secretary-treasurer.

NATIONAL CONFERENCE COMMITTEE ON STANDARDS OF COLLEGES AND SECONDARY SCHOOLS.

The third annual meeting of this committee (formerly known as the national conference committee of the Associations of Colleges and Preparatory Schools) was held in New York City, April 17, 1908. The committee is composed of delegates from the New England Association of Colleges and Preparatory Schools; New England College Entrance Certificate Board; Association of Colleges and Preparatory Schools of the Middle States and Maryland; College Entrance Examination Board; North Central Association of Colleges and Secondary Schools; Association of Colleges and Preparatory Schools of the Southern States; National Association of State Universities; Carnegie Foundation for the Advancement of Teaching; and such other organizations as may be elected to membership. The United States Commissioner of Education is ex officio a member of the committee. The constitution defines the purpose of the committee to be "to consider standards of admission, matters of common interest to universities, colleges, and secondary schools, and such other questions as may be referred to it." At least one meeting shall be held each year. The officers for 1908–9 are: President G. E. MacLean, of the University of Iowa, president; Head Master Wilson Farrand, of Newark Academy, vice-president; Prof. Frederick C. Ferry, of Williams College, secretary-treasurer.

NATIONAL EDUCATION ASSOCIATION.

The National Teachers' Association was organized at Philadelphia, Pa., August 26, 1857, and from 1870 to 1907 continued under the name of the National Educational Association. It was incorporated on February 24, 1886, under the general incorporation law of the District of Columbia, and reincorporated under the name of National Education Association of the United States by an act of Congress approved June 30, 1906. (See Annual Report of the Commissioner of Education for 1906, pp. 1252–1255.) The act of incorporation was adopted by the association at its annual meeting in Los Angeles, Cal., July, 1907. The purpose and object of the corporation are "to elevate the character and advance the interests of the profession of teaching and to promote the cause of education in the United States." Its meetings are held annually, and it publishes an annual volume of proceedings and separate reports on various phases of education.

The corporation includes the National Council of Education and the following departments: Kindergarten, elementary education, secondary education, higher education, normal schools, superintendence, manual training, art education, music education, business education, child study, natural science instruction, physical education, school administration, library, special education, Indian education, technical education, agricultural education, and organizations of women. The three departments last mentioned were organized during the year 1907–8.

The department of superintendence of the association held its annual meeting at Washington, D. C., February 25–27, 1908, and was devoted very largely to a consideration and discussion of industrial education. The next meeting of the department will be held at Chicago, Ill., February 23–25, 1909.

The annual meeting of the general association was held at Cleveland, Ohio, June 29–July 3, 1908. For some years it has been the practice of the association to make appropriations for investigations of various phases of education, which have resulted in the preparation of important reports, such as those of the committee of ten on secondary school studies, committee of fifteen on elementary education, committee of twelve on rural schools, committee on industrial education in schools for rural communities, etc. At the Cleveland meeting the following resolutions discontinuing that practice were adopted:

Resolved, That in view of the present unsettled condition of the finances of the National Education Association, due to the confusion which has arisen from a change of policy by the railroads of the country regarding convention rates, the policy of the National Education Association in granting appropriations for the investigation of special educational problems shall be, and hereby is, discontinued.

Resolved, That the president of the National Education Association be authorized and empowered to appoint a special committee to memorialize the Congress of the United States in favor of granting the request of the Commissioner of Education, approved by the Secretary of the Interior, for an annual appropriation to meet the cost of educational investigations under the direction of the Bureau of Education.

Resolved, That upon the favorable report of the committee on investigation and appropriations the board of directors will consider, and, if approved, will recommend to the Commissioner of Education projects for educational investigations brought forward by any department or committee of the National Education Association.

The following declaration of principles was adopted by the asso-tion July 1, 1908:

1. Fully realizing that trained and skilled labor is a primary essential to the industrial and commercial welfare of the country, we cordially indorse the establishment by municipal boards of education of trade schools, industrial schools, and evening continuation schools; and further recommend that the instruction in these schools be practical and efficient and have the advice and the approval of the trade interested, to the end that graduates of these schools may at once become advanced apprentices or journeymen.

2. We recommend the subordination of highly diversified and overburdened courses of study in the grades to a thorough drill in essential subjects, and the sacrifice of quantity to an improvement in the quality of instruction. The complaints of business men that pupils from the schools are inaccurate in results and careless of details is a criticism that should be removed. The principles of sound and accurate training are as fixed as natural laws and should be insistently followed. Ill-considered experiments and indiscriminate methodizing should be abandoned and attention devoted to the persevering and continuous drill necessary for accurate and efficient training; and we hold that no course of study in any public school should be so advanced or so rigid as to prevent instruction to any student who may need it in the essential and practical parts of the common English branches.

3. We assert that the individuality of the pupil should be carefully considered, to the end that he may be instructed in the light of his limitations and capacity, and commend to all local authorities the necessity of greater care in the arrangement of courses of study, that they may be adapted to the pupils to be instructed rather than that pupils should be adapted to fixed courses of study and an inflexible system of grading.

4. There is concededly a grave moral depression in our business and social atmosphere. The revelations of the financial and legislative world for the past 2 years denote a too general acquiescence in questionable practices and standards. We earnestly recommend to boards of education, principals, and teachers the continuous training of pupils in morals and in business and professional ethics to the end that the coming generation of men of affairs may have a well-developed abhorrence of unfair dealing and discrimination. The establishment of the honor system in schools, the ostracism of the dishonest or unfair pupil, the daily exemplification in the routine life of the school of the advantage of honest and truthful methods, are commended to the especial attention of teachers as a partial means to this end.

5. The Bureau of Education at Washington should be preserved in its integrity and the dignity of its position maintained and increased. It should receive at the hands of Congress such recognition and such appropriations as will enable it not only to employ all expert assistants necessary, but also to publish

in convenient and usable form the results of investigations, thus making that department of our Government such a source of information and advice as will be most helpful to the people in conducting their campaigns of education. We are of the opinion that the importance of the subject under its control and the dignity of this country require that this bureau be maintained as an independent department of the Government.

6. The National Education Association notes with approval that the qualifications demanded of teachers in the public schools are increasing annually, and particularly that in many localities special preparation is demanded of teachers. The idea that anyone with a fair education can teach school is gradually giving way to the correct notion that teachers must make special preparation for the vocation of teaching. The higher standards demanded of teachers must lead logically to higher salaries for teachers, and constant efforts should be made by all persons interested in education to secure for teachers adequate compensation for their work.

7. It is the duty of the State to provide for the education of every child within its borders, and to see that all children obtain the rudiments of an education. The constitutional provision that all taxpayers must contribute to the support of the public schools logically carries with it the implied provision that no persons should be permitted to defeat the purposes of the public-school law by forcing their children at an early age to become breadwinners. To this end, the child-labor and truancy laws should be so harmonized that the education of the child, not its labor, is made the chief concern.

8. The National Education Association indorses the increasing use of school buildings for free vacation schools and for free evening schools and lecture courses for adults, and for children who have been obliged to leave the day school prematurely. We also approve of the use of school grounds for playgrounds and the use of school gymnasiums and bathrooms for the benefit of the children in the crowded districts during summer.

9. Local taxation, supplemented by state taxation, presents the best means for the support of the public schools and for securing that deep interest in them which is necessary to their greatest efficiency. State aid should be granted only as supplementary to local taxation, and not as a substitute for it.

10. The National Education Association observes with great satisfaction the tendency of cities and towns to replace large school committees or boards, which have exercised through subcommittees executive functions, by small boards, which determine general policies, but intrust all executive functions to salaried experts.

11. We can not too often repeat that close, intelligent, judicious supervision is necessary for all grades of schools.

12. The rapid establishment of rural high schools and the consolidation of rural district schools are most gratifying evidences of the progress of education. We believe that this movement should be encouraged until the children of rural communities enjoy the benefits of public education to an extent approximating as nearly as practicable the education furnished in urban communities.

13. The National Education Association wishes to record its approval of the increasing appreciation among educators of the fact that the building of character is the real aim of the schools and the ultimate reason for the expenditure of millions for their maintenance. There are in the minds of the children and youth of to-day a tendency toward a disregard for constituted authority, a lack of respect for age and superior wisdom, a weak appreciation of the demands of duty, a disposition to follow pleasure and interest rather than obligation and order. This condition demands the earliest thought and action of our leaders of opinion, and places important obligations upon school boards, superintendents, and teachers.

14. The National Education Association wishes to congratulate the secondary schools and colleges of the country that are making an effort to remove the taint of professionalism and other abuses that have crept into students' sports. This taint can be removed only by leading students, alumni, and school faculties to recognize that inter-school games should be played for sportsmanship and not merely for victory.

15. It is apparent that familiarity with the English Bible as a masterpiece of literature is rapidly decreasing among the pupils in our schools. This is the direct result of a conception which regards the Bible as a theological book merely, and thereby leads to its exclusion from the schools of some States as a subject of reading and study. We hope for such a change of public sentiment in this regard as will permit and encourage the reading and study of the English Bible as a literary work of the highest and purest type, side by side with the poetry and prose which it has inspired and in large part formed.

16. It is important that school buildings and school grounds should be planned and decorated so as to serve as effective agencies for educating, not only the children, but the people as a whole, in matters of taste. The school is becoming more and more a community center, and its larger opportunities impose new obligations. School buildings should be attractive as well as healthful, and the adjoining grounds should be laid out and planned with appropriateness and beauty.

17. The highest ethical standards of conduct and of speech should be insisted on among teachers. It is not becoming that commercialism or self-seeking should shape their actions, or that intemperance should mark their utterances. A code of professional conduct clearly understood and rigorously enforced by public opinion is being slowly developed, and must one day control all teachers worthy of the name.

18. In teaching, as in every other kind of work, the best service is secured by finding the individual best fitted to the particular place as indicated by training, experience, and meritorious service; the National Education Association therefore heartily approves a merit system of promoting teachers and filling vacancies. We assert, furthermore, that the grounds upon which a teacher may apply for a position are preparatory training, experience, and meritorious service—in a word, professional fitness alone—and that the use of other personal and political arguments is deplorable in the teacher and a serious menace to a high professional standard.

The report of the board of trustees shows that the permanent fund of the association amounts to $170,028. The total available income for the year was $47,926.72, and the expenditures were $35,569.12. The officers of the association for 1908–9 are Lorenzo D. Harvey, president; Irwin Shepard, Winona, Minn., secretary; Arthur H. Chamberlain, treasurer. The next meeting will be held in Denver, Colo., in 1909.

NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

The National Society for the Promotion of Industrial Education was organized in New York City, November 16, 1906. Its objects are "to bring to public attention the importance of industrial education as a factor in the industrial development of the United States; to provide opportunities for the study and discussion of the various

phases of the problem; to make available the results of experience in the field of industrial education both in this country and abroad, and to promote the establishment of institutions for industrial training." The society meets annually, the first annual meeting having been held at Chicago, January 23–25, 1908. At that meeting the following addresses were given:

Industrial Education as an Essential Factor in Our National Prosperity, by President C. W. Eliot, of Harvard University, Cambridge, Mass.; Industrial Education From the Standpoint of the Manufacturer, by James W. Van Cleave, president National Association of Manufacturers, St. Louis, Mo.; The Aims of the National Society for the Promotion of Industrial Education, by Henry S. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching and president of the society, New York City; The Apprenticeship System of To-day, by W. R. Warner, of Warner & Swasey Co., Cleveland, Ohio; The Value of a Thorough Apprenticeship to the Wage-earner, by W. B. Prescott, secretary Supplemental Trade Education Commission of the International Typographical Union, Chicago, Ill.; Trade Instruction in Large Establishments, by J. F. Deems, general superintendent of motive power, New York Central Lines, New York City; The Necessity for Apprenticeship, by Leslie W. Miller, principal Pennsylvania School of Industrial Art, Philadelphia, Pa.; The Trade School as a Part of the Public School System, by Charles F. Perry, director Public School of Trades, Milwaukee, Wis.; The Type of Trade School to Meet American Needs, by Milton P. Higgins, president Norton Companies, Worcester, Mass.; The Effect of Trade Schools on the Social Interests of the People, by Graham Taylor, director Chicago Institute of Social Science, Chicago, Ill.; The Social Value of Industrial Education, by Mrs. Anna Garlin Spencer, of the Society for Ethical Culture, New York City; Necessity for Many Kinds of Trade Schools, by Charles W. Ames, St. Paul, Minn.; The Wage-earner's Attitude Toward Industrial Education, by Luke Grant, labor editor of the Record-Herald, Chicago, Ill.; The Moral Value of Industrial Education, by Emil G. Hirsch, Chicago, Ill.; Some Needed Modifications in the Public School System, by L. D. Harvey, superintendent of schools, Menomonie, Wis.; Industrial Life and an Ideal Public School System, by Samuel B. Donnelly, secretary-general arbitration board of the New York Building Trades and member of the board of education, New York City; Industrial Schools Adapted to the Needs of Particular Communities, by Charles H. Morse, secretary Massachusetts commission on industrial education, Boston, Mass.

At the annual meeting, January, 1908, of the society, the president was directed to appoint a committee of ten to consider the question of the relation of industrial education to the public school system. The members of the committee are as follows: Dr. Henry S. Pritchett, president of the Carnegie Foundation, chairman; Dr. W. H. Maxwell, superintendent of city schools, New York; Prof. T. M. Balliet, New York University; Prof. Paul H. Hanus, Harvard University; Dr. Elmer Ellsworth Brown, Commissioner of Education, Washington, D. C.; President Charles S. Howe, Case School of Applied Science; Mr. L. W. Miller, Philadelphia School of Industrial Arts; President Edmund J. James, University of Illinois; Dr. L. D. Harvey, superintendent Stout Training Schools, Menomonie, Wis.; Mr. M. W. Alexander, General Electric Company.

State committees of the society have been organized in 35 States, and state branch societies have been established in Georgia, Rhode Island, and Virginia.

The executive committee of the national society, at its meeting on March 14, 1908, adopted a resolution declaring itself "in favor of federal assistance for the promotion of various forms of industrial education as aimed at in the bills now pending before Congress, but at the same time expresses a hope that Congress may call for an immediate and thorough investigation of, and report on, the best methods of distribution and administration of federal appropriations in aid of industrial, agricultural, and related forms of education, so that further congressional action may be based on data presented in such report." The society is taking an active interest in the promotion of industrial education and has issued six numbers of a bulletin as follows: (1) Proceedings of the organization meetings; (2) Selected bibliography on industrial education; (3) A symposium on industrial education; (4) Industrial training for women; (5 and 6) Proceedings of first annual meeting. Other bulletins in course of preparation are Analysis of Schools Giving Trade Instruction, together with a list of trade schools in the United States; Apprenticeship in the Textile Trade; Apprenticeship in the Boot and Shoe Industry. The second annual convention will be held at Atlanta, Ga., November 19–21, 1908.

The officers of the society for 1908 are Carroll D. Wright, president; M. W. Alexander, vice-president; Frederic B. Pratt, treasurer; James P. Haney, 546 Fifth avenue, New York City, secretary.

TRUSTEES OF THE PEABODY EDUCATION FUND.

This fund had its origin in a gift by Mr. George Peabody to a self-perpetuating board of trustees selected by himself. In a letter dated February 7, 1867, addressed to Hon. Robert C. Winthrop, of Massachusetts, and fourteen other gentlemen, Mr. Peabody says, "I give to you, gentlemen, * * * the sum of one million of dollars, to be by you and your successors held in trust, and the income thereof used and applied in your discretion for the promotion and encouragement of intellectual, moral, or industrial education among the young of the more destitute portions of the Southern and Southwestern States of our Union; my purpose being that the benefits intended shall be distributed among the entire population, without other distinction than their needs and the opportunities of usefulness to them."

He furthermore gave them power, "in case two-thirds the trustees shall at any time, after the lapse of thirty years, deem it expedient to close this trust, and of the fund which at that time shall be in the hands of yourselves and your successors, to distribute not less than two-thirds among such educational or literary institutions, or

for such educational purposes, as they may determine in the States for whose benefit the income is now appointed to be used. The remainder may be distributed by the trustees for educational or literary purposes wherever they may deem it expedient."

In accordance with these instructions, ten of the gentlemen selected met on the 8th of February, 1867, at Washington, D. C., and organized the board, accepted the trust, and after appointing appropriate committees adjourned. A second meeting was held in New York City March 19, and at a third meeting in the same place, on May 28, Hon. W. M. Evarts submitted the act incorporating the Peabody Education Fund which had been granted by the legislature of New York.

In June, 1869, Mr. Peabody increased the fund held by his trustees by a gift of $1,000,000, to be devoted to the same purposes and under the same conditions as his original gift creating the trust.

In addition to the $2,000,000 mentioned above, Mr. Peabody turned over to the trustees bonds of several States amounting with interest to $1,484,000. These bonds, however, were repudiated.

The income from the fund has been used very largely in the training of teachers. In recent years this has been accomplished by granting aid in the form of annuities to the State normal schools which have been established throughout the Southern States. In his report to the trustees in 1907 the general agent of the board recommended that the policy of granting annuities to state normal schools be discontinued and that future aid to such schools should be given only to assist in the inauguration of some new development and should be administered in such way as to stimulate larger state support. This recommendation was adopted by the board. The principal beneficiary of this fund is the Peabody Normal College, at Nashville, Tenn. During the year ended December, 1907, the board distributed $80,000 of the income of the fund to institutions in nine of the Southern States.

In 1905 the board decided to close the trust and offered to give, under certain conditions, the sum of $1,000,000 of the principal of the trust for the establishment of the George Peabody College for Teachers at Nashville, Tenn. The conditions have not been satisfactorily met, so that the entire principal still remains in the hands of the board. The officers of the board are Hon. Melville W. Fuller, chairman; Hon. Samuel A. Green, secretary; Wickliffe Rose, Nashville, Tenn., general agent.

PLAYGROUND ASSOCIATION OF AMERICA.

This association was organized April 12–14, 1906, at Washington, D. C. Its purpose, as stated in the constitution, is "to collect and distribute knowledge of and promote interest in playgrounds through-

out the country. It shall also seek to further the establishment of playgrounds and athletic fields in all communities and directed play in connection with the schools. It shall aim, as soon as finances make it possible, to establish in Washington or New York a National Playground Museum and Library, which shall have models of every form of playground construction and apparatus, a library of all published books and articles relating to play, pictures of games and playgrounds throughout the world, and an information department which shall furnish cities or towns with lecturers, pictures, articles, or advice on any phase of the work."

In April, 1907, the association began the publication of The Playground, which at the present time is devoted primarily to disseminating news concerning playgrounds, to giving publicity to the playground movement, and to printing articles of technical interest. It is published under the editorship of Mr. Seth T. Stewart, of New York City.

The first annual congress of the association was held in Chicago in June, 1907, at which about 100 official representatives were present. The addresses that were given at the congress were published in Charities for August 3, 1907. In connection with the congress there was a play festival which included exhibits of games of kindergarten children, of games adapted to school yards, of playground games, and finally of a great variety of folk dances which were given by foreign residents of Chicago in native costumes. The second annual congress was held in New York City September 8–12, 1908. The association has been enabled to extend its work through appropriations made by the trustees of the Sage Foundation, through whose generosity also it was possible for the association to have a playground exhibit at the Jamestown Exposition in 1907. The principal officers in 1908 are Dr. Luther H. Gulick, president; Charles L. Hutchinson, treasurer; Dr. Henry S. Curtis, secretary. The office of the association is at 624 Madison avenue, New York City.

RELIGIOUS EDUCATION ASSOCIATION.

The Religious Education Association was organized on February 12, 1903, in Chicago, at a three days' convention which was called to consider the improvement of moral and religious education. Its purpose is "to inspire the educational forces of our country with the religious ideal, to inspire the religious forces of our country with the educational ideal, and to keep before the public mind the ideal of religious education and the sense of its need and value." It aims to accomplish its purpose by arousing the public mind to a sense of the need of religious and moral education and knowledge of the right methods therein; by uniting the forces for religious and moral education; by promoting investigations and providing a forum and a

clearing house for ideas and ideals. It holds general conventions annually and smaller conferences, and publishes annual volumes and a bimonthly journal entitled "Religious Education." Its activities have been divided into 17 departments undertaking investigations and conducting meetings. They are: The council, universities and colleges, theological seminaries, churches and pastors, Sunday schools, secondary schools, elementary public schools, fraternal and social service, teacher training, Christian associations, young people's societies, the home, libraries, the press, foreign mission schools, summer assemblies, religious art and music.

The principal work of the association during the year 1907–8 has been (1) the establishment and development of its central exhibit and library, and (2) the maintenance of its bureau of information, answering inquiries regarding methods, material, and literature on the subject of or for use in religious or moral training.

The fifth general convention of the association was held in Washington, D. C., February 11–13, 1908. Among the important resolutions adopted at the convention is the following:

> In view of the pressing need of leaders who can properly instruct Sunday-school teachers and others in the principles and methods of religious education we urge the universities to provide in their departments of education for specific training with reference to such leadership.

Action has been taken by the association to urge this resolution upon the departments of education in universities. The next general convention will be held in Chicago, February 9–11, 1909, when the general topic will be religious education and social duty. The principal officers for 1908 are Francis G. Peabody, president; Charles L. Hutchinson, treasurer; Henry F. Cope, 72 East Madison street, Chicago, Ill., secretary.

RHODES ALUMNI ASSOCIATION.

According to the Wisconsin Journal of Education for January, 1908, the Rhodes Alumni Association, composed of the first 44 Americans who were awarded Rhodes scholarships, has been organized with Mr. Richard F. Scholtz, of Wisconsin, as president. The Rhodes Alumni Association Magazine has been established for the purpose of keeping the men in touch with one another.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.

The Society for the Promotion of Engineering Education was organized in 1893 and meets annually in connection with the American Association for the Advancement of Science, or some one of the national engineering societies, or otherwise, as the council may determine. It is composed of those who occupy or have occupied

responsible positions in the work of engineering instruction, together with such persons as may be recommended by the council. The proceedings of the society are published annually. It has a membership of 503. The officers for 1907–8 are Dr. Charles S. Howe, president; William O. Wiley, treasurer; Arthur L. Williston, Pratt Institute, Brooklyn, N. Y., secretary.

SOUTHERN EDUCATION BOARD.

The Southern Education Board was organized in New York City on November 3, 1901, as a result of resolutions adopted at the fourth conference for education in the South at Winston-Salem, N. C., April 20, 1901. The conferences had been held for three years previously, but there seemed to be a need for an executive body which might give continuous and more general influence to the purposes and policies which the conference had come to represent. The following resolutions, with their preamble, indicate the objects for which the board was formed:

The conference for education in the South, on the occasion of its fourth annual meeting, reaffirms its conviction that the overshadowing and supreme public need of our time, as we pass the threshold of a new century, is the education of the children of all the people.

We declare such education to be the foremost task of our statesmanship and the most worthy object of philanthropy. With the expansion of our population and the growth of industry and economic resources, we recognize in a fitting and universal education and training for the home, for the farm, and the workshop, and for the exercise of the duties of citizenship, the only salvation for our American standards of family and social life and the only hope for the perpetuity of our institutions, founded by our forefathers on the four corner stones of intelligence, virtue, economic efficiency, and capacity for political self-control.

We recognize the value of efforts hitherto made to solve our educational problems, both as respects the methods to be used and also as regards the sheer quantity of work to be done. But we also find in the facts as presented at the sessions of this conference the imperative need of renewed efforts on a larger scale; and we find in the improved financial outlook of the country and in the advancing state of public opinion better hopes than ever before of a larger response to this greater need.

As the first great need of the people is adequate elementary instruction, and as this instruction must come to children so largely through mothers and women teachers in their homes and primary schools, we desire to emphasize our belief in the wisdom of making the most liberal investments possible in the education of girls and women.

Whereas, therefore, the conditions existing in the Southern States seem now fully ripe for the larger development as well as further improvement of the schools; and

Whereas this conference desires to associate itself actively with the work of organizing better school systems and extending their advantages to all the people:

Resolved, That this conference proceed to organize by the appointment of an executive board of seven, who shall be fully authorized and empowered to conduct:

1. A campaign of education for free schools for all the people, by supplying literature to the newspapers and periodical press, by participation in educational meetings, and by general correspondence; and,

2. To conduct a bureau of information and advice on legislation and school organization.

For these purposes this board is authorized to raise funds and disburse them, to employ a secretary or agent, and to do whatever may be necessary to carry out effectively these measures and others that may from time to time be found feasible and desirable.

The board is not chartered and has no constitution or by-laws. Its principal work has been and is to inform the public regarding educational conditions in the South and to create a public sentiment for the betterment of such conditions. The officers of the board in 1908 are Robert C. Ogden, president; George Foster Peabody, treasurer; Edgar Gardner Murphy, Montgomery, Ala., secretary; G. S. Dickerman, New Haven, Conn., associate secretary.

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5. TEACHERS' COLLEGES.

In January, 1908, the board of regents of the University of Colorado authorized the organization of a college of education, which was opened in September, 1908. The faculty of the new college consists of the following persons: Frank E. Thompson, B. A., professor of education and secretary of the faculty; Melanchthon F. Libby, Ph. D., professor of philosophy; Vivian A. C. Henmon, Ph. D., professor of psychology and education; Charles B. Dyke, M. A., instructor in education; Henry A. Hartman, Ph. D., instructor in education; Clarence I. Lewis, B. A., assistant in philosophy; John A. Dopp, B. A., assistant in psychology and education; and a number of the professors and instructors in the College of Liberal Arts.

The school of education of the State University of Iowa was authorized by the board of regents in June, 1907. Its purpose is to bring together and correlate all of the numerous forces of the university which contribute in a professional way to the preparation of educational leaders in high schools, normal schools, colleges, and city superintendencies. The director of the school is Frederick E. Bolton, Ph. D., professor and head of the department of education.

An act of the legislature of Kentucky, approved March 16, 1908, provides for the elimination of the normal department of the State University at Lexington and for the establishment instead of a department of education in said university with collegiate rank, leading to the usual degree in pedagogy, as maintained in other similar state institutions.

Tulane University of Louisiana announces the establishment of a teachers' college which is open to both sexes. The requirements for admission are the same as those to the freshman class of the academic colleges and the H. Sophie Newcomb Memorial College of the university. The course of study extends through four years and leads to the degree of bachelor of arts in education. The director of the college is Joseph M. Gwinn, A. M., Pd. B., assistant professor of education.

Johns Hopkins University, Baltimore, Md., has established a professorship of education and has elected Dr. John Franklin Büchner as its first incumbent.

On February 14, 1908, the regents of the University of Nebraska erected the department of education of the university into a teachers' college. It offers courses of study leading to the degrees of bachelor of arts and bachelor of science in education. In addition to the degree courses, it offers a one-year teachers' course in agriculture for high and normal school teachers; one-year teachers' course in agriculture for grade and rural teachers; one-year teachers' course in home economics and manual training for college teachers; one-year teachers' course in home economics and manual training for high school teachers; one-year teachers' course in manual and physical training; one-year teachers' course in drawing and modeling; one-year teachers' course in geography and economic geology; one-year teachers' course in oral reading, public speaking, and dramatic interpretation. Among the faculty of the college are Charles Fordyce, Ph. D., dean and head professor of educational theory and practice; George W. A. Luckey, Ph. D., head professor of the history and science of education; Harry K. Wolfe, Ph. D., professor of educational psychology; Albert A. Reed, A. B., associate professor of secondary education; and Albert E. Davisson, A. B., head professor of agricultural education and principal of the school of agriculture.

Pursuant to an act of the legislature of Ohio, passed April 2, 1906, authorizing the Ohio State University to establish a teachers' college of professional grade, the college of education of the Ohio State University has been organized and was opened for instruction in September, 1907. Two general classes of curricula have been provided. The first consists of four-year courses leading to the degree of bachelor of science in education. The second consists of certificate courses of two years in length. In the four-year courses the first two years are given largely in the college of arts, philosophy, and science. But students preparing to teach agriculture and those preparing to teach domestic science will take the first two years of work in the college of agriculture and domestic science; while students preparing to teach manual training will take the first two years of work in the college of engineering.

6. TRAINING OF TEACHERS OF AGRICULTURE AND MECHANIC ARTS.

The department of agriculture of the University of Minnesota offered a short course for teachers from June 8 to 27, 1908. It is intended for teachers, principals, and superintendents, and is established to meet the demand for agricultural instruction by educators who wish to teach the elements of agriculture or who wish to be able to supervise the teaching of the subject intelligently in the public schools. The course includes instruction in agriculture, agricultural chemistry, animal husbandry, blacksmithing, dairy husbandry and animal nutrition, dairy stock, domestic art, domestic science, entomology, horticulture and forestry, plant diseases, poultry, and soils.

The establishment and maintenance by the state board of education of New Jersey of summer courses for instruction in methods of teaching elementary agriculture, manual training, and home economics is provided for in an act approved April 1, 1908. Certificates of graduation from such courses of study as prescribed by the state board of education shall be valid licenses to teach in the public schools the subjects covered by the certificates; provided the holders also hold certificates valid as licenses to teach in the public schools in which they shall be employed. The sum of $2,000 is appropriated for such courses.

The North Dakota Agricultural College has organized courses of instruction in education for college students in addition to the three-year teachers' course previously offered for students below college grade. It is intended that the courses offered by the department of education will give the necessary pedagogical training to graduates of the college who are otherwise prepared for teaching science, agriculture, domestic science, manual training, and the like. The instruction offered includes courses in the history of education, psychology, and the art of teaching.

The University of Tennessee has established a department of agricultural education and elected Josiah Main, B. S. A., assistant professor of agricultural education. Provision is made in the degree courses in education offered by the university by which students may obtain special training to qualify them for positions as teachers of the sciences, including agriculture, of domestic science, and of manual training and drawing, as well as of languages, mathematics, history, and other usual subjects of the high-school curriculum.

The course in agricultural education is planned for all prospective teachers of agriculture, of whatever rank. It aims to develop the pedagogics of agriculture, to plan courses of study, to anticipate the problems of the teacher of agriculture in the public schools, and to offer a review in the principles of the science. The work offered includes the equipment of a high school for laboratory and field work;

experimental and demonstration work in soil physics, general and organic chemistry, milk testing, fertility, and feeding; plot work for schools; lessons from the station farm; courses of study for rural and high schools; use of agricultural literature. The time given to this instruction includes one hour lecture, two periods laboratory or field work, throughout the year.

The State College of Washington offers a two-fifths course in the methods of teaching agriculture. It includes outlining of courses of study; arrangement of subjects in logical order; gathering of illustrative material; selection of special laboratory apparatus; choice of text-books and their adaptation to the character of students engaged in agricultural work.

In February, 1908, the University of Wisconsin established a special course for the training of teachers, intended to prepare students for teaching and supervising instruction, particularly in the public high schools. Beginning with the academic year 1908–9 the college of agriculture of the university proposes to establish courses appropriate for preparation for the teaching of agriculture. An elementary course in agricultural education was given by Professor Henry in 1907–8. It consisted of two lectures per week during the first semester.

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7. GRADUATE SCHOOLS.

On February 4 and 5, 1908, occurred the formal opening of the graduate school of the University of Illinois under its new organization. The university has maintained a graduate school for some years, but under provisions of an act of the legislature approved May 27, 1907, the State gave its financial aid for the first time to the graduate school as such. That act made a specific appropriation for the gradute school of $50,000 per annum for two years.

In November, 1907, the Lawrence Scientific School of Harvard University was closed to the further admission of students. Hereafter a student entering Harvard for work in applied science either will come equipped with a bachelor's degree and enter directly the graduate school of applied science, which was established in March, 1906, or he will enter Harvard College, there to pursue work in mathematics, pure science, modern languages, and a certain amount of introductory work, such as drawing, descriptive geometry, surveying, and even more technical subjects, and work in history, government, economics, and those subjects which to a professional man are part of a liberal education.

The corporation of Harvard University, on March 30, 1908, voted "to establish a graduate school of business administration, the ordi-

nary requirement for admission to which shall be the possession of a bachelor's degree, and for graduation a course of study covering two years." It is designed primarily " for those aiming to fit themselves for the ultimate attainment of posts of responsibility and leadership in the business world." The two years of graduate study " will comprise a series of new courses in general subjects, commercial law, economic geography, commercial organization, principles of accounting and the like, followed by the more specialized courses leading directly to the business for which the student is fitting." Edwin Francis Gay, Ph. D., professor of economics, has been elected dean of the school, and instruction will begin with the academic year 1908–9.

The third session of the graduate school of agriculture under the auspices of the Association of American Agricultural Colleges and Experiment Stations was held at Cornell University, Ithaca, N. Y., July 6–31, 1908, with an enrollment of 137 students.

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8. NATIONAL UNIVERSITY.

The movement for the establishment of a National University of the United States, which was first advocated by President Washington, received a new impetus during the first session of the Sixtieth Congress when a bill prepared by a committee of the National Association of State Universities, under the chairmanship of President Edmund Janes James, of the University of Illinois, was introduced in each House of Congress. In the House of Representatives the bill was introduced by Hon. William B. McKinley, of Illinois, and in the Senate by Hon. James A. Hemenway, of Indiana. The text of the bill is as follows:

A BILL To create a national university at the seat of the Federal Government.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established at the seat of the Federal Government of the United States an institution of higher learning to be known as the National University of the United States.

SEC. 2. That the purpose of said university shall be threefold.

First. To promote the advance of science, pure and applied, and of the liberal and fine arts by original investigation and research, and such other means as may appear suitable to the purpose in view.

Second. To provide for the higher instruction and training of men and women for posts of importance and responsibility in the public service of State or nation, and for the practice of such callings and professions as may require for their worthy pursuit a higher training.

Third. To cooperate with the scientific departments of the Federal Government, with the colleges of agriculture and the mechanic arts founded upon the proceeds of the Federal land grant of eighteen hundred and sixty-two, with the State universities, and with other institutions of higher learning.

SEC. 3. That no student shall be admitted to the university unless he shall have obtained the degree of master of science or of arts from some institution of recognized standing, or shall have pursued a course of study equivalent to that required for such degrees.

SEC. 4. That the university shall confer no academic degrees.

SEC. 5. That the university shall be governed and directed by a board of trustees in cooperation with an advisory council.

SEC. 6. That the board of trustees shall consist of the Commissioner of Education of the United States and twelve additional members appointed by the President of the United States for the term of twelve years. The appointed members shall be arranged in classes so that one member shall go out each year. The President of the United States may at any time remove any member of the board for neglect of duty or malfeasance in office.

SEC. 7. That the advisory council shall consist of one representative from each State in the Union. The representative from each State shall be the president of the State university in case there be a State university in said State; if not, the governor of the State may appoint a citizen of the State, learned and experienced in matters of education, to represent said State in the advisory council.

SEC. 8. That the board of trustees shall make all statutes, by-laws, and general rules in accordance with which the affairs of the university shall be conducted. But all such statutes, by-laws, and general rules shall, before going into effect, be submitted to the advisory council for its consideration. If the advisory council shall, by a majority vote of all the qualified members, disapprove of any such statute, by-law, or general rule, it shall not go into effect until it shall have been reenacted by a two-thirds vote of the board of trustees: *Provided*, That if the advisory council shall take no action within six months after submission of such statute, by-law, or general rule the said statute, by-law, or general rule shall go into effect: *Provided further*, That the advisory council may at any time take up the consideration of such statute, by-law, or general rule, and if it disapprove of the same, the said statute, by-law, or general rule shall cease to be in effect from and after six months from the date of such action unless the board of trustees shall in the meantime have reenacted such statute, by-law, or general rule by a two-thirds vote: *And provided further*, That in case the advisory council shall disapprove of any statute or other action of the board of trustees the said board shall, before taking final action in the premises, give a formal hearing to a representative or representatives appointed by the council for the purpose of presenting the matter to the consideration of the board.

SEC. 9. That the board of trustees shall provide for the administration of the affairs of the university within the statutes thus enacted. It shall make all appointments and all assignments of funds. It shall issue all orders and instructions necessary to the management of the university. It shall provide suitable grounds and buildings for the work of said university; but in no case shall it incur financial obligations in excess of actual appropriations by Congress, or of actual income from tuition, fees, endowments, or gifts for special purposes. The actual administration of the university shall be intrusted to properly qualified agents of the board, who shall be responsible to the board for the performance of their duties. The board may delegate by statute to a president of the university, or to such separate faculties or other officers or employees as it may provide for, such functions in the administration of the university as may seem to it wise; and it may reassign such functions at any time. It may create such boards or commissions as in its judgment may best serve the interest of the institution and may abolish them at will. But the

advisory council may at any time protest against any order, vote, resolution, appointment, appropriation, or instruction made by the board of trustees. In such case said order, vote, resolution, and so forth, shall stand suspended until the board of trustees shall, by a two-thirds vote, reenact such order, and so forth.

SEC. 10. That the advisory council may at any time make recommendations to the board of trustees respecting any matter concerning the university, and it shall be the duty of the board of trustees to give formal consideration to all such recommendations and take such action in the premises as may seem to it good.

SEC. 11. That no member of the board of trustees or of the advisory council shall receive any pecuniary remuneration for his services as member of said board of trustees or advisory council; but the necessary expenses incurred by members in attendance upon meetings of said board or advisory council shall be defrayed by the university.

SEC. 12. That the board of trustees and the advisory council shall elect their own officers and define their respective duties, and a majority of each shall constitute a quorum to do business.

SEC. 13. That the board of trustees shall meet in regular session four times each year, namely: On the first Wednesday after the first Monday in January, April, July, and October. Special meetings may be called at any time by the chairman and shall be called by him on request of five members of said board; one month's notice being given in case of all special meetings. The advisory council shall hold two regular meetings in each year during or immediately following the regular meetings of the board of trustees in January and July. Special meetings may be called by the board of trustees, by the chairman of the advisory council, or upon the request of ten members of the advisory council; one month's notice of all special meetings being given.

SEC. 14. That the board of trustees may accept unconditional gifts, legacies, donations, and so forth, from private individuals for the benefit of the university; but no such gift, donation, or legacy shall be accepted with any condition unless the same shall be approved by the board of trustees, the advisory council, and the Congress of the United States.

SEC. 15. That the sum of five hundred thousand dollars is hereby appropriated for the uses of said university for the fiscal year nineteen hundred and eight and nineteen hundred and nine.

SEC. 16. That the board of trustees shall, as soon as the members shall have been appointed, proceed to organize under this Act and carry out the intent and purposes of the same.

9. INDUSTRIAL EDUCATION.

FEDERAL AID FOR INDUSTRIAL EDUCATION.

The advocates of industrial education have endeavored for some years to secure federal aid for the establishment of industrial schools in the several States. Special emphasis has been laid on the need of federal aid for instruction in agriculture of high-school grade. A number of bills having in view the promotion of instruction in agriculture, mechanic arts, and domestic economy were introduced during

the first session of the Sixtieth Congress. The bill which was most discussed is popularly known as the Davis bill, introduced by Hon. Charles R. Davis of Minnesota. Mr. Davis introduced two bills having in view the granting of federal aid for industrial education. The first, known as H. R. 534, provided for the establishment of agricultural high schools and for instruction in mechanic arts and domestic economy in city high schools. The second, known as H. R. 18204, makes similar provision, but adds thereto provision for the maintenance of normal instruction in agriculture, home economics, and mechanic arts in state and territorial normal schools. The text of the latter bill is as follows:

A BILL To provide an appropriation for agricultural and industrial instruction in secondary schools, for normal instruction in agricultural and industrial subjects in normal schools, and for branch agricultural experiment stations, and regulating the expenditure thereof.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That commencing with the fiscal year beginning July first, nineteen hundred and eleven, there shall be, and hereby is, annually appropriated, to be paid as hereinafter provided, to each State and Territory and to the District of Columbia, for the maintenance of instruction in agriculture and home economics in agricultural schools of secondary grade and instruction in mechanic arts and in home economics in city schools of secondary grade, a sum of money equal to not more than ten cents per capita of the population of each State and Territory and the District of Columbia, respectively, as shown by the last preceding Federal or State census: *Provided*, That in any State with less than five counties and in any State or Territory with less than one hundred thousand rural population there may be one agricultural secondary school, which shall receive not more than eight thousand dollars annually under the provisions of this Act: *Provided*, That commencing with the fiscal year beginning July first, nineteen hundred and eight, there shall be, and hereby is, annually appropriated to each State and Territory and the District of Columbia, for the maintenance of normal instruction in agriculture, home economics, and mechanic arts in State and Territorial normal schools now established or which may be hereafter established, an additional sum of money equal to not more than one cent per capita of the population of each State and Territory and the District of Columbia, respectively, as shown by the last preceding Federal or State census: *And provided further*, That the amount appropriated to any State or Territory for normal schools shall be not less than the sum of two thousand dollars annually.

SEC. 2. That the funds thus appropriated for instruction shall be used only for distinctive studies in agriculture and home economics in agricultural secondary schools, and for distinctive studies in mechanic arts and home economics in city schools, and for distinctive normal courses in agriculture, home economics, and mechanic arts in State and Territorial normal schools, and that all States, Territories, and the District of Columbia accepting these funds shall provide other funds with which to pay the cost of providing the necessary lands and buildings and to pay the cost of instruction in such other and general studies as will complete a well-rounded secondary or normal school curriculum suited to the needs of the respective sections of the Union.

SEC. 3. That the Secretary of Agriculture shall annually estimate to Congress the allotments to be made to the respective States and Territories and

the District of Columbia under the provisions of this Act and shall annually designate to the Secretary of the Treasury the sum apportioned, at not more than ten cents per capita on the population, to each incorporated city, town, or village containing not less than two thousand inhabitants for instruction in mechanic arts and home economics, and the sum apportioned, at not more than ten cents per capita, to the total rural and other population not included in said cities, towns, and villages of the respective States and Territories for instruction in agriculture and home economics.

SEC. 4. That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, to be paid as hereinafter provided, to each State and Territory for the maintenance of branch agricultural experiment stations on the farms of the agricultural secondary schools appropriated for in this Act a sum equal to one-fourth of the sum allotted to it under this Act for agricultural secondary schools, said branch agricultural experiment stations to be under the direction of the State agricultural experiment stations now established or which may hereafter be established in the respective States and Territories in accordance with the Act of Congress approved March second, eighteen hundred and eighty-seven: *Provided*, That no State or Territory shall be entitled to the benefits of this section of this Act until its legislature shall by law have provided for the establishment and the equipment of such branch stations and shall have provided for the annual maintenance of such branch stations a sum at least equivalent to that appropriated annually to the State or Territory under this section of this Act; and the sum paid to each State or Territory under this section of this Act shall be applied only to paying the necessary expenses of conducting by such branch experiment stations experiments bearing directly upon the agricultural industry of the United States, having due regard to the varying conditions and needs of the respective States and Territories.

SEC. 5. That the Secretary of Agriculture is hereby authorized to give the agricultural secondary schools to which money is appropriated under this Act such advice and assistance as will best aid them to organize and maintain satisfactory courses of instruction in agriculture and country home making, and he is also authorized to give the branch experiment stations established under this Act such advice and assistance as will best promote their work.

SEC. 6. That the Secretary of Agriculture shall annually ascertain whether the said schools and branch experiment stations are using the funds granted to them under this Act in an efficient manner for the promotion of the agricultural interests of their respective localities and in accordance with the terms of this Act, and he shall make a report thereon to Congress from year to year.

SEC. 7. That each State and Territory, in order to secure the benefits of this Act, shall accept its provisions and shall divide the State or Territory into combined agricultural secondary school and branch experiment station districts, the total number of such districts in a given State or Territory to be not less than one for each fifteen counties nor more than one for each five counties or fraction of five counties: *Provided*, That in States where separate schools are maintained for the colored race the districting and allotment of money shall be so arranged as to be fair to both races, and whether said districts for the two races are coterminous or not coterminous, their total number shall be determined by the number of districts permissible under the provisions of this section of this Act.

SEC. 8. That the sums hereby appropriated to the respective States and Territories and to the District of Columbia for the maintenance or [of] instruction in agriculture, mechanic arts, and home economics and of branch agricultural experiment stations shall be annually paid, one-half on the first day of July of

each year and one-half on the first day of January of each year, by the Secretary of the Treasury upon the warrant of the Secretary of Agriculture out of the Treasury of the United States to the treasurer or other officer duly appointed by the governing boards of said schools and branch experiment stations designated by State law to receive the same.

SEC. 9. That if any portion of the moneys allotted under this Act shall by any action or contingency be diminished or lost or misapplied, it shall be replaced by said State, Territory, or the District of Columbia, and until so replaced no subsequent appropriation shall be allotted or paid to such State, Territory, or the District of Columbia: *Provided*, That no portion of said moneys shall be applied directly or indirectly under any pretense whatever to the purchase, erection, repair, or rental of any building or buildings, nor to the purchase or rental of lands.

SEC. 10. That it shall be the duty of each institution receiving funds under this Act, annually on or before the first day of February, to make to the governor of the State or Territory in which it is located a full and detailed report of its operation, including a statement of all receipts and expenditures, a copy of which shall be sent to the Secretary of Agriculture; and on or before the first day of September in each year to make to the Secretary of Agriculture on blanks provided by him for that purpose a statement of receipts and expenditures of money under this Act.

SEC. 11. That on or before the first day of July in each year after this Act becomes operative the Secretary of Agriculture shall certify to the Secretary of the Treasury as to each State and Territory and the District of Columbia whether it has complied with the provisions of this Act and is entitled to receive its share of the allotments herein provided for secondary and normal schools and branch agricultural experiment stations under this Act, and the amounts thereupon which it is entitled to receive. If the Secretary of Agriculture shall withhold a certificate from any State, Territory, or the District of Columbia, for the whole or any part of its allotment, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separately in the Treasury until the close of the next Congress, in order that the State, Territory, or the District of Columbia may, if it shall so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury, and the Secretary of Agriculture is hereby charged with the proper administration of this law.

SEC. 12. That the Secretary of Agriculture shall make an annual report to Congress on the receipts and expenditures, and on the work of the institutions to which allotments are made under this Act; and also whether the appropriation of any State, Territory, or the District of Columbia has been withheld, and if so, the reasons therefor.

SEC. 13. That Congress may at any time amend, suspend, or repeal any or all of the provisions of this Act.

On May 6, 1907, the Boston school committee ordered the establishment of a girls' high school of practical arts to be opened for instruction in September, 1907. "The purpose of the school is to give full opportunity for the development of that type of students whose talents lie more in lines of doing and expressing than in lines of acquisition." The course of study is intended to cover four years

of work of secondary grade, and includes instruction in English, history, art, mathematics, science, modern foreign languages, household science and arts, sewing, and millinery. The minimum requirement for a diploma consists of 76 points, of which at least 12 must be gained in the industrial departments and 16 in art.

By an act approved March 21, 1908, the legislature of Mississippi authorizes the establishment by the county board of education of any county of one agricultural high school, for the purpose of instructing the white youth of the county in high school branches, theoretical and practical agriculture, and in such other branches as the board of trustees may prescribe. The board of supervisors of any county where an agricultural high school has been established is empowered to levy a tax not exceeding 2 mills, unless a majority of the qualified voters shall vote against the levying of such tax. The government of the county agricultural high school is vested in a board of trustees of five members, two of whom shall be elected by the board of supervisors, two by the county school board, and the county superintendent of education shall be the fifth member. The law provides for an annual appropriation by the State of $1,000 for each county agricultural high school when it is shown to the satisfaction of the state board of education that such a school has been located; that it has acquired at least twenty acres of land; that the necessary tax levy has been made; that suitable buildings have been erected, including a boarding department, where not less than forty students may have dormitory and dining-room facilities; and that a satisfactory course of study has been adopted.

In 1906 the State of New York provided for the establishment of a state school of agriculture at St. Lawrence University, Canton, N. Y. By two separate acts of the legislature of New York, approved May 6, 1908, provision was made for the establishment of two additional state schools of agriculture, one in connection with Alfred University, at Alfred, and the other at Morrisville, N. Y.

On May 18, 1908, the governor of New York approved an act permitting any city or union free school district to establish industrial schools which may receive pupils who have completed the elementary course, or are 14 years of age, and also trade schools for pupils 16 years of age and who have finished either the elementary course or the general industrial course. Schools which are established under this act and maintained 40 weeks during the school year, employing at least one teacher and having 25 pupils, will receive $500 from the State and $200 for every additional teacher employed exclusively in the school. The law provides for the appointment by the local superintendent or board of education of an advisory board of five members, consisting of representatives of the local trades and industries.

In New York City the Stuyvesant Evening Trade School has been established and began its sessions on September 21, 1908. The subjects taught are carpentry and joinery, cabinetmaking, pattern making, blacksmithing, sheet-metal working, plumbing, machine-shop work, freehand drawing, architectural drawing, mechanical drawing, electrical engineering, steam engineering, electrical wiring and installation, mathematics, industrial chemistry, applied physics, electricity, heating, ventilating, and sanitation. The school opened with a registration of over four hundred students. Prof. James C. Monaghan, formerly of the University of Wisconsin, has been elected principal of the school.

On July 8, 1908, the board of education of New York City adopted the report of a special committee on trade schools. The recommendations made by the committee and adopted by the board are as follows:

(1) That shop work be introduced into all schools in which there are boys in the seventh and eighth years; (2) that, as far as possible, the practical use of tools employed in the wood-working and metal-working trades be taught in those years; (3) that the workshops be equipped, as far as possible, with the necessary tools, such as a lathe or lathes, a circular or band saw, and a grinder; (4) that shop work be required of boys who reach their twelfth year; (5) that the additional time needed for the extension of work in the shop be fixed as between 3 and 5 in the afternoon, on Saturday mornings, or, if necessary, in the evenings; (6) that a separate vocational school for boys between 14 and 16 be established, and that the part of public school 144, Manhattan, facing Orchard street, be set aside and equipped as a vocational school for boys; (7) that 15 rooms in public school 75, Brooklyn, be set aside for a vocational school for girls between 14 and 16 years of age; (8) that a standing committee of the board of education be organized which shall have charge of all matters relating to vocational training, not only in the special schools devoted to that purpose, but also to the vocational courses in the day schools and the evening trade schools.

The Winnebago County (Wis.) School of Agriculture and Domestic Economy, at Winneconne, Wis., was formally opened for instruction in February, 1908.

10. COURSES IN JOURNALISM.

In 1906 the University of Missouri established a department of journalism, coordinate with the departments of law, medicine, education, and other professional schools. During the past two years occasional lectures on journalism were given. Regular courses leading to a degree will be offered in September, 1908. Walter Williams,

LL. D., editor of the Columbia (Mo.) Herald, has been elected professor of the history and principles of journalism and dean of the school of journalism.

The University of Washington has established a course of study in journalism extending through four years, with Mr. Merle Harold Thorpe in charge of the department of journalism.

The University of Wisconsin has outlined a four-year course in journalism designed primarily for those preparing for newspaper and editorial work. The course may, however, be readily modified to meet the needs of students desiring preparation for technical or trade journalism.

11. COEDUCATION.

I.—UNITED STATES.

The status of the United States with reference to coeducation, or the instruction of both sexes in the same schools and classes, has remained practically unchanged since the publication of the Commissioner's last report. At least 96 per cent of elementary pupils are enrolled in mixed schools; the proportion is slightly less for public secondary schools (95 per cent), but the analyzed statistics of this class of schools show that separate high schools are found chiefly in a few cities—Boston, New York City, Philadelphia, Baltimore, Charleston, and New Orleans. The proportion of pupils in separate schools has been increased slightly by the establishment of manual-training high schools, several of which are exclusively for boys. The universities, colleges, and higher technological schools of this country, exclusive of those for women only, number 493, of which 335, or 68 per cent, are coeducational. The number of women students, undergradutes and resident graduates, in coeducational colleges and universities in 1906–7, was 32,850, or a little more than one-fourth of the total number of students. The large majority of all women college students are in coeducational institutions.

Reference to the summarized and detailed statistics of schools and colleges in this country indicates more clearly the extent and strength of the coeducation policy. It would be simply impossible to meet the demand of people for equal opportunities for their sons and daughters in any other way.

While custom and sentiment have apparently settled this matter for the United States, the wisdom of the policy is still questioned in certain quarters, and here and there modifications of the system are introduced in the form of what is called segregation, or the separation of the sexes during some part of the high-school or college course. These experiments, which are at present in a purely tentative stage,

are of chief interest as illustrating the flexibility of our institutions and the growing disposition to adapt them, so far as possible, to varying conditions and requirements. There is, too, a form of segregation growing out of the system of electives which enables students to choose courses of instruction best suited to their personal tastes or needs. This tendency is particularly marked in technical or professional courses of study; that is, in the choice of specialized training in respect to which sex naturally becomes a determining factor.

II.—COEDUCATION IN FOREIGN COUNTRIES.

Elementary and secondary schools.—In England above 65 per cent of the departments into which the elementary schools are divided have boys and girls in the same classes, and the proportion is steadily increasing; in Scotland it is 97 per cent. Throughout Wales coeducation has gained strong support. Statistics for Ireland show that 51 per cent of the national schools have a mixed attendance of boys and girls.

Separate education is the general policy in English schools of secondary grade, and where both sexes are admitted to the same school it is generally to separate departments, but the number of coeducational schools of secondary grade increases, and opinions are very favorable as to their effects. Among highly successful examples of schools of this class may be mentioned Keswick (Cumberland) and Harpenden (Herts), both of which are associated with the name of Rev. Cecil Grant, an enthusiastic advocate of coeducation.

In France custom and sentiment favor the separate education of boys and girls; nevertheless, the number of elementary mixed schools slightly increases year by year.

Separate education is the preferred policy of the German States, but is not practicable in the rural primary schools. Recently the school authorities in the Grand Duchy of Baden have made a somewhat extensive trial of the possibilities of coeducation in secondary schools, with results which have excited very favorable comment from the school authorities. The ability of the girls to meet the requirements of the courses of study is admitted by all the school principals, and their presence in the classes, according to the reports, has exercised a very favorable influence on the conduct of the boys. The reports of the experiment state emphatically that there have been no breaks in discipline, and nowhere have the morals of the pupils been "in any way endangered through their intermingling in the schoolroom."

In Italy the law calls for separate schools for boys and girls, and if they attend at the same building it must be in separate departments, each provided with its own entrance door. The lowest classes, however, may be, and often are, mixed.

In Norway, and to a less extent in Denmark, girls are securing admission to secondary schools formerly reserved for boys.

The South American Republics follow the precedent of the Latin States of Europe. Brazil, like Italy, requires separate schools for the two sexes.

Universities.—The status of European universities with respect to the admission of women is practically the same as stated in the Commissioner's last report.

The admission of women to Trinity College, Dublin, which was authorized by statute of 1903, has proved highly satisfactory and has greatly increased the prestige of women students. The most important event of the current year with respect to the higher education of women is the promulgation by the Prussian ministry of education of the new regulations pertaining thereto, which have been sanctioned by the Emperor. The regulations place the secondary schools for girls upon the same footing as those for boys. The classical division leads to the university matriculation examination, and the successful women candidates will enter the university with the same preparation and standing as men.

In connection with this subject should be noted the increased recognition given in university curricula to subjects of special interest to women, such as domestic science, home and municipal sanitation, etc., in view of the larger opportunities for public service that are opening to them.

"Education," observed Professor Sadler in a recent lecture, "is in a special degree the concern of women. We are told often enough that the proper sphere of woman's work is the home, and we greatly need that the home should be represented on educational bodies much more fully than it is at present." He is reported to have said further, "The capacity of many women for detailed organization and for thrifty administration qualifies them in a high degree for efficient service in local and central government, and especially in those departments of it which most closely touch the well-being of the family and the effective training of the rising generation for the tasks of life."

III.—ADMISSION OF WOMEN TO SCIENTIFIC ASSOCIATIONS.

A noticeable outcome of the liberal spirit which has opened university education to women is the disposition to give them recognition in scientific circles from which they have been hitherto excluded.

During the year the Royal Geological Society of England sought the opinion of the fellows resident in Great Britain as to the admission of women. According to Nature, "the number of voting papers sent out was 870, and 477 replies were received. An analysis of the votes shows that 248 fellows were in favor of the admission of women as fellows and 217 against their admission; of the latter number only

133 voted against the admission of women at all, the remaining 84 being in favor of their admission as associates."

A petition was recently addressed to the fellows of the Chemical Society of Great Britain asking for an inquiry as to the views of the society as a whole on the question of admitting women to the fellowship. The memorial on the subject embodied the following statement:

We understand that there is now an appreciable and increasing number of women of university training engaged in advanced teaching and in original investigation in chemistry who desire admission to the privileges of the fellowship, and as the Chemical Society was founded for the advancement of science, it seems to us neither just nor expedient that a body of highly qualified workers should be excluded solely by reason of sex.

From the following table, compiled from the society's journal of the past 35 years, it will be seen that the number of papers contributed either alone or jointly by women is increasing rapidly:

	Papers published in—	
	Proceedings.	Transactions.
1873–1882	2	2
1883–1892	7	7
1893–1902	45	33
1903–1907	66	61

We may further point out that not only have women contributed original memoirs to these publications, but they have rendered valuable service to the society as abstractors and in the compilation of the indexes.

As is well known, the chemical societies of Berlin and America, the Society of Chemical Industry and the Faraday Society, admit women on the same terms as men, and our society has found a place for Madame Curie among the honorary and foreign members; we consider, therefore, that the restriction should be removed under which the Chemical Society denies to women chemists the advantages extended to them by the sister societies at home and abroad.

The memorial was signed by 312 fellows (including 10 past presidents, 12 vice-presidents, and 29 members of council, past and present), among whom were 33 fellows of the Royal Society and the professors of chemistry or heads of chemical departments of nearly all the most important universities and colleges in the country.[a]

It is also a significant fact that the drafts of the charters for the two universities to be located, respectively, at Belfast and Dublin, in accordance with the Irish Universities Act, provide for the inclusion of at least one woman in the senate of each university among the members nominated by the Crown.

IV. OUTLOOK.

In general, it may be said that the influence of modern life tends toward the breaking down of barriers that have hitherto kept women from full participation in the provision for intellectual development,

[a] Nature, July 9, 1908, pp. 226–228.

and as a natural consequence the policy of coeducation is likely to be more and more widely extended. At the same time the opinion seems to be gaining strength in this country that some modifications of our general scheme of public-school education are desirable with a view to its better adaptation to the special aptitudes and requirements of young men and young women.

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12. SCHOOL HYGIENE.

The first number of School Hygiene, a monthly publication issued by the American School Hygiene Association, appeared in June, 1908. Its object is "to secure improved school conditions for children, point out to the school authorities throughout the country the great need of safeguarding the health of the pupils, and to see that physical defects which hinder the child's progress in school and prevent natural physical development are remedied." It is published by D. C. Heath & Co., under the editorship of Dr. George S. C. Badger.

A department of school hygiene has been established in Boston, Mass. The organization provides for a director of school hygiene, three assistant directors; as many special instructors in physical training, special assistant instructors in physical training, instructors of athletics, supervisors of playgrounds, playground teachers, heads of playgrounds, helpers in playgrounds, and helpers in sand gardens, as the board may from time to time authorize; a supervising nurse and assistant nurses; an instructor of military drill; and a medical inspector of special classes. The board of education has appropriated $58,000 for playgrounds. Dr. T. F. Harrington has been made director of school hygiene.

On May 27, 1907, the Boston school committee adopted rules and regulations providing for a supervising nurse and for assistant nurses "to assist the medical inspectors assigned to the public schools, to see that the directions given by the inspectors are carried out, and to give such instruction to the pupils as will promote their physical welfare." The committee appropriated $10,000 to meet the expenses of the services of female nurses and provided that the salary of the supervising nurse should be $924 for the first year, an annual increase of $48 until the maximum of $1,116 is reached. The salaries of assistant nurses were fixed at $648 for the first year, an annual increase of $48 until the maximum of $840 is reached. On September 9, 1907, the committee approved the appointment of a supervising nurse and twenty assistant nurses.

An act of the legislature of Massachusetts approved March 6, 1908, requires that instruction as to tuberculosis and its prevention shall be given in the public schools of the several cities and towns.

By an act approved May 12, 1908, the legislature of Massachusetts authorized every city and town having a population of more than 10,000 to provide and maintain at least one public playground for the recreation and physical education of the minors, and at least one other playground for every additional 20,000 of its population.

The Country School Athletic League of Ulster County, N. Y., was organized in 1906. The purpose of the league is to foster all forms of clean athletics among country children, to teach them and their teachers indoor and outdoor games, and to bring the schools together at least once a year in a field day and play picnic. Beginning with 1906 there has been held an annual field day and play picnic for the children of the country schools of Ulster County, N. Y., on the grounds of the State Normal School at New Paltz, N. Y., of which Mr. Myron T. Scudder was principal. The play festival for 1908 was held on June 13. The attendance at these annual field days is increasing very rapidly. The first year it was 1,000, and in 1907 it increased to 3,000. Persons are requested to bring their lunch, and the day is spent in playing games of various kinds, in athletic contests, and in folk dances. The sports begin at 10.30 a. m., and continue until the late afternoon.

In Philadelphia, Pa., the board of education has been authorized to appoint a supervising nurse for the public schools at a salary of $1,200 per annum.

The city of Providence, R. I., opened February 1, 1908, a fresh-air school for weak and anæmic children. The building faces south and has light on three sides. Along the lower south side of the room large swinging windows have been cut in the wall. In winter the children do not remove their outer clothing, but keep on their wraps and sit in what are known as "sitting-out bags." The chairs and desks are adjustable and are placed on movable platforms, so that they may be moved about from place to place. The rooms are heated by the sun and ordinary stoves. Nourishing soups are provided as often as needed.

According to the Wisconsin Journal of Education, the board of education of Kenosha, Wis., has taken action to bar from the public schools all pupils or teachers suffering from tubercular troubles.

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13. COMPULSORY ATTENDANCE AND CHILD LABOR LAWS.

The following tabulation brings the state legislation on these subjects down to May, 1908, except possibly in the case of Maryland.

As regards compulsory attendance, the most important measure of 1908 was the enactment by Virginia of a compulsory attendance law, having "local option" features somewhat similar to those of the

North Carolina law of 1907, in that it does not become operative in any county, city, or town until accepted by the qualified voters thereof. The action taken by these two States would seem to indicate that the practice of leaving the question of enforced school attendance to local initiative under a general permissive law will become the prevailing policy regarding this matter in the South.

Another notable measure was a New Jersey law extending the upper compulsory age limit from 14 to 17 years, except in the case of children over 15 who have completed the "grammar-school course" and are at work. A child 15 to 17 years of age who "has completed the grammar-school course and is not regularly and lawfully employed in any useful occupation or service" must attend a high or manual training school, transportation being furnished at the public expense when necessary to accomplish this. This is apparently the first example in the United States of enforced high-school attendance.

In the field of child labor the year has been marked by the enactment of original laws for the District of Columbia and Mississippi, and by new and more stringent laws designed to supersede those already in force in Kentucky, Louisiana, Ohio, and Virginia. The new Kentucky law is closely patterned on that for the District of Columbia. In Virginia the age below which specified occupations are forbidden is to be gradually raised until on March 1, 1910, it will have reached 14 years, conforming to what promises to become the generally recognized standard.

No attempt has been made in the table to note the provisions regulating the hours of labor of minors. Such regulations are now very general.

Many States, in general terms, forbid, or permit only under restrictions, occupations dangerous to the life, limb, morals, or health of children. In some States the employment of children in begging, theatrical and circus exhibitions, on dangerous machinery, in occupations requiring the handling of intoxicating liquors, night work, etc., is specifically forbidden. Where the employments forbidden are not specifically enumerated the enforcement of such provisions of law is difficult, from lack of judicial interpretation as to what constitutes an employment dangerous to life, etc.

Statutory provisions relating to compulsory attendance and child labor.

State.	COMPULSORY EDUCATION. Age.	Annual period.	Penalty on parents for neglect.	CHILD LABOR.[a] Age under which specified employments are forbidden.	Educational restrictions on child labor.
Alabama				10 years, in factories in all cases; 12, unless orphans, or children of the widowed or disabled; 12, in mines.	
Arizona	[b] 8–14	6 months; 20 weeks consecutive	$5 to $25		No child under 14 may be employed during school hours.
Arkansas				12 years, in all cases in manufacturing establishments, except canning industries in vacation; 14, unless to support a parent or self, as specified by law; 14, in mines; females not at all in mines.	No child 14 to 18, unable to write, may be employed in a manufacturing establishment, unless he has attended school 12 weeks the preceding year.
California	8–14	Full term	First, not over $10 or 5 days' imprisonment; subsequent, $10 to $50, or 5 to 25 days, or both.	14 years, in any mercantile or manufacturing establishment, workshop, hotel, or as messenger, etc. Children 12 to 14, upon permit, may work if parents incapacitated or during vacation.	No minor under 16 may work for gain in school hours, unless he can read and write English or attends night school.
Colorado	[c] 8–16	do	$5 to $25	14 years, in any underground works, mine, smelter, mill, or factory. No female may be employed in a coal mine.	Unlawful to employ children under 14 during school hours unless they have complied with the school-attendance law; under 16, unable to read and write, unless attending day or night school.
Connecticut	[d] 7–16	do	Not exceeding $5 each week of absence.	14 years, in any mechanical, mercantile, or manufacturing establishment.	Children under 14 may not be employed while school is in session. Children 14 to 16 can not leave school to be employed, unless their education is satisfactory to the local or state school board.
Delaware	7–14	5 months (may be reduced by districts to 3).	First, not over $2; after, not over $5. On default, imprisonment 2 to 5 days.	14 years, in any factory, workshop, or manufacturing establishment, except in canning industry, etc., or to support widowed mother.	No child 14 to 16 may be so employed, unless he has attended day or night school school 12 weeks the preceding year.
District of Columbia	8–14	Full term	Not exceeding $20	14 years, in any factory, workshop, store, office, hotel, theater, as messenger, etc. Children 12 to 14 may get permit to work in certain cases.	Children under 14 may not do any work for wages during school hours; nor under 16 in preceding employments, unless can read and write, and attended school 130 days preceding year.

[a] See remarks introductory to the table.
[b] To 16, if unable to read and write English.
[c] Children 14 to 16 whose labor is necessary to their own or parents' support are excused.
[d] Not applicable to children over 14 lawfully employed to labor at home or elsewhere.

Statutory provisions relating to compulsory attendance and child labor.—Continued.

COMPULSORY EDUCATION.				CHILD LABOR.	
State.	Age.	Annual period.	Penalty on parents for neglect.	Age under which specified employments are forbidden.	Educational restrictions on child labor.
Florida				Children under 15 may not be employed more than 60 days without consent of legal guardian.	
Georgia				10 years, in or about any manufacturing establishment; 12 years after Jan. 1, 1907, except for support of self or parents in specified cases.	After Jan. 1, 1908, no child under 14 may be employed as in preceding column (with the exception there noted) unless able to write and has attended school 12 weeks the preceding year; under 18, unless so attended school.
Idaho	[a] 8–16	Full term	Not over $300 or imprisonment not over 6 months, or both.	14 years, in any mine, factory workshop, mercantile establishment, laundry, hotel, etc., except over 12 during vacations.	No child under 14 may be employed in any way during school hours.
Illinois	[b] 7–16	Full term, to be not less than 110 days of actual teaching.	$5 to $20 and costs, stand committed until paid. Penalty for false statements as to age or attendance, $3 to $20.	14 years, in any mercantile institution, factory, office, theater, elevator, etc., or as messenger or driver; 16, in or about any mine. No female may work in or about a mine.	No child 14 to 16 unable to read and write may be employed unless attending an evening school, if there is one. No child under 14 may be employed at any work for wages during the school term.
Indiana	[c] 7–14	Full term	$5 to $25, and, in discretion of court, imprisonment 2 to 90 days.	14 years, in any manufacturing or mercantile establishment, mine, quarry, laundry, renovating works, bakery, or printing office. No female may work in a mine.	Children under 16 unable to read and write English may not be employed in foregoing employments except in vacation of public schools.
Iowa	[c] 7–14	16 consecutive weeks	$3 to $20	14 years, in any mine, factory, mill, shop, laundry, packing house, elevator, or store where more than 8 persons are employed.	
Kansas	[c] 8–15	Full term [d]	$5 to $25	14 years, in any factory or packing house or in or about any mine; 16, in any dangerous, etc., employment.	No minor under 16 may work in a coal mine unless he can read and write and has attended school 3 months in the year.
Kentucky	7–14	8 consecutive weeks; full term in cities of first, second, third, and fourth classes.	First, $5 to $20; subsequent, $10 to $50.	14 years, in any mine, workshop, factory, store, office, hotel, as messenger, etc.	Under 14 may not be employed in any way during school term; nor from 14 to 16 in stated occupations unless can read and write, and attended school 100 days preceding year.
Louisiana				14 years, in any manufacturing or mercantile establishment, mine, laundry, carrying messages, etc.	Children under 14 may not be employed in foregoing employments, nor in clothing, dressmaking, or millinery establishments, unless they have attended school 4 months in preceding year.

Maine	7-15	Full term	Not exceeding $25, or imprisonment not exceeding 30 days.	14 years, in any manufacturing or mechanical establishment.	Children under 15 shall not be employed in any manufacturing or mechanical establishment, except during vacation, unless they have attended school 16 weeks during preceding year.
Maryland [e]	[f] 8-12	do	Not exceeding $5	14 years, in mills and factories (except canning establishments), unless self, widowed mother, or invalid father solely dependent upon such employment. 19 counties exempt from law.	No minor 12 to 16, unable to read and write English, may be employed where there is an evening school unless attending that or another school.
Massachusetts	[g] 7-14	do	Not exceeding $20	14 years, in factories, workshops, or mercantile establishments.	Children under 14 may not be employed at any work for wages during school hours; from 14 to 16 may not be so employed in any factory, workshop, or mercantile establishment if unable to read and write.[h]
Michigan	7-16	do	Fine of $5 to $50, or imprisonment 2 to 90 days, or both.	14 years, in any manufacturing or mercantile establishment, workshop, laundry, store, office, hotel, messenger service, etc.	Children 14 to 16, unable to read and write English, may not be employed.
Minnesota	8-16	do	Not over $50, or imprisonment not over 30 days.	14 years, in factories, mills, workshops, or mines.	Children under 14 years may not be employed in any service during school term; under school age (16 years), in any occupation during school term unless they have attended school the prescribed period; under 16, unable to read and write English, in any indoor occupation (except in vacation) unless attending day or evening school.
Mississippi				12 years, in any mill, factory, or manufacturing establishment.	
Missouri	[i] 8-14	Not less than ½ of term. Full term in cities of over 500,000.	$10 to $25, or imprisonment 2 to 10 days, or both.	14 years, in any mine, manufacturing or mercantile establishment, laundry, etc., in cities of over 10,000; no females in mines.	No child 8 to 14 may be employed in any way in school hours unless he has complied with the attendance law. No boy under 16 may work in a mine unless he can read and write.
Montana	[j] 8-14	Full term; in no case less than 16 weeks.	$5 to $20	16 years, in mines or underground works.	Children under 14 not to be employed during school sessions unless they have completed the studies required by law; from 14 to 16, if unable to read and write English.

[a] Except children over 14 who have completed eighth grade, or have to support selves or parents.
[b] Children 14 to 16 necessarily and lawfully employed are exempt.
[c] Inclusive.
[d] 8 weeks for children over 14 who can read and write English and are at work to support themselves or others.
[e] The provisions tabulated for Maryland (except in fifth column) are those of the act of 1902, whose operation is limited to Baltimore City and Allegany County.
[f] To 16 unless regularly employed to labor at home or elsewhere.
[g] To 16 if wandering about public places without lawful occupation, or if unable to read and write.
[h] Must be able to so read and write as is required to enter the second grade in 1906, third in 1907, and fourth in 1908 and after.
[i] To 16 years in cities of over 50[0],000 for children not lawfully and usefully employed 6 hours a day.
[j] To 16 if unemployed.

Statutory provisions relating to compulsory attendance and child labor—Continued.

COMPULSORY EDUCATION.				CHILD LABOR.	
State.	Age.	Annual period.	Penalty on parents for neglect.	Age under which specified employments are forbidden.	Educational restrictions on child labor.
Nebraska	[a] 7–15	Two-thirds of school term; in no case less than 12 weeks. Full term in cities.	$5 to $25 (on truant officer)	14 years, in any manufacturing or mercantile establishment, office, hotel, etc.	No child under 14 may be employed in any service during school hours.
Nevada	8–14	16 weeks; 8 consecutive	First, $50 to $100; subsequent, $100 to $200; with costs.		
New Hampshire	[b] 8–14	Full term	First, $10; subsequent, $20	12 years, in any manufacturing establishment.	No child under 14 may be employed during school sessions, nor under 16 if unable to read and write English. No minor unable to read and write English may be employed unless attending day or evening school, if any is held.
New Jersey	[c] 7–17	do	"Punishable as a disorderly person."	14 years, in factories, workshops, mills, or manufacturing establishments; also mines.	Children under 15 must have attended school 12 weeks the preceding year as a condition of employment.
New Mexico	7–14	3 months	$5 to $25, or imprisonment not exceeding 10 days.		
New York	[d] 8–16	Full term (October 1 to June 1).	First, not exceeding $5; subsequent, not exceeding $50, or imprisonment not exceeding 30 days, or both fine and imprisonment.	14 years, in factories; if 14 to 16, the child must have attended school 130 days the preceding year, and be able to read and write English, and cipher. Similar provisions apply, in places of over 3,000 population, to work in mercantile establishments, business offices, restaurants, hotels, express or messenger service, except for children over 12 in small places during vacation. For work in or about mines 16 years is the minimum. No female may work in a mine.	Unlawful to employ in any business or service child under 14 during school term; 14 to 16, unless has attended 130 days preceding year, and can read and write English, and cipher, or (in first and second class cities) has completed elementary course or attends evening school 16 weeks a year. See preceding column.
North Carolina	[e] 8–14	16 weeks	$5 to $25	12 years, in any factory or manufacturing establishment (does not apply to oyster canning and packing); 12 years, in mines employing over 10 men (boys); children 12 to 13 may be employed in factories only as apprentices.	Apprentices 12 to 13 years must have attended school 4 months in preceding 12.

North Dakota	8–14	Full term	$5 to $20 (on school official)	12 years, in mines, factories, and workshops (constitution of State).	Children under 14 may not be employed in any manner during school hours unless they have attended school 12 weeks during the year.
Ohio	[b] 8–14	Full term; in no case less than 24 weeks.	$5 to $20; on default, imprisonment from 10 to 30 days.	14 years, in any factory, workshop, business office, mercantile establishment, hotel, as messenger, etc.	No child between 14 and 16 may be employed in foregoing occupations without a schooling certificate.
Oklahoma	8–16	3 to 6 months [f]	$10 to $50	16 years, in mines (no girls in mines).	
Oregon	[g h] 9–14	Full term	$5 to $25 fine, or imprisonment 2 to 10 days, or both.	14 years, in any factory, store, workshop, in or about any mine, or in the telegraph, telephone, or public messenger service.	Foregoing employments forbidden to any child 14 to 16 unless attended school 160 days preceding year and can read English. No child under 14 may be employed in any work for compensation during school hours.
Pennsylvania	[i] 8–16	Full term; but the school board of each district has power to reduce this to not less than 70 per cent of the term.	First, not exceeding $2; subsequent, not exceeding $5; on default, imprisonment; first, not over 2 days; subsequent, not over 5.	14 years, in any employment, except domestic, coal mining, or farm labor; 16 years in coal mines; 14 years in or about the outside workings of coal mines. Girls may not work in or about coal mines.	No child 14 to 16 may be employed unless he can read and write English and has complied with the school laws.
Rhode Island	[j] 7–15	Full term	Not exceeding $20	13 years before, 14 after December 31, 1906, in any factory, manufacturing or business establishment.	Children under 13 may not be employed except during school vacations.
South Carolina				10 years after May 1, 1903; 11 after May 1, 1904; 12 after May 1, 1905, in any factory, mine, or textile establishment, except that certain self-dependent children may work in the latter.	Children may work in textile establishments in June, July, and August if they have attended school 4 months during the year and can read and write.
South Dakota	[h] 8–14	Full term; but districts may reduce it to 16 weeks, 12 consecutive.	$10 to $20 and costs; stand committed till paid.	14 years, in mines	No child 8 to 14 to be employed during school hours unless he has attended school 12 weeks during the year.
Tennessee	(k)			14 years, in workshops, factories, or mines.	
Texas				12 years, in mills, factories, manufacturing or other establishments using machinery; 16 years in mines, distilleries, or breweries.	Unlawful to employ children 12 to 14 who can not read and write English, in mills, factories, etc., certain self-dependent children excepted.
Utah	8–16	20 weeks, 10 consecutive; in cities of the 1st and 2d class 30 weeks, 10 consecutive	First, not exceeding $10; subsequent, not exceeding $30, with costs.	14 years, in mines (constitution of State).	

[a] To 16 years in cities.
[b] To 16 if unable to read and write English.
[c] Does not apply to children over 15 who have finished grammar school course and are regularly employed; otherwise must attend grammar, or high, or manual training school.
[d] Does not apply to children 14 to 16 lawfully and usefully employed.
[e] Law does not take effect in any county until voted by the county; does not apply to 11 counties, nor to children over 12 lawfully employed at home or elsewhere.
[f] In the discretion of school boards.
[g] To 16 if unemployed.
[h] Inclusive.
[i] Not applicable to children over 13 who can read and write English and are regularly employed in useful service.
[j] Not applicable to children over 13 who are lawfully employed.
[k] A compulsory attendance act was passed in 1905 applying only to Claiborne and Union counties; one for Campbell and Scott counties in 1907.

Statutory provisions relating to compulsory attendance and child labor—Continued.

COMPULSORY EDUCATION.				CHILD LABOR.	
State.	Age.	Annual period.	Penalty on parents for neglect.	Age under which specified employments are forbidden.	Educational restrictions on child labor.
Vermont	[a] 8–15	Full term	$5 to $25	12 years, for any railroad company or in any mill, factory, quarry, or workshop, or carrying messages.	No child under 16 who has not completed the 9-year school course may be employed in any railroad, factory, mine, or quarry work, or in delivering messages, except out of school hours.
Virginia [c]	8–12	12 weeks	First, $2 to $10; subsequent, $5 to $20.	13 years, after March 1, 1909; 14 after March 1, 1910, in any factory, workshop, mercantile establishment, or mine, except in certain cases of need over 12.	
Washington	8–15	Full term	Not over $25	14 years, in mines (boys); 12 (boys), in the outside workings of a colliery; 14, in any factory, mill, workshop, or store, except (12 to 14) in specified cases of need.	Children under 15 may not be employed while the schools are in session, unless excused by the school superintendent.
West Virginia	8–14	20 weeks	First, $2; subsequent, $5	12 years, in factories, workshops, mercantile or manufacturing establishments; 14 in mines (no girls may work in mines).	No child under 14 shall be so employed during school term if it hinders regular attendance.
Wisconsin	[b] 7–14	Full term in 1st class cities; in 2d class cities not less than 8, elsewhere not less than 6 school months.	$5 to $50 and costs, or imprisonment not over 3 months, or both.	12 years, in any occupation; 14, in factories, workshops, mines; 14 to 16, in any occupation without specified written permit.	Children 12 to 14 may not be employed in any occupation, except during school vacations by specified written permit, in stores, offices, hotels, mercantile establishments, laundries, or public messenger service, where they reside (does not apply to farming or other out-door work).
Wyoming	7–14	6 months	Not exceeding $25	14 years, in mines; females may not work in mines. (Constitution).	
United States laws (for Territories).				12 years, in the underground workings of any mine.	

[a] Children over 15 or under 8, when once enrolled, must attend the full term they are enrolled for.
[b] To 16, if not regularly and usefully employed at home or elsewhere.
[c] Compulsory attendance law optional with the voters of any county, city, or town.

14. PUBLIC SCHOOL FRATERNITIES.

An act of the legislature of the State of Ohio, approved April 30, 1908, known as the Schurr bill, makes it unlawful for any pupil of the public schools of the State of Ohio in any manner to organize, join or belong to any fraternity, or sorority, or other like society composed or made up of pupils of the public schools, and requires the suspension from school of any pupils violating the act. The act takes effect on and after July 1, 1908.

On March 11, 1908, the board of education of Chicago, Ill., adopted the following resolutions with respect to secret societies:

Resolved, That on and after the first Tuesday in September, 1908, all pupils attending the public high schools of the city of Chicago, who are members of secret societies known as or of the nature of fraternities or sororities, having their existence, in whole or in part, in any high school of said city, or where such activities of such societies work back and have an effect upon the discipline or scholarship of said high schools, shall be suspended; be it further

Resolved, That so far as possible a room shall be set aside in every high school for the social uses of the pupils, and that every opportunity be granted them for an organized social life which shall be open to membership to every pupil in the school.

Under date of November 8, 1907, the secretary of the board of education of Denver, Colo., notified the parents and pupils of the adoption of the following resolutions by the board of education:

After September 1, 1908, all pupils of the Denver high schools, whose membership in a fraternity, sorority, or other similar organization, dates from a time prior to November 8, 1907, shall be continuously denied all the privileges and activities of these high schools, except those of the class room and that of receiving a diploma, unless all connection with such organization shall permanently cease on or before such date, September 1, 1908.

All pupils of the Denver high schools who shall become members of a fraternity, sorority, or other similar organization, on a date subsequent to November 8, 1907, shall be continuously denied all the privileges and activities of these high schools, except those of the class room and that of receiving a diploma, immediately after such date of membership.

The following resolution was adopted by the board of education of Salt Lake City, Utah:

Resolved, That membership in any secret club or organization the nature of which is considered adverse to high-school interests, shall be considered sufficient cause for suspension or, in aggravated cases, for expulsion.

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15. STUDENT ADVISERS.

Johns Hopkins University.—When an undergraduate student is admitted to the university, he is assigned to an adviser by the standing committee charged with this duty, and he will, under ordinary circumstances, remain under the direction of the same adviser during

his whole course. The approval of the adviser is necessary before the student can enter upon any course of study; no instructor will receive into a class a student who does not bring with him (in a book provided for that purpose) assurance that his adviser approves his pursuing the study at that time; and no student is allowed, without the consent of his adviser, to discontinue any work. Each adviser endeavors to establish relations of friendliness and confidence with the students assigned to his care; he not only gives counsel in regard to the selection of studies, but promotes the welfare of his students in every practicable way.

Columbia University.—Beginning with the year 1907–8 students admitted to Columbia College are assigned in approximately equal numbers to members of the college faculty. The duties of the adviser are "to pass upon the schedule of studies of each student under his charge prior to the submission of that schedule to the committee on instruction; to keep himself informed as to the standing of all such students in their college work and as to the extent and character of their participation in extra curricular activities; and to advise the students on all these and other matters that concern them as students; and for the proper performance of these functions it shall be the further duty of the advisers to meet the students assigned to them, respectively, in personal conference, either individually or collectively, not less than twice every month during each half year."

Vassar College.—In his report for the scholastic year 1907–8, President Taylor of Vassar College states that the English department of that institution has introduced a system of group interviews with very gratifying results suggested by the new tutorial methods at Princeton.

16. PENSION FUNDS FOR TEACHERS.

An act of the legislature of Massachusetts, which became a law on May 5, 1908, authorizes any city or town, except the city of Boston which has a pension law, to establish pension funds for teachers. The act provides that in any city or town accepting its provisions the school committee may retire from active service and place on the pension roll any teacher who is 60 years old or over, or is incapacitated for useful service, and who has faithfully served such city or town for 25 years. The amount of annual pension paid any one person shall not exceed one-half of the annual compensation received at the time of retirement and shall not in any event exceed $500.

By an act approved March 14, 1908, the State of Virginia provides a retirement fund for public-school teachers. The fund is provided by a deduction of one per cent from the salaries of public-school teachers, by an appropriation of $5,000 per annum from the State

treasury, and by legacies, bequests, and funds derived from devises for the benefit of the retirement fund. The fund is administered by the state board of education. Persons having taught for 25 years in the State, or persons having thus taught for 20 years and by reason of physical or mental infirmity or old age are not capable of rendering efficient service, are eligible to be placed on the retired list. The pensions are payable quarterly, the quarterly payment being for a sum equal to one-eighth of the annual salary earned at the time the person was placed on the retired list. No quarterly payment shall exceed the sum of $100, except that principals of schools may receive as much as $125 per quarter.

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17. CHANGES IN SCHOOL OFFICIALS.

In Oklahoma the following changes have been made in the executive officers of State institutions: President David R. Boyd, of the University of Oklahoma, has been succeeded by Rev. Arthur G. Evans, formerly president of the Henry Kendall College at Muskogee; President A. C. Scott, of the Oklahoma Agricultural and Mechanical College, has been succeeded by President J. H. Connell; Principal T. W. Conway, of the normal school at Alva, has been succeeded by Walter L. Ross, and Principal J. R. Campbell, of the normal school at Weatherford, has been succeeded by J. F. Sharp.

Other notable changes among executive officers have been the following: President Rufus W. Stimson, of the Connecticut Agricultural College, has been succeeded by Prof. Charles L. Beach, formerly of the University of Vermont; President Henry Hopkins, of Williams College, has been succeeded by Dr. Harry A. Garfield, formerly professor in Princeton University; President Richard H. Jesse, of the University of Missouri, has been succeeded by Dr. A. Ross Hill; President David F. Houston, of the University of Texas, has been elected chancellor of Washington University, St. Louis, Mo., and Prof. Sidney E. Mezes has been chosen president of the University of Texas; President Oscar J. Craig, of the University of Montana, has been succeeded by Dr. C. A. Duniway; Dr. W. E. Garrison has been elected to the presidency of the New Mexico College of Agriculture and Mechanic Arts, vice Luther Foster, who remains with the institution as director of the agricultural experiment station; President George T. Winston, of the North Carolina College of Agriculture and Mechanic Arts, has been retired on a pension from the Carnegie Foundation for the Advancement of Teaching and has been succeeded by Prof. D. H. Hill; Dr. Edwin Erle Sparks has assumed the presidency of the Pennsylvania State College made vacant by the death of President G. W. Atherton; President F. M.

Tisdel, of the University of Wyoming, was succeeded by Dr. Charles O. Merica. Dr. F. Louis Soldan, superintendent of the schools of St. Louis, Mo., died on March 27, 1908, and has been succeeded by Mr. Ben Blewett, formerly assistant superintendent of the St. Louis schools.

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18. MISCELLANEOUS NOTES.

Commercial education.—An act of the legislature of Maryland, approved April 6, 1908, provides for state aid to approved high schools in the several counties for the inauguration of commercial courses. The act provides that no appropriation shall be made to any high school not on the approved list, and which does not offer a commercial course in addition to the academic course; that the appropriation shall be made to not more than one approved high school in a county whose enrollment for the school year ending July 31, 1907, was less than 4,000 pupils; to not more than two such schools in a county whose school enrollment for said year was less than 7,500 pupils; and to not more than three such schools in counties whose enrollment for that year was more than 7,500 pupils. It provides, however, that the Baltimore City College, Western High School, Polytechnic Institute, and Eastern High School of Baltimore shall receive appropriations. The act appropriates $1,000 for each of the high schools on the approved list submitted by the state board of education, which is to be expended exclusively for the commercial course of the high-school department.

The State Normal School at Salem, Mass., has established a department for the training of teachers of commercial subjects beginning with the school year 1908–9. It is intended to meet the growing demand for teachers in commercial departments of high schools who have had thorough pedagogical training. Two courses of study are offered—a regular course of two years and a special condensed course of one year for graduates of colleges, normal schools, and private commercial schools, and for teachers of experience.

Domestic economy.—The University of Washington, beginning with the year 1908–9, offers a four-year course, leading to the degree of bachelor of science in domestic economy, for students who wish to specialize in that subject with a view to teaching it in the high schools. Only the first year of the course is offered for 1908–9.

Forestry.—The University of Washington in 1907 established a school of forestry, with Francis G. Miller, M. F., dean and professor of forestry. It offers a four-year undergraduate course, leading to the degree of bachelor of science in forestry, and a two-year graduate course, leading to the degree of master of science in forestry.

Boards of education.—An act of the legislature of Ohio, approved May 9, 1908, provides that in city school districts the board of education shall consist of not less than three members nor more than seven members, elected at large by the qualified electors, except that in city school districts which at the last preceding federal census contained a population of more than 50,000 persons the board of education shall consist of not less than two nor more than seven members elected at large, and of not less than two nor more than twelve members elected from subdistricts; provided, that whenever the number of members of the board of education in the school districts of cities having more than 50,000 inhabitants is changed under the provisions of the act, then such board of education shall consist of not less than three members nor more than seven members, elected at large.

The board of education of Cincinnati, Ohio, consisting of twenty-seven members, has been abolished, and a new board consisting of seven members has been established.

Supervision of country schools.—In Nevada the office of county superintendent of schools has been abolished and the State has been divided into five districts. The state board of education has appointed a deputy superintendent of public instruction for each of the five districts.

Minimum salary of teachers.—A minimum salary provision is included in an act of the legislature of Maryland approved April 6, 1908. It provides that teachers holding a first-class certificate and having taught for a period of three years in the public schools of the State, shall receive as salary not less than $350 per annum; such teachers having taught for five years shall receive not less than $400; and such teachers having taught for eight years shall receive not less than $450. Holders of a second-class certificate who have taught in the public schools of the State for eight years shall receive not less than $350 per annum.

High schools.—An act of the legislature of Kentucky approved March 24, 1908, requires the establishment, within two years of the passage of the act, of one or more county high schools by the county board of education of each county.

By an act approved February 25, 1908, the State of Virginia appropriates annually the sum of $15,000 for the pay of teachers in the normal departments of ten public high schools, to be designated by the state board of education.

Admission to professional study.—Columbia University announces that beginning with the session of 1909–10 there will be required for admission to its medical school the completion of not less than two full years of study in an approved college or scientific school, which course must have included instruction in the elements of physics, inorganic chemistry, and biology.

Tax levy for universities and colleges.—An act of the legislature of Ohio approved May 9, 1908, authorizes the school board of any village school district in which is located a university or college organized under the laws of Ohio as an institution of learning not for profit, and under the management of a board of trustees, to levy a tax not exceeding 2 mills annually upon all taxable property within such village district for the support of such university or college. In the event such levy is made, all holders of a high school diploma obtained from such village district high school shall have the right to attend such university or college for the period of two years, free of tuition.

College of the City of New York.—On May 14, 1908, the new buildings of the college on Washington Heights were dedicated.

Columbia University.—The Columbia University Quarterly for June, 1908, announces the endowment of a chair in humanity in Columbia University, and states that Professor McCrea, associate director of the New York School of Philanthropy, has been appointed to make a preliminary survey of the field of the new chair.

Princeton University.—Princeton has established an honors course in the classical humanities, which goes into operation for the junior class in September, 1908, and for the junior and senior classes in September, 1909.

Fire at Collinwood, Ohio.—On March 4, 1908, a school building at Collinwood, a suburb of Cleveland, Ohio, was destroyed by fire, and nearly 200 persons lost their lives. This terrible disaster has called attention anew to the need for careful construction of school buildings and has resulted in more careful provision for the safety of school children in many parts of the country.

CHAPTER II.

RECENT EDUCATIONAL LEGISLATION.

I. EDUCATIONAL LEGISLATION, SIXTIETH CONGRESS, FIRST SESSION.

The laws relating to education, aside from those making appropriations, that were enacted during the first session of the Sixtieth Congress are few in number, and are arranged in this compilation under the departments having to do with the carrying out of the several laws.

The appropriations in behalf of education, including the continuing appropriations for colleges of agriculture and the mechanic arts and for agricultural experiment stations, amounting to over 14 millions of dollars, may be summarized as follows:

Department of State:	
Ten student interpreters in China	$11, 250. 00
Six student interpreters in Japan	6, 750. 00
Quarters and furniture for student interpreters in Japan	1, 200. 00
Pan-American Scientific Congress	35, 000. 00
Treasury Department:	
Common schools in Oklahoma	225, 409. 84
War Department:	
United States Military Academy	908, 264. 60
Army War College	27, 700. 00
Service schools	70, 000. 00
Officers' schools at military posts	12, 000. 00
Department of Justice:	
National Training School for Boys	90, 850. 00
Navy Department:	
United States Naval Academy	590, 155. 61
Naval training stations	1, 456, 517. 05
Naval War College	18, 700. 00
Department of the Interior:	
Bureau of Indian Affairs	4, 476, 145. 08
Bureau of Education	322, 500. 00
Colleges of agriculture and mechanic arts	1, 750, 000. 00
Howard University	63, 200. 00
Columbia Institution for the Deaf and Dumb	72, 500. 00
Department of Agriculture:	
Office of Experiment Stations	1, 405, 645. 64
Department of Commerce and Labor:	
Investigation of woman and child workers	150, 000. 00
Library of Congress	924, 005. 00
Smithsonian Institution	496, 180. 00
District of Columbia (one-half of total appropriations)	1, 430. 500. 50
Total	14, 544, 473. 32

DEPARTMENT OF STATE.

Student interpreters.—Appropriates $11,250 for salary and tuition of 10 student interpreters at the United States legation to China, $6,750 for salary and tuition of 6 student interpreters at the embassy to Japan, and $1,200 for quarters and furniture for student interpreters in Japan. (Chap. 183; May 21, 1908.)

Pan-American Scientific Congress.—Appropriates $35,000 to enable the United States to be represented at the First Pan-American Scientific Congress at Santiago, Chile, in December, 1908. (Chap. 200; May 27, 1908.)

TREASURY DEPARTMENT.

Oklahoma.—Appropriates $225,409.84 as interest at 3 per cent per annum on the sum of $5,000,000 appropriated to the State of Oklahoma as a common school fund. (Chap. 227; May 30, 1908.)

WAR DEPARTMENT.

The specific appropriations for the educational work of the War Department are as follows:

United States Military Academy:	
Deficiency appropriation	$2,518.61
Current expenses and grounds and buildings	905,745.99
Army War College	27,700.00
Engineer School, Washington, D. C	25,000.00
Coast Artillery School	28,000.00
United States service schools	17,000.00
Officers' schools at military posts	12,000.00
Total	1,017,964.60

United States Military Academy.—Authorizes the Secretary of War to permit not exceeding four Filipinos, to be designated, one for each class, by the Philippine Commission, to receive instruction at the United States Military Academy. They shall receive from the Federal Government the same pay, allowances, and emoluments as are authorized by law for cadets at the Military Academy appointed from the United States, and on graduation shall be eligible only to commissions in the Philippine Scouts, and must engage to serve in the Philippine Scouts for eight years, unless sooner discharged. (Ch. 214; May 28, 1908.)

United States Military Academy.—Authorizes the Secretary of War to permit Colon Eley Alfare, of Ecuador, to receive instruction at the Military Academy. (Ch. 214; May 28, 1908.)

United States Military Academy.—Authorizes the Secretary of War to permit Herman Ulloa, of Costa Rica, to receive instruction at the Military Academy. (J. Res. No. 5; Jan. 16, 1908.)

Ordnance.—Authorizes the Secretary of War to deliver to the board of regents of the University of South Dakota one condemned 12-pounder bronze field gun to be placed on the campus of the university; to Elgin Academy, Elgin, Ill., two condemned field pieces or cannon, with a suitable outfit of cannon balls; to the Alabama Boys' Industrial School, Birmingham, Ala., 125 obsolete Springfield rifles, with bayonets, bayonet scabbards, and ammunition belts for same. (Ch. 215; May 28, 1908.)

DEPARTMENT OF JUSTICE.

Reform School, District of Columbia.—Appropriates $5,250 to cover a deficiency incurred during the year ending June 30, 1908. (Chap. 27; Feb. 15, 1908.)

Reform School, District of Columbia.—Appropriates $25,700 for salaries, $16,000 for maintenance, $1,200 for repairs, $5,000 for shops and equipment, and $35,000 for buildings. (Chap. 200; May 27, 1908.)

Reform School, District of Columbia.—Appropriates $2,700 for support of inmates. (Chap. 227; May 30, 1908.)

Reform School, District of Columbia.—Changes the name of the Reform School to National Training School for Boys. (Chap. 200; May 27, 1908.)

NAVY DEPARTMENT.

The appropriations for educational purposes under the Navy Department were as follows:

United States Naval Academy:	
Current expenses	$487,028.36
Buildings and grounds	47,000.00
Engineering experiment station	30,520.00
Salaries, pay department	2,017.25
Deficiency appropriation	23,590.00
Naval War College	18,700.00
Naval training stations	1,456,517.05
Total	2,065,372.66

DEPARTMENT OF THE INTERIOR.

BUREAU OF INDIAN AFFAIRS.

The following appropriations, including several sums for deficiencies, were made for the education of Indians:

Support of Indian day and industrial schools	$1,450,000.00
School buildings, sewerage, water supply, etc	400,400.00
Transportation of Indian pupils	75,036.26
Superintendent of Indian schools, salary	3,000.00
Traveling expenses	1,500.00
Matrons to teach domestic science	30,000.00
Farmers and stockmen to teach Indians	125,000.00
Indian schools:	
Fort Mojave, Ariz	43,000.00
Phoenix, Ariz	136,400.00
Truxton Canyon, Ariz	19,200.00
Sherman Institute, Riverside, Cal	103,000.00
Grand Junction, Colo	41,283.82
Fort Lewis, Colo	38,800.00
Sac and Fox School, Iowa	15,160.00
Haskell Institute, Kans	166,750.00
Kickapoo Indian School	16,860.00
Sacs and Foxes, Kans	200.00
Mount Pleasant, Mich	55,800.00
Morris, Minn	29,550.00
Pipestone, Minn	41,675.00
Chippewas, Minn	4,000.00
Genoa, Nebr	54,800.00
Carson City, Nev	56,900.00
Albuquerque, N. Mex	58,900.00
Santa Fe, N. Mex	58,500.00
Cherokee, N. C	28,720.00
Fort Totten, N. Dak	60,975.00
Wahpeton, N. Dak	36,700.00
Bismarck, N. Dak	20,200.00
Chilocco, Okla	129,400.00
Pawnees (2 manual-labor schools)	10,000.00
Quapaws	1,000.00
Five Civilized Tribes, care of orphan children	10,000.00
Schools	360,000.00
Choctaws, annuity for education	6,000.00
Seminoles, annuity for schools	2,500.00
Salem, Oreg	111,200.00
Molels (Oreg.)	3,000.00
Carlisle, Pa	164,000.00
Chamberlain, S. Dak	37,900.00
Flandreau, S. Dak	69,425.00
Pierre, S. Dak	29,550.00
Rapid City, S. Dak	59,350.00
Sioux day and industrial schools	200,000.00
Panguitch, Utah	18,725.00

Indian schools—Continued.	
Utes	$1,800.00
Hampton, Va	20,040.00
Hayward, Wis	40,870.00
Tomah, Wis	46,450.00
Shoshone, Wyo	39,025.00
Clerks to superintendent of Indian schools	3,600.00
Total	4,476,145.08

Indian schools.—Authorizes the Commissioner of Indian Affairs to ascertain whether and upon what terms it may be possible to dispose of any of the nonreservation Indian schools which in his judgment are no longer of value to the Indian Service. (Ch. 153, April 30, 1908.)

Indian schools.—Authorizes the Secretary of the Interior to sell and convey 640 acres of the lands, together with the buildings and other appurtenances thereunto belonging, set aside as reservations for the Cheyenne and Arapahoe Agency and the Arapahoe Indian school in Oklahoma, and to use all or any part of the proceeds of the sale thereof in the erection of new buildings, and in repairs and improvements, at the present Cheyenne Boarding School under the Cheyenne and Arapahoe Agency, Okla., and in the establishment of such day schools as may be required for the said Cheyenne and Arapahoe Indians in Oklahoma; any balance of the said proceeds of sale may be utilized in the support and maintenance of the said Cheyenne Boarding School or the said day schools. (Ch. 153, April 30, 1908; Ch. 216, May 29, 1908.)

BUREAU OF EDUCATION.

The appropriations for objects under the Bureau of Education were as follows:

Salaries:	
Commissioner of Education	$4,500
Chief clerk	2,000
Statistician	1,800
Specialist in charge of land-grant college statistics	1,800
Translator	1,800
Collector and compiler of statistics	2,400
Specialist in foreign educational systems	1,800
Specialist in educational systems	1,800
2 clerks of class 4	3,600
2 clerks of class 3	3,200
4 clerks of class 2	5,600
7 clerks of class 1	8,400
5 clerks at $1,000	5,000
6 copyists at $900	5,400
2 copyists at $800	1,600

Salaries—Continued.	
1 copyist	$720
2 skilled laborers at $840	1,680
1 messenger	840
1 assistant messenger	720
3 laborers at $480	1,440
1 laborer	400
Total for salaries	56,500
Books for library	500
Collecting statistics	4,000
Distributing documents	2,500
Rent	4,000
Education in Alaska	200,000
Reindeer for Alaska	15,000
Printing and binding annual report	20,000
Printing and binding annual report for 1907	20,000
Total	322,500

LAND GRANTS.

Arizona.—Authorizes the Secretary of the Interior to issue a patent to the Sisters of the Blessed Sacrament for Indians and Colored People for 280 acres of land on the Navajo Indian Reservation in Arizona, for an Indian school. (Chap. 216; May 29, 1908.)

Arkansas.—Grants to the school district of Hot Springs, Ark., five lots situated on the Hot Springs Reservation, for the use of said school district and the public schools thereof. Authorizes the school district to sell the lots. (Chap. 154; April 30, 1908.)

Indian Territory.—Authorizes the Secretary of the Interior to issue a patent to the Bureau of Catholic Indian Missions for forty acres of land in Indian Territory for church and school purposes. (Chap. 153, April 30, 1908; Chap. 216, May 29, 1908.)

Kansas.—Authorizes the Secretary of the Interior to certify to the State of Kansas, for the benefit of the Kansas State Agricultural College, 7,682 acres of public lands. (Chap. 220; May 29, 1908.)

Montana.—Grants to the school trustees of Poplar, Mont., 2.07 acres of land. (Chap. 237; May 30, 1908.)

Montana.—Grants to the State of Montana sections 16 and 36 of each township in the Fort Peck Indian Reservation for school purposes. (Chap. 237; May 30, 1908.)

Nebraska.—Grants to school district No. 36, Knox County, Nebr., 2½ acres of land for school purposes. (Chap. 114; March 31, 1908.)

North Dakota and South Dakota.—Grants to the States of North Dakota and South Dakota sections 16 and 36 of the lands in each township of a portion of the surplus and unallotted lands in the Cheyenne River and Standing Rock Indian reservations for the use of the common schools. (Chap. 218; May 29, 1908.)

Oklahoma.—Grants to the city of Enid, Okla., 10 acres of land for park, school, and other public purposes. (Chap. 220; May 29, 1908.)

Washington.—Grants to the State of Washington sections 16 and 36 of the agricultural lands in each township of the Spokane Indian Reservation, Wash., for the use of the common schools. (Chap. 217; May 29, 1908.)

Wyoming.—Authorizes the Secretary of the Interior to issue a patent to the Domestic and Foreign Missionary Society of the Protestant Episcopal Church in the United States of America for approximately 160 acres of land of the Wind River Reservation in Wyoming used for an Indian school. The issuance of the patent is made subject to the assent of the Indians of said reservation. (Chap. 153; April 30, 1908.)

HOWARD UNIVERSITY, WASHINGTON, D. C.

Appropriates $63,200 for Howard University. (Chap. 200; May 27, 1908.)

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

Appropriates $72,500 for the Columbia Institution for the Deaf and Dumb. (Chap. 200; May 27, 1908.)

DEPARTMENT OF AGRICULTURE.

The appropriations for agricultural experiment stations and for the expenses of the Office of Experiment Stations, not including appropriations for nutrition, irrigation, and drainage investigations, were as follows:

Office of Experiment Stations, salaries	$34,620.00
Farmers' institutes and agricultural schools	10,000.00
Agricultural experiment stations	833,025.64
Increase	528,000.00
Total	1,405,645.64

Forest reserves.—Provides that hereafter 25 per cent of all money received from each forest reserve during any fiscal year, including the year ended June 30, 1908, shall be paid at the end thereof to the State or Territory in which said reserve is situated, to be expended as the state or territorial legislature may prescribe for the benefit of the public schools and public roads of the county or counties in which the forest reserve is situated. (Chap. 192; May 23, 1908.)

DEPARTMENT OF COMMERCE AND LABOR.

Woman and child workers.—Appropriates $150,000 to complete the investigation and report on the industrial, social, moral, educational, and physical condition of woman and child workers in the United States. (Chap. 186; May 22, 1908.)

LIBRARY OF CONGRESS.

The appropriations for the Library of Congress were as follows:

Salaries, books, and care of building	$720,505.00
Printing and binding	202,000.00
Distribution of card indexes	1,500.00
Total	924,005.00

SMITHSONIAN INSTITUTION.

The appropriations for objects under the Smithsonian Institution were as follows:

International exchanges	$32,000.00
American ethnology	42,000.00
International catalogue of scientific literature	5,000.00
Astrophysical Observatory	13,000.00
National Museum	284,080.00
National Zoological Park (one-half of $95,000)	47,500.00
Printing and binding	72,600.00
Total	496,180.00

DISTRICT OF COLUMBIA.

The appropriations for educational purposes, one-half payable from the revenues of the General Government, included in the act making appropriations for the government of the District of Columbia, were as follows:

Free public library	$58,630.00
For public schools	2,697,137.00
Instruction of deaf and dumb	10,500.00
Colored deaf-mutes	5,000.00
Instruction of indigent blind children	6,000.00
Reform School, care and maintenance of boys	23,800.00
Reform School for girls	26,024.00
Industrial Home School for Colored Children	14,360.00
Industrial Home School	19,550.00
Total	2,861,001.00

Child labor.—The following act to regulate the employment of child labor in the District of Columbia was passed during the session:

[PUBLIC—No. 149.]

[S. 4812.]—AN ACT To regulate the employment of child labor in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no child under fourteen years of age shall be employed or permitted to work in the District of Columbia in any factory, workshop, mercantile establishment, store, business office, telegraph or telephone office, restaurant, hotel, apartment house, club, theater, bowling alley, laundry, bootblack stand, or in the distribution or transmission of merchandise or messages. No such child shall be employed in any work performed for wages or other compensation, to whomsoever payable, during the hours when the public schools of the District of Columbia are in session, nor before the hour of six o'clock in the morning or after the hour of seven o'clock in the evening: *Provided*, That the provisions of this section shall not apply to children employed in the service of the Senate: *And provided further*, That the judge of the juvenile court of said District may, upon the application of the parent, guardian, or next friend of said child, issue a permit for the employment of any child between the ages of twelve and fourteen years at any occupation or employment not in his judgment dangerous or injurious to the health or morals of such child, upon evidence satisfactory to him that the labor of such child is necessary for its support, or for the assistance of a disabled, ill, or invalid father or mother, or for the support in whole or in part of a younger brother or sister or a widowed mother. Such permits shall be issued for a definite time, but they shall be revocable at the discretion of the judge by whom they are issued or by his successor in office. Hearings for granting and revoking permits shall be held upon such notice and under such rules and regulations as the judge of said court shall prescribe.

SEC. 2. That no child under sixteen years of age shall be employed or permitted to work in the District of Columbia in any of the establishments named in section one, unless the person or corporation employing him procures and keeps on file and accessible to the inspectors authorized by this act and the truant officers of the District of Columbia an age and schooling certificate, and keeps two complete lists of all such children employed therein, one on file and one conspicuously posted near the principal entrance of the building in which such children are employed.

SEC. 3. That an age and schooling certificate shall be approved only by the superintendent of public schools, or by a person authorized by him in writing, who shall have authority to administer the oath provided for therein, but no fee shall be charged therefor.

SEC. 4. That no age and schooling certificate shall be approved unless satisfactory evidence is furnished by duly attested transcript of the certificate of birth or baptism of such child, or other religious record, or the register of birth or the affidavit of the parent or guardian or custodian of a child, which affidavit shall be required, however, only in case such last-mentioned transcript of the certificate of birth be not procured and filed, showing the place and date of birth of such child, which affidavit must be taken before the officer issuing the employment certificate, who is hereby authorized and required to administer such oath, and who shall not demand or receive a fee therefor.

SEC. 5. That the age and schooling certificate of a child under sixteen years of age shall be in the following form:

AGE AND SCHOOLING CERTIFICATE.

This certifies that I am the (father, mother, guardian, or custodian) of (name of child) ——— ———, and that (he or she) was born at (name of town or city) ——— in the county (name of county, if known) ——— and State (or country) ——— on the (day and year of birth) ——— and is now (number of years and months) ——— old.

Signature of (father, mother, guardian, or custodian).

(Date.)

There personally appeared before me the above-named (name of person signing) ——— ——— and made oath that the foregoing certificate by (him or her) signed is true to the best of (his or her) knowledge and belief. I hereby approve the foregoing certificate of (name of child) ——— ———; complexion (fair or dark), ———; hair (color), ——— having no sufficient reason to doubt that (he or she) is of the age therein certified, I hereby certify that (he or she) can read at sight and can write legibly simple sentences in the English language, and that (he or she) has reached the normal development of a child of (his or her) age, and is in sound health and is physically able to perform the work which (he or she) intends to do, and that (he or she) has regularly attended the public schools, or a school equivalent thereto, for not less than one hundred and thirty days during the school year previous to applying for such school record, or during the year previous to applying for such school record, and has received during such period instruction in reading, spelling, writing, and arithmetic.

This certificate belongs to (name of child in whose behalf it is drawn) ——— ——— and is to be surrendered to (him or her) whenever (he or she) leaves the service of the corporation or employer holding the same, but if not claimed by said child within thirty days from such time it shall be returned to the superintendent of schools.

(Signature of person authorized to approve and sign, with official character of authority.)

(Date.)

A duplicate of each age and schooling certificate shall be filled out and kept on file by the superintendent of public schools. Any explanatory matter may be printed with such certificate, in the discretion of said superintendent: *Provided*, That in exceptional cases the judge of the juvenile court, upon the recommendation of the superintendent of public schools, or the person authorized to act for him, may, in writing, waive the necessity of the schooling certificate provided for in this act, and in such cases the age certificate shall entitle the holder to be employed without a violation of this act.

SEC. 6. That whoever employs a child or permits a child to be employed in violation of sections one, two, eight, or nine of this act shall be deemed guilty of a misdemeanor and, for such offense, be fined not more than fifty dollars; and whoever continues to employ any child in violation of any of said sections of this act, after being notified by an inspector authorized by this act, or a truant officer of the District of Columbia, shall for every day thereafter that such employment continues be fined not more than twenty dollars. A failure to produce to an inspector authorized by this act, or a truant officer of the District of Columbia, any age or schooling certificate or list required by this act shall be prima facie evidence of illegal employment of any person whose age and schooling certificate is not produced or whose name is not listed. Any corporation or employer retaining any age and schooling certificate in violation of section five of this act shall be fined not more than twenty dollars. Every person authorized to sign the certificate prescribed by section five of this act who knowingly certifies to any materially false statement therein shall be fined not more than fifty dollars.

SEC. 7. That the inspectors authorized by this act and the truant officers of the District of Columbia shall visit the establishments named in section one and ascertain whether any minors are employed therein contrary to the provisions of this act, and they shall report any cases of such illegal employment to the superintendent of public schools and the corporation counsel of the District of Columbia. The inspectors authorized by this act and the truant officers of the District of Columbia shall require that the age and schooling certificates and lists provided for in this act of minors employed in the establishments named in section one shall be produced for their inspection.

SEC. 8. That no minor under sixteen years of age shall be employed, permitted, or suffered to work in any of the establishments named in section one more than eight hours in any one day, or before the hour of six o'clock antemeridian, or after the hour of seven o'clock postmeridian, and in no case shall the number of hours exceed forty-eight in a week.

SEC. 9. That every employer shall post in a conspicuous place in every room where such persons are employed a printed notice, stating the number of hours required of them on each day of the week, the hours of commencing and stopping work, and the hours when the time or times allowed for dinner or for other meals begin and end. The printed form of such notice shall be furnished by the inspectors authorized by this act and the truant officers of the District of Columbia, and the employment of any such person for a longer time in any day than that so stated shall be deemed a violation of this section.

SEC. 10. That the Commissioners of the District of Columbia are hereby authorized to appoint two inspectors to carry out the purposes of this act, at a compensation not exceeding one thousand two hundred dollars each per annum.

SEC. 11. That no male child under ten, and no girl under sixteen years of age shall exercise the trade of bootblacking, or sell or expose or offer for sale any newspapers, magazines, periodicals, or goods, wares, or merchandise of any description whatsoever, upon the streets, roads, or highways, or in any public place within the District of Columbia.

SEC. 12. That from and after July first, nineteen hundred and eight, no male child under sixteen years shall exercise the trade of bootblacking or sell or expose or offer for sale any newspapers, magazines, periodicals or goods, ware or merchandise of any description whatsoever upon the streets, roads, or highways, or in any public place within the District of Columbia unless a permit and badge as hereinafter provided shall have been issued to him by the superintendent of public schools of the District of Columbia, or by a person authorized by him in writing for that purpose upon the application of the parent, guardian, or other person having the custody of the child desiring such a permit and badge, or in case said child has no parent, guardian, or custodian, then on the application of his next friend, being an adult.

SEC. 13. That such permit and badge shall be issued free of charge to the applicant, but shall not be issued until an age and schooling certificate shall have been issued as provided in this act.

SEC. 14. Such permit shall state the date and place of birth of the child, the name and address of its parent, guardian, custodian, or next friend, as the case may be, and describe the color of hair and eyes, the height and weight, and any distinguishing facial mark of such child, and shall further state that the age and schooling certificate has been duly examined and filed, and that the child named in such permit has appeared before the officer issuing the permit. The badge furnished by the officer issuing the permit shall bear on its face a number corresponding to the number of the permit and the name of the child. Every such permit, and every such badge on its reverse side, shall be signed in the presence of the officer issuing the same by the child in whose name it is issued.

The badge provided for herein shall be worn conspicuously at all times by such child while so working, and all such permits and badges shall expire annually on the first day of January. The color of the badge shall be changed each year. No child to whom such permit and badge are issued shall transfer the same to any other person, nor be engaged in the District of Columbia in any of the trades or occupations mentioned in this section without having conspicuously upon his person such badge, and he shall exhibit the same upon demand to any police or truant officer or to the inspectors in this act provided for.

SEC. 15. That no child to whom a permit and badge are issued as provided for in the preceding sections shall sell or expose or offer for sale any newspapers, magazines, or periodicals or goods, wares, or merchandise of any description whatever after ten o'clock in the evening or before six o'clock in the morning.

SEC. 16. That nothing in this act contained shall apply to the employment of any child in a theatrical exhibition, provided the written consent of one of the Commissioners of the District of Columbia is first obtained. Such consent shall specify the name of the child, its age, the names and residence of its parents or guardians, together with the place and character of the exhibition.

SEC. 17. That the juvenile court of the District of Columbia is hereby given jurisdiction in all cases arising under this act.

Approved, May 28, 1908.

PROPOSED LEGISLATION.

Among the bills that were introduced but failed of enactment during the session are the bills H. R. 17299, "To authorize the Commissioner of Education to conduct special investigations and report and diffuse information and advice respecting the same," and S. 7228, "To create an Executive Department of Education." The former was introduced by Hon. W. E. Humphrey, of Washington, and the latter by Hon. Isaac Stephenson, of Wisconsin. The text of the bills is as follows:

[H. R. 17299.]

A BILL To authorize the Commissioner of Education to conduct special investigations and report and diffuse information and advice respecting the same.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioner of Education, with the approval of the Secretary of the Interior, be, and he is hereby, authorized and directed to conduct from time to time such special investigations respecting industrial education, rural schools, agricultural and mechanical colleges, higher education, the construction and equipment of school buildings, the hygiene of education, the welfare of children as affecting educational efficiency, educational legislation, the records and accounting of educational systems and institutions, and other subjects in education as he shall deem proper and necessary in order to render more extensive aid to the people of the United States in the establishment and maintenance of efficient school systems and otherwise promote the cause of education throughout the country; to make report of the results of such investigations, and by correspondence and the publication of bulletins to diffuse information and expert advice respecting the results of said investigations.

SEC. 2. That the sum of forty thousand dollars be, and is hereby, authorized to be appropriated, out of any funds in the Treasury not otherwise appropriated,

to carry out the provisions of this Act for the fiscal year ending June thirtieth, nineteen hundred and nine, including the pay of the necessary force of clerks and specialists and for editorial work and other necessary expenses connected therewith.

[S. 7228.]

A BILL To create an Executive Department of Education.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be at the seat of government an Executive Department, to be known as the Department of Education, and a Secretary of Education, who shall have the control and supervision thereof, to be appointed by the President by and with the advice and consent of the Senate, who shall receive a salary of eight thousand dollars per annum, and whose term and tenure of office shall be like that of the heads of the other Executive Departments; and section one hundred and fifty-eight of the Revised Statutes is hereby amended to include such Department and the provisions of title four of the Revised Statutes, including all amendments thereto, are hereby made applicable to said Department. The said Secretary shall cause a seal of office to be made for said Department of such device as the President shall approve, and judicial notice shall be taken of said seal.

SEC. 2. That there shall be in said Department an Assistant Secretary of Education, to be appointed by the President by and with the advice and consent of the Senate, who shall receive a salary of six thousand dollars a year, who shall perform such duties as may be prescribed by the Secretary or required by law. There shall also be such clerical assistants as may from time to time be authorized by Congress.

SEC. 3. That all of the rights, powers, and duties now and heretofore devolving upon and exercised by the subdepartment of the Department of the Interior, known as the Bureau of Education, shall attach to and be performed by such Department of Education, and the same are hereby transferred from said Bureau of Education to said Department of Education and the same shall hereafter remain under the jurisdiction and supervision of the last-named Department.

SEC. 4. That all the laws and parts of laws heretofore enacted relating to education and the said subdepartment, known as the Bureau of Education, so far as the same are applicable and not in conflict herewith, are continued in full force and effect.

SEC. 5. That it shall be the province and duty of said Department of Education to collect, classify, and disseminate information and advice on all phases of education and to promote, foster, and develop advancement and improvement in the common school system throughout the United States.

SEC. 6. That a sum sufficient to carry out the purposes of this Act is hereby appropriated out of money in the Treasury of the United States not otherwise appropriated.

SEC. 7. That this Act shall take effect upon its passage.

The bills to create a national university at the seat of the Federal Government and to grant Federal aid for industrial education have been already given in Chapter I.

II.—SUMMARY OF STATE LEGISLATION RELATING TO PUBLIC EDUCATION, OCTOBER 1, 1906, TO OCTOBER 1, 1907.

The character and volume of the legislation relating to education enacted in the several States is perhaps one of the best of indices of the trend of educational progress. This legislation is reflective of the endeavor of our people, through the direct sanction of the law-making power, to give reality and effectiveness to the ideal of this most fundamental of American institutions. Exclusive of general appropriation acts and measures having merely a private, temporary, or minor local application, there were enacted in 41 States and Territories of the continental United States during the 46 legislative sessions (regular and extra) held within the period October 1, 1906, to October 1, 1907, about 700 new laws, or amendments to existing laws, relating to public education. While here and there may be detected traces of haste, prejudice, or misconception of the broader purpose of the system of public education, the number of such is trifling and insignificant when contrasted with the very considerable volume of legislation which is characterized by a soundly constructive and far-sighted progressive policy.

ORGANIZATION AND ADMINISTRATION.

On the side of general organization and administration the several enactments creating special commissions [Illinois (p. 24, 1907); Iowa (chap. 222, 1907); Pennsylvania (chap. 140, 1907); Tennessee (J. R. 16, p. 2237, 1907), and Washington (chap. 141, 1907)] for revision of the laws pertaining to the public school system are especially worthy of note. The spirit of this movement for a better adaptation of the educational organization is best indicated by the duties assigned to the Illinois commission—"to make a thorough investigation of the common school system of Illinois and the laws under which it is organized and operated; to make a comparative study of such other school systems as may seem advisable, and to submit to the forty-sixth general assembly a report including such suggestions, recommendations, revisions, additions, corrections, and amendments as the commission shall deem necessary." North Dakota (chap. 102, 1907) provided for the revision and simplification of the school code to be acted upon by the legislature of 1909. At this point may also be included the recently adopted constitution of Oklahoma, which contains elements of a progressive educational sentiment.

The resolution of the Wisconsin legislature (p. 1295, 1907) requesting Congress to bring about an amendment to the Federal Constitution providing for an harmonious system of education throughout the country comes as one of the results of what seems to be a grow-

ing popular feeling that the scope of the educational activity of the Federal Government should be greatly extended.

The continuation of the movement for a better administration and a more effective professional inspection and supervision of the state common school systems is recognized in the provisions for increasing the compensation for state superintendents—among others, Maine, Montana, Pennsylvania, and Utah; and in the numerous efforts to provide assistants, to increase the salaries, and to raise the qualifications of county superintendents. Minnesota (chap. 480, 1907) submits an amendment to the state constitution providing that the legislature may fix the educational qualifications for that office. Oregon (chap. 35, 1907) recognized, as Minnesota, North Dakota, South Dakota, Pennsylvania, and Wisconsin already have recognized, the necessity of bringing the officers of the local boards of school directors into annual conference with supervisory officers. The establishment of a "state school committee" in Utah (chap. 57, 1907), to be composed of state and county superintendents and normal school principals, for the purpose of prescribing courses of study for schools outside of cities, is a plan which contains possibilities for an effective reconstruction of the common school curriculum.

SUPPORT.

A large bulk of the legislation of the year is made up of measures calculated to increase the support of the public schools. Vermont (chap. 54, 1906) amended, in accordance with the report of the special commission, the act providing for the permanent school fund, passed in 1904. In accordance with the constitutional amendment of 1906, Arkansas (chap. 189, 1907) authorized a large increase in both state and local levies for school purposes. Idaho (p. 304, 1907), Indiana (chap. 249, 1907), Maine (chap. 111, 1907), Montana (chap. 51, 1907), Oregon (chap. 99, 1907), Texas (p. 66, 1907), and Utah (chap. 89, 1907) enacted measures of similar nature. Connecticut (chap. 216, 1907), Florida (chap. 59, 1907), Utah (chap. 24, 1907), and Wisconsin (chaps. 375 and 600, 1907) increased the amount of state aid to rural schools.

CONSOLIDATION OF SCHOOLS.

In several States the legislative activity found its most valuable expression through measures directed toward a solution of some of the problems of the rural schools. Broadly speaking, Indiana (chap. 233, 1907) may be said to have taken the most decisive step toward eliminating the small, isolated, and all too frequently inefficient country schools. Schools of twelve pupils are to be discontinued; those of fifteen pupils may be discontinued; provision is made for

the education of pupils in neighboring schools through the plan of transportation. Kansas (chap. 322, 1907) redefined a "depopulated school district," and (chap. 323, 1907) a "partially depopulated school district," in a manner that seems to point to ends similar to those of the Indiana measure. Minnesota (chap. 304, 1907) extended special aid for the consolidation of rural schools. Wisconsin (chaps. 496 and 553, 1907) likewise endeavored to encourage the transportation of pupils so as to provide better school facilities. Vermont (chap. 53, 1906) appropriated $20,000 to be apportioned among towns furnishing elementary school pupils with board and transportation.

TEACHERS SALARIES AND PENSIONS.

The legislation relative to the compensation and pensions of public-school teachers is not without considerable encouragement. Indiana (chap. 101, 1907) and Pennsylvania (chap. 249, 1907) modified their existing minimum salary laws; while California (chap. 86, 1907), Oregon (chap. 18, 1907), and Utah (chap. 89, 1907) amended their laws applying a certain proportion of tax levies for teachers' salaries so as to raise this proportion. The teachers' pension fund created in Rhode Island (chap. 1468, 1907) is to be administered as a state scheme. Illinois (chaps. 528 and 529, 1907), Indiana (chap. 170, 1907), New York (chap. 414, 1907), Pennsylvania (chap. 169, 1907), Utah (chap. 111, 1907), and Wisconsin (chap. 453, 1907) authorized the establishment and provided for the administration of pension funds for teachers in certain cities.

TRAINING OF TEACHERS.

The problem of training and certifying teachers for public schools is responsible for frequent amendment of former laws and the passage of new ones. The new and the amended laws, while without any features of wide general interest, are indications of continued effort to raise the qualifications and to expand the facilities for providing an adequate supply of trained teachers. Idaho (p. 255, 1907), Iowa (chap. 148, 1907), Michigan (chap. 112, 1907), and Nebraska (chap. 123, 1907) authorized the granting of certificates to graduates of colleges complying with certain prescriptions; while Illinois (pp. 522, 524, 527, 1907) authorized the state normal schools to issue diplomas and to confer degrees. Among the important enactments having to do with normal schools and the training of teachers may be noted the following: Indiana (chap. 239, 1907), providing for accredited normal schools; Nebraska (chap. 129, 1907), providing normal training in designated high schools and extending $50,000 state aid; North Carolina (chap. 820, 1907), establishing the East Carolina Training School; Wisconsin (chap. 601, 1907), increasing the number of

county training schools from 12 to 20; Florida (chap. 57, 1907), providing teachers' summer training schools, and (chap. 60, 1907) for the payment of mileage one way to teachers attending; Alabama (pp. 327 and 656, 1907), establishing two normal schools for white teachers; Arkansas (chap. 317, 1907), establishing a state normal school; Oregon (chap. 189, 1907), placing state normal schools under a single board of regents, and providing for a uniform course of study; Tennessee (chap. 19, 1907), appropriating $250,000 for the George Peabody College for Teachers at Nashville; Vermont (chap. 500, 1906), establishing a commission to consider status of normal schools and to compare them with those of other States.

AGRICULTURAL AND INDUSTRIAL TRAINING, ETC.

The effort to extend and intensify the effectiveness of the instruction of the common schools led Arkansas (chap. 455, 1907) to authorize the teaching of elementary agriculture in public schools; Arizona (chap. 58, 1907), to empower boards of trustees to employ teachers of commercial subjects; California (chap. 52, 1907), to provide that nature study shall be taught with special reference to agriculture, and that manual training and domestic science shall be taught when teachers and funds are available; New Jersey (chap. 36, 1907) and Pennsylvania (chap. 60, 1907), to provide for the establishment of special schools for the teaching of English and civics to adults and foreigners; Utah (chap. 96, 1907), to provide for the study of sanitation and the cause and prevention of disease, beginning with the eighth grade; Massachusetts (chap. 28, 1907), to appropriate funds for the establishment of a normal department at the agricultural college for teaching the elements of agriculture. To this same group belong certain other enactments relative to industrial education: Georgia (p. 994, 1907), urging congressional appropriations for industrial education; Michigan (chap. 35, 1907), authorizing the establishment of county schools of agriculture, manual training, and domestic economy; Utah (p. 275, 1907), urging congressional action to aid the introduction of the study of agriculture and mechanic and domestic arts in public schools; and Wisconsin (chap. 540, 1907), increasing from two to eight the number of county schools of agriculture and domestic economy. Massachusetts (R. 64, 1907) directed her commission on industrial education to investigate textile schools and to report recommendations. Connecticut (chap. 250, 1907), New Jersey (chap. 222, 1907), and Wisconsin (chaps. 122 and 344, 1907), enacted important measures relative to the establishment of trade and industrial schools in cities.

KINDERGARTENS.

Three special measures relative to kindergartens seem to have more than local interest. Kansas (chap. 375, 1907) empowered school boards to establish and maintain free kindergartens for children 4 to 6 years of age, especially providing, however, that nothing in the act should be construed to affect the school census or the apportionment of school funds. Texas (chap. 149, 1907) likewise empowered school districts to establish free kindergartens. Wisconsin (p. 1288, 1907) referred to the next legislature an amendment to the constitution raising the lower limit of the school age from 4 to 6 years. The influence of the passage of such an amendment upon the maintenance of free public kindergartens is problematical.

COMPULSORY ATTENDANCE AND CHILD LABOR.

Nothing in the legislation of the year is more important than the enactments dealing with compulsory attendance. With this same class might also be considered those regulating child labor. The latter are the necessary complement of the former. Not only has there been a very noticeable activity among the States to provide for a more effective enforcement of laws now existing, both as regards the labor and education of children, especially in cities, but certain new enactments are representative of a wider recognition of the social value inherent in these protective measures for children. The child labor laws of Alabama (p. 757, 1907), of Arkansas (chap. 456, 1907), of Florida (chap. 91, 1907), of Idaho (p. 248, 1907), of Missouri (p. 86, 1907), and of Nebraska (chap. 66, 1907) are, in spite of evident weakness, the hopeful forerunners of more comprehensive laws. The list of compulsory attendance enactments is composed mainly of those intended to strengthen the arm of the enforcing authorities, though there are well-defined tendencies to raise the maximum limit of the compulsory period to 16, to extend the compulsory period so as to include the whole school year, and to insist upon definite minimum educational qualifications in addition to age, as conditions for exemption. The new law of Delaware (chap. 121, 1907), the special compulsory law for the city of St. Louis (Missouri, p. 428, 1907), and the revised measures of Vermont (chap. 52, 1906), Washington (chap. 231, 1907), and Wisconsin (chap. 446, 1907) may be mentioned as typical of this form of educational progress. Provisions for parental and detention schools are likewise slowly coming to be regarded as essential elements in the solution of the many problems presented by the truant and the juvenile offender. The fundamental importance of a complete and accurate school census as the basis for both effective child labor laws and compulsory attendance laws is made evident from the character of the several amendments to the statutes governing this matter in the various States.

SCHOOL BUILDINGS.

The material necessities of public education evidently brought about the numerous measures authorizing the issuance of bonds and the raising of the maximum debt limit of localities for the purpose of providing funds for the erection of additional school buildings. Far more important than this, however, are the measures calculated to improve the sanitary conditions of the schools. North Dakota (chap. 96, 1907) provided for special inspection of schools with reference to sanitary conditions, and for the furnishing of plans of one and two room schoolhouses by the state superintendent. Tennessee (chap. 234, 1907) and Wisconsin (chap. 425, 1907) authorized the state superintendent of public instruction to prepare and distribute plans of school buildings to local authorities. Pennsylvania (chap. 240, 1907) provided by a definite measure for the proper heating and ventilation of school buildings. Wisconsin (chap. 600, 1907) established and encouraged a new standard of sanitation for rural schools through a provision relative to special state aid.

MEDICAL INSPECTION.

Closely connected with these measures for the improvement of the sanitary conditions of school buildings are those relating to the physical condition and medical inspection of school children. Connecticut (chap. 207, 1907) provided for the appointment of school physicians and nurses by local boards. Massachusetts (chap. 357, 1907) made a pioneer move by enabling Boston to solve many of the problems of a large municipal school system through the appointment of school nurses.

OTHER LEGISLATION.

The major part of the legislation dealing with secondary education is related to providing increased educational facilities for the pupils of rural school districts. The measures enacted in Alabama, California, Colorado, Illinois, Kansas, Montana, Nebraska, Nevada, North Carolina, and South Carolina, relative to county high schools, afford interesting evidence of the progress that is being made in this direction. Seven States—Alabama, Connecticut, Maine, North Carolina, South Carolina, North Dakota, Vermont, and Wisconsin—either established or extended the system of state aid to high schools.

The decisive manner in which several States have recently legislated against the so-called high-school fraternity is a partial indication of the importance that these organizations have assumed in the secondary schools of those States. The measures of Indiana (chap. 278, 1907), Kansas (chap. 320, 1907), Minnesota (chap. 149,

1907), and Ohio (H. B. 1120, 1908) are likely to be imitated by other States in which the high schools have this problem to deal with.

The act of the Massachusetts legislature (chap. 295, 1907), enlarging the powers of the school committee of the city of Boston in respect to physical education, is easily one of the most noteworthy and far-reaching measures that has been enacted during the period. It paves the way for a new series of activities for the public schools of that city, and, in operation, will probably teach much regarding the responsibility of the school for the physical life of the child.

The legislation relative to higher educational institutions, excepting normal schools, is generally unimportant, apart from that portion dealing with increased appropriations. Florida (p. 767, 1907) submitted an amendment to the constitution providing a one mill state tax for certain institutions. Michigan (chap. 303, 1907) increased from one-fourth to three-eighths of a mill the tax for the university. Oregon (chap. 64, 1907) increased the annual appropriation for the university from $47,500 to $125,000. Wisconsin (chap. 105, 1907) removed the tuition fees in the law college.

Wisconsin enacted three measures which are worthy of a special place in the list of important legislation upon popular education: (Chap. 75, 1907) relating to lectures for adults, under the direction of the municipal school boards; (chap. 307, 1907) providing that free libraries may employ lecturers and for cooperation with the university and free library commission for the encouragement of the wider use of educational books, and (chap. 413, 1907) appropriating $20,000 annually to enable the regents of the university to carry on education extension and correspondence teaching.

III.—SUMMARY OF STATE LEGISLATION, OCTOBER 1, 1907, TO OCTOBER 1, 1908.

The legislatures of comparatively few States are in regular session during even-numbered years; consequently the educational legislation of the past year is very considerably less in volume than that of 1907. Nevertheless, the year 1908 records some notably progressive steps in the systems of public education of those States the legislatures of which were in regular or special session. In thirteen States—Georgia, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, New Jersey, New York, Ohio, Oklahoma, Rhode Island, South Carolina, and Virginia—regular legislative sessions were held. The legislatures of Indiana, Kansas, Louisiana, New York, North Carolina, and West Virginia were in extraordinary session.

Of the items of general administrative importance, the following seem to be worthy of special mention: Kentucky (chap. 65, 1908) created an educational commission to make a thorough investigation

of the whole school system and of all the educational interests of the State, and to submit a report of recommendations to the next legislature; by this act Kentucky followed Illinois, Iowa, Pennsylvania, Tennessee, North Dakota, and Washington in the endeavor to provide for a rational and progressive reorganization of the system of public education. By another comprehensive enactment (chap. 56, 1908) that State provided for a new plan of administering and supervising the common schools, by making the county the unit of educational organization. The constitutional convention in Michigan proposed several important changes in the article concerning public education; this new constitution is to be voted on at the November election, 1908. The enactments of the first state legislature of Oklahoma possess a particular interest for students of contemporary educational affairs. In connection with this general group of enactments, that providing against the various forms of nepotism in educational administration and institutions (p. 573, 1908) and that providing for separate schools for the white and colored races are significant. Virginia (chap. 272, 1908) created a commission to devise a stable plan for the maintenance, management, and expansion of the various educational institutions of the State. The extraordinary session of the West Virginia legislature adopted a complete revision of the educational code of that State. This revised code, which is too lengthy to permit of a detailed analysis in this place, contains important provisions relative to the organization of a state board of education, district supervision of schools, consolidation of schools, increased salaries for teachers, special state aid to secure the maintenance of the minimum school term of six months, and compulsory education.

Louisiana (act 28, 1908) proposed an amendment to the constitution so as to permit an increase of the annual salary of the state superintendent of public instruction to $5,000. Mississippi (chap. 145, 1908) and Virginia (chap. 284, 1908) made definite provisions for the increase of the annual compensation of this officer. Louisiana (act 49, 1908) raised the standard for local school supervision by prescribing a certificate of eligibility for parish superintendents and also by giving to such superintendents the power of nominating teachers; (act 232, 1908) made the parish superintendent the parish school treasurer. Virginia (chap. 244, 1908) enacted an important amendment increasing the compensation and fixing the professional status of division (county) superintendents.

By the creation of a "service fund," Ohio (p. 322, 1908) made a definite and important provision for the expenses of the members of boards of education, actually incurred in the performance of their duties; this "service fund" may equal 5 cents for each child enrolled in the public schools. By the side of this act stands that

(p. 105, 1908) providing compensation at the rate of "two dollars for each meeting actually attended for not more than ten meetings in any one year," for members of township boards of education. The duty of providing "proper school facilities" was emphasized by the Ohio legislature (p. 51, 1908) by fixing the continuance of the annual sessions of the public schools at thirty-two weeks (formerly seven months). The enactment of the Rhode Island legislature (chap. 1560, 1908) requiring superintendents of schools to hold a certificate of qualification from the state board of education may be regarded as significant of a trend of our educational progress.

The legislation in Oklahoma with reference to state school lands and state school funds is not without great interest. The appropriation by Congress, June 16, 1906, of $5,000,000, in lieu of sections sixteen and thirty-six and other lands in Indian Territory, is converted to the common school fund of the State (p. 662, 1907, 1908); other measures provided that one-half of the inheritance tax should go into the common school fund (p. 733, 1907, 1908), and that one-half of the income tax should be devoted to like purpose (p. 730, 1907, 1908).

There is a noticeable continuation of the legislative activity to increase the amount of direct state aid to the several classes of elementary and secondary public schools. The enactments of Ohio (p. 523, 1908), West Virginia (chap. 9, 1908), Maryland (Gen. Ed. Act, 1908), Massachusetts (chap. 427, 1908), and Virginia (chap. 284, 1908) have attracted especial attention.

The legislation of South Carolina (chap. 473, 1908) exempting the school district bonds from taxation, and that of Louisiana (act 27, 1908), Ohio (p. 519, 1908), Oklahoma (p. 671, 1908), and Virginia (chap. 210, 1908), all relative to local taxation for school purposes, are indicative of the endeavor to provide more general support for public schools.

The question of the safety and sanitation of public school buildings seems to have received special attention from the legislatures meeting during the past year. The Collinwood disaster spelled a lesson for the public schools of Ohio. At least two of the enactments of the legislature of that State call for a special commendation; H. B. 1225, 1908, provides for definite fire and sanitary inspection of school buildings as well as the approval of plans of buildings erected; H. B. 1166, 1908, endeavors to provide for the further protection of the lives of school children by prescribing a compulsory fire drill for both public and private schools. Virginia (chap. 187, 1908) laid down detailed requirements concerning the construction, ventilation, lighting, and sanitation of school buildings and also provided for a system of approval of building plans. Louisiana, by a number of special enactments, and Rhode Island, as a section of the general law regulating

liquor licenses (chap. 1583, 1908), established prohibition districts in the neighborhood of public schools.

Ohio (p. 350, 1908), Louisiana (act 174, 1908), Maryland (chap. 635, 1908), Oklahoma (p. 668, 1907, 1908), and West Virginia (chaps. 323, 324, 325, 1908) enacted important measures relative to the examination and certification of teachers.

The legislation respecting teachers' salaries and pensions continues the encouragement derived from the activity of the year 1907. Maryland (chap. 635, 1908) established a minimum salary schedule for white teachers. Ohio (H. B. 1302, 1908) made a special appropriation of $45,000 to make her minimum salary law effective so far as weak school districts were concerned. West Virginia (chap. 26, 1908) raised the scale of her already established minimum salary schedule. Massachusetts (chap. 498, 1908) authorized cities and towns, excepting Boston, to establish pension funds for public school teachers, and Virginia (chap. 313, 1908) provides definitely for a retirement fund for public school teachers. Louisiana (act 219, 1908) authorized the Louisiana State University and Agricultural and Mechanical College and Massachusetts (Resolves, chap. 138, 1908) authorized the Massachusetts Agricultural College to accept the benefits of the retiring allowance system of the Carnegie Foundation.

As regards the provisions for the training of public school teachers, the legislation of the year yielded several positive results. Kentucky (chap. 5, 1908) made liberal appropriations to the state university and to the state normal schools, and also established a department of education with collegiate rank in the university; an amendment (chap. 62, 1908) to the normal school act of 1906 divided the State into two normal school districts and made definite provisions as to the granting of teachers' certificates to the graduates of the normal schools. New Jersey (chap. 55, 1908) established and made provisional appropriations for summer courses in elementary agriculture, domestic science, and manual training for teachers. In the agricultural education act (p. 13, 1907, 1908), Oklahoma made an especially noteworthy provision for the training of teachers in agriculture. Virginia (chap. 284, 1908) appropriated $75,000 for the establishment of two state normal and industrial schools for women, and provided for the organization and control of these schools. The demand for properly trained rural school teachers also led Virginia (chap. 67, 1908) to provide for professional instruction in approved high schools and to make an appropriation of $15,000 for this purpose.

The widespread contemporary movement for certain forms of technical and industrial elementary and secondary schools led to the enactment of several interesting and significant measures. Massachusetts (chap. 572, 1908) amended the industrial education commission act of 1906 so as to admit one woman to the membership of the

commission, and also to make possible the attendance of pupils at independent industrial schools outside of the town of residence, the town of residence to pay tuition. Mississippi (chap. 102, 1908) established an agricultural high school in each county in the State, provided for the support of these schools by local taxation, and extended state aid. New Jersey (Jt. Res. 11, 1908) and Maryland (chap. 367, 1908) followed Massachusetts and created commissions on industrial education to report to the legislatures of 1909 and 1910, respectively. The general industrial and trade school act of New York (chap. 263, 1908) is easily one of the most important bits of constructive legislation of the year. Alongside of it belongs the comprehensive system of agricultural education provided in Oklahoma (p. 13, 1907, 1908), in conformity to section 7 of the new constitution; definite provision is made therein for agricultural instruction in the normal schools, for a chair of agricultural education in the agricultural college, for secondary agricultural schools, and for short courses for farmers at the agricultural experiment station.

In the field of secondary education the amendments to the county high school law in Kansas (the Barnes law) and the provisions for the establishment and maintenance of county high schools in Kentucky (chap. 56, 1908), are selected for special mention.

Ohio gave evidence of confidence in her plans for the consolidation of rural schools and the transportation of pupils by passing several important amendments to the existing laws upon the subjects (pp. 234–235, 265). The revision of the educational code of West Virginia likewise incorporated important sections concerning consolidation and transportation. Closely related to this general problem of education in rural districts is the Virginia measure (chap. 316, 1908) providing for the establishment of libraries in rural schools.

Ohio (p. 85, 1908) gave specific recognition to some of the more modern developments of public education by authorizing cities to maintain normal schools, summer and vacation schools, school gardens, and playgrounds.

The subject of compulsory education received attention from practically every one of the legislatures meeting during the year. By the creation of the permanent census board for New York City (chap. 249, 1908) New York has led the way in providing a progressive scheme for the enforcement of compulsory education in our larger cities. Kentucky (chaps. 66, 68, 1908), Louisiana (act 301, 1908), New Jersey (chap. 231, 1908), and Ohio (p. 30, 1908), either by amendments to the child-labor law or the compulsory-education law, endeavored to secure to children their educational rights. Mississippi (chap. 99, 1908) and Virginia (chap. 301, 1908) passed new acts regulating the employment of children, which, while without definite educational provisions, are bound to make their influence felt in this

direction. Oklahoma (p. 393, 1907, 1908) passed a new compulsory-attendance law for children between the ages of 8 and 16 and also made at the same time a noteworthy provision for educational scholarships in certain cases of indigence. Virginia (chap. 364, 1908) made an effort to establish the compulsory education principle by providing for enforced attendance of children between 8 and 12 in certain cases; the measure is optional, however, by the communities affected. The new educational code of West Virginia likewise contains an important new section on compulsory education.

The physical welfare of children in the public schools was responsible for the passage of two important acts, Louisiana (act 292, 1908) and Virginia (chap. 377, 1908) providing for the testing of the sight and hearing of the public school children. Massachusetts (chap. 189, 1908) amended in several particulars her medical-inspection act of 1906.

Oklahoma (p. 680, 1907, 1908) provides for a state text-book commission and prescribed in great detail its powers and procedure in operation. Maryland (chap. 635, 1908) appropriates annually $150,000 to aid in providing free text-books.

Of the legislation relating to higher and professional education the following seem to call for special attention: Kentucky (chap. 3, 1908) reorganized the agricultural and mechanical college, making it the state university and establishing departments of law and medicine. New York (chaps. 200, 201, 1908) established two state schools of agriculture, one at Morrisville, N. Y., and the other at Alfred University. Oklahoma (p. 621, 1907, 1908) and Virginia (chap. 247, 1908) each provided for the establishment of a state school of mines. Ohio (p. 262, 1908) sought to extend the control of the State over all degree-granting institutions. Virginia (chap. 284, 1908) provided for a students' loan fund for students in the higher educational institutions in the State.

Oklahoma (p. 617, 1908), Ohio (p. 598, 1908), and North Carolina (chap. 141, 1908) passed measures relative to the education of deaf, dumb, and blind children.

Kentucky (chaps. 28, 60, 67, 1908), Louisiana (chap. 83, 1908), and Ohio (chap. 192, 1908) amended in important particulars the existing laws relative to the care and education of dependent, neglected, and delinquent children. Louisiana (chap. 245, 1908) proposed a constitutional amendment so as better to provide for these classes of children and also for the establishment of juvenile courts.

CHAPTER III.

EDUCATION IN PORTO RICO.

The following statistics of the schools of Porto Rico for the fiscal year ending June 30, 1908, are taken from the report of the commissioner of education of that island, Dr. E. G. Dexter. Note is also made of the new legislation relating to the schools, which Commissioner Dexter regards as of special importance.

Summary of statistics for the school year 1907–8.

Number of pupils actually enrolled in all schools, including special schools:	
White—	
Males	34,932
Females	24,853
Total	59,785
Colored—	
Males	11,419
Females	8,548
Total	19,967
Total white and colored—	
Males	46,351
Females	33,401
Total	79,752
Total number of pupils actually enrolled in the special schools	5,638
Total number of pupils actually enrolled in the common schools	74,114
Reenrollments, or duplicates	6,296
Average daily attendance during the year, for the whole island, in the common schools	54,375
Average number of days each school was actually kept:	
Common schools	167.27
Special schools	157.00
Number of buildings in use for schools during the year (town, 189; rural, 610)	799
Estimated value of all insular school buildings	[a]$564,825.47
Rental value of other buildings	$66,517.86
Number of pupils enrolled in public high schools	217

[a] Including entire expenditure made by the insular government under direction of the department of education, in connection with the acquisition of property and with the erection of school buildings since the establishment of civil government.

Total number of different teachers employed in the common schools at the end of the year:	
White—	
Males	578
Females	571
Total	1,149
Colored—	
Males	83
Females	99
Total	182
Total white and colored—	
Males	661
Females	670
Total	1,331
Total number of different teachers employed in the special schools at the end of the year	21
Total number of different teachers employed in all schools at end of the year	1,352
Monthly salary of teachers as fixed by law during the year 1907–8: [a]	
Preparatory teachers	$20
Rural teachers—	
Second class	35
Third class	30
Graded teachers—	
First class	55
Second class	50
Third class	45
Teachers of English—	
First class	75
Second class	65
Principal teachers—	
Second class	75
Third class	70
Allowances for house rent in addition to all these amounts:	
Rural teachers, not less than $3 nor more than	8
Graded, principal, and special-work teachers, not less than $10 nor more than	15
Total expenditure for school purposes, 1907–8:	
By insular government	$752,537.25
By local governments	340,774.54
Total	1,093,311.79

An act of the Porto Rican legislature which Commissioner Dexter regards as likely to affect the school system of the island in an important way is described by him as one which changes what has been virtually a county system of organization to a city system. He explains that the island has been divided into school districts which are entirely too large for proper supervision, and it was the purpose

[a] Special teachers as per special contract.

of the act in question to remedy this condition by redistricting the island. The law, accordingly, now provides that eventually each one of the municipalities of the island shall be a distinct school district. The districts are of three classes: The first class consists of municipalities with 100 schools or more; the second, of municipalities with from 50 to 100 schools; and the third of municipalities or groups of municipalities having less than 50 schools. The officer at the head of each district is known as the supervising principal. Three general superintendents are also provided for by this law. Moreover, the school funds were increased by raising the quota allowed the schools out of the general tax of the island from 17 to 22.5 per cent thereof. The legislature was equally generous in the matter of scholarships, the acts on this subject which are of most general interest being the one which increased the annual value of the 25 scholarships held by young men for the purpose of study in the colleges and universities of the United States from $400 to $500 a year, and the one establishing 14 scholarships for women, of a value of $500 each, also for purposes of study in the United States. Only young women who have graduated with high rank from some one of the high schools of the island, or from the insular normal school, are eligible for these scholarships, and each must agree to return to the island upon the completion of her studies and devote four years to the service of the public schools, in return for proper compensation.

The average salary of the public school teachers of Porto Rico was raised to $50.48 per month by the recent legislation.

CHAPTER IV.

EDUCATION IN THE PHILIPPINES.

The following account of the condition of education in the Philippines is composed of extracts from the report of the secretary of public instruction of the islands for the year ending June 30, 1907, and shows the continuance of the efforts to make the primary schools efficient and beneficial to the natives. The declared policy of the education department is to extend industrial, agricultural, and domestic science training, and so make the schools of practical value to the lower classes of Filipinos.

SCHOOL DIVISIONS.

Public educational work in the islands is now performed under the bureau of education, with a central office located in Manila, having 37 divisions, each in charge of a division superintendent, embracing in all 379 school districts, each in charge of a supervising teacher. The total number of schools in operation during the past school year was as follows:

Kind of school.	School year 1906–7.	School year 1905–6.[a]	Increase.
Primary schools	3,435	3,108	327
Intermediate schools	162	92	70
Arts and trades	32	17	15
Agricultural	5	2	3
Domestic science	17	8	9
Provincial high schools	36	36	.....
Total	3,687	3,263	424

[a] Data compiled in March, 1906.

SCHOOL CONSTRUCTION WORK.

On June 30, 1907, there were either contemplated or in course of construction, in addition to the above, the following school buildings throughout the islands:

Primary schools	25
Intermediate schools	3
Arts and trade schools	5
Provincial high schools	7
Total	40

INSULAR TRADE SCHOOLS.

During the past year the insular school of arts and trades at Manila has been moved to much better quarters in Calle Arroceros, and now occupies a portion of the buildings and property formerly used for the construction and

repair shops of the city government. New machinery has been installed and the equipment has been generally improved and increased. Instruction is now given to some 350 pupils in this school in the following branches: English, arithmetic, geography, mechanical drawing, wood working (bench work, carving, turning, and cabinetmaking), iron working (bench work, filing, blacksmithing, and iron machine work), and finishing, including painting and varnishing.

It is the intention of the secretary to establish 2 new departments in this school, to embrace instruction in boat building and in wheelwrighting. At the present time there are on the waiting list some 200 pupils who seek admission, but for whom no accommodations are available.

FILIPINO GOVERNMENT STUDENTS.

During the past year there have been in the United States 186 Filipino students appointed under the terms of act No. 854. These students have been engaged in the following branches of study: 18 in law; 53 in engineering; 26 in agriculture; 45 in normal work; 12 in medicine; 3 in business colleges; and 29 in architecture, music, science, art, lithography, and various other branches of study. Some 46 have recently returned from the United States and under the terms of said act most of them have been appointed to positions by the bureau of education as insular teachers at salaries ranging from ₱840 to ₱960 per annum. During the past year 5 new appointments of government students to the United States have been made.

The expense of maintaining the government students in the United States last year was ₱184,583.52 ($92,291.76).

TEACHING FORCE.

On June 30, 1907, the American teaching force in these islands consisted of 717 permanent and 109 temporary appointees.

Since the organization of the bureau of education there have been 2,279 American regular teachers and superintendents appointed, over 1,000 of whom were appointed in the year 1901. The number separated from the service during this time has been 1,519, leaving 760 regular American teachers and superintendents in the service on June 30, 1907.

The total annual salaries for American teachers amounted to ₱1,783,401.28 ($891,700.64).

During the school year 1906–7 there were employed by the bureau of education 6,141 Filipino teachers, 485 of whom were insular and 5,656 municipal teachers.

The average annual salary of Filipino insular teachers was ₱533.20 ($266.60) and of municipal teachers ₱210.36 ($105.18).

The average annual salary of American teachers was ₱2,449.32 ($1,224.66).

NUMBER OF SCHOOLS.

During the past school year there were no changes in the number (1,020) of central municipal schools as given in the last annual report of this department. There were, however, 2,415 barrio schools, as compared with 2,088 at the time of the last annual report, an increase of 327. The total number of schools now in operation in the islands is 3,687, according to the definition previously given in this report, as compared with 3,263 at the time of the last annual report, an increase of 424.

During the past school year 327 additional primary, 70 intermediate, 15 arts and trades, 3 agricultural, and 9 domestic science schools have been opened, a total of 424.

ENROLLMENT AND ATTENDANCE.

The total enrollment in the public schools for the year, exclusive of the Moro Province, was 479,978. The average total enrollment by months was 346,245, of whom 214,960, or 62 per cent, were boys and 131,285, or 38 per cent, were girls.

The average daily attendance was 269,006 pupils. The average number of pupils belonging to all the schools was approximately 316,000, making an average percentage of attendance of 85, or substantially that of the preceding year. The highest percentage of attendance, 94 per cent, was in the city of Manila and in the provinces of La Union, Tarlac, and Zambales. The lowest percentages of attendance, 78 and 79 per cent, were found in the provinces of Antique and Rizal, respectively.

The average total of enrollments by months in the primary schools for the last school year was 332,634, or 32,699 less than the total number reported for March of the preceding year. It should be stated, however, that the month of March of the preceding year was one of the best of the year and the enrollment for that month does not represent the yearly average. The average enrollment this year is approximately the same as that of the past year.

Further enrollment under present conditions is practically out of the question, owing to the fact that the municipalities throughout the islands have not sufficient funds to employ a larger number of teachers or to construct additional primary schools in the towns and barrios, and inasmuch as the present force of municipal or primary teachers has as large a number of pupils as it can successfully manage, further increases in enrollment in primary work must await the coming of additional funds.

INDUSTRIAL AND AGRICULTURAL SCHOOL WORK.

During the past year the dominant note of the policy of this department has been the extension throughout the islands of facilities for giving education along the most practical lines of industrial, agricultural, and domestic science training. A large proportion of the funds appropriated from the insular treasury for school construction has been expended for schools of arts and trades, and the proportion so expended in future will be even greater. In an address delivered by the secretary at the annual convention of division school superintendents, which was held in Manila on January 14 to 20, 1907, special emphasis was laid upon the importance of this feature of public educational work. It was pointed out that along the lines of purely academic instruction most satisfactory progress has been made, but that an immense field for the development of the more practical lines of education still lay before the department.

The situation of the people of these islands, their previous training and habits of thought, the industrial and agricultural depression which has existed here for the past ten years, and the necessity of making every member of the community a self-supporting individual at the earliest practicable date, all counsel and urge the establishment and maintenance of the most extensive industrial school system throughout these islands which the finances of the government will permit. It is gratifying to note that exceptional aptitude and ability have been shown by Filipino boys for acquiring industrial training, and their remarkable dexterity in the use of modern tools and implements gives assurance of their continued enthusiasm and of the most substantial and practical results from this line of instruction. Pursuant to this general plan it has been decided to extend the primary industrial work throughout all the grades of the primary course for both boys and girls. This work includes weaving, hat making, drawing, elementary agriculture, wood working (ship and car-

pentry), elementary pottery and masonry, making of rope, cordage, brooms, brushes, etc., for the boys, and weaving, sewing, cooking, dyeing, bleaching, hat making, and pottery for the girls.

It has been the pleasure of the secretary during the past year to see, on trips through the various provinces, evidences of the substantial progress now being made in imbuing the minds of the young Filipinos with the idea of the dignity of manual labor and of the lasting benefits of patient, consistent, honest toil.

The spectacle of the pupils of a school of arts and trades at work, under the direction of their American teacher, in constructing a permanent and substantial industrial school of cement blocks, molded and laid by the pupils themselves, all without cost to the government other than for the necessary materials, is to some extent a refutation of the ill-founded statement which has not infrequently been heard to the effect that the educational work in these islands is of an impractical and visionary character. The frequent suggestions which have appeared in the public press to the effect that manual training should be installed in the schools seem to take no account of the fact that this practical form of education has been one of the keynotes of the government's policy since the establishment of the public school system.

EDUCATIONAL WORK AMONG THE NON-CHRISTIAN TRIBES.

In the annual appropriation bill for the bureau of education for the present fiscal year there has been included a special appropriation of ₱75,000 for the extension of educational work among the non-Christian tribes of the islands. It is intended to employ these funds principally in establishing industrial and agricultural schools among these people, who are peculiarly fitted in most instances for the acquisition of these lines of practical knowledge. Modern wood-working and iron-working tools and modern agricultural implements appear to exercise a peculiar fascination upon many of these people, and they are only too anxious to have an opportunity of using the same. In nearly every instance they have shown the utmost willingness to contribute their labor to the building of schoolhouses, and their efforts in this direction most decidedly merit continued consideration at the hands of the government. It is recommended that at least an equal amount be appropriated by the government each year hereafter for the continuance of this special line of educational work.

PHILIPPINE MEDICAL SCHOOL.

As was stated in the last annual report of this department, act No. 1415, passed December 1, 1905, authorized the establishment and incorporation of the Philippine medical school. Since then certain additional legislation upon this subject has been enacted. By act No. 1632, passed April 25, 1907, certain free scholarships were established for this school, to be obtained by competitive examination, and the graduates of the school who received the degree of doctor of medicine were authorized to practice medicine and surgery in these islands without taking the examination prescribed by act No. 310. This latter privilege was also extended by act No. 1651, passed May 18, 1907, to any other medical school or college in these islands which complied with certain conditions set forth therein, one of which was that said schools should be subject to the supervision of the board of control of the Philippine medical school in regard to their curricula, text-books, laboratory work, methods of instruction, student work, and examinations. Application has been made by the medical school of the University of Santo Tomas in Manila to avail itself of the privileges of said act.

Section 3 of act No. 1632 establishes for each province in the islands one free scholarship in the Philippine medical school to be awarded as the result of a competitive examination to be prescribed by the secretary of public instruction. Successful competitors become government students, are allowed the expenses of their transportation to Manila, their board, subsistence and maintenance, not exceeding ₱500 per annum each, while in Manila attending the medical school, and their transportation returning to the provinces after receiving the degree of doctor of medicine. Every such student must agree that, unless he accepts some appointment under the government of these islands, he will return to his province and practice medicine and surgery there for a period at least equal to the time of his scholarship tuition, unless he be specially exempted by the government. The object of this provision is to secure doctors in the provinces, where, at the present time, there are practically none and the great majority of the people are born and die without ever having a doctor's services.

The sum of ₱147,000 has been appropriated to meet the expenses of the medical school for the present year. Of this amount ₱25,000 was granted for the purpose of establishing 50 additional free beds in some suitable hospital in the city of Manila, in order to afford clinical material for the work of the school.

By act No. 1688, passed August 17, 1907, the sum of ₱250,000 was appropriated for the construction, on a suitable site in Manila, of a modern cement and steel building for this school. Work upon the plans for this building is now under way, and the construction will be commenced at an early date. Plans for the new building call for a structure with the most modern class-room and laboratory facilities, estimated to accommodate eventually nearly 200 students. It will be 3 stories high, with a frontage of 60 meters and a depth varying from 10 to 19 meters.

The entire facilities of the government for clinical, pathological, and other research work will thus be available for the students of the Philippine medical school.

In connection with the medical school free clinics have already been established in Manila. The work of these clinics is rapidly increasing in volume.

During the month of September last the total number of patients treated in these free clinics was 822, of whom 428 were men, 288 women, and 106 children. The medical patients numbered 492; the surgical patients 236; the children's clinic had 73; the eye, nose, and throat patients numbered 19; and obstetrical patients 2. Nine hundred and twenty-five prescriptions were filled during the month.

A contract has been entered into by the board of control of the Philippine medical school with St. Paul's Hospital, Manila, for the establishment of 50 free beds in that hospital, under the direction of the committee on clinical work of the faculty of the Philippine medical school.

NURSES' TRAINING SCHOOL.

There has been established in Manila, commencing with the present school year, a nurses' training course in connection with the Philippine normal school. The object of this course is to give to young Filipino women practical instruction in the care of the sick, in the simpler methods for the prevention of disease, and very careful and thorough instruction in the rules of household hygiene. There are now 15 young women taking this course. If circumstances in future shall permit, it is the intention to extend this course so as to provide eventually a complete course of instruction for trained nurses.

The course prescribed for medical students is five years. At the beginning of the present school year there were in the school 55 students, divided as follows:

First year	18
Second year	8
Third year	12
Fourth year	17
Total	55

The students of the second, third, and fourth years have been admitted as special students not candidates for a degree, and only after passing examinations, conducted by the faculty of the school, covering substantially the work of the preceding years as prescribed by said faculty. Their standing in their classes and the general character of their work are given consideration in establishing their final status before the time which would be the normal one for their graduation is reached, when they will be admitted as regular candidates. A great increase in the number of students is confidently expected at the beginning of the next school year.

FINANCIAL STATEMENT.

The expenditures on account of salaries and wages for the fiscal year 1906–7 were as follows:

Teaching force.				Provincial administrative force.		
American, regular.	American, temporary.	Filipino, regular.	Filipino, temporary.	Division superintendent.	Regular clerks.	Total.
₱1,668,445.40 ($834,222.70)	₱91,880.58 ($45,940.29)	₱132,296.52 ($66,148.26)	₱39,237.94 ($19,618.97)	₱224,924.66 ($112,492.33)	₱49,507.44 ($24,753.72)	₱2,206,292.54 ($1,103,146.27)

The total insular, provincial, and municipal receipts for educational purposes during the year amounted to ₱5,757,014.84 ($2,878,502.42). The total expenditures were ₱4,862,445.72 ($2,431,222.86).

CHAPTER V.

THE MODERN ASPECT OF HIGHER EDUCATION IN SPANISH-AMERICAN COUNTRIES.

The following compilation has been prepared in order to afford such an idea of the grade and quality of modern university instruction in Spanish-American countries as can be obtained from the courses of study, the published theses of the students, and the lectures of the professors at the universities of those countries. For this purpose examples are here given from the material afforded by such official publications of universities in Spanish South America, Cuba, and Mexico as are available in the library of the United States Bureau of Education.

A perusal of this material will impress the reader with the almost exclusively modern spirit and the practical tendency of the instruction given. Perhaps one of conservative taste would feel some regret at seeing that the humanities, which have been a guiding influence in modern civilization, besides affording those graces of literary culture that have always been conspicuous in the mental equipment of Latin peoples, are so resolutely suppressed in the courses of study as to give unusual prominence to scientific and technical training.

ARGENTINE REPUBLIC.

UNIVERSIDAD NACIONAL DE LA PLATA.

We begin the review with the Argentine Republic and its latest university. The Universidad Nacional de la Plata is a new institution, the organization of which was completed in 1906, and the entirely " modern " character and scope of its instruction are indicated by the plan of studies, which is taken from the "Archivos de Pedagogía y Ciencias Afines," a work published by the university, while the quality of the work done is illustrated by various papers published in the same journal. The faculties of the university are as follows:

Natural sciences, including geology, mineralogy, paleontology, botany zoology, anthropology, American languages, archeology, and ethnology. The Museum of La Plata is attached to this department, which includes also chem-

istry and pharmacy, physical, political, and economic geography, and map drawing. A cabinet and library are attached to this branch. The drawing school includes geometrical drawing, coloring, and lights and shadows.

The faculty of mathematics and physical science, with the astronomical observatory, includes mathematics—plane and spherical trigonometry, geometry of 3 dimensions, geodesy and astronomy, analytical geometry, topography and topographical drawing, algebra, elementary and higher; physics—general physics, electricity and magnetism, meteorology, and seismics.

The faculty of law and social science includes sociology and Argentine law, history of Roman law, constitutional and provincial public law, commercial law, civil law, criminal law with proceedings, administrative, industrial, and agrarian legislation, proceedings in civil and commercial law, notarial law with practice, international law and history of diplomacy, international private law, and history of representative institutions. Pedagogical section: Anthropology with laboratory study, anatomy and physiology of the nervous system, psychology with laboratory work, methodology, and school hygiene. There is a practice school annexed to this section.

The faculty of agronomy and veterinary surgery includes under agronomy agricultural botany, micrography and pathology of plants, parasitology and entomology, geology and agrology, arboriculture, horticulture, and gardening, with practice, agricultural industries, general agriculture, theoretical and applied mechanics, agricultural machines, viticulture, agricultural chemistry, rural economics, resistance of materials and farm constructions, hydraulics, silviculture and preservation of forests, agricultural zoology, drawing.

Under veterinary surgery are included descriptive and comparative anatomy, experimental and operative surgery, parasitical diseases, general pathology, materia medica and pharmacy, special external pathology, general and special zootechnics, obstetrics, hygiene and the externals of animals, medico-biological chemistry and physics, anatomy and pathological histology, embryology and normal histology, contagious diseases and sanitary policing, medical and agricultural microbiology. A school, zootechnical park, and library are attached to this department.

To illustrate the course prescribed for degrees we take the case of doctor of chemistry. This course includes for the first year the completion of the course in mathematics, organic chemistry, physics, linear and freehand drawing, and laboratory work. For the second year, organic chemistry, mineralogy, geology, botany, analytical chemistry, laboratory work. Third year, organic chemistry, analytical chemistry, botany, experimental physics, laboratory work. Fourth year, analytical chemistry, zoology, elements of higher mathematical analysis, experimental physics, laboratory work. Fifth year, analytical chemistry, chemical physics, microbiology, correlation of the natural sciences. The courses for veterinary surgery and agronomical engineer are equally elaborate.

The faculty of law and social science includes a pedagogical section to which great prominence is given, the course of study being drawn up in minute detail with a description of methods of study, including the anthropometric and psychological study of the individual pupil as well as his education; a series of tables of measurements of school children, observations on the intensity of perception in children—a

study in experimental psychology—a microscopic study of nerve cells, and a short article upon the psychology of success. Students in other faculties who intend to teach are required to take the course prescribed in this section. This course is compared with the corresponding courses given in the programmes of the universities of Wisconsin, Pennsylvania, Michigan, Illinois, Cornell, and Harvard, which are all printed in full for that purpose.

A specimen study of visual and auditory memory by students in the course of "methodology" is given to illustrate the teachings they have received.

The "archivos" further contain an illustrated and learned article on anthropogeny by Prof. Rodolfo Senet, of the university, the diagrams showing the genealogy of man and apes from early forms in the Eocene; a long essay on "psychopedagogics," which here means a treatise on teaching orthography, showing by diagrams the psychical process involved in learning to write, the sources of errors, with lengthy accounts of studies of individuals and tables of experimentation, and methods of instruction derived therefrom, by Prof. V. Mercante, also of the university, and author of works upon zoology. There is also a translation of a paper by Silvanus Thompson on the method of teaching geometrical optics, besides a number of reviews of books and articles in periodicals, principally upon psychology, pedagogics, and allied subjects.

From the foregoing it will be seen that the University of La Plata is exclusively devoted to modern branches of study.

URUGUAY.

THE UNIVERSITY OF MONTEVIDEO.

From the list of its faculties and its course of studies it will be seen that the modern practical tendency in instruction is also followed in the university of Montevideo. The rector states in his report for 1905 that it is the intention of the authorities of the university to give the studies in all the faculties a practical direction. The following are the faculties and the studies they include:

Faculty of law and social science.—Administrative law, civil law, constitutional law, commercial law, political economy, philosophy of law, international law (private and public), legal medicine, judicial proceedings, criminal law, forensic practice, notarial practice, Roman law.

Faculty of commerce.—Accounts, commercial law, civil law and proceedings, drawing, commercial economics and geography, French, English, financial legislation, and counting-house practice.

Faculty of medicine.—Anatomy, pathological anatomy, clinical medicine, clinical surgery, diseases of children, gynecological clinic, otorhine-laryngological clinic, obstetrical clinic, ophthalmological clinic, medical physics, physiology,

hygiene, medical natural history, legal medicine, operations, obstetrics and gynecology, general pathology, medical pathology, surgical pathology, medical and biological chemistry, therapeutics. The course in pharmacy includes general chemical analysis, applied analysis, pharmaceutical physics, materia pharmaceutica, pharmaceutical chemistry, toxicology. There are besides special courses in odontology, clinics—two-year course; a veterinary course—one year, and obstetrics, including anatomy and physiology of child bearing, with preparations.

Mathematical faculty, engineering course.—This course includes superior algebra and spherical trigonometry, calculus, cinematics and dynamics, construction and elements of composition of structures, ornamental and free-hand drawing, topographic drawing, political economy and legislation affecting public works, rational and graphic statics, study and drawing of the orders of architecture, industrial physics, railways, analytical and descriptive geometry, practical hydraulics, public hygiene, machines, materials of construction, topography and practical topography, bridges, ports and light-houses, resistance of materials.

Architecture.—Under this title come superior algebra and spherical trigonometry, laws affecting architecture, calculus, ornamental composition, construction and elements of composition of buildings, ornamental and free-hand drawing, rational and graphic statics, study and drawing of the orders of architecture, study of buildings with a view to their social purposes, industrial physics, analytical and descriptive geometry, hygiene in architecture, history of architecture, materials of construction, topography and topographical practice, complete plans of buildings of the first order and elements of decorative composition, resistance of materials, theory of architecture.

Agrimensure.—This department includes cadastral surveying, higher algebra and spherical trigonometry, calculus, topographical drawing, geodesy and hydrography, analytical and descriptive geometry, practice in geodesy, topography and practice.

Faculty of secondary instruction.—The course of studies in this faculty includes arithmetic and algebra, cosmography, lineal drawing, physics, philosophy, French, geometry and trigonometry, general geography, Spanish and Latin grammar, gymnastics, natural history, universal history, American and national history, literature, chemistry.

The foregoing list of studies shows that the humanities and all literary cultivation are practically ignored in this modern university, as in the Argentine University of La Plata—as much so as in technological institutions in this country. The retention of the university faculties of law and medicine side by side with the purely technological faculties places these institutions in a class by themselves, coming between technical universities and universities proper, and sharing some of the features of each.

CHILE.

UNIVERSIDAD CATÓLICA DE SANTIAGO DE CHILE.

Crossing the Andes to Chile and Peru, we first notice the Universidad Católica de Santiago de Chile, in the foundation of which (in 1888), as might be inferred from the title, the Catholic Church

took the initiative. Yet, as will be seen, instead of having a distinctively religious or theological tendency, as might be expected from the title, the course of study is as modern in its spirit—i. e., as devoid of the humanities or studies relating to literary culture—as those just given for the universities of La Plata in Argentina and Montevideo in Uruguay. It should be said, however, that a four-year course in the humanities is required before admission to the faculties of this university, which would probably be equivalent to the classical college course in the United States. It appears, too, that the humanities will soon form a part of the university course in the faculty of mathematics and the humanities, an estimate for new buildings for this course amounting to $100,000 having been approved by the university authorities in 1902. The following is meanwhile the course of study (1901–2):

Faculty of law.—First year: Philosophy of law, Roman law, political economy. Second year: Canon law, general history of law, the civil code. Third year: International law, civil and criminal codes, agricultural and industrial law. Fourth year: Commercial law, forensic practice, mining code. Fifth year: Administrative law and proceedings in law.

Civil engineering.—Preparatory year: Arithmetic, geometry, algebra, and drawing. First year: Trigonometry, descriptive and analytical geometry, topography, general chemistry, drawing (projections). Second year: Stereotomy, shadows and perspective, calculus, topography, materials of construction, geology, elements of mechanics and stability, principles of construction, drawing (projection). Third year: Principles of construction and stability, hydraulics, roads, railways and tunnels, industrial physics, steam engines and hydraulic motors, electricity, drawing. Fourth year: Stability of structures, hydraulics and maritime constructions, foundations and bridges, administration, drawing. Special class in industrial chemistry.

Architecture.—Preparatory year: Arithmetic, geometry, algebra, drawing. First year: Trigonometry, descriptive and analytical geometry, topography, general chemistry, drawing, practical designing. Second year: Architecture, stereotomy, shadows and perspective, calculus, materials of construction, geology, elements of mechanics and stability, drawing and shopwork. Third year: Architecture and ornamentation, stability of structures, industrial physics, drawing, and shopwork. Special class in industrial chemistry.

The "Anuario" from which the foregoing information was taken contains a number of professional papers by students of the University of Santiago, which were prepared as their graduation theses and correspond to the dissertations for the doctorate at German universities. A brief review of them will give an idea of the quality of the studies the students have pursued and their proficiency therein.

The subject of the first in order is "The elements of remuneration of labor"—an essay in political economy which incidentally deals with the present conditions of unrest in Europe and America, but also goes into the history and economical aspects of the subject very thoroughly. The author takes the ground that the pay of the laborer should be something more than the exact equivalent of his work,

regarding him as a machine; that the employer should take into account that the laborer is a human being with a family and social obligations, and that the element of charity should be considered in determining the question of pay. He refers to Turgot, Ricardo, Stuart Mill, and Karl Marx in the course of his discussion.

The next essay in order is upon a legal subject, "The effects of solidarity upon obligations," which is divided into two parts—solidarity among creditors and solidarity among debtors. The author traces the origin of the legal entity of which he treats to the civil code, and, as might be expected from a student of the civil law, there are references to Roman law and its derivatives in modern European law, e. g., in the French code.

The next paper is upon certain technical legal questions relating to irrigating ditches. The fourth has for its title, "The suspension of payments," and discusses the legal aspects of bankruptcy.

The foregoing learned papers are upon strictly technical law points. The next may be described as an essay in sociology, with the title, "The population of Chile, its composition and movement." The object of the author is to show the present condition of the Chilean population in comparison with the past and to predict a future for it. He remarks that no true idea of the populousness of a country can be obtained from the number of people considered alone, but that the density must also be taken into account. Thus, Russia has a population of 95,000,000 and Belgium of only 6,000,000, but there are only 17 inhabitants to the square kilometer in Russia compared with 208 in Belgium. So the numerical relation of the sexes is important in studying the population, it being found that in countries where emigration is active the women are in the majority, and, conversely, where immigration is active men are in the majority. He further points out the importance of classifying the population as to age, civil condition, etc. He classifies the movement of the population into internal and external; by the former he understands the births, marriages, and deaths, and by the latter immigration and emigration. He argues to disprove Malthus's theory of population, and in his discussion of this and other theories connected with his subject he has at command the statistics of all the countries of Europe and the United States. In his tables of the population of Chile it is interesting to note that he goes back to the year 1542, when there were 200 whites to 350,000 natives, and he continues the table down to 1898, when the population was 3,082,182.

The paper is long and full of interesting discussions relating to all the conditions of the population, supported by statistics, with references to European statistics for the sake of comparison or illustration.

The next paper is an estimate for a military hospital, with specifications and calculations, drawings and diagrams (of stresses), and tables of cost for all details—a strictly technical paper as if from an architect's office.

The next essay (to obtain the degree of civil engineer) has for its subject the survey of a route across a large morass, and involves calculations of the quantity and flow of water, foundations of embankments, drainage, and an estimate of cost of the work. Still another engineering paper gives the calculations for a bridge (involving the calculus), deriving equations for stresses, strains, and loads, etc. The paper concludes with a table of estimates of cost of construction. The final paper published in this volume is for a degree in the faculty of law and political science, and treats of the principle and history of saving and savings banks in foreign countries and Chile.

It will be seen from the foregoing summary of the papers presented for degrees that they are all strictly practical and technical in their character, as if literature and the humanities had never been subjects of study and thought on the part of the students. The papers upon nontechnical subjects, such as those upon political economy and sociological subjects, show that the writers are familiar with the state of opinion of the educated world at large upon the subjects of which they treat, while the strictly technical papers demonstrate that the authors have the qualifications of experts in their particular branches.

PERU.

UNIVERSIDAD MAYOR DE SAN MARCOS.

Turning from this modern institution we notice next the old University of Lima—the Universidad Mayor de San Marcos—which was founded by the Emperor Charles V, in 1551, 56 years before the settlement of Jamestown, Va. The Spaniards founded universities wherever they established colonies. Some of them were perhaps older than this of Lima. They were generally under the direction of the church, and Pope Pius V confirmed the establishment of the University of Lima by a bull of July 25, 1571. According to "Minerva," the university was under the control of the Dominican order from 1553 until December 30, 1571, when by royal decree it was made independent, and thenceforward elected its own rector. From its foundation until the middle of the nineteenth century the reputation of the university was well established in South America. After a period of stagnation following the independence of Peru it was reorganized in 1861 by President Ramon Castilla and revived to new activities and influence.

The change from the old tastes to the new in Peruvian life and the demand for a corresponding change in education is well brought out in a discourse delivered at the opening of the university course in 1900 by Dr. Manuel V. Villarán, professor in the faculty of jurisprudence of the university. He says that the Spanish monarchs and their representatives in the colonies thought very wisely that it would be in the interests of peace to direct the energies of their colonial subjects to study and learning, and in that way divert them from breaking out in undesirable channels. Hence they favored the study of theology, the scholastic philosophy, Roman law, belles-lettres—in other words, the university studies of the time. The Spanish sovereigns attained their object fully, the author goes on to remark, and from those early times the Peruvians have always had a weakness for learning and the higher literary culture. Humboldt declared that he found great intellectual activity in Lima. Another visitor, Richard Palma, was in Peru immediately after the death of the King, Carlos III (1788), and declared that he saw more than a thousand poems in Latin and Spanish lamenting his death posted upon the columns, arches, and walls of the cathedral. The vocation of writing books, sermons, discourses, and verses was general throughout the country.

But what most clearly reveals the literary movement of those times, the author says, is the life of the university. Lima had not been settled 20 years, and was still a poor village, when it asked for and obtained the university. Very soon developed the "diploma disease," the "school epidemic." From Quito, in the north of the continent, to Rio de la Plata, in the south, young men came to Lima eager for the university degrees. There were at one time 1,200 students at the university, which was especially favored by Popes Clement XIV and Pius VI, as well as King Philip II. The degrees acquired an almost sacred character and increased enormously in number.

But it seems there were other universities in Peru besides San Marcos—viz, at Arequipa, Cuzco, and Huamanga—and there were besides various colleges with university rights. All this passion for literary distinction, says Doctor Villarán, is to be explained by the conditions of a profoundly aristocratic and centralized society, in which were many wealthy families of leisure who were excluded from the public service, and without any other outlet for their intellectual energies than literary occupations. This exclusive devotion to literary pursuits, the author remarks with regret, still continues. The number of persons, he says, who feel a vocation to write in prose or verse, well or badly, is surprising. His attitude toward this tendency is shown in the following sentiments:

> This state of things [he says] produces the evils natural to it. It is to be deeply deplored that while Peru is in need of laborious and positive men, those tastes should be cultivated which are usually possessed only by people

of leisure, who can afford to cultivate the imagination. The majority of our poets and literati, with doubtless brilliant exceptions, ought not to waste their time or set a bad example to youth in sterile labor which disturbs the national life. A good workman who makes good shoes, Father Didon used to say, is superior to a would-be writer who makes bad verses or vulgar prose. The general system of Peruvian education [he adds] coincides with these literary affectations. There are 23 colleges of secondary instruction, public and private, but, excepting the engineering school, there is neither a school of agriculture nor a commercial school nor a naval school nor a school of the industrial arts nor of any one of the trades. Secondary technical instruction is unknown, and nearly all the graduates of the secondary schools go to the universities.[a]

Our system of education [he continues] seems to have been deliberately invented for another country and different times. We have an abundance of teachers of history, literature, Latin, theology, law, philosophy, and the higher mathematics, but no one to teach us agriculture or the proper breeding of cattle or forestry or commerce or navigation or manufactures. And as manners depend upon education, so, on the other hand, does education depend upon manners. Notwithstanding our independence, we have preserved much of the old colonial spirit which became rooted in us under the Spanish rule. We still maintain the same ornamental and literary education which the Spanish governors implanted in South America for political purposes, instead of an intellectual training capable of advancing material well being; which gives brilliancy to cultivated minds, but does not produce practical intelligence; which can amuse the leisure of the rich, but does not teach the poor how to work. We are a people possessed by the same mania for speaking and writing as old and decadent nations. We look with horror upon active professions which demand energy and the spirit of strife. Few of us are willing to endure the hardships of mining or incur the risks and cares of manufacture and trade. Instead we like tranquillity and security, the semirepose of public office, and the literary professions to which the public opinion of our society urges us. Fathers of families like to see their sons advocates, doctors, officeholders, literati, and professors. Peru is much like China—the promised land of functionaries and literati.

Doctor Villarán then gives a sketch of the principal professions in Peru, beginning with the clergy, which held the supreme place in colonial times, when the dignitaries of the church lived in palaces like princes, and were the idols of the good colonists, who loved, respected, and feared them, and bequeathed money to them. When independence was effected their supremacy received a great blow. The clergy no longer received the unquestioning support of the Government and people. Their incomes therefore decreased and their political influence became almost negligible. Another fact to which Doctor Villarán calls attention helped to destroy the influence of the clergy, and this was that the Republic brought in its train, in Peru as elsewhere, currents of irreligion, or at least of indifference. The pious fervor of the former time no longer pervaded the upper classes, the clergy became recruited from the lower orders and from Spanish, French, and Italian emigrants, who soon exceeded the native Peruvian priesthood in numbers.

[a] This was written, it must be remembered, in the early part of 1900. Great changes have been made in the matters which Doctor Villarán criticises, since then.

Next to the church the army held the highest place in popular esteem in former times, whereas it has now, says Doctor Villarán, so fallen into disrepute that rich families do not care to have their sons enter it. The profession of law has held its own, notwithstanding a general protest against the excessive number of lawyers. Law and politics are as closely united in Peru as elsewhere, and many lawyers who for any reason do not practice their profession take to public office, or devote themselves to politics as a profession.

With the native tastes thus turning to the unproductive professions it is not surprising to learn that most of the business of Peru is carried on by foreigners, the railroads, the mines, the manufactures, and commerce being largely in their hands, the reason for this being, as Doctor Villarán repeats, that the old aristocratic idea that labor is dishonorable still prevailed very largely among the Peruvian upper classes. No descendant of a noble could engage in any lucrative occupation; it would disgrace him. Labor is for plebeians, and active commerce is hardly less disgraceful than a manual trade. To this feeling the difference of race also contributed; all the whites wished to be, or be like, counts and marquises, and the best way of proving their nobility was by not working. The Spaniards who came to America became the owners of ranches or mines, but did not work themselves. There were negro slaves and Indians to do the actual work. Thus a strong association of ideas was established between labor and slavery, in which the feeling of race played its part, and the whites refused to do the work of slaves of color.

The only remedy for this state of things in Peru, in Doctor Villarán's opinion, lies in a change of views in the upper classes, and he notes with satisfaction that within a few years of his writing a tendency had developed among people of condition to enter into business and the industrial arts, and their example was being followed by others. He devotes some space to demonstrating that the industries require as high intellectual and moral qualities as the liberal arts, and he points out as a patriot the immense advantage the cultivation of these arts will bring in developing the resources of Peru. He concludes with an appeal for the reform of education in order to produce fewer holders of diplomas and more creators of wealth, desiring Peru to follow, in this respect, the example of European countries in which, he says, the Yankee type of education is being more or less adopted.

Probably this brief account of the past condition of education in Peru would apply to the other Latin-American countries, and the changes which Doctor Villarán advocates have been already made, or are in process of making, in those countries.

The two volumes of "Anales" of the University of San Marcos, at Lima, which are at hand, contain other papers by the professors and students, which show sufficiently the modern character of the studies

now pursued there. The titles and abstracts of a number of them are here given to illustrate this fact. The papers were written in 1900–1903, a period which should be taken into consideration in estimating their "modernity."

The next paper after Doctor Villarán's is a thesis for the degree of doctor in letters, entitled "A Psychological Study of Certain Hypnotic Phenomena" (written in 1900). It describes many original experiments and quotes authorities—the names of Charcot, Paul Janet, Bernheim, Lombroso, and others occur—and concludes as follows:

> There are many obscure points in hypnotism which investigation has not cleared up. Psycho-physiology not having yet reached concrete and positive results with regard to the functions of the different zones of the encephalic mass, the mysterious mechanism of unconscious cerebration being still unknown, as are also, for the most part, the physiological conditions of the genesis of consciousness, of the functions of the will, and the other modifications of human intelligence, science must be content to accept the explanations proposed as merely provisional.

The next paper is a dissertation by Francisco Tudela y Varela for the degree of doctor in political and administrative science, and was presented in 1900. Its title is "American International Law," and an abstract is here given somewhat in extenso, on account of the views of the author on the Monroe doctrine. The author divides his subject into two parts, the first treating of the international congresses of Latin America from the congress of Panama in 1826, which met in response to a circular of the liberator, Bolivar, to that of Lima in 1865, the object of all of which was to strengthen the union of the Latin-American States. This part concludes with a discussion of the proposed Pan-American Congress, which, under the initiative of President McKinley, was soon to meet. The second part treats of the Monroe doctrine, its origin, development, and real significance, with a criticism of the perverted interpretations which the author insists have been given it by North American statesmen.

In the first part the author gives a summary of the meetings of the various congresses referred to, which may be epitomized as follows:

> The first of the series met at Panama in 1826 in response to a circular of the liberator, Bolivar, and was designed to form a tribunal of the plenipotentiaries of the various Latin-American States which should serve as a council and conciliatory body in disputes and in other dangers which might threaten the various States, and might also act as an interpreter of treaties, to be, in short, a tribunal of arbitration. This congress was attended by plenipotentiaries from Colombia, Central America, Peru, and Mexico, and even at that early date the United States of North America appointed delegates, who, however, were unable to attend.[a]

[a] This was the period of the Holy Alliance, when the Monroe doctrine was first broached.

This congress of 1826 passed a resolution of confederation between the States represented, an idea which was further discussed at the congress of Lima, 1846–1848, one of the first steps of which was to invite the United States to join the confederation. In 1855, by invitation of the minister of Guatemala at Washington, the representatives of the other American Republics who were accredited to the United States met at Washington for the purpose of carrying out Bolivar's idea of a Latin-American confederacy, the need of which was especially felt at that time because of the expeditions of the American filibuster Walker. These attempts at inter-American confederation failed because political dissensions and the spirit of discord proved stronger than the ideal advantages of the proposed union.

In 1889 the Congress of the United States passed a resolution to invite the other American States to a conference, with a view to discussing and recommending to the respective States a plan of arbitration for the settlement of political and legal questions which might arise between them in the future, and also to discuss matters relating to trade and commercial relations in a way which should be for the best advantage of all. The sessions lasted from October 2, 1889, until April 19, 1890. Only two questions of international law were discussed at this congress, viz, obligatory arbitration and the right of diplomatic protest, and the discussion resulted in nothing, because Chile refused to accept arbitration and the United States would not yield the right of protest. Finally President McKinley in his last annual message to Congress [previous to the writing of this paper, i. e., in 1899], recommended that the American Republics be invited to hold another international congress.

According to this brief historical summary it appears that the Pan-American idea, so far from being a modern invention by North American statesmen, originated with the great South American "liberator" Bolivar, and has therefore a quite respectable age.

The author's account of the Monroe doctrine is in substance as follows:

With the destruction of the Spanish forces in South America upon the field of Ayachucho [December 9, 1824], and the emancipation of the Portuguese colony of Brazil, a conjoined number of new States, mistresses of extensive territories and of riches of all kinds, entered the concert of nations with the most flattering prospects. But the absolute governments of Europe could not see without uneasiness the constitutions of these new States, which were based upon liberal principles. The Holy Alliance, struggling to overthrow liberal constitutions, had just reestablished absolute government in Spain, while the European powers, at the congress of Laibach, declared that they considered any reform which was brought about by insurrection null and contrary to the public laws of Europe, and they were determined to combat the principle of rebellion anywhere and under whatsoever form it might present itself.[a]

There could not have been a clearer and graver menace to the independence of the South American States than this declaration, and, unless the colossus of the north had interposed, the reconquest of the former possessions of Portugal and Spain would certainly have been undertaken, and, considering the strength of the European powers, would doubtless have been effected, in spite of the spirit of liberty which inspired the newly emancipated peoples. The Government of the United States saw the danger to itself in the declaration of the Holy Alliance, and, convinced that its own future was involved with the exist-

[a] Quoted from Calvo, the learned Argentine authority on international law.

ence of the other Republics of America, constituted itself a sentinel to watch over the liberty of those peoples against the ambitions of the European powers. It comprehended that it must prevent, at all cost, the intervention of any European power in the affairs of America.

The author then describes the somewhat involved diplomatic relations between France, Spain, England, and the United States concerning Cuba which led to a further discussion between England and the United States of the relations of all the Spanish colonies to the United States and the European powers and induced President Monroe to prepare his famous message, which was read to the Congress of the United States, December 2, 1823, announcing the principle of autonomy for America, and forbidding all European intervention in affairs on this continent.

According to Calvo [the Argentine jurist and authority upon international law above referred to] the Monroe doctrine consists of two parts. The first simply declares that the United States would consider any attempt upon the part of a European power to extend its political system to the new continent as a menace to the tranquillity and security of the United States. The second declares that the American continents having attained an independent and free condition, which they are maintaining, can never be considered in future as subject to colonization by any European power. President Monroe in his message clearly laid down the principle that as America does not intervene in the affairs of Europe or the European colonies in America, so European governments ought not to intervene in American questions. The United States would consider as an act of hostility any foreign intervention having for its object the oppression of States which have declared their independence and have maintained it. Then, with special reference to Spanish intervention, the message goes on to say: "It would be impossible for an European state to extend its system to any country of America without menacing the welfare of the United States, which can not therefore see with indifference such a policy dominating under any form whatever any of the American territories."

The second principle of the Monroe doctrine originated in the following way: Some attempts of Russia to plant colonies in the extreme northwest of America gave occasion to England and the United States, under the treaty of 1815 relative to the possession of lands in the northern part of the continent, to oppose this colonization. In the course of these negotiations the Government of the United States, through its Secretary of State, John Quincy Adams, declared that the sovereignty of the nations which had been formed in America should be considered as extending to the whole continent, which, since its different peoples had formed themselves into free states and civilized nations, should be accessible to Europeans only upon terms of absolute equality, thus making the Pacific an open sea like the Atlantic, and leaving the navigation of the rivers and jurisdictional waters subject to such authority as the American States should recognize.

Thus the reactionary campaign of the Holy Alliance and the Russian intention to colonize in northwest America caused, as we have seen, President Monroe to publish his declaration. The United States, which had obtained a very considerable development and power at the time of the revolt of the Latin-American colonies, would not consent to the reconquest of those colonies by any European power, because its tranquillity would have been disturbed, its flourishing commerce interrupted, and perhaps its own independence would

have been menaced by such a conquest. It was therefore a question of the highest importance for the northern Republic to prevent any attempt upon the independence of the rising States of Latin America. This was the view of President Monroe and his Secretary of State, Adams, and was expressed in the former's famous message. The Monroe doctrine, then, was not conceived in obedience to a sentiment of chivalrous philanthropy, but was promulgated because the American statesmen felt that the peace and tranquillity of America, the life and development of the great Republic, depended upon the nonintervention of Europe in American affairs; and, just as the only and fundamental cause of the doctrine was to insure the peace and tranquillity of the United States alone, so the inference that the United States furthermore constitutes itself a watchful sentinel, posted to defend the sovereignty of the other American States, is disproved by the events which followed its announcement. They were as follows:

When, in 1826, upon Bolivar's initiative, the representatives of the American Republics assembled at Panama, the United States accepted the invitation to attend and named its delegates, who, however, as has been mentioned, were unable to be present. This Congress, taking the Monroe doctrine as the point of departure, merely discussed the means by which, acting in harmony with the United States, the principles of that doctrine could be carried out. But the Congress of the United States, alarmed at the interpretation put upon the Monroe doctrine by the Congress of Panama, an interpretation which made the United States a member of a confederation with the Latin-American States, hastened to declare that the Government of the United States should not make common cause with the South American States upon the question of new colonizations, but should remain free to act according to circumstances, always, however, in conformity with its sentiments of friendship toward the new States, and with the principles of honor and dignity which were its guides. This declaration of Congress disentangled the United States from any compromising alliance, and gave to the Monroe doctrine the character of a simple protest against European invasions, without committing the United States in any way, and leaving them the greatest freedom of action with regard to their conduct under the contingencies which might arise.

So far we have seen nothing extraordinary in the Monroe doctrine, nothing which could in the least affect the rights of the American States. But there is something curious and extraordinary in the interpretation which some American statesmen have given to the doctrine. Some of them have taught that that doctrine is the expression of a manifest destiny, by virtue of which Europe is to be completely separated from America in order that the United States may extend its authority over the entire American continent. This curious manner of interpreting the doctrine has always had many partisans in the United States, and in recent times has acquired greater importance because the Government has acted in accordance with it in some questions which have arisen.

In 1848 the Government of Yucatan, being unable to suppress an uprising of Indians, applied to the Spanish, English, and North American Governments separately for assistance, offering them the sovereignty and jurisdiction of the country if they would subdue the revolted Indians. The Government of the United States, fearing that Yucatan might fall into the hands of some European state, and basing its action upon the Monroe doctrine, declared that it would never permit such an arrangement. This declaration added a little to the Monroe doctrine, and tended to establish the principle that no American territory could pass into the hands of an European state, not even with the consent of its own government. The same doctrine was maintained in clear and precise terms

in the message of President Cleveland in regard to the question of boundary between Venezuela and the British possessions. The message of Mr. Cleveland, which the American Republics allowed to go unnoticed, established a dangerous precedent. This is shown by the fact that when it was reported that Ecuador intended to sell the Galapagos Islands to an European government the United States offered to buy them, implying at the same time that no European government would be allowed to acquire them. Very recently it has also been rumored that the United States have purchased the Danish West Indies to prevent their sale to an European power.

The facts which we have presented reveal clearly the plan which the North American statesmen propose to follow. It is well the United States should prevent, at all cost, the European governments from extending their dominion over the American continent. This is a question which concerns the Latin Republics more than the United States, because their tranquillity and even their existence would be endangered by the dominion of governments whose policy consists in dividing the world. But to attain this object it is not necessary to impair the sovereignty of the American States or diminish their primordial rights. The United States could have invited all the States of the continent to subscribe an agreement not to cede any territory whatever to any European power. It would not have been difficult to obtain an agreement of this kind. Indeed, the treaty of 1856 and the project of the treaty of defensive alliance between the American Republics adopted by the conference of 1865 contained such a stipulation.

The geographical situation of Central America is such that the nation which should possess a canal through it would hold, as it were, the key of the world. This consideration led England, in 1838, to seize the Bay Islands belonging to Honduras. When the Government of New Granda, in 1849, granted the United States the concession to build the Panama Railway, England succeeded in inducing the Washington Government to sign the Clayton-Bulwer treaty in 1850, by which it was agreed that neither of the contracting parties should either possess or colonize any territory in Central America or hold exclusive control of a canal. But in 1856 England attempted to plant a colony in Central America, an attempt which led to a sharp correspondence with the Government of the United States and nearly threatened a war between the two countries. This difficulty having been settled, the Clayton-Bulwer treaty remained in force, the two Governments parties thereto treating with each other alone, without reference to the Governments of Honduras or other Central American States. But the United States, being desirous of opening a canal through Central America which would facilitate the operations of its fleet and the development of its commerce, and finding its hands tied by the Clayton-Bulwer treaty, succeeded in negotiating the Hay-Pauncefote treaty with England, by which the former treaty was abrogated and the Government of the United States was authorized to construct a canal in Central America and control its navigation, fortification, and police.

The author then quotes passages from the message of President Buchanan in 1857 and from a speech by Senator Brown in 1858 to show that Americans had begun at that early date to proclaim the doctrine that it is the "manifest destiny" of the Anglo-Saxon race (by which was meant the American nation) to extend itself over the whole American continent, including Central America, and that this destiny would be supported by arms if necessary.

The author concludes by disclaiming any sentiment of animosity against the United States, a country which merits admiration for its

immense development and the prodigious activity by which it has been enabled to outstrip the old nations of Europe; but those who do merit censure, he adds, are the statesmen of the Latin-American States who have conducted international negotiations of transcendent importance to their own peoples in the same narrow spirit of utilitarianism with which they would engage in mere commercial or financial combinations.

The next thesis for the degree of bachelor in the faculty of political and administrative sciences is by Luis Miro Quesada, and is entitled "The Modern Social Crisis." It is a study of the labor question from the earliest times to the present, and in all countries, including India and China, as well as Europe and the United States. Many laws relating to labor in these countries are cited and their effects discussed.

For the same degree the next thesis, by Mario Sosa, has for its title "Communism in the Empire of the Incas." The author describes the singular communistic organization of Inca society, which fulfilled in many respects the ideal of communism, according to which the soil belongs permanently to no one, while its fruits belong to all. Although food and clothing were provided for the poor and infirm by the labor of all, the author shows from a study of this Peruvian communistic society, survivals of which still exist, that communism destroys the sense of justice and the stimulus of all progress. Where all were compelled to work for the support of religion, of the royal family and the nobles, and of the common people, under penalties, there was no incentive for individual superiority, because no one was allowed to appropriate the fruits of his own labor. Everything was taken for the public—grain, wool, herds, clothing—all were common property. The State was supreme and its inquisition penetrated everywhere and regulated everything. The individual was merely one unit of the social mass. There was no competition and no advance except that of this general mass.

Another thesis for a degree in the faculty of political and administrative sciences also treats of the uneasy social conditions of the present times, and is entitled "International Commercial Relations in the Collectivist System." The author studies briefly the conflict between capital and labor and discusses socialism in its international relations.

These titles and the summaries of the theses have been given for the purpose of showing that the applicants for degrees in the faculty of political and administrative science are alive to the questions which are agitating society in all civilized countries. We now come to the graduation papers in the faculties of sciences and medicine.

The first is a thesis on the temperature of Lima, which is based on observations taken at the meteorological observatory from August, 1892, to June, 1900. The paper consists of tables of observations,

showing the daily temperature and the annual and monthly maxima and minima, the monthly means, etc., and the "laws" deduced therefrom.

A thesis for the degree of bachelor of medicine is upon the parasite *distoma Japonicum* and its action upon the human organism. The study was undertaken, the author says, because of the appearance of the disease induced by this parasite among the Japanese immigrants into Peru. The parasite itself, he says, was first described in 1883 by Bälz, of the University of Tokyo. The paper presents a microscopic study of the parasite, its propagation, its mode of introduction into and action upon the human organism, together with a clinical account of the cause of the disease, its treatment, and autopsies upon the Japanese subjects. Colored plates accompany the paper.

Another medical thesis is upon "the pathological histology of *Verruca Peruana*, the vascular theory," and is a detailed account of the bacteriological and chemical study of the blood in the disease mentioned. Colored photographic plates of microscopic preparations illustrate the paper.

The next medical thesis is upon military hygiene, and was prepared in consequence of the law then recently passed in Peru making military service obligatory. The paper deals with the hygiene of the person of the soldier and his surroundings.

The next medical paper for the degree of bachelor of medicine is a treatise upon *Uta Peruana* and its treatment with the albuminate of mercury—a bacteriological study with clinical observations.

The last medical thesis for the year under notice (1900) was upon the pathogenic germ of Carrion's disease, giving the bacteriology and treatment.

The new or modern tendency in university education in Peru is illustrated by the opening discourse for the year 1902 by Prof. Wenceslao F. Molina, of the faculty of sciences, upon the importance of zootechnics as a branch of university study. This subject had been newly included in the university course by the Peruvian Government, and the lecturer felt called upon to apologize for presenting such an unwonted theme before the academic audience.

> I had some hesitation [he says] about introducing an explanation of this new course, although it is both practical and of national importance, into this sanctuary where the voices of men illustrious for their learning are still vibrating, and it might at first appear strange to speak of beeves and horses and swine and our Peruvian llamas in an academic discourse before distinguished jurists, literary men, learned theologians, and physicians, were it not that at the present time modern civilization, among its most valuable conquests, has made domestic animals the subject of a special science and the sound base of public wealth.

The author makes good his intention to clothe his subject in a learned dress which should be worthy of his audience, for he begins at the beginning, viz, in the paleolithic age, and traces the domination of animals by man through the neolithic into the historical period and the modern scientific epoch. He touches upon the origin of species, and from that sphere of speculation descends to the scientific and practical aspects of his subject. The paper is accompanied with statistical tables showing the condition of animal industry in all countries.

A thesis for the degree of bachelor in the faculty of jurisprudence is worthy of being cited in this place, as showing that modern innovation has reached even this faculty, which, as the repository of the doctrines of the civil law, has preserved its continuity in continental and Latin American universities since the middle ages. This thesis has for its subject an argument for the repression of infantile delinquency in accordance with the conclusions of modern criminology. The author defines infantile delinquency as it was in the eye of the classical penal law, and indicates what its treatment should be in the view of the positivist criminological school, or on the principles laid down in criminal anthropology. He discusses the views of Lombroso and other writers of his school upon the physical and psychological characters of the organic criminal, and points out the desirability of isolation and of suitable instruction for young persons with criminal instincts, and of preventive measures which could be taken with them. The essay was written in November, 1902.

A thesis for the degree of bachelor in medicine upon school hygiene in Lima should not pass unnoticed, as it is an indication that the university provides for the material well-being of the school population of Peru. The paper contains reports upon individual schools, their floor and cubic space per pupil, their hygienic provisions and surroundings, equipment, etc. A model school building is described.

The next is a thesis, also for the degree of bachelor in medicine, on the bacteriological analysis of the drinking water of Lima. The paper describes the methods and tests followed in the analysis, with diagram, maps, and micro-photographs of the different bacilli. This is followed by an equally detailed paper on the bacteriology of the air of Lima, and especially of its hospitals and barracks.

A thesis in physics for the degree of bachelor in mathematical sciences by Ignacio A. Ramos is the first published proceeding from this faculty. Its subject is wireless telegraphy. The paper was written in 1902, when, as the author expresses it, Marconi's victories were creating a great jubilation in the world. The transmission of thought through space with no other medium than the ether had been, he says, the subject of his own studies for a considerable time, the results of

which, with due modesty, he here submits. He presents these results under the following heads: (1) The principal experiments which led to wireless telegraphy. (2) Propagation of electric energy under the form of oscillations of high frequency; Thomson's formulas of the oscillating discharge of condensers. (3) Coherers and vertical conductors. (4) Telegraphing by the Marconi system and its improvements. (5) Principal experiments in wireless telegraphy. (6) Advantages and inconveniencies. (7) Principal applications. The paper is technical and mathematical, is illustrated with diagrams of apparatus used by the investigators referred to, and with curves showing the electric charge and intensity corresponding to the mathematical formulas. It gives briefly a history of the first speculations and experiments of Maxwell and Hertz in this new development of physics, and contains frequent references to the work of their followers, Lodge, Popoff, Righi, Branly, Guarin, Blondel, and others. These are the names, it will be remarked, of men of different European nationalities, the implied familiarity with whose works indicates wide reading on the author's part. The discoveries of these earlier investigators eventually led to their practical application by Marconi, combined with his own improvements, in the system of telegraphy which goes by his name.

A thesis for the degree of bachelor in mathematics, by Ova Pedro A. Labarthe, which illustrates proficiency in abstruse scientific study, is entitled "Mathematics and pyschophysics." The introduction discloses the author's entire confidence in the application of physics to psychology as the proper method of studying the latter science, and incidentally reveals the origin of his faith, which was due to his acquaintance with the modern German school of psychologists, which has had many enthusiastic followers in the United States, who, like the author of this paper, were captivated by the apparent certainty and the positiveness of the conclusions drawn from the application of tests which are employed in the physical sciences to physiological and, inferentially, to certain psychological phenomena. This empirical German method created quite a vogue for experimental psychology. The paper was written in 1902 before the novelty of the experimental method had worn off and its limitations pointed out and while the confidence and enthusiasm of its disciples were still unchecked by criticism. The author's attitude toward the study he presents is best shown in the following passage from his introduction:

> The epoch of aprioristic premises, of arbitrary laws, and of unsupported affirmations, he declares, has passed. The modern German school has given a new direction to psychological investigations, supporting its conclusions upon a rigorous system of experiment subject to the checks of mathematical calculations, whereby there are derived new applications, more and more extended every day, which demonstrate that the new science, psychophysics, is a part of the general body of science.

He divides the subject into two parts. The first part contains five chapters, which present briefly the history of the new science and the results of the mathematical and physical investigations of its founders. Chapter I merely points out that sensation can be measured and a unit of such measurement be selected. Chapter II gives a brief history of physical experiments in this direction which were suggested or made before Weber formulated general conclusions or laws. The author goes back as far as Euler in his list of the scientific men who have interested themselves, either as mathematicians or physicists, in the experiments which eventually formed the basis of psychophysics. His list includes, besides Euler, the astronomers Arago and Stenheil (1839), Bouguer and Masson on the perception of differences in the intensity of light, Herbart and Drobisch on the relation between the sensation of musical intervals and the corresponding number of vibrations, and Delezzene, who, in 1827, deduced the least number of vibrations which could be detected by the ear, and so on to Weber's "law," which expresses in a mathematical series the relation between sensation and its external cause, and this function is expressed geometrically by a curve. In Chapter II is traced the deduction by Fechner of what he called the fundamental law of psychophysics, by interpreting psychologically the results of the savants mentioned, and specially the "logarithmic law" of Bernouilli (1730) and of La Place, which those mathematicians evolved by applying mathematics to probabilities in the games of chance. Fechner's fundamental psychophysical law states that sensation increases as the logarithm of excitation. The author gives the mathematical derivation of this law with the corresponding logarithmic curve, develops the function to suit different forms of the law, and discusses the proof and objections to the law in Chapter III. In Chapter IV he gives other formulas due to Helmholz and others, and in Chapter V he points out the importance of psychophysical "laws" which express the means whereby we gain knowledge of the external world, and briefly summarizes the use which has been made of the light coming from the stars of different magnitudes to establish the degrees of sensation of light. The names of the savants he refers to include those of Hipparchus, Herschel, and Stenheil down to (in point of time) Pickering and Jastrow, and he gives a diagram from Wundt in which Fechner's "law" is applied physiologically, the diagram illustrating the process of apperception.

In the second part of his thesis the author gives some details of the methods of psychophysical experimentation together with the mathematical interpretations and tables containing their results, the mathematics involving the calculus of probabilities. The extent of his reading and familiarity with the most recent phase of his subject is shown by his reference to the work of the American authors,

Fullerton and Cattell, from whom he quotes a table of the values of a mathematical expression.

In Chapter II of this part the author gives further results of experiments upon the sensations of temperature and muscular force, and remarks that the application of mathematical analysis to psychology was only successfully accomplished after the discovery of the calculus. The experimental study of psychology had been extending every day since its establishment by Lotze, Fechner, and Wundt, and laboratories were especially equipped to carry out the experiments. The first of these was established by Wundt in 1878, while in 1894 there were 4 in Germany, 2 in England, and 27 in the United States, besides others in France, Italy, Switzerland, Belgium, Holland, Denmark, Sweden, and Roumania, whose numbers, however, he does not give.

From the foregoing it appears that this thesis presents a historical view of an abstruse subject, and also proves the author's familiarity with it, both from the historical and the practical standpoint.

Turning now to the faculty of political and administrative sciences, the first thesis for the degree of bachelor is by Pedro Oliveira, and has for its subject the cooperative school of political economists at Nimes in France. It was, like the others cited, written in 1902. In his introduction the author describes the origin of this socialistic movement. He says:

> Twenty years ago a cooperative school was formed at Nimes, the aim of which was to modify peacefully, but radically, the present economical system by means of cooperation in such a way that the ownership of the equipment of production, and therewith economical sovereignty itself, should be transferred from the producers to the consumers. At the head of this school was Charles Gide, professor of political economy in the university of Montpellier.

His doctrine, as defined in the labor congresses of France and diffused by the press, has exercised and still exerts an influence in the contemporary economical movement. It counts among its adherents the enthusiasts in cooperation of all countries, philosophers and sociologists; and while it neither invokes state aid nor makes a revolution necessary to effect its reforms, its followers are very numerous. The object of the thesis is to make a critical study of the theories of this school—that is to say, of the socialist idea of cooperation, which the author attempts by dividing his work into three parts, the first tracing the historical development of cooperative societies, beginning with the first society of the kind, founded by Robert Owen, the English philanthropist, in 1820, and tracing the movement in the other countries of Europe and the United States, the second containing an account of the Nimes school, while in the third he offers a criticism of the socialistic idea itself.

The critique of the cooperative movement by the author follows, taking up each theoretical assumption and answering it.

He alludes to the fanciful analogy often used by sociologists, between the association of cells in an animal or plant and the association of individuals in the body politic, and refers to the three stages of evolution of human solidarity imagined by Fouillée, Herbert Spencer, and others, and points out that the cooperative societies realize the ideal of conscious and voluntary solidarity.

In fact, he adds, three stages of development of the societies will be followed, according to Gide. In the first, the societies will unite to pool the profits in order to establish great magazines; in the second stage the profits will be applied to the direct production of the articles of consumption, opening bake shops, etc., and, finally, the societies will acquire land and raise crops. Thus the first stage will be the conquest of the commercial industry, the second the conquest of the manufacturing industry, while the third will be a conquest of agriculture. In effecting this no state aid will be sought, but the whole enterprise will rest upon individual initiative.

The author then proceeds to criticise the plan of reform of the new school, concluding that the plan of campaign proposed by Gide to convert the business world into cooperative societies, by first making a conquest of commercial industry, then of manufactures, and finally of agriculture, is contrary to history and experience.

The last thesis of the series for 1902 was submitted for the degree of doctor in the faculty of political and administrative sciences by Emilio Castelar y Cobian, and its subject is the boundary dispute between Bolivia and Peru. It is a learned, legal, historical, and statistical document of 262 pages. It recites the successive treaties between the two countries, article by article. The earliest date of delimitation referred to is 1578.

The University of San Marcos publishes a monthly review, of which five numbers (from July to November, 1907) are here considered. The scope of the review will be shown by the subject-matter of the articles. The table of contents of the July number includes a lecture upon a subject in political economy (on the laws of economics) by Dr. J. M. Manzanilla, professor in the faculty of political science and member of the Royal Academy of Jurisprudence and Legislation of Madrid, in which he seeks to show that as there are laws in the physical world, so there are analogous laws in the domain of economics which experience has demonstrated. The economical process is not the work of chance or of the caprice or fancy of men, but, as experience shows, it is based upon fixed laws of production, distribution, circulation, and consumption of wealth. The same circumstances produce the same activities everywhere, and that without the intervention of legislation, although legislation has had its effect in guiding or controlling economical movements. Economical laws have not, however, the rigidity of physical laws; they spring from

the mutual relations of men, and new economical laws have been produced by the refinements of social sensibility and education, by material and moral progress, and from new conceptions of duty, utility, and justice, by which the fundamental natural economical phenomena have been transformed, as when labor is rendered less like slavery and made attractive or when cooperation and solidarity are substituted for a system with daily wages.

The next article is upon the importance of the chair of legal medicine in the university and to the state, on account of the part legal medicine plays in criminal practice. Another is a learned thesis for the doctor's degree upon the boundary between Peru and Colombia, an article continued through the July and the following number of the review.

The August number contains a legal discussion by Prof. Dr. Placido Jiminez upon the interdiction of civil rights to criminals, and a lecture before the faculty of letters upon the problems of moral philosophy by a student of the university, Oscar Miro Quesada. The latter contains the following heads: Classification of the systems of morals; real morals, Aristippus, and the sovereignty of the present; Bentham, and the arithmetic of morals; the utilitarianism of Stuart Mill, ideal morals, Kantian morals, mixed morals, morals according to Herbert Spencer; Fouillée's theory of morals; Guyau's system, Wundt's, and finally Höffding's. The author gives a brief résumé and critique of the views of each of the philosophers quoted, and concludes that Höffding's sociological theory is the most scientific, the most ample, the most tolerant, and therefore the most humane of all.

The September number of the review contains an article upon the legal status of the Indian communities of Peru by Prof. Dr. Manuel V. Villarán. These associations of natives trace their origin, the author states, to the times of the Incas, and have persisted through colonial times to the present day. Another paper is a lecture on chemical physics by Prof. M. E. Pozzi-Ercot, in which the subject is treated historically and philosophically rather than from a strictly scientific and mathematical standpoint. The lecturer discusses the new theories of the constitution of matter which have arisen since the discovery of radium and the phenomena of radiation made it necessary to revise the old idea of the fixity of matter and the correlation of forces. Another article is a lengthy thesis for the degree of bachelor in medicine by Julio C. Gastiaburu, upon "paludismo," or malaria, in Lima. It is a bacteriological study of the subject, containing tables of results of observations, and a bibliography at the end. The final paper of this number is an account of the ceremonies of welcome of Dr. L. S. Rowe, professor at the University of Pennsylvania, as honorary member of the faculty of political and administrative science

of the University of San Marcos at Lima, with the addresses of the rector and the reply of Professor Rowe. The ceremony took place September 4, 1907.

The October number contains an article upon crimes committed by inebriates, being the substance of a report to the National Academy of Medicine by Doctors Barrios, Velasquez, Bravo, Arce, and Avendano; also a lecture by a student of the university upon freewill and determinism, in which, by allusions and criticisms, he shows his familiarity with the views of the leading psychologists. The modern names of Höffding, Wundt, Fouillée, Marchesini, Buisson, Cesca, and Villa occur alongside those of Socrates, Plato, Aristotle, Descartes, Leibnitz, Malebranche, Spinoza, and Kant, showing the extent of the author's reading in several languages. The bibliography gives the titles of works in French, Italian, and Spanish. The title of Wundt's work is given in Spanish.

Two other theses for the degree of bachelor are published in this number, one upon pauperism and public aid, and the other upon the character of the literature of Peru since the independence, by José de la Riva Aguero. The ingenuous author of this paper expresses with great candor his opinion of his work as follows:

> I trust that the importance of the subject may atone for the defects of my workmanship, which I am the first to recognize. I have, however, a sufficient excuse for offering my essay. When a book is published the presumption is that the author believes that he has ideas or facts which ought to be made known. It is far different with a thesis, which is frequently, as in the present case, a feeble juvenile production, which is written not because the author believes it is worthy of publication, but because he is compelled by the necessity of his position to write it. If theses were subjected to the same criticism as books, few would be published and few degrees would be granted in consequence.

He adds another frank piece of self-criticism when he says:

> My opinions are necessarily wanting in the solid and rich maturity which come only from years and experience, but I have faithfully studied the material I criticise. I have gone to original sources, and have endeavored to give with sincerity and impartiality the impression the works I have read have made upon me.

Some of the author's remarks are especially worth quoting. For example, the following criticism of the conventional Spanish character shows that the author possesses the historical sense. He says:

> It is difficult to find a people whose literary character has been more misunderstood than that of the Spaniards. A thousand protests have been made against the ridiculous types, conventional or exaggerated to the point of caricature, of Castilian honor, of Andalusian valor, of the extravagant Spanish imagination, etc., but ignorance and traditional popular impressions handed down for generations have kept them alive among the generality of foreigners and to some extent among ourselves. Perhaps the chivalrous and adventurous ideal which is so prominent in the literature and history of the golden age of Spain is not peculiar to the genius of the Spanish race, but is rather the

expression of the peculiar circumstances in which Spain, like the rest of Europe, was placed during the middle ages. But Spain, after the reconquest, and notwithstanding the monarchical centralization and the renaissance, for reasons which need not be explained here, retained almost unchanged the ideal of the middle ages until the eighteenth century. Classical Castilian literature, therefore, should not be regarded as the expression of the national genius alone, but also and in great measure as the expression of a historical period which had already passed away.

The author's object is to show the influence of native Peruvian blood and surroundings upon the creole character, modifying to some extent the literature of the country, which was otherwise essentially and naturally in colonial times an imitation of that of the mother country.

The November number of the review contains an article upon the possibility of the prevision of economical phenomena, and is a conclusion of the paper upon the natural laws of economics by Professor Manzanilla; a paper upon the protection of children, which had been presented to the medical Latin-American congress at Montevideo in 1906 by Dr. Almenara Butler, professor in the faculty of medicine in the University of Lima; and a continuation of the thesis upon Peruvian literature already noticed.

ECUADOR.

UNIVERSIDAD CENTRAL.

The Universidad Central of Ecuador at Quito publishes a small monthly journal entitled "Anales." The numbers at hand are those for January to April, 1908, making part of the twenty-second volume and the twenty-fifth year. According to the plan of studies published in the January-February number, the teaching force consists of the faculties of jurisprudence, medicine, pharmacy, and science. The plan of studies is that designated for all the universities of the Republic and covers the following courses:

Faculty of jurisprudence.—Six-year course. First year, first and second books of the civil code, Roman law, civil legislation; second year, books 3 and 4 of the civil code, Roman law, criminal legislation; third year, commercial code, international public law, science, and constitutional law; fourth year, political economy, international private law, sciences, administrative law, finance, and statistics; fifth year, the organic law of judicial authority, proceedings and judicial code in civil cases, proceedings in mercantile cases, and the police code; sixth year, the penal code, judicial code in criminal proceedings, the military code, legal medicine, anthropology, and criminology. Students of the sixth year will be obliged to attend the classes of legal medicine, and will not be admitted to the examinations in other subjects without a certificate of attendance at the lectures on legal medicine.

Medical course.—Seven years. The first year's course includes general and descriptive anatomy, theoretical and practical; dissection; histology; inorganic chemistry, theoretical and practical; biological physics; attendance at lectures

and practice in clinics at the general hospital; care of wounds, burns, contusions, etc.; instruction in antisepsis and asepsis. The professor of anatomy gives the first course in the anatomy and physiology of obstetrics.

Second year: General and descriptive anatomy of the nervous system and organs of sense; embryology; histology and dissection; organic and biological chemistry, theoretical and practical; general and applied botany; medical zoology; attendance at hospital clinics; practice in reductions of luxations and fractures; care of wounds, etc. The director of the maternity hospital gives the second course in obstetrics.

Third year: Physiology; hygiene and general principles of anthropology; topographical anatomy in the amphitheater; odontology, theoretical and practical; hospital practice with lesser surgical operations; obstetrics, as above.

Fourth year: General pathology and pathological anatomy; bacteriology, theoretical and practical, comprising the technology of the subject, apparatus, cultures, colorations, inoculations, microscopical examination, immunization, serotherapy, pathogenic microbes in man, and the bacteriological analysis of the air, water, and soil. Hospital attendance, surgical examination of patients, diagnosis and practice in urgency cases.

Fifth year: External pathology; operative medicine in the amphitheater; ophthalmology; medical electricity, including the technology of the subject, electro-physiology, electro-therapeutics; massages, pharmacology; hospital attendance with higher surgery.

Sixth year: Internal pathology; pediatry; psychiatry; therapeutics and materia medica; clinics—examination of patients and diagnosis.

Seventh year: Obstetrics and accompanying diseases; gynecology; venereal and skin diseases; toxicology; legal medicine and public hygiene; hospital attendance and gynecological clinics.

Faculty of pharmacy.—Five-year course. First year: Inorganic chemistry, theoretical and practical, with laboratory work; general botany, theoretical and practical (organography and vegetable physiology); biological physics.

Second year: Organic chemistry, theoretical and practical, with laboratory work; botany (taxonomy, classification, and description); general and applied zoology.

Third year: Analytical inorganic chemistry, general principles of therapeutics, materia medica, general mineralogy.

Fourth year: Analytical organic chemistry, qualitative and quantitative, theoretical and practical, with laboratory work; toxicology and legal chemistry; first course in pharmacy; crystallography.

Fifth year: Medico-pharmaceutical micrography; general principles of bacteriology; micrographical and bacteriological preparations, colorations, and manipulation of the microscope.

During the fourth and fifth years students will learn practical pharmacy in suitable establishments.

The faculty of sciences includes a general course of 1 year, and special courses of 2 years each in agrimensure, agronomy, and architecture. The studies of the general course consist of algebra, plane geometry, and geometry of three dimensions, general botany, physics, inorganic chemistry, mineralogy, and geology, general zoology, ornamental and architectural drawing, mineral analysis.

The course in agrimensure includes, for the first year, topography, organic chemistry and agricultural industries, chemistry applied to constructions, agronomy and agricultural machinery, agricultural chemistry, ornamental and architectural drawing, applied zoology, hygiene applied to buildings, laws relating to agriculture. The second-year studies include topography, organic chem-

istry and agricultural industries, rural and town buildings, highways and common roads, laws relating to agriculture, domestic and foreign agricultural bookkeeping.

The first-year course in architecture includes mechanics applied to buildings, technical physics, chemistry applied to constructions, mineralogy and geology, topography, architectural drawing and technology, hygiene applied to buildings. In the second year the course covers descriptive geometry (applied), chemistry of constructions, architectural drawing and technology, laws affecting architecture, mineralogy and geology.

The course in agronomy includes, for the first year, agronomy and agricultural machinery, agricultural chemistry, applied botany and zoology, organic chemistry and agricultural industries, elementary topography, mineralogy, geology, and hygiene; for the second year the studies, in addition to the foregoing, are the flora of Ecuador, veterinary surgery, agricultural bookkeeping and laws.

Graduates in science who have sufficiently distinguished themselves will be sent abroad by the Government to perfect themselves in special branches.

The university publishes the following notice, which will be of interest to students of certain branches of science:

The University of Quito, desiring to increase its museums of zoology, botany, mineralogy, and ethnology by means of exchanges with public and private museums, has resolved to invite the correspondence of parties who wish to exchange for collections of Ecuadorian fauna, flora, etc.

Those who, accepting the excellent scheme of enriching their museums, wish to have sent any particular specimen or collection (e. g., an ornithological collection) have only to apply to the rector of the Central University of Ecuador, Quito, or to the secretary.

The notice is published in English, German, French, and Spanish.

The copies of the Anales at hand have articles by professors of the university upon various subjects. Thus Prof. R. P. Luis Sodéro, S. J., has a continued article upon Ecuadorian botany. The title is "Sertula floræ Ecuadorensis," and the description of specimens is entirely in Latin. Prof. Lino Maria Flor, civil and military engineer, contributes a continued article upon algebra, which will eventually form a text-book. Another article is upon incommensurables in geometry, by Prof. J. Alejandrino Velasco, civil engineer; another gives an account of modern agriculture, by Prof. Marcello Sosti, licentiate of the Academia Agricola of Turin, professor in the agricultural institute of Panama, and professor in the faculty of sciences of the University of Quito, which shows that that university seeks some of its professors from Italy, a country which is distinguished for its advancement in modern science. Another article is a report upon the bubonic plague, and still another is an account of the chemical analysis of the drinking water of Quito, both by professors of the University of Quito. These titles show the character of the work and the kind of intellectual interest which the university invites and cultivates. Both are quite in the "modern" spirit, it will be seen.

CENTRAL AMERICA.

The same spirit actuates the recent educational movement in the Central American republics, if we may judge from the scattering reports at hand. Thus, the secretary of public instruction of Costa Rica in his report for 1902–3 speaks of the establishment of courses of agriculture in the liceo and of a commercial school, while the president of the Republic, in his recommendation of appropriations for education, remarks that the tendency and object of education are now essentially practical, and afford a field for youth to learn things which are most needed for the development of the country.

There is a National Central Institute at Guatemala, whose degrees are recognized in all the Central American republics.

In Nicaragua, which has ten colleges and two universities, a national industrial, commercial, and scientific museum has been established.

At Tegucigalpa, the capital of Honduras, there is a central university, with faculties of science and the political sciences, beside those of law and medicine.

In the Republic of Salvador there are three technical schools and a national university, with faculties of jurisprudence, medicine, natural sciences, and engineering.

These bare facts indicate a disposition to accommodate the courses of higher instruction to the industrial and technical requirements of the various countries of Central America.

MEXICO.

The effort to give a practical tendency to higher education, that is to say, to shape the university instruction in such a way as to suppress the classical and literary studies which consume time with no immediate definitely practical object in view, and instead thereof to give more time to studies which prepare immediately for the professions and practical affairs, a tendency which has been seen to be so marked in the programmes of South American universities, is also to be observed in higher education in Mexico. This spirit is manifested in the message of the President of the Republic quoted in the last report of this bureau, in which special mention is made of the National School of Engineering, with its divisions of mechanics, mining, and electricity, and the field work and practice of its students and graduates in the various manufactures, mines, railroads, and electrical plants of the country; also the Superior School of Commerce, and the so-called Preparatory School, which latter shows a decidedly scientific and technical tendency in its programme.

CUBA.

The bureau published in its report for 1906 an account of the University of Habana, from which it appears that the scientific and technical studies at that institution have been greatly extended in the last few years, although the humanities retain their wonted place in the university programme. The courses of study in the faculty of letters and sciences relating to scientific studies alone cover 32 pages of the Memoria Anuario, or annual catalogue, published by the university. Enough of this material to give an idea of the scope and grade of the scientific instruction was published in the report referred to, and need not be republished here. It is sufficient to say that the scientific course is thoroughly modernized, and includes the latest theories in the study of man himself from the standpoint of anthropology and archeology, as well as the modern methods employed in the physical sciences, with their applications in technology and agriculture.

The whole preceding review of the courses of higher study in the Spanish-American countries of to-day indicates clearly the practical trend which has been given to instruction in those countries, with a view to improving their material condition.

CHAPTER VI.

EDUCATION IN GREAT BRITAIN AND IRELAND, 1907–8.[a]

Great Britain and Ireland, constitutional monarchy; area, England and Wales, 58,186 square miles; population, 34,547,016 in 1906. Scotland, 29,820 square miles; population (estimated, 1906), 4,726,070. Ireland, 32,583 square miles; population (estimated, 1906), 4,386,035.

TOPICAL OUTLINE.

Educational bills before Parliament.—Purposes; scope and prospects.
Current operations of schools and higher institutions.—Summarized statistics (Table 1). Elementary schools: Adequate provision of; expenditures for; need of trained teachers for. Secondary and technical education: Status of; technical and art schools and classes in receipt of government grants (Tables 2–7). Universities of Great Britain and Ireland: Comparative attendance at specified dates; recent university developments; distribution of the Carnegie trust fund; the Irish universities bill.
Important international events of the year.

EDUCATION IN LONDON.

Outline of the London school system.—The county councils as the education authority: The education committees; local school managers. Divisions of the general system. Statistics of public elementary schools: Pupils; teachers; finances.
Salient features of the current (London) official record.—Supervision of the child population; special schools for defectives; industrial schools; condition of school buildings; higher elementary schools. Teachers: Recruitment of force; pupil teachers. Medical inspection of schools.
Higher education in London, including secondary.—The scholarship system; secondary schools; coordination of secondary and higher institutions.
The consultative committee of London teachers.
London as a typical city.—Auxiliary works of local education authorities: Provision of meals; country and open-air schools; after-care committees.

EDUCATIONAL BILLS BEFORE PARLIAMENT.

The legislative activity with respect to education, which has been a marked feature of the recent record of public affairs in Great Britain and Ireland, has continued during the current year. Each division of the United Kingdom has had one or more educational bills before Parliament the course of which was followed with unflagging attention throughout the session. The most important of these measures are the elementary education (England and Wales) bill, introduced February 24 by Mr. McKenna, who succeeded Mr. Birrell as minister of education; the education (Scotland) bill, introduced March 26; and the Irish universities bill, introduced March 31.

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[a] For a complete index of articles on education in Great Britain and Ireland in reports of this series from 1888–89 to 1903, inclusive, see Report for 1904, Vol. I, chap. xii, pp. 790–832; also Reports for 1906, Vol. I, chap. l, p. 1; 1907, Vol. I, chap. iii.

The McKenna bill is the second endeavor of the Liberal government to place all the public elementary schools of England on the same footing, and thus settle the controversies growing out of the dual system of control, that is, control by local authorities and by private managers. Two provisions of the bill cover its fundamental principles: First, that only provided, or council, schools under full public control shall be included in the national system; second, that no religious tests shall be applied to teachers in these schools. As a means of insuring the practical application of these principles, the bill further provides that in single school areas, that is, in villages and rural districts, the council school shall be the only one recognized for public support. This provision would affect about 7,000 single school areas, of which it is estimated about 6,000 have only Church of England schools.[a] In these single school areas the transfer of "voluntary" schools to the local authority is made obligatory by the bill, but free use of the school is reserved to the church on Saturdays and Sundays. The church may also impose the condition that Cowper-Temple Bible teaching, following the London county council syllabus,[b] shall be given after the transfer. If the trust deed precludes the complete elimination of sectarian instruction, a right of entry for denominational instructors, not being members of the staff, shall be granted outside the regular school hours.

In respect to larger areas, including boroughs of over 10,000 population and urban districts of over 20,000, the bill provides that voluntary or nonprovided schools may "contract out," in other words, relinquishing all claim upon the local taxes, they may retain denominational appointment of teachers and control; no child, however, shall be compelled to attend such a school, and its general efficiency must be equal to that of the council school, and in respect to all conditions of efficiency it must be subject to government inspection. The bill provides further that the per capita grants from the public treasury shall be equal in both council schools and those contracted out. The several government grants for elementary schools, i. e., aid grant, fee grant, and all special grants, are to be abolished and a single grant substituted, equivalent to £2 7s. per pupil in average attendance.

According to the estimates submitted by Mr. McKenna, this new basis for the distribution of the government grant will give to each school area an increase over the amount at present received which will not be less than 4 shillings per child in average attendance at school nor more than 6 shillings. There is a further restriction that no area is to receive more than 75 per cent of the whole cost of its

[a] See Public Elementary Schools in Single-school Parishes, Return by the Board of Education (Cd. 3990, 1908).

[b] This syllabus is contained in a Return to an Order of the House of Lords and published as a public document (Cd. 3973).

elementary education. The additional cost to the exchequer should this measure pass is estimated at £1,400,000 ($6,804,000) a year. It should be observed that as the bill is a financial measure intended to regulate the conditions on which public money may be applied in aid of elementary education in England and Wales, its essential clauses can not be amended by the House of Lords.

The debate over the bill, which was carried to the second reading May 20 by a majority of 165 in a total of 575 votes, was similar, in the feeling displayed and the arguments presented, to the memorable debates over the education act of 1902 and the defeated bill of 1906. The noteworthy event in the progress of the debate was a sudden development of the spirit of compromise. Although, undoubtedly, many circumstances led to this change, it received its chief impulse from a bill introduced into the House of Lords in March, by the Bishop of St. Asaph.

While adopting the main provisions of the government bill, this measure endeavored to meet the demands of those who were opposed to excluding teachers from all participation in religious instruction by the provision that all teachers should be left free to offer to give simple Bible teaching or teaching distinctly denominational. Further, the bill provided that:

> In every public elementary school—(*a*) Religious instruction which is not distinctive of any particular denomination shall be given during school hours at the cost and under the control of the local education authority; (*b*) facilities shall be afforded by the local education authority on at least three days a week during school hours to enable children whose parents wish them to receive religious instruction distinctive of any particular denomination to receive that instruction, but no part of the cost of giving such instruction shall be paid by the local education authority.

The St. Asaph bill, which was heartily approved by the Archbishop of Canterbury, commanded wide attention and turned the tide of public discussion of the educational question toward compromise on the lines suggested by it. The provision for facilities (clause B above cited) undoubtedly intends a right of entry for clergymen of different denominations, an arrangement that meets with great opposition. Modifications of this clause already suggested recall the plan adopted in St. Louis under the superintendency of Doctor Harris. By this plan the superintendent "gave permits to all children whose parents requested it, allowing them to be absent two hours in each week for religious instruction under the supervision of priest or pastor." "This is one device," says Doctor Harris, "which does not conflict with the principle of the separation of church and state, and yet treats conscientious scruples with respect."[a]

[a] See Register Tract Series, No. 12: Morality in the Schools, William T. Harris, LL. D. (pp. 13–14).

The retirement of the premier, Sir Henry Campbell Bannerman, early in April, caused a complete change in the cabinet, and the management of the government education bill passed to Mr. Runciman, who succeeded Mr. McKenna as president of the board of education.

The purpose to maintain the essential principles of the measure was indicated by a public address made by the new premier, Mr. Asquith, soon after assuming the duties of the office. On this occasion Mr. Asquith said:

I entirely agree with what fell from one of my right honorable friends that in the matter of education the controversy itself is a constant reproach both to the religious conditions and to the political sagacity of the English people. In this matter we must hope and work, as we all wish, for a concordat and for peace.

He added, however:

But while I say that, I say also we must keep our powder dry. We must not and we can not abandon either our principles or our friends. Nor can we leave things in the intolerable position in which they are now.

The desire for compromise expressed by the prime minister was shared by eminent men of both parties, and repeated conferences on the subject were held in which churchmen, nonconformist clergymen, and members of Parliament participated. Apart from the conviction of thoughtful men that the controversy was injurious to the cause of religion as well as to that of education, there were other influences at work which made the continuance of present conditions impossible. The drift of these influences was indicated by Mr. Runciman in a speech during the debate on the proposal for the second reading of the bill.

One thing [he said] that the act of 1902 has done is that it has opened the floodgates; and, furthermore, the preponderance of the church schools has largely diminished. One of my honored friends asked me a question, I think on Friday or Monday, as to the number of children in attendance in the church schools in 1897 and 1907, showing the increase or decrease in the decennial period. During these 10 years the number of children in the church schools in average attendance increased by 28,000; the number in the Roman Catholic schools increased by 45,000, while the number in the council and other schools increased by 729,145. That is an indication of which, I think, churchmen will do well to take note. It means an enormous change in the numbers of children who are passing into the publicly controlled schools. There is another consideration which churchmen should bear in mind—and that is the onward march of local government. You have given the local authorities some taste of what they may do since 1902 and there is some indication of what they intend to do. They are to keep the schools in good repair, and in consenting to the control of these schools being in their hands they are not likely to lie quiet, even if this Government went out of power, with a control which gave them only one-third of the managers. They are not going to agree, in regard to inspection to part with control so long as the schools may dip their hands into the pockets of the rate payers. Furthermore, in reference to veto on the ap-

pointment or dismissal of teachers, I would point out that really the most important element in the educational controversy is: "Who is to pay for and to control the teachers?"[a]

In addition to the principle of public control thus emphasized, there is a steady increase in the number of those who are ready to support a proposition for purely secular schools. In the debate on the second reading above referred to, Mr. Yoxall, speaking for the Liberal party, suggested—

That they should withdraw this bill and set up the round-table conference, to which so much reference had been made, so that it might be possible in the next year to bring in an agreed bill. If, however, an agreed bill could not be arrived at, then they should bring in a bill of principles in this matter. It was no bill of liberal principles that included in it the principle of contracting out, the removal from public control, as it now existed, of a large number of the schools of this country. It was not a bill of liberal principles that said that tests were not to be applied to teachers, and yet provided that in all these schools that contracted-out teachers should have tests riveted on them more closely than ever. Let the Government affirm wholly and solely public control of education paid by public money. Let them also affirm that there should be no theological tests for teachers. Let them carry the bill through the House, and then if that bill met in another place the fate which other education bills had met it would at least meet its fall honorably and bravely.[b]

Mr. George Roberts, member from Norwich, representing the Labor party, expressed the hope that this suggestion would be acted upon.

If in the end [he continued] they found the solution which they proposed impossible he trusted they would turn to the secular solution. * * * He was firmly convinced that more people were turning to that solution as a matter of conviction and as a policy of despair, recognizing as they did the utter impossibility of reconciling the sectarian elements in this quarrel. * * * If the Government agreed with the Labor party that the secular solution was the only natural solution of the education difficulty, the Labor party asked them to go to the country and tell the people that they were convinced that this was the only abiding solution, and the people would cast their votes in a way that would at least set the nation on the path by which peace and a permanent solution of the question would be found. They no longer wanted a continuance of sectarian squabbles, but to concentrate their endeavors on obtaining educational efficiency.[c]

Official utterances upon the prospects of the bill before the adjournment of Parliament held out the hope that compromise would eventually be found possible. At a banquet given by the National Liberal Club June 12, Mr. Asquith, responding to a toast in his honor, said:

Gentlemen, I welcome, and I suppose we all welcome, the growth—of which we have seen during the last few months so many gratifying signs, and sometimes in quarters where we least looked for them—of a reasonable and of an

[a] Parliamentary Debates, Vol. 189, No. 1, pp. 143–145.
[b] Ibid., p. 162.
[c] Ibid., p. 178.

accommodating temper. If the Government do not push on to its further stages at this moment our education bill, it is because we not only hope, but believe that there are at work pacifying and reconciling forces which, if time be given, may work out a solid and a lasting settlement. Whatever may be the temptations to forsake them, we shall adhere in any such settlement to our two main governing principles—namely, first, that popular control must accompany rate aid; next, that to make our system of education a truly national system there must be at no stage or rung upon the educational ladder anything in the nature of a denominational test. Given those two essential and irremovable conditions, I say to you—and I speak not altogether without knowledge—that I am at this moment sanguine that a way may be found by which, without compelling us to adopt either the sectarian or the secular solution, with due regard to conscience and of sentiment—I will add sentiment, and to all equitable claims and interests, we may obtain for this country the priceless boon of a really national system.[a]

The determination to put an end to the grievances of Non-Conformists, who are forced to send their children to Church of England schools in districts having no other school, was positively asserted by Mr. Runciman in a reply to an appeal to the Government against this injustice: "They would not," he said, "in any political circumstances rest content to leave any district to be monopolized by denominational schools."

While thus affirming the purpose of the Government in respect to a serious evil, Mr. Runciman expressed confidence in the success of efforts for a compromise measure. His hope was based in particular upon the effect of the recent department regulations relative to training colleges [b] by which half the places in training colleges, heretofore restricted to members of the Established Church, are open to Non-Conformists.

Parliament adjourned for the long vacation August 1, and the further consideration of the education bill, which has reached committee stage, was set down for October 12.

The nature of the educational problems that seem destined to replace that of sectarian schools in the public mind may be inferred from the remaining bills pertaining to the subject which were introduced during the session. From the administrative standpoint the most important of these was the education (local authorities) bill, referred to also as the Walker bill.[c] This bill was an endeavor to meet numerous complaints that have arisen from areas deprived of the control of education by the law of 1902. It will be recalled that this law made the county and county borough councils the local authorities for education, with reservation of certain authority in

[a] School Government Chronicle, No. 1949, vol. 79, June 20, 1908, p. 592.

[b] Board of Education Regulations for the Training of Teachers for Elementary Schools. (In force from August 1, 1908.) Prefatory memorandum, p. XII. Also definitions and general conditions, sec. 7 (h); sec. 8 (d. h. j.).

[c] The bill was introduced into the House of Commons by Mr. Henry Walker, member for the Melton division of Leicestershire.

respect to elementary education to the towns having above 10,000 inhabitants and urban districts above 20,000.[a]

In its original form the Walker bill simply reproduced the language of the delegation clause of the education bill for 1906, as it had received the assent of the House of Lords, and was thus free from contentious matter. By amendment, however, additional areas were included and control extended to secondary as well as elementary education; the language of the bill also changed from the mandatory to the permissive form. The force and persistence of the spirit that makes for local independence in England are indicated by the hearty support given to this measure and the widespread discussion of its proposals.

The trend of these discussions is indicated by the proceedings of a special conference of the representatives of minor local authorities, which was held in London (April 8) under the presidency of the Right Hon. A. H. D. Acland.[b] Although the majority of the members of the conference were decidedly in favor of delegating full power to smaller areas than are recognized under the law, the arguments in favor of larger areas and unified control were fully considered. It was apparent that the teachers in the conference did not desire to return to the absolute control of small parish authorities. On the other hand, the point was effectually made that while county authorities had raised the standard of qualification, tenure, and salary in places where the conditions of the teaching service had been below the average, there was no freedom under county control for improvement above that average for those localities that were willing to bear larger expenditure for this purpose. On the whole, it was the sense of the conference that decentralization with combination may prove advantageous not to the teacher only, but to the whole spirit and vital growth of the education system.

The modifications of the Walker bill, already referred to, show the effect of the conference here considered and other similar public discussions of its provisions.

The " children bill " is a government measure for the protection of juveniles. It deals with such questions as reformatory and industrial schools, juvenile smoking, wandering and vagrant children, and other allied matters, some of which overlap, and all of which are closely related to, the province of the education department. In order that the bill might be strictly noncontentious, many matters of importance

[a] By the local government acts of 1888 and 1894, England and Wales are divided into 62 administrative counties, including the county of London. By the education act of 1902 (London, 1903) these counties and the county boroughs, 72 in number, were made independent areas for local school administration. To these were added, for elementary education, municipal boroughs having more than 10,000 inhabitants, numbering at present 138, and urban districts with a population over 20,000, numbering at present 54. The Isles of Scilly form also an autonomous area.

[b] See School Government Chronicle, No. 1939, vol. 79, April 11, pp. 347–352.

were omitted, as, for example, the age for school attendance, half timers, and the employment of street children. Although the principle of the bill was generally approved, its provisions were closely scrutinized and so extensively amended that final action upon it is necessarily postponed to the autumn session.[a]

The school-attendance bill provided that the minimum age for exemption from school attendance should be 13 years. The relation of this measure to the general welfare of juvenile workers was clearly shown by its author, Lord Stanley of Alderley,[b] in his speech moving the second reading. He pointed out that while the education act of 1902 empowered local authorities to make by-laws giving partial exemption from school attendance, from May to October, to children employed in agriculture, that provision had not been taken advantage of at all. Nearly all the half-time employment in the country of children over 12 years of age, according to Lord Stanley, "is in the textile districts," and outside those districts "there is practically no half time." Even where it exists the figures support the view "that it is not a necessary condition of industry, even in the textile trades." With respect to the general status of half timers, Lord Stanley said:

> From the point of view of education everyone knows the confusion and inconvenience caused in a school by having half timers side by side with full timers. The half timers are backward and disturb the class and are altogether a nuisance. But the number of half timers has so diminished of late years that it has not answered the purpose of local education authorities to set up separate half-time classes; and generally speaking I think most people would say that when half time sets in the intelligence and brightness of the scholar fades away.
>
> But the question must also be looked at carefully from the standpoint of the health and physique of the children. It is not by any means a satisfactory state of things to have a child going to work at a mill at 6 o'clock in the morning, then rushing home at midday, eating a hurried meal, and going to school in the afternoon. Controversies have taken place upon the system under which children are certified as fit to work in the mill. Naturally, the doctors who certify them declare that all is for the best in the best of all possible worlds, but I do not think anyone who has examined the information we have received in connection with the medical inspection of schools—I refer to the reports as to eyesight and general condition of the children—can feel that certification which does not reject more than about 1 per cent of the children can be quite satisfactory. I hope, apart from this bill, that the medical inspection of children at school will grow and will be followed by medical assistance, and that in two or three years we may be able to rely more upon the machinery provided in con-

[a] For an interesting review of its provisions, see report of the annual meeting of the Association of Education Committees (England and Wales), Address of the President, Sir George White, in the School Government Chronicle, No. 1945, vol. 79 (May 23, 1908), p. 490; also, debate on the second reading, speech of the lord advocate (Mr. Thomas Shaw), Parliamentary Debates, fourth series, vol. 186, pp. 1251–1262.

[b] Lord Stanley of Alderley has long been identified with progressive policies in education. He was a member of the London school board from 1876 to 1885, and again from 1888 to 1896; a member of the royal commission on elementary education, 1887; of the departmental committee on London poor law schools, 1895, etc.

nection with our schools for ascertaining the physical fitness of the children and less upon the certificates of doctors.

I have pointed out that, as to what may be called foreign competition, our most energetic competitors are able to do without this child labor. I have pointed out that in the case of those who earn the lowest wages and who in some ways may be considered to have the hardest lot—namely, the agricultural population—the half-time system has not been demanded and is not used. It is not in the poorest parts of the community but in the well-paid textile industries where this labor most exists. There is weighty support given to the principle of this bill, and resolutions in favor of it have been passed by the trades councils of many of our large towns, including Oldham, Burnley, Rochdale, Stockport, Accrington, Leigh, Keighley, and Glossop; and it is in these towns that the practice largely exists at which I am by this bill striking a blow. I do not gather that employers clamor for the child labor.[a]

Although the bill was not carried to second reading, the purpose which was uppermost in the author's mind has been accomplished. An interdepartmental committee was appointed in July to inquire into and report upon the whole subject of exemption from school attendance, the conditions of child labor, and the practical effects of legislation restricting the employment of children.[b] In connection with this bill the recent action of the United Textile Workers' Association is significant. The leaders of this association, recently assembled in conference, by a vote of 186 to 27, approved the raising of the age of half-time labor from 12 to 13 years. This is a striking evidence of the change that has taken place in the minds of this class of workers. For 30 years they have steadily opposed the steps by which the age for half-time labor has been raised from 8 to 12 years.

Mention should also be made of the bill to establish compulsory continuation schools in England and in Wales,[c] which, in spite of the fact that it was dropped, is a significant sign of the increasing concern for public education in England. In his speech introducing the bill its author gave the following particulars as to the conditions that made it desirable:

Far more than in any other country our children are children of the city. Herded together in great masses, denied the simple security of existence which lies in direct access to the soil as a means of livelihood, exposed to the many vicissitudes which arise from roughly organized machine production on a large scale, the working populations of our large towns stand more than ever before in need of training in the art of industry.

Since industry is to be their occupation, I submit that we must see to it that they lack nothing that we can easily bestow upon them of fit training for their destiny. And only less important because the numbers concerned are smaller is the necessity of scientific agricultural training in rural districts.

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[a] Parliamentary Debates, vol. 188, No. 6, pp. 878–879.

[b] A similar inquiry was ordered by the House of Commons in 1893. See Education Department: Report of a Departmental Committee Appointed to Inquire into the Conditions of School Attendance and Child Labor. Ordered by the House of Commons to be printed, July 6, 1893.

[c] Education (continuation schools) bill introduced into the House of Commons, March 24, by Mr. Chiozza Money (Paddington, N.).

What is the actual condition of the youth of our towns? The answer is in too large a number of cases that they pass into the work of life altogether untrained. After a few brief years of elementary education they are set free, at the most dangerous period of their lives, at the beginning of adolescence, to become wage-earners. They pass into the seething turmoil of modern industry to play a game for wages without knowledge of the rules. In the great majority of cases no systematic education is received after 13 or 14 years of age. Perhaps the House will forgive me if I endeavor to show what the facts of the case are. At the last census there were in England and Wales 4,600,000 youths of both sexes. How many of these continue their education? According to the education reports there were in attendance at various continuation schools numbers as follows: Working class and lower middle class students in England and Wales (15 to 21 years of age), 1904–5: Technical institutions, 2,500; schools of art, 21,100; day technical classes, 780; day art classes, 2,600; evening schools, 360,000; higher elementary schools, 10,000; estimate for middle classes, 400,000; total, 796,890. Thus some 800,000 students between 14 and 21 years of age are to be found in all England, as against nearly 5,000,000 youths of that age. Therefore, only 1 in 6 of those between 14 and 21 are undergoing any sort of systematic education. Even if we take those between 14 and 18 only, it is clear that some 2,000,000 out of 2,800,000 have done with education forever. What is the practical result? Our towns are loaded with untrained boys and girls drifting surely into the ranks of the incompetent. For a few brief years the boys find it easy to earn money as van boys, shop boys, errand boys, lift boys. At about 17 or 18 years of age they find it difficult to obtain employment. Untrained, unskilled, they go to swell the ever-growing ranks of the unskilled laborers. It is in view of these melancholy facts that I beg to introduce a bill for the continued education and training of the young.[a]

The endowed schools (masters) bill, intended to improve the tenure of masters and more especially that of assistant masters, passed both Houses before the adjournment.

The education bill for Scotland,[b] to which reference was made at the opening of this chapter, passed through committee and will be reported to the House with some amendments in October. Its ultimate passage seems, therefore, assured; but since practical operations under the new measure will not begin before another year, it may suffice here to consider its main purpose. This is the improvement of the existing machinery of public education with a view of extending its scope, and also with a view to improving the physical condition of the poorer children, who are in a sense under the guardianship of the nation. School boards are empowered by the bill to provide any form of education or instruction which may be sanctioned by the department, and for this purpose two or more school boards may combine; provision is made for increasing the funds applicable to secondary education and for their more uniform distribution. Furthermore, school boards are required to establish continuation classes, and are authorized to make attendance upon such classes compulsory for youths from 14 to 17 years of age who are not in attendance at

[a] Parliamentary Debates, fourth series, vol. 186, pp. 1235–1236.
[b] Introduced by Right Hon. J. Sinclair, secretary of state for Scotland.

high schools. Practical effect is given to this provision by the penalties imposed on any person who knowingly employs a young person above the age of 14 at any time when his attendance at a school or a continuation class is required by law. The bill provides also for biannual promotions to prevent waste of time on the part of pupils, for medical inspection of schools, for the protection of children from neglect and abuse, and for the supply of food and clothing at public cost to needy children, and empowers local authorities to defray the expenses of agencies for collecting and distributing information as to employments open to children on leaving school.[a]

It will be seen from this brief characterization that the bill accords with the most advanced opinion as to public responsibility for the care and the development of the young.

The third of the government bills already referred to, the Irish universities bill, was passed before the adjournment and received royal assent August 1. Its provisions are explained further on in the review of university movements.

CURRENT OPERATIONS OF SCHOOLS AND HIGHER INSTITUTIONS.

The legislative measures which have been here reviewed epitomize, as it were, the movement of the public mind with reference to the further development of education in the kingdom. For the actual status of schools and higher institutions we must turn to official publications.

The increasing scope of government supervision and aid is the most impressive fact brought out in the reports of the central authorities, i. e., the board of education in England, the committee of council on education in Scotland, and the commissioners of national education in Ireland. These bodies are charged, in the respective divisions of the kingdom, with the administration of the treasury grant for education. In 1907–8 the total grant for this purpose in the three divisions of the kingdom reached the amount of £17,706,237 (equivalent in round numbers to $88,000,000). Of this total £13,793,646 (in round numbers $68,000,000) were appropriated for England. The central authority not only administers the grant, but formulates schemes of study, standards, etc., for the schools and institutions that participate in it and maintains inspection over them. The magnitude and varied character of this work may be inferred from the following statistical summaries and accompanying text.

[a] As illustrating the great interest in this movement, see Handbook of Employments, by Mrs. Ogilvie Gordon, D. Sc., Ph. D., F. L. S. The book conveys a vast amount of information with regard to the trades and industries of Scotland.

Table 1 presents the statistics of attendance upon public elementary schools and universities in the three divisions of the United Kingdom for the latest year officially reported.

TABLE 1.—*Summary of current educational statistics—Great Britain and Ireland.*

[The information in this table relating to universities is taken from the Statesman's Yearbook, 1908. The remainder has been compiled from the official reports of the education departments of the different divisions of the kingdom.]

Institutions.	Date of report.	Registered students or pupils.	Professors or teachers.
ENGLAND AND WALES.			
Universities:			
Oxford (21 colleges, 4 halls, and noncollegiate students)	1907	3,742	.....
Cambridge (17 colleges, 1 hostel, and noncollegiate students)	1907	3,463	.....
Durham (1 college of arts, 1 college of science, 1 medical college)	1907	[a] 926	125
London (26 colleges and schools)	1907	[b] 7,141	1,022
Victoria University, Manchester (2 colleges)	1907	[c] 1,432	192
Leeds University	1907	[d] 815	140
Liverpool University	1907	[e] 914	218
Sheffield University	1907	[f] 676	110
Birmingham University	1907	848	116
University of Wales (3 colleges)	1907	1,301	135
University colleges (5)	1907	[g] 5,999	247
University colleges for women (4)	1907	[h] 517	[i] 44
Elementary day schools	1906–7	5,551,014	165,176
Training colleges for elementary teachers	1907	8,337	.....
SCOTLAND.			
Universities:			
St. Andrews University (3 colleges)	1907	[j] 859	121
Aberdeen University	1907	862	64
Edinburgh University	1907	3,278	136
Glasgow University	1907	2,580	141
Glasgow Technical College	1907	[k] 548	124
Elementary day schools	1907–8	811,000	21,220
Training colleges and centers for elementary teachers	1907–8	3,005	.....
IRELAND.			
Universities and university colleges:			
Dublin University	1907	1,089	98
Belfast, Queen's College	1907	371	48
Cork, Queen's College	1907	254	34
Galway, Queen's College	1907	112	29
University College, Dublin	1907	240	25
Elementary day schools	1907–8	732,460	14,771
Training schools for elementary teachers	1907	1,184	.....

[a] About 1,000 evening students in the College of Science.
[b] Does not include all evening students.
[c] Besides 180 evening students.
[d] Besides 258 evening students.
[e] Besides 274 evening students.
[f] Besides 1,444 evening students.
[g] Includes 3,919 evening students.
[h] Includes 56 home students of the association for the education of women, Oxford.
[i] Does not include nonresidential lecturers and tutors.
[j] Including evening students.
[k] Also 4,512 evening students.

ELEMENTARY SCHOOLS.

The endeavor to bring all children under instruction has been practically accomplished; the enrollment in elementary schools for the latest year reported was equivalent, both in England and in Scotland, to 17 per cent of the respective populations; in Ireland it was nearly as high, viz, 16.8 per cent.

The expenditure for the elementary schools in the three divisions of the kingdom was as follows:

Division of the kingdom.	Year.	Expenditure.		Expended per capita of—	
		English money.	Equivalent in United States currency.	Enrollment.	Population.
England	1905–6	£17,577,547	$85,426,878	$14.16	$2.41
Scotland	1907	2,347,679	11,409,720	14.07	2.41
Ireland	1907	1,474,579	7,166,453	9.70	1.63

The expenditure given for England includes $5,165,320 for administration.

In England the government grant meets about 53 per cent of the expenditure, and local taxes 45½ per cent. The balance is met by fees and funds from other local sources. The corresponding proportions for Scotland are, grants 63 per cent, local taxes 31 per cent, other local sources 6 per cent. The national system of elementary schools in Ireland is essentially a government system supported almost entirely by parliamentary grants.

The totals of teachers in elementary schools (Table 1) include adult teachers, trained and untrained, and pupil teachers. Serious complaint is made in England of the difficulty of securing an adequate supply of trained teachers. The dearth in this respect was recently emphasized by Lord Stanley of Alderley, in a communication to the London Times (July 2, 1908). He says:

> We have in England and Wales, by the latest statistics, 1 certificated teacher to 63 scholars in average attendance and 1 trained teacher to 118 such scholars. In Scotland there is 1 certificated teacher to 48 scholars in average attendance and 1 trained teacher to 63 such scholars. If our schools were as well staffed as the Scotch schools, we should require 26,000 more certificated teachers at the present moment and 27,000 more trained teachers. In Scotland there is 1 student in training to 237 scholars in average attendance. In England 1 to 655.

Of the 20,000 "supplementary teachers" in the elementary schools of England and Wales, all that can be affirmed of their qualifications, according to Lord Stanley, is "that they are over 18 and vaccinated." He points out the need of a large immediate increase of training college accommodation. Even under the recent regulations, which have thrown open half the places in the church training colleges to nonconformists, the provision is quite inadequate to meeting the annual demand for trained teachers. If the provision in England was relatively equal to that of Scotland there would be, according to Lord Stanley's estimates, 20,000 students in training instead of 8,100.

STATUS OF SECONDARY SCHOOLS.

Secondary schools are not included in the above table, as complete summaries of these are not attainable. The secondary schools of England are, as a rule, either endowed schools, schools managed by stock companies, or schools under private managers. There are also a few municipal secondary schools. Under the stimulus of the act of 1902, and the London act of 1903, which provide for a larger measure of control by local authorities over the higher education of the country, the organization of secondary schools into a coordinated system is making progress. The latest official report on the subject shows that for the year 1905–6 there were, in England and Wales, 768 secondary schools recognized by the board of education, with 115,688 pupils. Of these, 76,771 were taking an approved course of study, 34,131 were in classes below, and 4,782 in classes above the said course.

The number of secondary schools in Scotland that have been brought under government inspection is 109, of which number 32 are higher class public schools, 24 are endowed schools, and 53 are schools under private management. These schools in 1905–6 enrolled 18,210 pupils over 12 years of age. There were also 137 higher grade schools or departments, with an enrollment of 19,319 pupils, who are included in the enrollment of elementary schools (Table 1). Of these pupils a large proportion were in studies properly regarded as secondary.

In Ireland there is an intermediate education board charged with the examination of candidates from secondary schools, and with the distribution of grants to the managers of the respective schools at a specified rate per capita of the pupils who successfully pass the examinations. The number of candidates applying for the examination in 1906 was 10,967, and the number who passed successfully was 6,906 (4,906 boys and 2,000 girls).

GOVERNMENT PROVISION FOR TECHNICAL INSTRUCTION.

The official statistics for 1905–6 give also a total of 2,507 students in attendance upon technical schools of England aided by government grants, and a total of 42,412 students in schools of art similarly aided.[a] Particulars relating to these schools are presented in Tables 2 and 3.

The grant in aid of this specialized training, which was formerly administered by the science and art department, was transferred to the board of education at the time of its establishment (1899). This was done to promote the closer coordination of the different de-

[a] See, in this connection, "Technical Education in Evening Schools," by Clarence H. Creasey, an exhaustive study of this work in England.

partments of education, a purpose which the board has kept steadily in view. One of the most important outcomes of the effort in this direction is the consolidation of the Royal College of Science and the Royal School of Mines with the recently established Imperial College of Science and Technology. The City and Guilds College, with specified restrictions of the authority, is placed under the same governing body, and the institution thus formed is made provisionally a school of the University of London, the changes indicated taking effect January 1 of the present year. The purpose of the imperial college thus enlarged and strengthened is "to make provision for the most advanced training and research in science, especially in its application to industry."

The government grants for technical instruction in Scotland are applied in aid of continuation classes, which under recent regulations may be either evening classes or classes in day schools. The number of students in these classes in respect of whom grants were allowed in 1905–6 was 95,688, representing 272 separate centers.

Statistics of the higher technical schools of Scotland receiving government grants are given in Table 7.

Technical instruction in Ireland is controlled by the department of agriculture and technical instruction, which aims at the coordination of its work with that of other educational authorities. In 1905–6 its programme of experimental science was adopted in 267 secondary schools with 10,866 science pupils. Throughout Ireland technical instruction is organized under the councils of county boroughs, urban districts, and counties.

TABLE 2.—*Summary of the statistics of day technical classes, England (except Monmouthshire), in receipt of government grants for the school year ending July 31, 1906.*

Type of local education authority.	Number of institutions in which day technical classes were recognized.	Number of classes.	Number of students on account of whom grants were paid.	Amount of grant (omitting shillings and pence).
Administrative counties	15	14	589	£1,363
London	15	30	1,566	3,711
County boroughs	36	65	2,707	5,685
Total for England (except Monmouthshire).	66	109	4,862	10,761

The following statement shows the technical branches for which the grant of £10,761 was awarded, and indicates their relative importance.

TABLE 3.—*Technical branches, etc., for which grants were paid.*

Description of course.	Number of classes.	Number of students on account of whom grants were paid.
Architecture and building	5	81
Engineering	12	499
Mining and metallurgy	6	81
Chemistry and applied chemistry (including dyeing)	3	18
Pharmacy	3	16
Technical optics	1	2
Textiles	4	12
Agriculture, etc	5	198
Navigation, etc	3	386
Commerce and languages	8	344
Artistic crafts	1	7
Photography, etc	2	76
Domestic subjects and women's industries	30	2,012
Courses for defectives (blind, deaf, and dumb)	2	72
Course for teachers of physical culture	1	12
General science	8	226
Courses in junior technical schools	15	820
Total	109	4,862

The manner in which the Government cooperates with local agencies for the promotion of technical education is indicated by the following partial list of institutions sharing in the grant, grouped under their respective local education authorities.

TABLE 4.—*Institutions sharing in the grant.*

Place.	Address of institution in which class was held.	Number of classes.	Number of students on account of whom grant was paid.
LONDON.			
[The administrative county of London.]			
Battersea	Polytechnic	4	228
Chelsea	South Western Polytechnic	4	104
City	Birkbeck College	2	105
Do	City of London College	1	68
Do	Sir John Cass Technical Institute	1	30
Finsbury	Northampton Institute	3	57
Islington	Northern Polytechnic	4	115
Lambeth	L. C. C. Norwood Technical Institute	1	32
Paddington	L. C. C. Paddington Technical Institute	1	34
Poplar	L. C. C. School of Engineering and Navigation	2	60
St. Marylebone	Regent Street Polytechnic	2	245
Shoreditch	L. C. C. Shoreditch Technical Institute	2	177
Wandsworth	Technical Institute	1	17
Westminster	National Training School of Cookery	1	248
Woolwich	Polytechnic	1	46
LANCASHIRE.			
[The administrative county of Lancaster]			
Old Trafford	James E. Jones' School of Industrial Training	1	7
[County boroughs.]			
Bolton	Technical School	1	14
Liverpool	School of Domestic Science	1	121
Do	Training School of Cookery	1	105
	Municipal School of Technology	5	286

TABLE 4.—*Institutions sharing in the grant*—Continued.

Place.	Address of institution in which class was held.	Number of classes.	Number of students on account of whom grant was paid.
LANCASHIRE—continued.			
[County boroughs]—Con.			
Manchester	Training School of Domestic Economy and Cookery.	1	73
Do	Harris Institute	2	58
Preston	Royal Technical Institute	4	11
Salford	Wigan and District Mining and Technical College	1	5
Wigan			
WARWICKSHIRE.			
[County borough.]			
Birmingham	Municipal Technical School	1	39
Do	Training School for Teachers	1	37
YORKSHIRE (WEST RIDING).			
[County boroughs.]			
Bradford	Technical College	4	69
Halifax	Municipal Technical College	3	21
Huddersfield	Technical College	6	104
Leeds	Cockburn Preparatory School	2	33
Do	Woodhouse Preparatory Trade Day Classes	1	29
Do	Holbeck Mechanics' Institute and Technical School.	1	17
Do	Yorkshire Training School of Domestic Economy	2	97
Sheffield	University of Sheffield—Department of applied science.	1	9

TABLE 5.—*Details of certain items of payments from the parliamentary grant for education other than elementary.*

Class of institutions, etc.	Payments in the financial year 1906–7.
	Pounds.
Secondary schools, etc.:	
Secondary schools	246,231
Day classes in secondary schools	8,006
Contributions toward local science and art scholarships held in secondary schools	31,665
	285,902
Technical institutions, schools of art, day technical classes, day art classes, and evening schools:	
Technical institutions	11,905
Day technical classes	10,802
Schools of art	56,961
Day art classes	1,291
Evening schools	343,045
	424,004
Royal College of Science, London:	
Salaries and wages	15,242
Exhibitions and allowances to students	3,527
Laboratory expenses (apparatus, instruments, materials, etc.)	4,870
Committee of inquiry	103
	23,742
Royal College of Art:	
Salaries and wages	6,871
Allowances to students	3,923
Materials, plants, models, etc	1,111
	11,905

TABLE 5.—*Details of certain items of payments from the parliamentary grant for education other than elementary*—Continued.

Class of institutions, etc.	Payments in the financial year 1906–7.
	Pounds.
Museums and circulation of objects for exhibition:	
Salaries and wages	30,615
Police	12,401
Purchases for collections (including libraries)	12,760
Carriage, apparatus, materials, etc	777
Traveling and incidental expenses, etc	635
Preparation and printing of catalogues, etc	537
Grants in aid of local museums	1,250
	58,975
Works and furniture (Victoria and Albert Museum, with branch museum at Bethnal Green; Royal Colleges of Science and Art; Solar Physics Observatory; and Board of Education offices, South Kensington):	
Wages	14,391
Heating, lighting, etc	6,433
Furniture, materials, etc., and fitting up objects for exhibition	3,216
	24,040
Geological Museum and Geological Survey:	
Salaries and wages	16,757
Police	813
Purchase of specimens, etc. (including library)	350
Furniture and fittings, etc	309
Heating and lighting	278
Traveling and incidental expenses, etc	2,265
	20,772
Committee on Solar Physics:	
Salaries	1,150
Instruments, chemicals, computers, etc	700
	1,850

TABLE 6.—*Summary of the statistics of day art classes for the school year ending July 31, 1906, analyzed for the areas of different types of local education authority.*

Type of local education authority.	Number of classes.	Number of students on account of whom grants were paid.	Amount of grant (omitting shillings and pence).
ENGLAND (EXCEPT MONMOUTHSHIRE).			*Pounds.*
Administrative counties	64	1,073	1,011
London	3	159	140
County boroughs	9	172	151
Total	76	1,404	1,303
WALES (WITH MONMOUTHSHIRE).			
Administrative counties	2	12	4
County boroughs			
Total	2	12	4
ENGLAND AND WALES.			
Administrative counties	66	1,085	1,016
London	3	159	140
County boroughs	9	172	151
Total for England and Wales	78	1,416	1,307

TABLE 7.—*Central institutions, Scotland. Statement showing the number of students instructed in, and the grant made by the department to the ten central institutions working under special minutes in respect of the session 1905–6.*

Name.	Session 1905–6.		
	Number of students instructed.		Grant from the department.
	Day.	Evening.	
			£ s. d.
Aberdeen and North of Scotland College of Agriculture	[a] 168	[b] 22	2,251 14 5
Aberdeen Gordon's College and Gray's School of Art	65	834	1,432 10 2
Dundee Technical Institute	.....	1,095	1,291 10 5
Edinburgh and East of Scotland College of Agriculture	[a] 113	[b] 185	[c] 2,030 14 2
Edinburgh Heriot-Watt College	182	3,539	3,361 13 8
Glasgow and West of Scotland Technical College	535	3,812	8,446 17 6
Glasgow Athenæum Commercial College	199	983	698 0 8
Glasgow School of Art	241	1,052	2,415 8 4
Leith Nautical College	150	171	330 17 3
The West of Scotland Agricultural College (including Kilmarnock Dairy School)	[a] 90	[b] 131	3,031 1 2
Total	1,743	11,824	25,290 7 9

[a] Central only.
[b] Classes.
[c] Includes a separate grant of £100 on behalf of the forestry classes conducted in the University of Edinburgh.

UNIVERSITIES OF GREAT BRITAIN AND IRELAND.

TABLE 8.—*Attendance at universities of Great Britain and Ireland at specified dates.*

Universities and university colleges.	Students.					
	1897.	1899.	1901.	1903.	1905.	1907.
Great Britain:						
England and Wales—						
Oxford (22 colleges, 4 halls, and noncollegiate students)	3,408	3,466	3,481	3,570	3,648	3,742
Cambridge (17 colleges, 1 hostel, and noncollegiate students)	2,929	3,016	2,958	2,900	3,054	3,463
Durham	171	170	590	1,831	870	926
London	.....	.....	6,889	6,083	8,287	7,141
Victoria (Manchester)	.....	.....	2,404	1,914	1,152	1,432
Leeds	.....	.....	.....	842	833	815
Liverpool	.....	.....	.....	667	790	914
Sheffield	.....	.....	.....	.....	1,711	676
Birmingham	.....	.....	677	814	850	848
University of Wales (3 colleges)	.....	.....	1,428	1,495	1,383	1,301
University colleges	13,411	11,301	[a] 4,131	.....	.....	5,999
University colleges for women	393	400	417	.....	443	517
Bedford College for Women [b]	192	170	.....	.....	.....	.....
Royal Holloway College for Women [b]	.....	110	.....	.....	.....	.....
Technical: City and Guilds of London (4 institutions) [b]	.....	1,592	.....	.....	.....	.....
Scotland—						
Aberdeen	755	765	755	814	830	862
Edinburgh	2,812	2,848	2,929	2,990	3,165	3,278
Glasgow	1,789	2,010	2,013	2,178	2,364	2,580
St. Andrews (2 colleges)	236	261	419	546	502	859
Dundee University College [c]	175	116	.....	.....	.....	.....
Glasgow (technical) College	286	268	298	314	[d] 530	548
Ireland:						
Dublin University	1,100	1,100	976	936	1,088	1,089
Belfast Queen's College	343	311	359	342	387	371
Cork Queen's College	206	188	171	199	232	254
University College, Dublin	.....	.....	.....	180	184	240
Galway Queen's College	105	91	97	97	97	112

[a] The greater number of the colleges formerly comprised under the head of university colleges have been gradually included under the following university organizations: London, Victoria, Durham, and Birmingham.
[b] Included in London University since 1900.
[c] Affiliated with St. Andrews in 1897, and since 1900 statistics included with those of St. Andrews.
[d] Not including 4,490 evening students.

RECENT UNIVERSITY DEVELOPMENTS.

The above table brings into comparative view the attendance upon universities and university colleges—that is, colleges preparing students for degree examinations—at the dates specified. The tabulated statistics indicate that in the period 1901 to 1907 the number of students attending higher institutions in England increased by 21 per cent, in Scotland by 26 per cent, and in Ireland by 28 per cent. The increase in the number of students is much less significant, however, than the multiplication of local universities in England, the federation of colleges, and the expansion of the older universities.

The University of London, originally an examining body, was reconstituted by statutes of 1900 as a teaching university. It has become a great federation, including 26 colleges and schools, giving instructions in eight faculties (faculties of arts, law, medicine, theology, science, engineering, economics, and music). In addition to the schools of the university there are several independent institutions in London in which students are doing work for which credit is given by the university. Manchester and the four other municipal universities of similar type have all been organized since 1900. The University of Leeds, chartered April 25, 1904, celebrated the opening of its new buildings July 7 last with imposing ceremony. The presence of the King and Queen gave special brilliance to the occasion.

In common with certain independent colleges, these recently organized institutions participate in the annual grant by Parliament for "university colleges in Great Britain," amounting now to £100,000. The three colleges of Wales receive each a grant of £4,000.

These modern universities have been marked by their equipment for instruction in science, pure and applied, and by the vigor of their departments of pedagogy. Recently prominence has been given, especially in Manchester and Birmingham universities, to subjects of a sociological character, such as municipal government, capital and labor, etc. During the last term Manchester University cooperated with the Workers' Educational Association in maintaining a course of lectures on wage problems. This association, which was organized at Oxford in 1903, may be regarded as one of the outcomes of that movement in behalf of the higher education of workingmen which, under the impulse of Mr. Frederick Denison Maurice, John Ruskin, and their coworkers, resulted in the now famous Working Men's College, London,[a] and in the establishment of Ruskin College at Oxford.

THE CARNEGIE TRUST FUND.

Every year gives new evidence of the stimulating influence of the Carnegie Trust Fund upon university activity in Scotland. The com-

[a] See, in this connection, The Working Men's College, 1854–1904. Records of its history and its work for 50 years, by members of the college. Edited by the Rev. J. Llewelyn Davies.

mittee (chairman, Lord Elgin) appointed to inquire into the claims of the several universities, in view of the second quinquennial distributions of grants from this fund, have submitted the following estimates for the period October 1, 1908, to September 30, 1913:

Institution.	Second quinquennium.	
	Annual.	Total.
St. Andrews Center:		
University	£7,500	£37,500
Glasgow Center:		
University	10,000	50,000
Technical college	800	4,000
Agricultural college	200	1,000
Anderson's College Medical School	100	500
Total for Glasgow	11,100	55,500
Aberdeen Center:		
University	8,000	40,000
Technical college	400	2,000
Agricultural college	200	1,000
Total for Aberdeen	8,600	43,000
Edinburgh Center:		
University	10,500	52,500
Heriot-Watt College	400	2,000
Agricultural college	200	1,000
Medical School of Royal Colleges	250	1,250
Women's Medical School	250	1,250
Total for Edinburgh	11,600	58,000
Grand total	38,800	194,000

THE IRISH UNIVERSITIES BILL.

The most important event of the year in respect to university movements in the United Kingdom is the passage of the Irish universities bill submitted to the House of Commons by the Right Hon. Augustine Birrell, chief secretary for Ireland, and carried successfully through both Houses before the adjournment. The bill provides for the creation of two new universities in Ireland—one at Dublin, the other at Belfast. As regards the existing universities, it should be said that the old university of Dublin, so identified with its one college of Trinity as to become known throughout the world as Trinity College, Dublin, is in no way affected by the measure. The Royal University, founded in 1879, which has been merely an examining body, will be dissolved. In his speech presenting the measure, Mr. Birrell explained that the new university of Belfast would have one constituent college, the present Queen's College. The new university at Dublin will have three constituent colleges—Cork, Galway, and a new college. Neither Belfast nor Dublin will have any power to add to their constituent colleges, although they will have severely restricted powers of affiliation. The buildings, property, and endowments of the existing Royal University will be

appropriated to the service of the new foundations. The £20,000 hitherto allotted to the Royal University from the Irish church fund, will be divided equally between the two new universities. No religious test of any kind will be permitted in either of the new institutions. They will be governed academically by their senates, and these bodies, after a very short time, will be academically elected, although the Crown reserves its right to make certain nominations. It was proposed in the bill to increase the annual appropriation from the public treasury, heretofore made to the Royal University, from £36,500 to £80,000, which, with the £20,000 derived from the church fund, would make an annual endowment for the two universities of £100,000. This amount was subsequently increased by an additional £2,000.

Provision was made in the bill for the appointment of a statutory commission to formulate detailed plans for carrying out the provisions of the law. It is expected that the duties of the commissioners will be accomplished, and the new institutions fairly launched by 1910.[a]

EVENTS OF INTERNATIONAL IMPORTANCE.

Among events of this year of widespread interest are educational congresses and exhibitions that were held during the summer and early autumn. As these events are noted elsewhere in this report, mention is simply made here of those that took place in England. The conference on the blind was held at Manchester, July 27 to August 1; the Third International Congress for the Advancement of Drawing and Art Teaching met in London, August 3 to 8; and the International Moral Education Congress, September 23 to 26.

The collection of material illustrating the methods and results of art training in the public schools of the United States proved to be an important feature of the exhibit which was made in connection with the art congress.

The preparations for the Moral Education Congress had excited general interest, as was indicated by the list of its patrons, representing the leading countries of the world, and by the eminent men who took part in the proceedings. Dr. Michael E. Sadler presided over the congress, and the leading exponents of different theories of moral training met upon neutral ground and under circumstances which permitted the free exchange of opinions and experiences.[b]

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[a] For the presentation of the full scope of the measure, see Speech of the Hon. Augustine Birrell, Parliamentary Debates, vol. 187, pp. 331 et seq. For the members constituting the commission, see Journal of Education (London), August 1, 1908, p. 544.

[b] Since this matter went to press the papers prepared for the congress have been issued in a volume entitled "Papers on Moral Instruction, Communicated to the First International Moral Education Congress held at the University of London, September 25–29, 1908. Edited by Gustav Spiller, honorable general secretary of the congress. *See also* Moral Instruction and Training in Schools. Edited by M. E. Sadler. 2 vols.

The series of international events that made London for the time a center of special interest to the scholastic world began with the games (July 13 to August 1), of the "fourth olympiad," as it was termed by Baron de Coubertin, to whom is due the revival of this ancient institution. The purpose of this effort, as explained by its zealous originator, justifies the inclusion of the celebration among educational events. "I saw," he says, "the necessity for reestablishing the olympic games as a supreme consecration of the cult of athletics practiced in the purest spirit of true sport, proudly, joyfully, and loyally."[a]

The Franco-British exhibit, which was maintained in London in the months of July and August, was particularly distinguished by its educational section. The annual meeting of the British Association, which attracts scientific men from every country, was held this year (1908) at Dublin, September 2 to 9. The proceedings have not yet been published, but the programme for the educational section was exceedingly promising as regards both topics and speakers. Among subjects of widest interest may be noted "Education in Relation to Rural Life," particularly timely for a meeting in Ireland, which is almost wholly an agricultural country. The president of the section was Prof. L. C. Miall, F. R. S., of the University of Leeds.

EDUCATION IN LONDON.

THE COUNTY COUNCIL AS THE EDUCATION AUTHORITY.

The education act (London) of 1903 transferred the powers with respect to education which had been exercised by the London school board for 33 years (dating from December, 1870) to the London county council. Educational administration in the metropolis was thus placed on the basis adopted for the other counties and county boroughs of England by the education act of 1902.[b]

In order to comprehend the scope of the duties thus imposed upon the council it is necessary to consider the extent of the area comprised within the London County. This is made clear by the following citation from the London Manual for 1907:

The name London was formerly only applicable to the city with an area of a little over 1 square mile, and the outside districts grew up without any homo-

[a] Why I Revived the Olympic Games, by Baron Pierre de Coubertin. The Fortnightly Review, July, 1908, p. 112. The first of the revived olympiads was celebrated at Athens, 1896; the second at Paris, 1900; the third at St. Louis, 1904. An Athenian series of games was inaugurated at Athens in 1906.

[b] For a review of the work of the London school board for the 33 years of its existence (December 15, 1870, to May 1, 1904), see Report of the Commissioner of Education for 1903, Vol. I, chap. 4.

geneity and without a common name until 1855, when they became officially known as the metropolis. This area became in 1889 the administrative county of London, 118 square miles in extent, and as such includes the city, in which, however, certain services are performed by the corporation which are in the rest of the county performed by the county council. The administrative county of London had in 1901 a population of 4,536,541. The changes in boundaries carried out under the London government act (1899) involved the inclusion in the county of South Hornsey and the loss of Penge.

Greater London, or the metropolis under the metropolitan and the city police, includes the whole of the counties of London and Middlesex and part of the counties of Kent, Surrey, Essex, and Herts. It is made up of all parishes of which any part is within 11 miles of Charing Cross, or of which the whole is within 15 miles of Charing Cross. It is 693 square miles in extent and contains a population of 6,581,372.[a]

It is important to keep in mind also the fact that the area under the county council includes 28 metropolitan boroughs, each of which elects a borough council. These councils have a measure of authority in respect to the management of public schools.

The population of the county council area and of the "outer ring," according to the censuses of 1891 and 1901 and the estimates of the registrar-general for 1906,[b] was as follows:

Areas.	Population.		
	Census.		Estimated.
	1891.	1901.	1906.
Registration London, coinciding with the administrative county	4,228,317	4,536,541	4,721,217
Outer ring	1,405,489	2,044,831	2,392,344
Total for "Greater London"	5,633,806	6,581,372	7,113,561

It will be seen from the foregoing statistics that the London county council must provide schools for a population of 4,721,217, which is about 436,000 more than the population of New York City. Hence the responsibilities of the council in respect to education are comparable with those of the New York Board of Education.

The London council, however, is required to make provision not only for elementary education, but to a certain extent also for higher education, "including university, secondary, and technical instruction. It thus has charge of the education of London children from the earliest years until the time when they have passed through the highest grade of university teaching." This extension of authority is in accordance with the avowed purpose of the Government to unify educational administration in county areas.

[a] London Manual, 1907 (published by Edward Lloyd (Limited), p. 7).

[b] Statesman's Yearbook, 1907, page 20. The outer ring includes the county of Middlesex and part of the counties of Kent, Surrey, Essex, and Herts. The schools of this part of Greater London are under the councils of the respective counties.

The formalities attending the transfer of authority from the London school board to the county council took place May 2, 1904; at the same time the work of the technical education board, which had been in existence 11 years (dating from April 28, 1893), was also given over to the council. On account of the opposition in England to the overthrow of the former school boards, which reached its climax in London and which is still active in that city, peculiar interest attaches to the manner in which the council has met its new responsibilities.

THE EDUCATION COMMITTEES.

Every county council is required to form an education committee to which all education powers conferred upon the council, excepting that of raising a rate (local tax), or borrowing money, may be delegated. Every scheme drawn up by a county council for the constitution of an education committee must be sanctioned by the government board of education, so that these committees represent, as it were, both the central and the local education authority. In framing the London scheme two purposes were kept in view: First, to secure a committee that should work harmoniously with the council; secondly, one that should keep the interest of education, so far as possible, under public control. Both purposes are promoted by the manner of selecting the members of the committee. Out of a total of 48 members, 38 are members of the council itself, an elected body it should be remembered; the 5 women members are co-opted by the council, and the remaining 5 members represent the former school board. The London committee stands actually in a closer relation to the voters than the New York Board of Education; the latter consists of 46 members, comprising a fixed number from each of the five boroughs, appointed by the mayor. The board of superintendents, New York, formed by appointment of the board of education, discharges many of the duties which in London fall upon the education committee. In general, it may be said that this committee deals with all questions pertaining to the schools not involving new departures or matters of principle, and in respect to all matters of routine administration acts in the name of the council. Recently the committee was authorized to spend a sum not to exceed £500 ($2,500) without the approval of the council; it was decided also that its meetings should be public. The committee is organized in subcommittees, each assigned to a special department of the work; from time to time, also, section subcommittees are appointed to deal with particular problems.

The chief members of the official staff of the education committee are as follows: Clerk of the council, educational adviser, executive officer, architect (education); chief inspector (education); medical officer (education), comptroller. Admission to the clerical force is

only gained after passing the examination for fourth-class assistants, which is usually held in the beginning of each year.

LOCAL SCHOOL MANAGERS.

In accordance with the education acts empowering county or city education authorities to appoint managers for a school or group of schools, the London county council continued, with some modification, the system of school managers adopted by the former board.

In the case of schools provided by the council, that is, public schools in the American sense of the word, the number of managers is decided by the respective borough councils, subject to the approval of the government board of education; three-fourths of the managers are appointed by the borough councils, and one-fourth by the county council; thus the interests of each borough are fully represented, but in due subordination to the general needs. Women must be included in the number of managers.

In the plan of the London council the provided schools are arranged in groups containing not more than four schools; all the schools in a group are to be located within the limits of the same borough. It has been further decided that the number of managers for a group of three or four schools shall not exceed 18, and that the number of managers for a group of two schools, or for one school, shall not exceed 12.

Following the principle laid down by the education act of 1902, the act for London (1903) admitted the " voluntary " schools (chiefly parochial) to share in the local school tax, upon conditions as to buildings, equipments, and teaching force to be determined by the local authority. The body of managers for this class of schools, termed nonprovided, consists of foundation managers and representatives of the local education authority in the proportion of 4 to 2, as required throughout England.

The managers of provided schools form a local committee, as it were, to see that the regulations of the education authority are properly carried out. In the case of nonprovided schools the managers are responsible to the education authority in respect to the conditions upon which a share in the local school tax may be claimed.

In the complex system of administration thus briefly outlined the endeavor has been made to preserve due regard for both local independence and established interests and at the same time to provide for a comprehensive and elastic scheme of public education, uniform in its action throughout the whole metropolitan area, and maintained by the combined action and resources of the general and the city government.

The education committee and the managers have to do mainly with the provision of schools, their maintenance, and conduct, as required

by law or by the orders of the council itself. The scholastic affairs are under the immediate oversight of a corps of inspectors, consisting of the head inspector and divisional inspectors, who form the professional advisers of the council.

DIVISIONS OF THE GENERAL SYSTEM.

The educational system under the administration of the London county council comprises:

(1) Public elementary schools, provided and nonprovided, which form an organized system, supported chiefly by government grants and local taxes. Fees are still paid in some cases, and nonprovided schools are aided also by endowments and subscription funds.

(2) Provision for secondary education by means (*a*) of scholarship funds; (*b*) of secondary and evening schools, established by the council; (*c*) of private secondary schools, to which grants for equipment and maintenance may be made upon conditions laid down by the council.

(3) Provision for the higher education of selected students on the basis of grants allowed to colleges, technical institutions, and London University.

I.—PUBLIC ELEMENTARY SCHOOLS.

The power to provide instruction in a public elementary school is limited to pupils who, at the close of the school year, will not be more than 16 years of age, excepting in cases sanctioned for specified reasons by the board of education (education act 1902, 22, 3).

Children are permitted to attend a public elementary school at 3 years of age; the age limits for compulsory school attendance are 5 to 14. The schools are classified as infant schools (age limits 3 to 7), schools for older pupils (ages above 7), and higher grade or higher elementary schools. The latter schools at their lower limit of age overlap the ordinary elementary schools, and are also carefully distinguished from secondary schools. Pupils who give proof of special competence may be passed over into the higher grade schools at 12 years of age.

STATISTICS.

Pupils.—For the year ending March 31, 1907, there was accommodation in the public elementary schools of London for 758,373 pupils; the average enrollment in the schools named was 740,670, and the average attendance 657,354, or 87.47 per cent of the average enrollment.

In addition to the ordinary public elementary schools there are private schools under public inspection, but not supported by public

funds, which are classed as efficient. In the year specified these schools enrolled 2,672 pupils. The special schools, under the charge or supervision of the county council, for defective and delinquent children registered 12,878 children. Hence the enrollment in all the elementary schools belonging to the public system reached a total of 756,220.

The following table brings into comparative view the accommodation and attendance in the different classes of public elementary schools for the last year under the administration of the London school board, and for the three succeeding years under the council:

Comparative view of the statistics of accommodation, enrollment, and average attendance in the public elementary schools of London for the years specified.

School.	Accommodation.	Average enrollment.	Average attendance.	
			Number of pupils.	Per cent of average enrollment.
London board, or county council schools:				
1903–4[a]	579,030	559,329	485,343	86.77
1904–5	588,703	557,229	495,901	89
1905–6	599,407	557,293	495,866	89
1906–7	604,420	564,583	504,335	89.3
Voluntary, or nonprovided schools:				
1903–4[a]	215,121	210,141	177,884	84.64
1904–5	209,208	202,508	172,739	85.3
1905–6	147,100	192,480	165,195	85.8
1906–7	153,953	176,087	153,019	86.9
Other efficient schools:[b]				
1904–5[a]	3,904	2,825	2,410	85.3
1905–6	3,768	2,714	2,310	85.1
1906–7	3,608	2,672	2,310	86.5

[a] Under school board.
[b] Schools receiving government grants, but having no share in the local taxes (one only in London), and other private schools under public inspection, but receiving no aid from public funds.

Teachers.—The adult teaching staff in the ordinary elementary schools, provided and nonprovided, for the latest year for which the item is reported (ending March 31, 1906), numbered 17,400, or one adult teacher to every 43 pupils, on the basis of the average enrollment for that year. There were also about 2,000 pupil-teachers, 409 teachers in the special centers for defective children, 359 instructors and assistants in the manual-training centers, and 429 instructresses in the cookery, laundry, and domestic-science centers, giving as the total force 20,597 teachers and assistants. The classification of the adult teachers was as follows:

Class of schools.	Teachers.		
	Head.	Assistant.	Total.
Provided, or council schools	1,512	11,237	12,749
Nonprovided (voluntary)	936	3,715	4,651
Total	2,448	14,952	17,400

Finances.—The expenditure on the elementary schools for the year ending March 31, 1906, is reported as follows:

For maintenance of schools	£2, 881, 586	[a] $14, 004, 508
Capital expenditure, day schools	[b] 338, 693	1, 646, 048
For maintenance of special and industrial schools	170, 345	827, 877
Capital expenditure, industrial schools	[b] 14, 031	68, 191
Administration, enforcement of school attendance, etc	238, 044	1, 156, 894
Repayment of loans, interests, etc.	737, 895	3, 588, 170
Total	4, 380, 594	21, 291, 688

The approximate annual cost of school maintenance, based on average attendance, is given as follows: In council schools, £4 16s. 9d. ($23.50); in nonprovided schools, £2 19s. 3d. ($14.39).

Of the total public expenditure for maintenance, which amounted to £4,027,869 11s. 5d., the parliamentary grant bore about 31½ per cent, the county council 67 per cent, leaving a small balance from fees, endowments, etc. The increase in the rate (local property tax) levied for education, which was one of the grounds for the charge of extravagance against the former school board, has continued under the council administration, rising from 16 pence in the pound in 1904–5 to 19 pence in 1906–7. This includes the tax allowed for education other than elementary.

SALIENT FEATURES OF THE CURRENT OFFICIAL RECORD.

The following particulars, drawn from current official reports,[c] cover the matters of chief general interest in respect to the administration of the elementary school system of London.

Supervision of the child population.—The completeness with which the child population of the metropolis has been brought under supervision is indicated by the fact that of the 879,542 children between the ages of 3 and 14 comprised in the school census of 1907 there were only 133,980 (15.2 per cent) who were not on the rolls of efficient schools. Of this number 115,532 (13.1 per cent of the total scheduled) were under 5 years of age, and therefore could not be compelled to attend school, and 1,132 (or 0.13 per cent) were under instruction in

[a] Exchange reckoned at $4.86.

[b] The sum of the items which are reported under the head of capital expenditure incurred by the council for elementary education for the year ending March 31, 1906, is £352,724 ($1,714,239). According to the report of the council, "the total capital expenditure chargeable to education account on the provision for elementary education by the former school board and the council" up to March 31, 1906, amounted to £16,334,452 ($79,385,439).

[c] The report of the education committee of the London county council, submitting a report of the executive officer dealing with elementary school accommodation and school attendance for the year ended March 31, 1907; also, Annual Report of the Proceedings of the Council for the year ended March 31, 1906.

some other way. The nonattendance of the remaining 17,316 children was fully accounted for. Only 168 of this number were out of school for want of accommodation. Of these, 81 had been out of school for a period of four weeks or longer, but 44 were awaiting admission to special centers, and the remaining 37 children were in districts where there is great demand for increased accommodation, which the council is taking steps to provide.

Special schools for defectives.—In the endeavor to carry out the provisions of the compulsory law,[a] which is applied to all children capable of being instructed, special schools have been established for blind, deaf, and otherwise defective children. The schedules give a total of 10,920 such children, who are accounted for as follows:

Attending the special council schools	8,147
Attending ordinary schools	371
In institutions	310
Under instruction at home	2
Total	8,830

Of the remaining 2,090, about one-half (986) were of noncompulsory school ages, and the remainder were under surveillance.

The following summaries show the status of the special schools as regards accommodation and attendance on March 31, 1906·

Day schools.

	Accommodation.	Average number on books.	Average attendance.
6 schools for the blind	205	183	163
9 schools for the deaf	544	430	370
76 schools for the mentally defective	4,650	4,746	4,000
23 schools for the physically defective	1,288	1,565	1,243

Residential schools.

3 schools for the blind	120	90	84
3 schools for the deaf	228	189	177

Industrial schools.—For the care, restraint, and training of neglected, vagrant, incorrigible, and vicious children, provision is made in industrial schools, which are either residential or day schools, according to circumstances. Certified industrial schools, to which children may be sent for short terms, are called truant schools.

[a] The compulsory by-laws now in force in London apply to all children between 5 and 14 during the whole time the school selected is open, unless reasonable excuse is shown for nonattendance. Exemption, if desired, is allowed for children between the ages of 12 and 14 years who have passed the seventh standard (grade) at a special examination held by one of His Majesty's inspectors of schools.

The following statistics show the number of children in industrial schools and reformatories, at the charge of the London county council, in 1906, and their distribution in the several institutions maintained by or in relation with the council:

Industrial schools and reformatories in London.

Class of schools.	Number of schools.	Number of council pupils March 31, 1906.		
		Boys.	Girls.	Total.
Council's industrial schools and truant schools	9	[a] 230 1,038	70	1,338
Industrial school maintained jointly by the county council and the county borough of Brighton	1	72	.....	72
Industrial schools with which the council has agreements	60	1,808	736	2,544
Reformatories with which the council has agreements	28	428	37	465

[a] Boys and girls in mixed schools.

Condition of school buildings and premises.—The education act of 1902 not only brought voluntary schools upon the local taxes, but also imposed upon the local authority the right and the duty of requiring that the managers of these schools should keep the buildings and equipments in a satisfactory condition.

In accordance with this provision, one of the earliest measures of the London council in respect to education was the ordering of a structural survey of the nonprovided schools throughout the county area. The preliminary survey was completed within a year, but the work of inspection was still continued, and extended also to the council or provided schools.

From the official report it appears that in December, 1907, the status of the buildings of the nonprovided schools included in the survey was substantially as follows:

Schools or parts of schools:

Closed	20
Alterations completed	109
Alterations progressing satisfactorily	203
Alterations not yet commenced	24

The items thus reported pertain to 334 schools included in the original survey and 3 new schools meanwhile opened. There are also some duplications from the fact that parts of the same school are found under different categories. The changes thus accomplished or in progress have reduced an estimated accommodation for 162,324 pupils to an accommodation for 142,931 pupils.

The inspection of the provided or council schools has resulted in a systematic scheme of improvements to be carried out at the rate of about 6 schools yearly. In addition to the general remodeling of old buildings thus provided for, 308 class rooms with accommodation for

21,871 pupils, or an average of 71 to a room, have been converted into 406 class rooms with a total accommodation of 18,849 pupils, or an average of 46 to a room.

Higher elementary schools.—Higher elementary schools in the chief cities of England developed, under the administration of the former school boards, from the upward expansion of the ordinary public elementary schools, much after the manner of the high schools of our own country. They received grants on a higher scale than the ordinary elementary schools, but their work has been restricted by recent government regulations apparently intended to differentiate schools of this class from secondary schools.

In April, 1905, the London council reported that 7 higher elementary schools, with accommodation for 1,919 children, had been recognized by the central authority, the board of education. Under the freer conditions of the code for that year, the council asked the board to recognize 26 schools of the higher type. The request was provisionally granted for the school year 1906–7, and again, with the addition of another school, for the year 1907–8. The experience of the three years under the new conditions has, however, satisfied the day schools subcommittee that it is not desirable, either from a financial or an educational point of view, that the London council should proceed with the establishment of additional higher elementary schools. This decision is not adopted with a view of lowering the standards or of lessening the educational opportunities afforded by such schools. On the contrary, the subcommittee say: "We propose to set ourselves the task of organizing and developing a system of schools providing a superior elementary education for selected children, with curricula better adapted to the educational requirements, which differ in different parts of the county." They submit a somewhat detailed scheme for the future development of higher schools under the unrestrained control of the municipal authorities. A significant feature of this scheme is the proposal to "introduce, as an experiment, in respect of five higher elementary schools, a curriculum with an industrial or commercial bias." This purpose is an outcome of long-continued inquiry and deliberations relative to the educational needs of the artisan and commercial classes, and the means of insuring vocational training to children who can not long be kept in the ordinary schools, but leave the moment compulsion ceases.[a] It has been recently estimated that there are "150,000 children in London between the ages of 14 and 16 who are not in the schools," and of whom

[a] See in particular the following reports issued by the London county council: Technical education board; Report of the Special Subcommittee on Commercial Education, 1899. Ibid.; Report of the Special Subcommittee on the Building Trades, 1899. Report of the Special Subcommittee on Technical Instruction for Women, 1903. Report of the Section of the Education Committee Appointed to Consider the Question of Apprenticeships, 1906.

" a large majority are spending their time unprofitably and without securing any preparation for future life." It is interesting to note that similar conditions in New York City have resulted in a recent decision of the board of education to open two vocational schools for children between 13 and 15 years of age.[a]

The report of the day schools committee, above referred to, was adopted by the education committee as a whole, and thus London is committed to independent action in respect to the upward development of its school system.[b]

Teachers.—In common with other cities of England, London has suffered recently from a dearth of teachers. The efforts to overcome this deficiency have, however, so far succeeded that in March, 1906, only 6 vacancies for permanent assistant teachers were reported, as against 47 the year previous.

According to the official estimates, about 1,500 new certificated teachers are annually required for the London schools, about the same number as are required in New York. The training colleges already established or proposed by the council will accommodate 1,485 students, representing a supply of about 1,175 teachers a year. This recruitment, with the number of new teachers annually drawn from extra London colleges, will, it is believed, meet the present demands.

Throughout England a large proportion of the new teachers annually required for the elementary schools are drawn from the body of pupil teachers. By government regulations, in force from August 1, 1906, the relation of this class of assistants to the service has been radically changed. The age for entering the service has been raised from 14 to 16 years, and local education authorities are required to make such arrangements as will enable the pupil-teachers in service to receive " a sound general education in secondary schools with pupils intended for other careers." In pursuance of these regulations, the London county council have made provision, by means of what are called " probationer scholarships," for the education of boys and girls between the ages of 14 and 16 who pledge themselves to enter the teaching profession upon the completion of the scholarship course. The number of these funds allowed in 1906 was 1,200, but hereafter the limit will be 800. They represent an annual value of £15 a year each, in addition to free tuition, and are tenable for one or two years. The Government also allows a grant of £4 a year on behalf of each " probationer " to the managers of the schools in which the probationers are placed.

[a] See, in this connection, recommendations by Dr. A. S. Draper, state commissioner of education, New York, in his annual report for 1908, pp. 42–45.

[b] See Superior Elementary Education. Report of the Day Schools Subcommittee to the Education Committee. (The School Government Chronicle, No. 1951, vol. 80 (July 11, 1908), pp. 29–30.)

At the age of 16 a probationer who passes the council examination or the approved test may be admitted to serve as a pupil-teacher for one or two years.

Conditions under which pupil teachers serve in London.—Subject to passing an admission examination conducted by the council, with the approval of the board of education, a boy or girl at the age of 16 is eligible, as stated in the official report, " for acceptance as a pupil teacher for two years, or for one year if the candidate's qualifications are sufficient and provided that the end of the reduced term of service will fall beyond the completion of the candidate's eighteenth year." In lieu of this admission examination conducted by the council, other examinations approved by the board of education, such as the Oxford or Cambridge local examinations for junior students, are recognized.

Pupil teachers are paid as follows:

	First year.	Second year.
Boys	£32 10s.	£39
Girls	20 16	26

together with an allowance of £18 for men, and £15 for women, upon entering a training college.

The regulations of the board of education require a pupil teacher to receive:

(*a*) Training in the art of teaching in a public elementary school during not less than 100 or more than 200 meetings during the year (or not more than half the total number of meetings of the school during that year if that number is greater than 400); and (*b*) instruction in a recognized center for not less than 150 meetings in the year. Where these conditions are fulfilled an annual grant of £7 a head is paid.

In order to meet these conditions the training centers already existing in London are being converted as rapidly as possible into secondary schools, and this provision is supplemented by approved private secondary schools.

Instead of the attendance during alternate sessions at center and elementary schools, as formerly, pupil teachers who receive instruction at secondary schools attend for full time under the so-called " block " system, as follows:

1. August to December at elementary school.
2. January to December at secondary school.
3. January to July at elementary school.

Under the recent regulations for schools sharing in the government grant, no pupil teachership is recognized for more than two years; at the end of this period the majority of those who have served their apprenticeship present themselves for the examination that admits to a training college, in which students finish their training at government expense.

The London county council pays its pupil teachers for the entrance examinations recognized by the Government for the teacher's certificate.

It will be seen from this brief survey of its main features that the pupil-teacher system bears a very important relation to the recruitment of the adult teaching force for the London schools.

MEDICAL INSPECTION IN LONDON SCHOOLS.

In submitting his report for the year ending March 31, 1907, the medical officer says, with respect to the service:

The Fifth Annual Report on School Hygiene, Under the Education Authority for London, finds this subject in a very different position from what it was 5 years ago. It is recognized in other countries than England as a highly specialized branch of public health, which the ordinary sanitation can not be expected to follow in its fullness, and which requires officers experienced in the technique and specially trained to do justice to the children and to the public interests.

The great success of the recent International Congress for School Hygiene has undoubtedly done something to stir us as a nation from the position into which we, owing to neglect, had slipped.

The work followed in London during the past year has been directed mainly to the still unsettled problems of the ordinary class room. Inquiries have been begun among the older pupils, and also some test examinations made of infants at admission. The value of last year's physical measurements has been enhanced by the calculation of the limits of error, and by some theoretical explanations. The physically defective children have all been gone over; the subject of artificial lighting dealt with, and ventilation has been returned to, especially in its relation to fatigue; on this some other experiments are also given.

A point has now been reached as to whether the greater part of the medical inspection shall remain fruitless, or whether the council shall take steps which will justify their later interference to see that its younger dependents have a fair chance of properly benefiting by the education offered. Treatment as a public concern will have to be considered in respect to certain educational matters, such as visual troubles, discharging ears, ringworm, and the care of the teeth, in which neither the private practitioner nor the hospitals can give any hope of either providing sufficient or satisfactory relief for most of the cases requiring it.

Examination of candidates.—Head, assistant, and pupil teachers, training college students, scholarship candidates, instructors, and school keepers employed in the schools are medically examined in this department before commencing work. During the year nearly 8,000 medical examinations have taken place, viz, 1,963 head and assistant teachers, 1,563 pupil teachers, 3,676 scholarship candidates, 670 training college students, 104 instructors and school keepers.

SCHOOL INSPECTION.

The following tables present in brief the extent and results of this division of the service for the year under review (March 31, 1906, to March 31, 1907):

Average number of visits to schools made each week for examinations and inspections by officers of the public health department (education).

	Special schools.	Ordinary schools.	Domiciliary and special inquiries.
Medical officer and 24 assistants	21	68	20
Thirty-two nurses	337.8		342.1

Summary of returns.

	Departments.	Number on roll.	Number examined.	Defects returned by teacher.				
				Vision.[a]	Hearing.	Speech.	Other physical.	Mental.
Nonprovided schools	257	47,857	5,791	193	435	364	710	438
Council schools	450	161,017	14,319	1,382	1,425	1,029	3,166	1,382
Total	707	208,874	20,110	1,575	1,860	1,393	3,874	1,820

[a] Apart from vision testing.

Result of examinations.

	Requiring treatment urgently.					Requiring transfer to special school.				
	Vision.[a]	Hearing.	Speech.	Other physical defects.	Mental defects.	Vision.	Hearing.	Speech.	Other physical defects.	Mental defects.
Nonprovided schools	120	322	140	414	205	1	5	2	11	179
Council schools	1,045	879	454	2,090	602	3	8	1	61	365
Total	1,165	1,201	594	2,504	807	4	13	3	72	544

[a] Apart from vision testing.

Number of children selected individually from their classes and reported with defects.

	External diseases of the eye.	Throat or nose affections.	Ear disease.	Excessive dirt.	Other defects.
Nonprovided schools	374	568	201	56	269
Council schools	1,243	2,157	789	150	1,215
Total	1,617	2,725	990	206	1,484

Number and condition of schools inspected as to sanitary conditions.

Condition.	Lighting.	Ventilation.	Heating.	Sanitation.	Furniture.
Nonprovided schools:					
Good	25	11	14	12	15
Fair	18	15	10	12	12
Bad	41	30	13	9	42
Council schools:					
Good	96	72	75	68	71
Fair	16	16	14	7	5
Bad	50	25	16	5	12

II.—HIGHER EDUCATION, INCLUDING SECONDARY, UNDER THE LONDON COUNTY COUNCIL.

In accordance with the provisions of the education act of 1902 as applied to London by the act of 1903, the London county council is required "to consider the educational needs of its area and take such steps as may seem desirable, after consultation with the board of education, to supply or aid the supply of education other than elementary, and to promote the general coordination of all forms of education." The funds at the disposal of the council for the purposes of higher education are derived from the surplus of the liquor duties provided by the customs and excise law of 1890, and from local taxes (rates).

In dealing with this part of the educational work, the council has necessarily kept in view three main considerations, namely, adequate provision for each metropolitan district, wise coordination of existing agencies, extension of facilities for "higher" education to the children whose parents are unable to meet the fees and other expenses incurred by attendance at secondary schools, colleges, or universities. Thus far it has not been found possible to undertake for London a complete survey of the whole field of higher education such as has been carried out in several other counties, with the purpose of devising comprehensive plans covering the entire problem. In particular the first two considerations mentioned have to be dealt with as circumstances suggest.

THE SCHOLARSHIPS SYSTEM.

An important step toward meeting the third requirement is the reorganization of the scholarship scheme already referred to in its relation to pupil-teachers. The scholarships are of two classes, namely, county scholarships, which are applied chiefly to purposes of general education, and technical, industrial, and other scholarships of special application. The county scholarships, exclusive of the "probationer" funds limited to pupil-teachers, are as follows: (1) Junior scholarships, in number 2,600, available for children from 11 to 14 years of age who pass an examination admitting them to a secondary

school. These carry free tuition and an annual maintenance allowance of £6, £10, or £15, according as the cases fall within prescribed conditions as to family income. (2) Intermediate scholarships, 100 in number, awarded annually upon the results of examination to "pupils between 15 and 17 years of age, tenable till the end of the school year in which the pupils attain the age of 18, with possibilities of extension for another year. The scholarships consist of free education at a cost not exceeding £25 a year, together with maintenance grants rising from £20 a year to £35 a year. The income restriction (limit of family income) is £400 a year. Of these scholarships 20 are at present tenable in the commercial department of university college school." (3) Senior scholarships, 50 in number, awarded by examination or selection. These "confer free education (not exceeding £30 a year), and such maintenance allowance (not exceeding £60 a year), at such rate and for such periods, not exceeding four years, as the council may in each case determine. They are tenable in such secondary schools, colleges, or universities as the council may from time to time approve for that purpose, not more than five such scholarships annually being tenable for one year at the London Day Training College. Forty senior county scholarships, together with six such scholarships without maintenance allowance, were awarded in 1905–6."

The "technical, industrial, and other" scholarships allowed by the council are intended to encourage students to devote themselves to special branches of technical or industrial work. They are tenable at evening schools and technical institutions, and are limited to candidates who reside within the county area; in all cases certain restrictions are laid down as to the family income of the recipients. The number of such scholarships in 1907 was 1,184, of which 450 were domestic economy scholarships for girls, providing a maintenance grant of £3 and free training for one year at the schools of domestic economy attached to polytechnics and other institutes.[a]

In addition to the scholarships awarded by the council, London candidates have the benefit of many scholarships of private origin.[b]

The scholarships scheme, as here briefly outlined, discloses certain economic principles that mark educational administration in England. Even elementary education was not assumed as a national responsibility until 1870, and higher, including secondary, education is still regarded as a matter chiefly of private concern. The history of scholarship funds and kindred endowments affords, however, interesting proof of the early recognition of talent as a national asset. These two ideas have determined the application of the scholarships

[a] For full particulars as to the scholarships, see London County Council. Session 1907–8. Scholarships and Training of Teachers Handbook.

[b] Ibid., pp. 105–140.

at the disposal of the London council. The limitation of income is fixed with special reference to families whose resources preclude the higher education of their children,[a] while the competitive examinations and the council selections are designed to secure candidates of special aptitude and promise.

SECONDARY SCHOOLS.

By the regulations of the board of education a secondary school is defined as a "day or boarding school which offers to each of its scholars a general education of a wider scope and higher grade than that of an elementary school, given through a complete progressive course of instruction continuing up to and beyond the age of 16." The course of instruction in secondary schools approved by the board is intended to secure a definite standard of attainments, rather than a merely superficial introduction to a few subjects.

The report of the council states that "while for the immediate future the provision of secondary school accommodation for boys in London may be adequate except in a few districts, there is urgent need for additional secondary school accommodation for girls." The deficiency in this respect has excited special attention by reason of the increasing scholastic qualifications demanded for teachers of elementary schools; hence the secondary schools recently established by the council itself have been chiefly schools for girls.

In 1907 the council had 20 secondary schools under direct control (16 for girls, 3 for boys, and 1 mixed), with accommodation for 3,765 pupils. The tuition fees in these schools are low, averaging about £6½ ($33) a year. Apart from these council schools, there are many private secondary schools to which the council makes both maintenance and equipment grants, and which are regularly inspected by the council's officers. The number of such schools in 1907 was 51. The total amount of grants made to them for the year ending July, 1907, was £74,275 ($371,375).

The number of pupils attending the secondary schools by the aid of scholarships in 1907 was about 3,500, including the 1,200 intending pupil-teachers on the probationer funds.

COORDINATION OF SECONDARY AND HIGHER INSTITUTIONS.

The scholarship scheme provides for a complete course of education, proceeding by successive stages from the elementary school to the university, technical college, or professional school. The circumstances under which the scheme has been developed have given emphasis to vocational aims as distinguished from purely cultural purposes. The evening classes inaugurated by the school board are

[a] In 1905 the great majority of junior scholarships (2,080) were awarded to the children of parents whose annual income was less than £160 ($800).

carried on as continuation schools under the present conditions, and special efforts have been made to link them with the scheme of technical instruction fostered by the various polytechnics and by the technical institutes established by the former Technical Education Board.[a] The latter are now controlled and maintained by the council, while the polytechnics are under private management. Every disposition is shown by the managers of the polytechnics to cooperate in the plans of the council, which in its turn fosters their work by grants of public money. These grants are conditioned upon the classes being open to inspection by the council's officers, and upon the report of the inspectors to the effect that the instruction is satisfactory, that the class equipment is good, and the classes well managed.

With respect to the grouping and combination of agencies for the extension of higher education among the people, the report of the council says:

> Broadly, this scheme proceeds upon the basis that the more elementary branches or subjects of a more or less technical character can best be taught in the evening school, while the more advanced studies can best be pursued at the technical institutes and polytechnics. With the hearty cooperation of the authorities of the polytechnics, arrangements have been made for giving effect to this scheme, and there can be little doubt but that the increased and graded facilities thus afforded will lead to the most beneficial results. Trade and industrial classes for girls and boys have also been started in connection with the Shoreditch Technical Institute and the Borough Polytechnic, and a large number of scholarships are now offered yearly in order that the advantages of this form of instruction may be open to all, and it is to be hoped that the extension of such classes which are common enough in Paris and other continental cities may assist in the revival of the skilled operative of whose services by the decay of the system of apprenticeship London is alleged to have been deprived.

The purpose thus announced is illustrated by the courses of instruction planned for the different classes of institutions. The subjects comprised in the course for the evening schools are as follows: For men, "arithmetic, ambulance work, elementary French, bookkeeping, geography, writing and composition, drawing, woodwork, metal work, shorthand, wood carving, and elementary sciences;" for women, "cookery, dress cutting and making, millinery, vocal music, writing and composition, French; laundry work, arithmetic, bookkeeping, shorthand, ambulance and home nursing. Instruction in gymnastics and swimming and life-saving is common to both classes of schools."

Specialization in arts and trades takes place in the council's technical institutes and the polytechnics. The magnitude of the work is shown by the following statistics: The number of evening schools in

[a] For an account of the origin, development, and present status of evening schools in London, see Continuation Schools in England and Elsewhere, by M. E. Sadler, chapter 3, prepared by G. L. Bruce.

1905–6 was 354; number of students, 153,387. Seven of the ordinary evening schools, the report states, "were made commercial, or commercial and science and art schools, the number of such schools now being 34, an increase of seven on the preceding year."

The council's technical institutes and schools of art enrolled 5,859 evening students and 1,109 day students. The total number of individual students attending institutions of polytechnic rank, aided by the council during the year 1905–6, was 31,476. The grants for these institutions amounted to £64,867 ($315,254), or 35.2 per cent of their total income.

London University is brought within the council system by the continuance of the annual grant of £10,000 ($50,000), as approved by the technical education board in 1902. This grant is divided equally between the four faculties of arts, science, engineering, and economics. Annual grants are also made to four of the constituent colleges of the university, the council thereby obtaining the right to nominate a certain number of students. The present arrangements are provisional; meanwhile plans are under consideration for a complete scheme of higher education formed in advice with representatives of all the agencies concerned in giving it practical effect, with the council as the directive and supervisory authority.

THE CONSULTATIVE COMMITTE OF TEACHERS.

The purpose of the council to seek the largest and fullest experience in the conduct of education, and to unite all existing agencies in common efforts for its diffusion, is indicated by the formation of a consultative committee of teachers, as explained in the following statement quoted from the report:

In connection with the examination for junior county scholarships during the year 1905, local scholarship committees of head masters and head mistresses of all public elementary and of public secondary schools within the area were organized in each electoral area. These committees made useful suggestions with regard to the conduct of examinations and other matters. It appeared to the council desirable to extend further the operation of these committees, and arrangements have therefore been made for the formation of central and local consultative committees, consisting of head masters and head mistresses of public elementary schools, public secondary schools, training colleges, and pupil teacher centers in the administrative county of London, to consider various matters relating to Part III of the education act, 1902, as amended by the education (London) act, 1903, such as the following: (i) Facts connected with the locality, such as (*a*) predominant trades and openings for boys and girls; (*b*) proportion of parents who are willing to keep their children at school beyond the age of 14; (*c*) extent of underfeeding; (*d*) extent of employment of children out of school hours. (ii) Organization of schools into departments. (iii) Curriculum. (iv) School and outside examinations. (v) School games and the encouragement of corporate school life. (vi) School libraries and the utilization of public libraries. (vii) Methods of teaching and methods of training teachers. (viii) Scholarships and other special matters that may from time to time be referred to the committees for special consideration.

LONDON AS A TYPICAL CITY.

By reason of its immense and varied population and its complex organization, London stands apart from all other cities of England, and for these reasons it has been the subject of distinct educational laws and regulations. But in respect to the principal administrative features and the general operations of the system of public education, the metropolis is a type of all English cities. The education committee, the local managers, special attendance officers, inspectors, and scholarship schemes are repeated in every town and county. The educational expenditure is met in all by government grant and local taxes in about the same proportion. Both the scope and limitations of the elementary school system are the same in all the cities, and in common with London, the other great centers of population and industry, Liverpool, Manchester, Birmingham, to name only those having populations above 500,000, are at present considering plans for the wider extension and more equal diffusion of the means of higher education. Uniformity of procedure in respect to matters pertaining strictly to the conduct of education is noticeable, also in respect to efforts looking to the physical and social welfare of pupils.

AUXILIARY WORKS OF LOCAL EDUCATION AUTHORITIES.

In England, as in other European nations and in the United States, the increasing solicitude with regard to the welfare of children has been marked by an increase in the work of education authorities, which are, indeed, the only public agencies that deal directly with the entire child populations. Upon these authorities accordingly have devolved responsibilities relating to various efforts in behalf of children not strictly educational in character, but essential as means of securing the desired results of school training. These efforts may be conveniently grouped together as auxiliary works. Although the local administration of education is on a different basis in Scotland from that of England, the city school boards in the northern division of the Kingdom have been active also in efforts for promoting the physical and social welfare of the school children; hence we may regard these auxiliary works as indicating a movement extending throughout Great Britain.

Provision of separate schools for physically defective and mentally backward pupils is an effort looking toward the welfare of the whole body of school children. Intimately related to this plan is the work of medical inspection of schools required by law in England and included among the provisions of the pending education bill for Scotland. The actual service, however, preceded the legal obligation in the chief cities of both divisions of the kingdom, and forms the

most important link between the school in which the child is instructed and the home in which he lives.

Provision for feeding necessitous children, included by law among the powers of local education authorities in England,[a] and also included in the proposed law for Scotland, is maintained generally by an arrangement between the local authorities and voluntary agencies. London has taken the lead in the provision of recreative centers and vacation schools. Among the efforts of the same general class, which are in the purely experimental stage, may be mentioned country schools for town children and open-air schools, after-care committees, and the establishment of juvenile courts. The following statements cited or compiled from current reports will serve to illustrate the present status of the auxiliary works in the cities to which they respectively relate.

PROVISION OF MEALS.

In a previous report of this series[b] an account was given of the recent investigations in Great Britain relating to physical training and physical deterioration, with detailed information as to the arrangements for supplying food to necessitous school children. Since that report was issued the education committee of the city of Manchester has taken this work in charge. The following account of this tentative effort is cited from the report of the committee for 1906–7:

> Early in the current year the provision of meals for ill-nourished or necessitous children was undertaken by the education committee, and your medical officer was requested to examine and certify all such cases. Meals have been provided in 7 centers, covering 43 schools, with an aggregate average attendance of 25,759. All the children in these schools have been inspected by your medical officer, 1,511 have been selected and personally examined, and tickets for meals have been issued to 1,208. Of this number the parents of 1,026 have accepted the provision of food. In a large number of cases where the food was not accepted it was found that although the children were badly nourished to a marked extent, the income per head of the family was adequate for their proper nourishment. The question of compulsion in such cases is a difficult one on account of the many factors in the production of a badly nourished child. The routine now followed is that the teachers provide lists of children whom they consider proper cases for the provision of meals. The children so selected, with any further cases found on inspection, are then individually examined by the medical officer, who at the same time elicited such information as is possible regarding the home conditions, etc. Some urgent cases are provided with tickets at once, but the majority are referred for investigation through the attendance officers. The attendance officers' reports and the medical officers' notes are then compared, and tickets issued to those found eligible. * * *

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[a] Education (administrative provisions) act, 1907.

[b] Report of the Commissioner of Education, 1904, Vol. I, chap. 12, pp. 828–832.

The diet provided for the children is, while inexpensive, both nourishing and palatable, due regard having been paid in each day's diet to the constituents necessary for the provision of a satisfactory meal. The children are at present provided with an alternation of eight varieties of diet.

Your medical officer is in a position to assert from personal observation, and from the reports of the teachers, that the provision of meals to badly nourished children has in many cases already resulted not only in improved physical condition, but in the raising of the standard of the children's capability for school work, of their powers of attention, and of their amenability to discipline.

COUNTRY AND OPEN AIR SCHOOLS.

The scheme for a country school for Manchester children formed by a voluntary committee was approved by the former board of education, and permission was given to "reckon the attendances made thereat in connection with the town schools from which children were sent." The school has since been carried on by the committee referred to, and according to the report had a most successful session during the summer of 1907. Recently proposals have been approved by which the freehold of the city is to be transferred to the city council, which has cooperated with the committee in the maintenance of the school.

The following particulars with reference to the school are cited from the report of the education committee for the year 1906–1907:

The instruction and control of the children is undertaken by the teachers who accompany the various batches (1 teacher to 40 scholars), the teachers belonging to the day schools in Manchester ordinarily attended by the children. Of course, the salaries of these teachers, paid by the education committee, run during the period of residence in the country school. * * * The school receives relays of children during the summer (April to October) from the public elementary schools, principally of the poorer districts of Manchester. Each batch of children stays for a fortnight. They are accompanied by their ordinary day school-teachers, and are boarded, lodged, and taught during the period. Prior to admission the children are invariably inspected in Manchester by the medical officers of the education committee, and through information in the hands of the school attendance department a clean bill of health for at least one month prior to admission is secured. There is no break whatever in the continuity of the teaching. The school is thoroughly equipped with all needful material for instruction and the ordinary routine of the school is continued. Actually nothing is changed save the local habitation of the children, and such alterations in the time-table as are necessary to secure to the children the complete benefit of their rural surroundings * * *. Each child pays the sum of 7 shillings for the fortnight's stay, and this includes the charge for railway fares to and from Mobberley (the location of the country school). The balance of the cost, establishment charges, etc., is met by voluntary contributions.

The success of the experiment has been unmistakable. The scheme would have been fully justified if it did no more than provide the children once a year with a complete change of environment, for it must be remembered that for the bulk of these children there is no other possibility of a yearly holiday from home. Most of them are hopelessly debarred from the advantages to body and mind which come of such a change.

But much more than the simple provision of a holiday is undertaken. The children benefit by the orderly routine of a well-arranged home. Besides being under daily instruction, they are well fed and most comfortably housed—too often in marked contrast to their feeding and housing at home. They are brought into touch with the influences of country life, and under skillful direction are taught some understanding and appreciation of the beauties of nature, not under any conditions to be learnt in their home surroundings.

That the children benefit both in body and mind by their residence at the country school is the experience of all who come into contact with them. Having testimony to this effect on all hands from managers and teachers, and from the medical officers, the Manchester education committee have heartily supported the work of the country school committees, and have done everything in their power to make the operations effective and extend them to as large a number of children as possible.

The following table of weights is given as evidence of the improvement in the health of the children:

Manchester country school for town children—Weights of children taken on their first and last days at school.

Date of visit.	Number of children.	Name of school.	Number gaining weight.	Number of pounds gained.	Number losing weight.	Number of pounds lost.	Average gain of weight per child.	Average gain per child gaining weight.
Boys.								
May 27 to June 7.	127	Princess Road	125	352	2	1	2.7	2.8
	66	Wheler Street	39	76	17	64.5	1.1	1.9
April 27 to May 10.	118	St. Philip's, Hulme	112	232	2	3	1.9	2.1
May 11 to May 24.	32	Embden Street Special School for Mentally Defective Children.	13	25	3	1.5	.7	1.9
	34	Harpurhey Hall Special School for Mentally Defective Children.	.....	.....	.....	.....	.....	.....
Girls.								
April 13 to April 26.	24	St. Anne's, Ancoats	23	37.5	1	.5	1.5	1.6
	85	St. Edmund's, Monsall	78	196.5	4	5	2.3	2.5
May 11 to May 24.	19	Embden Street Special School for Mentally Deficient Children.	16	11.5	1	.5	.6	.7
	13	Harpurhey Hall Special School for Mentally Defective Children.	.....	.....	.....	.....	.....	.....

The weights are estimated to the nearest one-half pound. The average gain is taken on the total number of children in each school, the number of pounds lost being deducted from the number gained in each case.

The experiment of an open-air school was first tried by the London county council in June and July, 1906, when the Homerton School for Deaf Children who are also mentally and physically weak was transferred temporarily to "the green fields, blue skies, and breezy beach of Osea Island." The following year an open-air school was maintained at Bostall Woods, Plumstead, near London, for 100 anæmic or other unhealthy children, selected by the medical officer, and with the consent of their parents transferred from the schools they were attending to the open-air school, which

was maintained from July 22 to October, 1907. The results of this experiment were so satisfactory that the education committee recommended the council to hold three such schools the present year, each providing for 75 children, including in each group both boys and girls, at an estimated cost of £1,962 (about $9,500).[a]

AFTER-CARE COMMITTEES.

One of the most important of the auxiliary works enumerated is that of after-care committees, appointed, in Birmingham and in London, to look after children defective in mind or body when the period of their school training is over. As a result of five years' experience the after-care committee, Birmingham, express the following opinion:

For a large percentage of the feeble-minded permanent supervision is necessary for the following reasons:

(1) To enable them to contribute to their own support.

(2) To save them from vicious habits.

(3) To save them from harsh treatment at home and in the streets.

(4) To prevent them becoming drunkards, criminals, and prostitutes.

(5) To prevent them giving birth to children who can only grow up to be a further burden on the community.[b]

Attention has recently been called to the importance of organized agencies to promote the interests of normal children who, after leaving school, are in need of immediate employment.

The managers of the London county council elementary schools recently adopted a report relative to the provision of employment bureaus in connection with the schools under their charge, which is the first step in the development of a long-contemplated plan intended to help pupils who go out from the schools in their efforts to find suitable employment.

The report calls attention to the fact that much has been done to promote the general welfare of defective children, while those who are especially clever generally need no assistance. It is the children of average ability, that is, the great mass of children who leave school every year, 70,000 or 80,000 in number, who require the help which these bureaus are intended to furnish.

Formally stated, the objects to be aimed at are:

1. To secure for boys and girls of ordinary intelligence positions in good firms, where the prospect of continuity of employment is good.

2. To secure for boys and girls of first-rate ability apprenticeship in suitable trades or professions, and the full advantage of technical scholarships or training in a trade school.

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[a] For a detailed account of the open-air schools referred to, and for "different aspects of out-door education" as conducted in the principal countries in Europe, see Board of Education, Special Reports on Educational Subjects, vol. 21. School Excursions and Vacation Schools [prepared by Mr. J. E. G. de Montmorency].

[b] City of Birmingham Education Committee. Report of the After-Care Subcommittee, presented to the education committee, June 29, 1906.

3. To establish friendly relations with employers, and to direct the stream of children from elementary schools to those who can be counted upon to deal fairly with them.

For accomplishing these objects it is proposed to form in every division of London associations of school managers, teachers, employers, and leading men and women in the respective boroughs who will keep themselves informed as to opportunities of work for young people, and at the same time make themselves acquainted with the children leaving school, their home conditions, and their intellectual and physical capabilities, in order that they may assist in securing for them work suited to their abilities and needs, or opportunity for further training in some particular trade or handicraft.

The need of juvenile courts is recognized in several cities, but so far Birmingham offers the only example of such a court in England. The hope is expressed that the probationary system adopted by this court will prove a means of preventing many children from commencing a prison life, while at the same time it will secure that suitable children are sent to industrial schools.

CHAPTER VII.

EDUCATION IN FRANCE.[a]

France, Republic: Area, 204,092 square miles; population, 39,252,267 (1905). Civil divisions having special functions in educational administrations: Departments (90 in number, including 3 in Algiers), communes (cities or villages).

TOPICAL OUTLINE.

Summarized statistics, 1906, 1907.

Department of primary instruction: Success of the Government in this department.—Weak points in the primary system.—Detailed statistics of primary schools. Supplementary agencies: Continuation classes, mutual-aid societies, etc.—Work of French primary schools at the Franco-British exhibit.

Department of secondary education: Current record of the secondary schools for boys.—Significance of statistics showing distribution of students.—Status of private secondary schools.—Secondary schools versus higher primary schools.—Effects of the recent reforms.—The salary question.—Decline in number and quality of candidates for professorships.—Remedy proposed.—Distinctive character of certain lycées. Public secondary schools for girls: Distinctive character.—Celebration of founding of Lycée Fénelon.—Tabular view of enrollment, 1901–1907.

Department of higher education: Unity of secondary and higher institutions.—Questions of current interest.—Reasons for the recent change in the license (master's diploma).—Present status of the universities.—Enrollment and distribution of university students.

The reorganized Musée Pédagogique.

SUMMARIZED STATISTICS, 1906, 1907.

According to the latest statistics pertaining to the system of education in France under the direction of the minister of public instruction, public primary schools of France had, in 1906, an enrollment of 5,039,222 pupils, an increase of 121,000 pupils, or $2\frac{1}{2}$ per cent, over the enrollment in 1904; private primary schools had an enrollment of 1,189,008, making a loss since 1904 of 131,485 pupils. Omitting the infant schools, the total enrollment of primary pupils was 5,566,882, equal to 14.2 per cent of the population.

The public secondary schools for boys, including 110 State lycées and 229 communal colleges, enrolled 96,462 students in 1907, and

[a] For complete index to articles on Education in France in the annual reports of this office from 1889 to 1903, inclusive, see Report for 1905, Vol. I, chap. 4, pp. 57–58. For more recent articles see: Report of the Commissioner for 1905, Vol. I. chap. 4, pp. 57–86; chap. 5, pp. 87–95; 1906, Vol. I, chap 11, pp. 19–34; 1907, Vol. I, chap. 4, pp. 127–167.

private secondary schools for boys 64,575 students, making a total of 161,037 secondary students (boys), or 1 in every 244 inhabitants. In public secondary schools and classes for girls there were enrolled in the same year 34,262 pupils. No statistics of private secondary schools for girls are available.

The state universities in 1907 had a total registration of 38,197 students. The registration in other higher institutions under the charge of the minister of public instruction would raise this total to about 40,000.

For the current expenses of these public schools and higher institutions the state expenditure in 1907 was 261,376,546 francs ($52,275,309). Of this amount 4,101,200 francs ($820,240) went to the service of administration; 20,719,776 francs ($4,143,955) to the department of higher education; 27,579,485 francs ($5,515,897) to the department of secondary education; and 208,976,085 francs ($41,795,217) to the department of primary education.

The public provision for education in France is completed by technical schools of secondary and higher grade under other ministries than that of public instruction. This provision is supplemented by a great number of private agencies for special forms of industrial training.

The more detailed account of the current appropriations of the system of public instruction, which follows, is based chiefly upon two reports on the budget for 1908 presented, respectively, to the Chamber of Deputies and to the Senate.[a]

DEPARTMENT OF PRIMARY INSTRUCTION.

SUCCESS OF THE GOVERNMENT POLICY.

The recent measures directed against the teaching orders, culminating in the law of separation (December 5, 1905), which ended the relations of church and state, have had but little effect upon elementary education. The efforts of the Government to gain control of the primary schools began as early as 1879, when the Republic entered definitely upon the educational campaign, and have been maintained ever since. In this department the success of the policy is assured. The teachers of the public primary schools are all members of the laity, and the enrollment of pupils in private primary schools has been reduced to less than 20 per cent of the total enrollment.

[a] Chambre des Députés [session 1907]. Rapport portant fixation du budget de l'Exercice 1908. Ministère de l'instruction publique, des beaux-arts et des cultes. 1re section. Instruction publique, par M. Steeg, député. Ibid. Sénat, 1907, par M. Maurice-Faure, sénateur.

As regards primary education, then, the problems with which the French Government is now dealing are similar to those of other countries. Chief among these are the adequate supply of trained teachers and the retention of pupils beyond the most elementary stage.

The success of the measures adopted by the French Republic to insure competent teachers for the primary schools has been recognized by all educating countries. The recent falling off in the number of candidates for the service and the efforts of the administration to overcome the evil are also matters of general interest which have been very fully explained in recent annual reports of this bureau.

WEAK POINTS IN THE PRIMARY SYSTEM.

The greatest drawback to the full efficiency of the French primary school system is the weakness of the compulsory education laws and the early withdrawal of children from the schools. These evils are matters of continued consideration on the part of the education authorities, but no general measures have been recently adopted for their correction. Among those recommended are the raising of the age and standard for the primary certificate, which should be obtained at 12 years of age, but is often secured at 11 years; increasing the local funds in aid of poor children (caisses des écoles) and increasing the provision of higher primary schools and practical schools of commerce and industry. The worst consequences of the early withdrawal from school are counteracted to some extent in the large cities by the multiplied agencies for industrial and technical training.

DETAILED STATISTICS OF PRIMARY SCHOOLS.

The schools included in the department of primary instruction are classed as infant schools (écoles maternelles) for children 2 to 6 years of age; elementary primary schools (ages, 6 to 13), the establishment of which is compulsory upon the communes; higher primary schools (ages, 12 to 16), and primary normal schools. The establishment of infant schools is not obligatory upon communes, and it is only in communes having above 2,000 inhabitants that these schools are entitled to local and state subventions. In 1906 the number of public infant schools was 2,563 with an enrollment of 517,259 children and a force of 6,310 teachers, of which number 57 were members of sisterhoods. The private schools of this class numbered 1,665, with an enrollment of 144,089 and 2,268 teachers, of whom 812 belonged to sisterhoods. The following statistics bring the enroll-

ment in the remaining classes of primary schools in 1906 into comparison with the corresponding data for previous years:

TABLE 1.—*Primary schools: enrollment and teaching force for specified years.*

Classes of schools.	Enrollment.					
	1900–1901.			1906.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Primary schools, elementary (ages 6 to 13) and higher (ages 12 to 16).						
Public	2,313,268	1,835,954	4,149,222	2,446,495	2,081,469	4,527,964
Private	451,357	926,221	1,377,578	351,933	686,985	1,038,918
Total	2,764,625	2,762,175	5,526,800	2,798,428	2,768,454	5,566,882

Classes of schools.	Total increase or decrease 1900–1901 to 1906.	Teaching staff.		
		1900–1901.	1906.	Increase or decrease.
Primary schools, elementary (ages 6 to 13) and higher (ages 12 to 16).				
Public	[a] 378,742	107,931	113,514	[a] 5,583
Private	[b] 338,660	49,586	37,871	[b] 11,715
Total	[a] 40,082	157,517	151,385	[b] 6,132

[a] Increase. [b] Decrease.

Per cent of total enrollment.

	1900–1901.	1906.
	Per cent.	*Per cent.*
Public schools	75	81.50
Private schools	25	18.5

Per cent of increase or decrease, 1900–1901 to 1906.

	Enrollment.	Teachers.
	Per cent.	*Per cent.*
Public primary schools	[a] 9	[a] 5.17
Private primary schools	[b] 24.6	[b] 23.6
Total	[a] 00.7	[b] 3.8

[a] Increase. [b] Decrease.

Tables 2 and 3 show the progress of the higher primary schools from 1900 to 1906, inclusive. The enrollment in these schools is included in Table 1.

TABLE 2.—*Higher primary schools for boys.*

Year.	Number of—		Teaching force.	
	Schools.	Pupils.	Number of teachers with professor's diploma.	Number of assistant instructors.
1900	202	21,770	528	346
1901	205	23,193	530	367
1902	213	24,328	532	439
1903	220	25,727	554	465
1904	221	26,978	563	473
1905	225	27,523	641	446
1906	229	27,807	651	479

TABLE 3.—*Higher primary schools for girls.*

Year.	Number of—		Teaching force.	
	Schools.	Pupils.	Number of teachers with professor's diploma.	Number of assistant instructors.
1900	89	9,811	241	98
1901	93	10,944	249	110
1902	96	11,769	256	120
1903	100	13,115	266	137
1904	110	15,383	281	179
1905	122	16,660	297	223
1906	130	18,507	307	270

PRIMARY NORMAL SCHOOLS.

The number of students registered in normal schools in 1906 was as follows: In the 83 schools for men 3,899, in the 82 schools for women 5,169, a total of 9,068. According to M. Maurice-Faure, the total for 1907 was in round numbers 10,000 students, as against 7,000 in 1900.

The decline in the number of candidates for admission to the normal schools, which excited alarm a few years ago, has apparently been overcome by the measures taken to improve the financial prospects of teachers. The number of candidates for admission to the normal schools in 1902 was 7,362, the number admitted 3,149; the corresponding numbers for 1906 were 12,523 and 3,346. M. Steeg reports that the number of candidates securing the brevet élémentaire (teacher's diploma) in 1906 was about 13,000, or nearly four times the number of admissions to the normal schools. On the estimate that 30 years is the average duration of a teacher's service, the annual number of graduates from the normal schools would be, at the present rate, nearly equal to the annual loss in the teaching force. But the recruitment comes also from other sources, including candidates who have gained diplomas admitting them to assistant professorships in the higher schools.

SUPPLEMENTARY AGENCIES.

In the department of primary instruction are included also the continuation schools and classes (œuvres complémentaires), to which somewhat extended reference was made in the Commissioner's last report. The number of the classes increases from year to year, owing in great part to the zealous efforts of the primary teachers, who, to the number of 71,429, voluntarily gave their services in 1907 to this work.

According to the latest report of M. Edouard Pétit, who has been the most ardent advocate of this form of popular instruction, 48,248 courses in various subjects were maintained in 1906–7. Of this number, 30,280 were for boys and 17,868 for girls. They were attended by nearly 600,000 students.

The evening classes under the auspices of the chief societies for popular education, namely, the Polytechnic, the Philotechnic, and the Union française de la jeunesse, numbered 6,000. The number of public lectures given, generally with lantern-slide illustrations, exceeded 78,000.

Complaint has been recently made that where the instruction takes a serious and connected form it follows too much the method of primary schools, and that time is wasted in the hopeless endeavor to bring about a high degree of perfection in matters like spelling and grammar, to the exclusion of subjects of interest to adults, and such as would increase their store of knowledge and excite them to independent inquiry and fruitful reflection. Indeed, the time seems to have come when the continuation classes should be regarded as an integral part of the system of public education, and provided with a special teaching force and carefully selected schemes of instruction.

It is proposed, also, that the compulsory principle be extended to the continuation classes, as has been done in Germany and Switzerland, and recently attempted in Great Britain.

Intimately related to the work of the continuation classes is that of several supplementary agencies for promoting the social and industrial welfare of the laboring classes. Among these may be mentioned the associations of old pupils formed for mutual helpfulness. These associations increased from 56 in 1894–95 to 6,200 in 1906–7. The mutual-aid societies (mutualités scolaires), which numbered 10 in 1894–95, reached in 1906–7 a total of 3,272, with a membership of 720,000 children. The funds deposited amounted to 4,000,000 francs ($800,000), and the distributions in aid of needy members to 1,000,000 francs ($200,000). The appropriation by the state for the maintenance of these and kindred efforts amounted to 640,000 francs ($128,000). It should be added that in the promotion of these agencies for instructing and elevating the common people, and im-

proving their industrial and social conditions, the public authorities are following the example of the church. The latter led in these beneficent undertakings, which it also still maintains at great expenditure of money and service.[a]

THE FRENCH PRIMARY SCHOOL WORK AT THE FRANCO-BRITISH EXHIBIT.

The Franco-British exhibit which was opened in London in May proved to be more comprehensive than its title would indicate, as many other European countries participated. The educational sections afforded opportunity for wide comparison as regards those results of school training which lend themselves to concrete presentation. Naturally countries that excel in the manual arts are apt on such occasions to convey an exaggerated idea of the actual place which manual training occupies in their scheme of education. This is particularly the case with France, since, by reason of the uniform organization and programmes of the schools of the same grade, but small space is required for the full presentation of what may be termed the intellectual side of their educational work. On the contrary, the presentation of the results of manual training, which is highly developed in the upper primary and technical schools, always makes an elaborate and impressive feature of a French exhibit. With all allowance for the unavoidable exaggeration given to this feature, the following observations and reflections upon the French section by an English critic are suggestive:

Foremost among the "écoles primaires" displays are the charming specimens of imagerie, which must be the joy of any pupils whose schoolroom they adorn. What a gulf between these pictures, designed by the Société Artistique de l'Ecole, for the purpose of developing the scholars' social and moral education, and the crudely hideous colored prints, too often the only æsthetic effort of the kind, to be seen in our elementary schools! The studies of child life in rustic surroundings are at once so naively picturesque and appealing that they deserve a gallery to themselves.

A great deal of the work done by pupils, especially in the way of carpentering and modellage, is excellent, while the metal handicrafts, as witnessed by the section allotted to tools and ajustage, are admirably representative in character and speak well for the skill of the scholars employed thereon. Nor are the labors of girl pupils overlooked. The really charming embroidery shown by the Ecole Primaire Supérieure at Lyon is an evidence of the results achieved in needlecraft, and the Douai schools in this respect have some interesting displays. From the Ecole Jean Macé, Lille, come likewise striking examples of fancy and plain work with, it must be owned, rather inferior "poker work." The écoles pratiques de commerce have a rich show of lace and ironwork of a very high level of excellence, and metal fittings, which demonstrate to what perfection the handicrafts have been carried in the technical classes. Housewifery is becoming more and more a branch of girl's education; the Ecole Commerciale, Industrielle et Ménagère at Rheims, for instance, sets forward as

[a] See in this connection L'éducation populaire. Les œuvres complémentaires de l'école, par Max Turmann.

its leading aim the training of girls to be good housewives. Dress cutting and laundry work enter largely into the curriculum, which is by no means a narrow one as regards range. * * *

But the general impression gained by a review of French educational enterprise up to date is that of its intensely practical character. Everywhere one notes the exaltation of technical achievements and realizes the emphasis of shrewd businesslike instincts which aim at fitting the average boy for commercial life and the average girl for the ménage. Art seems to be a neglected quantity. There is no great show of skill in drawing or design whereby one might gauge how far such work is fostered in French schools. Under the section devoted to "Enseignement des Sciences Physiques" there is a brave show; but one would like to have seen the other side of the medal in a revelation of what is being done for the development of the artistic faculties.[a]

The writer, it will be observed, has in mind, in particular, the higher primary schools of France. The passage quoted is significant in view of the widening influence of these schools which, as will be presently shown, is making itself felt in the sphere of secondary education.

DEPARTMENT OF SECONDARY EDUCATION.

In considering the current operations of the institutions comprised in the department of secondary education, the nature of their relation to the state should be kept in mind. They are either lycées established by the state, or colleges established by local authorities. In either case the principals and professors are appointed by the minister of public instruction; the courses of instruction are determined by official programmes, and the institutions are under the supervision of state officials. The salaries of the professors, and of all others engaged in the service, are paid by government appropriations, which supply also a part of the current expenditure for material equipments. Students' fees and the receipts from the boarding departments make up the balance of income. The state appropriation for this service, which amounted in 1906 to 21,948,085 francs ($4,391,617), was increased in 1907 to 27,579,485 francs ($5,515,897).

In the department of secondary education separation of the sexes is complete, and the lycées and colleges for boys have practically nothing in common with those for girls excepting the name.

CURRENT RECORD OF THE SECONDARY SCHOOLS FOR BOYS.

The recent measures against the teaching orders and clerical schools of France were directed, as was well understood, to the province of secondary education, in which clerical teachers exercised an enormous influence. Hence the significance of statistics that show the movement of the student population. The enrollment in the public secondary schools for boys in 1907, as already stated, was 96,462. Of this num-

[a] Journal of Education (London), July, 1908, p. 504.

ber the state lycées of continental France enrolled 57,067, and the communal colleges 35,256. The lycées show a loss of 543 students since 1906, and the colleges a gain of 42 students. The total number of students in private secondary establishments was 64,575 in 1907, as against 60,751 in 1905. The gain, i. e., 3,824 students, was wholly in schools under lay management, clerical schools having lost 3,611 students.

The following table shows the distribution of students in the different classes of secondary schools for boys at the beginning and close of the period affected by the measures that have resulted in the legal suppression of the clerical teaching orders:

TABLE 4.—*Enrollment in secondary schools for boys.*

Classes of institutions.	1901.[a]	1906.[b]	1907.
State schools:			
Lycées	54,830	57,610	[c] 59,783
Colleges	33,372	36,616	[d] 36,679
Total	88,202	94,226	96,462
Schools of religious associations:			
Classical	67,872	[e] 20,820	.....
Petits séminaires (preparatory to theological schools)	22,328	.....	.....
Total	90,200	.....	.....
Private secular schools	9,000	35,049	64,575
Total nonstate	99,200	.....	.....
Grand total	187,402	150,095	161,037

[a] Rapport fait au nom de la commission du budget, etc., Service de l'instruction publique, par Maurice-Faure, 1902, pp. 443, 445.
[b] Rapport fait au nom de la commission du budget, etc., 1908 (ministère de l'instruction publique), par M. Steeg, député, p. 37.
[c] Rapport par M. Maurice-Faure, 1908, p. 170.
[d] Ibid., p. 174.
[e] Schools formerly conducted by religious associations, now transferred to secular managers.

SIGNIFICANCE OF STATISTICS SHOWING DISTRIBUTION OF STUDENTS.

The scrutiny of the details of enrollment by the government authorities indicates their anxiety as to the outcome of the efforts to bring the great body of students, representing the higher classes of the people, into the public institutions and under the direction of professors thoroughly in sympathy with the Government.

Although the proportionate enrollment in private secondary schools has declined—falling from 48 per cent of the total number of secondary students in 1899 to 40 per cent in 1907—the situation is still disquieting to the government authorities. Commenting on the situation M. Maurice-Faure declares that, contrary to the general opinion, the law suppressing the teaching orders has had only a slight effect upon the private secondary education of boys. Nearly all the establishments that this law should have destroyed or disorganized have submitted to its requirements; by the easy method of secularization,

and with the concurrence of private lay professors and of ecclesiastics who are not prohibited from teaching, these schools have been able to continue their work without loss of their former clientele. A few clerical schools that were closed at first have recently been reopened. Many members of teaching orders that are interdicted by the recent laws have established themselves as private preceptors. Under this title they receive each three or four young men as boarders and conduct their studies, preparing them for the degree examinations. In several cases these clerical preceptors simply maintain boarding establishments—homes, as it were, for young men who attend the lycées as day students. In this way they stand in a parental relation to the students, supplementing and correcting the educative influence of the secular school. M. Steeg, commenting upon these arrangements and the hopes based upon them, quotes as follows from a current journal, "La vie catholique:"

If the system of these schools should be extended we should get control of half the students of the universities; if we should follow a little more closely the course that leads to the normal school we should have a large part of the professors. The fate of public instruction would then be in our hands.

The experiment of the private boarding houses meets with great favor among parents, many of whom object to life in the lycées on account of the official regimen and the absence of the cultivating influences that come from the familiar intercourse of the students with their elders as in well ordered family life. At the same time the effect of the subtle influence of this clerical guardianship over students excites more or less concern on the part of the Government; hence the stress placed by M. Maurice-Faure upon the recent loss of 543 students to the lycées. Under ordinary circumstances this slight decline would attract little attention, especially in view of the fact that the enrollment in the lycées has increased decidedly during the past decade. But the social prestige of these institutions is a matter of as much concern as the increase of their student body. They embody the national idea of liberal education as a force making for the solidity and permanence of the Government.

SECONDARY SCHOOLS VERSUS HIGHER PRIMARY SCHOOLS.

Important as the conditions here discussed may be in their bearing upon the state system of education, their consideration is of less general interest than that of other influences that are affecting the choice of schools and courses of instruction. The secondary schools, properly so called, are confronted with the rivalry of a totally different class of institutions, namely, the higher primary schools, and the practical schools of commerce and industry of a more technical character than the former. The pupils in these schools are not young persons who have unlimited time for the pursuit of high intellectual culture

with an ultimate view to one or other of the liberal professions, but they have passed through the elementary schools and at the age of 12, that is, at the age for entrance upon secondary studies, they proceed to the higher schools, called primary from the character of the branches taught in them. These schools lead, however, to definite careers in life and, therefore, present a certain parallelism to the recognized secondary schools, somewhat similar to that which the manual training and business high schools of our own country present to the classical high schools.

The ever-increasing enrollment in the higher primary schools is a sign of increase in the proportion of the working classes who are able to prolong somewhat the education of their children. In 1886 the schools of this class for boys only numbered 166 with 12,166 pupils; in 1906 they numbered 229 schools with an enrollment of 27,806 pupils, an increase of 38 per cent in the number of schools and of 128 per cent in the number of boys attending them. The practical character of the instruction offered in these schools and its relation to the demands of business and to the lower posts in the civil service, explain their growing importance; these considerations undoubtedly suggested, in part, the recent modifications of the secondary programmes that have brought the lycées and colleges into closer relations with the course of primary instruction.

The higher primary schools [says M. Steeg], multiplied and improved during recent years, attract a great number of pupils who would formerly have followed, in the colleges, the special course, changed later into the modern, and now represented by section B (without Latin or Greek) of the first cycle of the secondary course. These multiplied experiments are not to be regretted, but we are of the opinion that they should be so directed as to promote the continuity of education and to facilitate the passage of the more intelligent pupils from the primary to the secondary schools through the intermediary of the higher primary schools.

Already, according to M. Steeg, pupils who have entered section B of the secondary schools have there developed a taste for letters and have been able by the time they reached the second cycle—that is, at the completion of the fourth year—to pass over into one or the other of the sections in which the ancient languages are taught. Thus, in reality, for exceptionally capable youths, the road is already open from the primary school to the highest university advantages. In this connection interest attaches to the opinion expressed by M. Maurice-Faure, that there is wasteful duplication of instruction and equipments in the maintenance, side by side, of higher primary schools and local colleges. He advises that the passage from the lower to the higher be made easier as a means of preventing this waste of resources. The colleges Chaptal and Rollin, of Paris, have already established close relations with the primary schools of the city by a system of connecting classes. M. Maurice-Faure would go further

and so coordinate the two classes of schools that a pupil from the higher primary school might enter the second cycle of the secondary school.

The views thus advanced by representative members of the legislative assembly, as to the importance of bridging the gulf between primary and secondary studies, are advocated also by many educators and officials and, here and there, as we have seen, are being practically carried out.

It is noticeable that in France, as in England, 12 years of age is regarded as the fitting close for purely elementary instruction; but whereas English authorities advocate the subsequent separation of pupils according to their probable course in life, French opinion at the present time seems to favor a more unified system of education above the elementary grade as a means of creating bonds of sympathy and respect between the different classes of society.

EFFECTS OF THE RECENT REFORMS.

The reports before us treat at some length of the recent reforms in the internal regimen of the lycées and the practical workings of the reorganized courses of study. On the whole, the views presented confirm the favorable opinions of the effects of those measures cited in the Commissioner's last report. M. Maurice-Faure dwells upon the advantages of the financial arrangements which give the proviseurs (principals) of the lycées independent use of a portion of the annual receipts. Plans have been formed in several instances, and in a few cases actually set in operation, with the purpose of adapting the scientific courses, in a practical way, to local industrial conditions. Thus the lycée at Rheims has arranged for special courses of instruction in agriculture and vine culture. The scientific instruction thus provided is supplemented by observation of the work in the neighboring farms and vineyards and by laboratory experimentation. The interest of the great vineyard proprietors of the region in this effort is indicated by the subscription of 20,000 francs ($4,000), which has been used in the purchase of an experimental station for the lycée.

M. Steeg criticises the overcrowded programmes and the loss of class unity and spirit by reason of the number of different professors assigned to a class and the exclusive regard of each for his special subject. This condition, as in many of our own high schools, prevents the proper adjustment of the students' time and efforts. The excessive regard of the French for formulated programmes, in which particular we are often urged to imitate them, gives significance to the following observation by M. Steeg:

> Organization upon paper or the practical application of programmes [he observes] are not in themselves matters of great worth. It would seem that the method of instruction is at least as important as that which is taught. It is

not paradoxical to say that the essential matter in secondary education is to keep the young men in constant relation with men of high culture, of critical minds, of wise counsels, and masters of scientific method. * * *

Who of us has not experienced the unfortunate failure to retain the knowledge acquired at the lycée, the college, or the school? What remains is a certain way of feeling, the elevated memory of noble emotions, the necessity of thinking, a certain curiosity, and above all a precious modesty.

THE SALARY QUESTION.

Among the measures proposed for the further improvement of public secondary education in France the most urgent relates to increase in the salaries of professors and in the opportunities for their promotion. In respect to this vital matter, the department of secondary education has been more neglected than any other division of the state system. The necessity of immediate relief from the existing conditions has been fully recognized, and a special commission was recently appointed to investigate the salary schedules and plan of promotions and advise as to the best means of meeting the reasonable demands of the service.[a] Pending the ultimate outcome of the work of the commission, the only ameliorations possible come from slight additions to the budget which facilitate the promotion of professors as provided by the existing regulations.

The annual salaries of full professors who have secured the diploma of agrégé in either the classics or other special subjects, range as follows: At Paris and Versailles from 5,000 francs to 7,500 francs $1,000 to $1,500), rising by annual increment of 500 francs; in the departments the range is from 3,200 to 5,200 francs ($640 to $1,040), the annual increment being 400 francs. The highest salary to which a professor who has not secured the title of agrégé can aspire is 6,000 francs ($1,200) at Paris and Versailles and 4,800 francs ($960) in the departments.

DECLINE IN NUMBER AND QUALITY OF CANDIDATES FOR PROFESSORSHIPS.

The agrégation, or examination for the diploma of agrégé, is naturally the goal which all professors desire to reach; but the number of agrégés who may be appointed in any year is strictly limited, and the examination itself is very rigorous. The diploma carries mention of the subjects in which the candidate has specialized; but it should be observed that this specialization is not permitted until the student has completed the general course of study in the lycée followed by the required course in the faculty of letters or of science, leading to the degree of " licence." The recent decline in the number

[a] This commission was created by decree of July 12, 1906. The general report has been submitted to the minister of public instruction the present year. See Revue internationale de l'enseignement, February 15, 1908, et seq.

of young men applying for admission to the agrégations shows that the service of secondary education, like that of the primary schools, is threatened by the inducements offered to young men to engage in other pursuits than teaching. There is also a noticeable increase in the proportion of those admitted to the agrégations who fail in the first part (written) and are consequently rejected before the oral test. In other words, both the number and the quality of the candidates are apparently declining. Hence from all quarters the earnest appeal for improvement in the financial and social inducements offered by the service.

A PROPOSED REMEDY.

In the opinion of M. Steeg, the condition above referred to offers additional arguments for promoting the unity of primary and secondary education as a means of extending the circle from which the higher professorships may be recruited. To this end he urges an increase in the number of state scholarships (bourses) carrying free tuition and, also, some provision for living expenses. Of the total number of boursiers in the lycées and colleges in 1906, namely, 5,528, not more than one-third had come from primary schools, representing only about 300 appointments for each of the six years of the secondary course. "It is deplorable," says M. Steeg, "that out of the immense population of the public schools of France, which comprises a multitude of boys, alert, intelligent, diligent, the state can not find the means of calling, in a year, more than 300 to profit by the secondary education given in its own establishments."

Naturally, professorships in secondary schools would attract a large proportion of boursiers from the primary schools ambitious for social advancement. At the same time, the proposed plan would not only increase the circle from which the corps of secondary professors might be recruited, but would help to maintain high professional standards, since only candidates from the primary schools of exceptional ability could hope to meet the requirements for the bourses.

DISTINCTIVE CHARACTER OF CERTAIN LYCÉES.

The recent modifications of the secondary programmes tend toward the unity of grades which M. Steeg advocates. At the same time, they favor freer life and more varied adaptations in the individual institutions. It may be recalled here that certain lycées have long been celebrated for their specialties. For example, the Lycée Louis le Grand, at Paris, admits no pupils below the fifth class (cinquième) and even under the new regulations has no class without Latin. Its great distinction is an extra class, termed première superieure, organized in several sections, each of which prepares students for some one of the "grand schools," i. e., "École Normale Supérieure," the

military school of Saint-Cyr, the Institut Agronomique, the École Polytechnique. In like manner the Lycée St. Louis, at Paris, is famous as a preparatory to the higher technical schools. Outside of Paris there are 33 lycées that have achieved reputation as preparatories to Saint-Cyr. These relations grew up under the old aristocratic order. The later specialties have a different direction. The lycée of Rheims, as we have seen, has developed an agricultural section; the lycée of Rennes has introduced manual training, and St. Denis (Réunion), by special decree of July 18, 1906, has organized three sections, technical, agricultural, and commercial, respectively, parallel to the first cycle of the secondary course. These extensions illustrate the manner in which, under the pressure of modern demands, the lycées are assuming functions hitherto reserved for the higher primary schools and the practical schools of commerce and industry, and thus forcing, as it were, new applications of the term "secondary," which has long implied, in France, definite scholastic restrictions and social caste.

SECONDARY SCHOOLS FOR GIRLS.

The public provision for the secondary education of girls in France, which forms a most important part of the educational work of the Third Republic, has not been included at all in the foregoing considerations. In the effort to draw young women of the higher classes of society under the influence of professors thoroughly in sympathy with the new political and social conditions, France has been eminently successful in developing a course of instruction particularly suited to young women who look forward to the usual associations of cultured homes and intelligent society. A distinctive programme was formulated for the secondary schools for girls, which has been steadily maintained since the beginning of the work in 1880 (law of Camille Sée). From this programme Latin and Greek are omitted, mathematics appears in a limited form, and philosophy is represented by elementary notions of ethics. The distinctive studies of the secondary curriculum for boys are replaced, in the lycées for girls, by modern languages and literature, which are taught in a serious and critical manner. Large place is given also to history, particularly to the history of civilization, to art studies, and to domestic and hygienic science. Provision is made by means of courses of instruction conducted by university professors, for those young women who desire to pursue the classics. The young women who follow these special courses may matriculate in the classical section of the universities, while those who complete the lycée courses would be prepared to enter the nonclassical university courses with a view to the examinations for agrégées.

CELEBRATION OF THE FOUNDING OF LYCÉE FÉNELON.

Last year (1907) was celebrated the twenty-fifth anniversary of the passage of the law of 1880 creating public secondary schools for girls, and the establishment of the normal school at Sèvres (1881) to prepare professors for the new institutions. The present year has been marked by the celebration of the twenty-fifth anniversary of the creation of the Lycée Fénelon at Paris, the oldest of the six lycées for girls now in operation in the metropolis.

The ceremonies began with a general assembly in the grand amphitheater of the Sorbonne, of former and present students of the lycées with their relatives. Appropriate addresses by distinguished officials, the directrice, and other representatives of the institution were followed by a musical entertainment. A fine orchestra and eminent singers participated in this part of the exercises, which terminated with a charming choral performance by the younger pupils of the lycée. A unique feature of the occasion was a *ballet de cour* danced by two artists of the opera.

The following day the anniversary was completed by a grand fête at the lycée.

The steady increase in the patronage of the public secondary institutions for girls is illustrated by the following table:

TABLE 5.—*Public secondary schools for girls—Distribution of students.*

Year.	Lycées.	Colleges.	Secondary classes.[a]	Total.
1901	9,806	4,356	.....	.....
1902	10,621	5,122	.....	.....
1903	11,874	5,669	6,619	24,162
1904	13,242	7,406	5,445	26,093
1905	14,777	8,679	7,379	30,835
1906	15,967	9,739	6,899	32,605
1907	16,760	10,184	7,318	34,262

[a] These classes in time generally develop into organized lycées or colleges.

DEPARTMENT OF HIGHER EDUCATION.

UNITY OF SECONDARY AND HIGHER INSTITUTIONS.

The department of higher education in the French system comprises the state universities and a group of special schools located at Paris. By their origin and history, the universities are closely related to the secondary schools, the two orders of institutions comprising together a continuous and complete scheme of liberal and professional education, the liberal education, given in the secondary schools and crowned with the bachelor's degree, being the necessary preliminary for admission to the specialized courses of the universities. From this relation it follows that every movement affecting the one department is reflected in the other. Thus the recent reorganization

of the secondary programmes has opened the universities to students who have had no classical training and, as a consequence, has considerably increased the registration in the faculties of science. Since 1902 the number of students in these faculties has risen from 3,900 to 6,300, and the number following the courses in applied science (industrial chemistry, industrial physics, electrotechnics, etc.) has risen from 760 to 1,260. It may be said with equal truth that the increased equipments for scientific teaching in the universities and the multiplication of special courses in science, which have taken place since the transformation of the former isolated faculties into organic and autonomous bodies (law of July 10, 1896), were among the influences that brought about the full recognition accorded to the science section of the lycées by the decree of 1902.

The community of interests between the two departments is illustrated further by the fact that the salary inquiry already referred to, which was suggested originally in the interest of the professors of secondary education, was extended to include university professors. Finally, indeed, the salaries of all persons engaged in the state educational system were brought under consideration; but the similarity of the interests of professors of secondary and higher institutions has been particularly emphasized. In like manner, the ferment over questions of educational doctrine or aims—for example, the question of the relative value of different branches of knowledge, of the place of the baccalaureate examinations, and of the place of philosophy in the general scheme of study—extends throughout the scholastic circle which includes both secondary schools and universities.

QUESTIONS OF CURRENT INTEREST.

The questions of chief current interest relative to the general scheme of liberal education in France are indicated by recent public utterances embodying opposite ideas as to its predominant purpose. First in importance among these utterances is the address of Dr. Paul Appell, before the recent annual meeting of the French Association for the Advancement of Science. Doctor Appell, who is dean of the Paris faculty of science, and has been recently elected by his colleagues as their representative in the superior council of education, took for his theme the teaching of science and the scientific spirit. He defined the man of science as one who does not simply acquire knowledge, but who combines with his knowledge "scientific activity; that is to say, a curiosity always alert, indefatigable patience, and, above all, initiative, and again, initiative." He contrasted this spirit with that generally promoted by French instruction, which tends, above all, to develop logical qualities and memory. "Everywhere," he says, "the book is supreme—it is the evangel." This evil, he declared, extends from the primary schools to the higher special schools,

and is due, in large measure, to the system of examinations; in particular, to the concentration of efforts in the lycée upon the one purpose of preparing students for brilliant success at the baccalaureate examinations which admit to the universities.

The address developed a plan for reorganizing the present scheme of study which would substitute for the two or three years now passed in the lycée, in the class of philosophy and mathematics, a course of scientific training, following the close of secondary studies. This plan, if it is correctly represented in the fragmentary reports of the address that have thus far appeared, would virtually make the close of the second cycle (classe première) the upper limit of the secondary course, and would bring about a radical change in the university curriculum, together with that of the higher scientific and technical schools, with a view of forming the "scientific spirit." The principle advocated recalls a passage in the address delivered by Doctor Lippmann, also professor in the Paris faculty of science, before the same association at its meeting last year. "In France," he said, "the directive class has its qualities. Its members are very civilized, honest, well educated, and more artistic perhaps than the same classes in other countries; but it is certain that they lack a just notion of the power of science. They do not believe in it, or belief comes too late." The recent reforms in the departments of secondary and higher education, the new programmes, the new scientific diplomas, the increase of equipments in the faculties of science—all show the desire to overcome this defect; but the effort has been to supply the means of scientific training without prejudice to classical culture.

On the other side the intense opposition to radical change in the general current of intellectual life in France is illustrated by discussions of the recent inauguration of a series of different licenses at the Sorbonne. It should be explained that the license is a degree that may be attained by graduates who have the bachelors' degree, as a result of one year's study in the faculty of letters or of science and success in the required examination. Formerly licentiates only could proceed to that intensive study of a special branch which was required for the diploma of agrégé. The latter diploma therefore indicated continuous application to a general course of study and considerable maturity of mind in the student before specialization began. The new regulations, in accordance with an official decree of July 8, 1907, authorize special licenses,[a] preparation for which may follow immediately after the bachelor's diploma has been obtained.

A protest against this innovation appeared recently in the Journal des débats under the caption, "The Conquest of the Sorbonne by the Germans." The well-known author, M. A. Albert-Petit, in vigorous

[a] Philosophy, history and geography, classical languages and literature, modern foreign languages and literature. See Bulletin administratif, July 13, 1907, pp. 43–49.

terms denounces this departure from long-established standards. The glory of the Sorbonne as an intellectual center "has at all times," he says, "been assured by savants of high culture much more than by those who spend their strength in digging deep into holes so narrow that no light ever penetrates them."

As an establishment of higher education, a pedagogic seminary, the Sorbonne has been distinguished by the solid worth of its diplomas.

Let us take the simple and honest license [continues M. Albert-Petit], the diploma that confers the "licentia docendi," because it proves that the candidate possesses the knowledge requisite for him, in his turn, to attain the master's seat. Specialization was not formerly attempted until the preparation for the divers agrégations. The reform of 25 years ago created special licenses, but with a common division which preserved the claims of general culture. This year is inaugurated the régime of special licenses from which all common proof has disappeared. Only a Latin translation indicates that there is any question of a literary diploma. But even this Latin exercise—maintained with difficulty—is no longer the same for the divers licenses. As to the French composition, it has disappeared entirely. The qualities of order, of clearness, of lucidity in the exposition of a subject are no longer considered as useful to a historian. It may be said that there is a historical composition. Not necessarily. There is a combination which enables one to pass without it. It is possible to become licentiate in history on the strength of a Latin translation, a composition on a geographical subject, and an exercise in cartography. However, it ought to be said that in this case the diploma would only be honorary. A subsequent decree, in view of the effect produced, requires a composition in history for every licentiate in history who desires to enjoy "all the rights and advantages carried by one possessing the diploma." One who knows the quality of the bachelors that the Sorbonne receives from the colleges and treats as specialists the day after is amazed at this confidence or this disdain of intellectual development.[a]

Reasons for the change in the license (master's diploma).—The above criticism has been cited chiefly to show the feeling for the old culture ideals in France which are threatened by the recent change in the license. It should be explained, however, that the measure referred to was not adopted without much deliberation and the advice of many university men. Minister Briand, by whom the official decree authorizing the new licenses was issued, declared that the license they replaced was "satisfactory neither to the humanists nor to the specialists." During the year of preparation for the license the students, according to his statement, divided their time between the continuation of the lycée studies, against their inclinations, and hence without profit, and scientific studies, the novelty of which made them attractive. Hence the subjects common to all the candidates lost their value and their standard was lowered, since the examining board would inevitably show some indulgence toward those whose excellent

[a] M. Albert-Petit, in the Journal des débats, August 11, 1908, p. 1. See also articles by M. François Albert, "La Sorbonne germanisée," in L'Opinion, July 18, August 8, 1908. On the application of this protest to conditions in our own country, see The Peril to French Scholarship, by W. B. Blake, The Nation, September 3, 1908, p. 205.

work in special studies compensated for weakness in Latin composition or the explanation of a Greek text.[a]

Viewed from either side the innovation must be regarded as a significant event in the current development of university education in France.

PRESENT STATUS OF THE UNIVERSITIES.

The reports for 1906–7 made by the university councils to the minister of public instruction show an increase above the previous year in the number of students and in material equipments. Nevertheless, there is general complaint of the need of larger resources to meet pressing demands. This need is confirmed by the reports of M. Steeg and M. Maurice-Faure, which have been already freely cited. Everywhere there is call for enlarged laboratory facilities and additions to the university libraries. New professorships are needed to provide for the increasing complexity of knowledge. Even the Sorbonne, according to M. Lot, has not adequate provision for the detailed study of history, which is yielding rich results in the universities of other countries.[b]

In common, also, with the officers and professors in other departments of education, the university professors are waiting the outcome of the work of the salary commission for a much-needed increase of their incomes.

The commission appointed in March, 1907, to inquire into the condition and needs of the medical faculties is still in the midst of its labors. The more comprehensive inquiry ordered by the Senate [c] into the state of higher education as a whole has resulted in a mass of detailed information from which important suggestions as to plans of reform have been drawn. Meanwhile changes that are gradually being effected within the universities, such as the consolidation of the École Normale Supérieure with University of Paris, indicate the purpose to increase unity of aim, economy of resources, and forceful life by the more perfect organization of the universities, and a closer coordination of the various agencies of higher education.

Among particulars brought out in the record of the individual universities for the latest year reported (1906–7) the following are of special interest: In pursuance of the purpose formed before the death of Professor Curie, Mr. Carnegie has placed at the disposition of the Curie Laboratory the annual sum of 12,500 francs ($2,500) to be used as scholarships in aid of young savants, either French or foreigners, who desire to pursue their investigations in this laboratory. The

[a] See Réforme de la licence ès-lettres (ministerial circular), Revue internationale de l'Enseignement, November 15, 1907, pp. 434–439.

[b] Ferdinand Lot. De la situation faite à l'enseignement supérieur en France, vol. 2, p. 142.

[c] Commission appointed to examine a proposed law for the abrogation of the law of July 12, 1875, relative to higher education; date of appointment, November 27, 1902. President of the commission, M. Charles-Dupuy.

committee appointed to examine the claims of candidates for the current year consists of Madame Curie and Professors Appell and Langevin. The University of Paris has received from another donor, the Marquise Arconati-Visconti, the gift of an annual income of a thousand francs intended to found a triennial prize of 3,000 francs ($600). This prize is to be awarded by a special commission for the best work on modern history from 1789 to the present time. The university has also received a bequest of 4,000,000 francs ($800,000) by the will of M. Commercy, who died in 1907. The income of this fund is to be used, under the general direction of the council of the faculty of sciences, to promote scientific instruction and research.

At the University of Bordeaux, Professor Vèzes has instituted a laboratory of chemistry applied to the resin industry, which has received subventions from departments, communes, and societies interested in this particular industry. At the University of Lille there was organized during the year, under the auspices of the rector, a series of conferences upon the care of infants and domestic hygiene, intended particularly for the professors of the secondary and higher primary schools for girls. The University of Lyon reports considerable increase in the current income, valuable additions to the library, and the anonymous donation of a fund of 100,000 francs ($20,000), the income of which is to be devoted to researches in experimental physics.

ENROLLMENT AND DISTRIBUTION OF UNIVERSITY STUDENTS.

The total number of students in the universities as reported January 15, 1907, was 38,197, an increase over the number reported in 1905 of 4,579 students. Of this increase, 2,358 students must be accredited to the Paris University. The distribution of the students at the date named, by universities and by faculties, is shown in the following tables:

TABLE 6.—*Distribution of students in state universities January 15, 1907.*[a]

Designation of university.	Number of students.
Paris	15,789
Aix Marseille	1,269
Besançon	325
Bordeaux	2,496
Caen	814
Clermont	281
Dijon	966
Grenoble	896
Lille	1,560
Lyon	2,783
Montpellier	1,752
Nancy	1,841
Poitiers	962
Rennes	1,498
Toulouse	2,675
Schools of medicine not included in the universities Alger	2,290
Total	38,197

[a] Report by Maurice-Faure, p. 27.

TABLE 7.—*Distribution of university students in the different faculties January 15, 1907.*[a]

Faculties.	Number of students in the state universities.
Law	15,551
Medicine	[b] 8,852
Sciences	6,349
Letters	5,710
Pharmacy	1,735
Total	[c] 38,197

[a] Report by Maurice-Faure, p. 25.
[b] Includes 2,253 in the schools of medicine and pharmacy.
[c] Includes 3,434 foreigners, of whom 1,195 were women. Total number of women, 2,259.

The following special schools of university rank are also under the minister of public instruction:[a] Collège de France (appropriation, statistics for 1907, $109,500); Museum of Natural History (appropriation, $203,150); Practical School of High Studies (École Pratique des Hautes Études) (state appropriation, $66,632, city, $7,200); School of Archives (École Nationale des Chartes) (appropriation, $14,800); School of Oriental Languages (appropriation, $33,000); French School of Archæology at Rome (appropriation, $14,500); French School at Athens (appropriation, $23,540); École Nationale des Beaux-Arts (appropriation, $84,052).

The combined subventions to the independent college of social sciences and the closely related school of high social studies (École Libre des Hautes Études Sociales) amounted in 1907 to $2,400.

THE MUSÉE PÉDAGOGIQUE.

The recent extension of the Musée Pédagogique indicates the growing tendency to treat education as an integral process and to promote relations between teachers and professors engaged in different departments of the service.

This institution, organized in 1879 in the interests of primary education, was maintained substantially on the original basis until 1903 (decree of March 31), when it was reorganized under the title "Musée Pédagogique. Bibliothèque, Office, et Musée de l'Enseignement Public."

Before this time the work of the musée had passed beyond the narrow limits at first imposed, but with the change of title it became the

[a] The higher technical schools, such as the Conservatoire des Arts et Métiers, École Nationale Supérieure des Mines, etc., are under the charge of other ministries. For the latest statistics respecting this class of institutions, see Report of Commissioner for 1907, chap. 4, p. 165.

recognized center of unifying and inspiring influences for the entire system of public education.

In its present organization the musée comprises a pedagogical library, a publishing office or bureau of information, and an educational museum.

The library has 72,000 volumes and in 1904 reported 2,739 applicants for books, and 26,180 volumes called for, of which 15,877 were loaned for consultation at home; in 1906 the number of volumes consulted was 30,296, of which 17,399 were loaned for home reference.

The museum is organized in twelve sections, the material in each having classified arrangement. One of the most interesting sections is that devoted to objects of art for school use and ornamentation.

Among the auxiliary services which the institution performs is that of furnishing magic-lantern slides and other material for the illustration of popular lectures and courses of instruction coming under the general name of continuation classes. The packages of slides loaned in 1906 reached the total of 32,003. Recently a special office has been opened in the musée as a center for all the agencies, public and private, that are engaged in the great work of popular education supplementary to that of the primary schools.

The musée includes, also, halls for meetings of public school-teachers and for lectures given by professors of higher education. The latter are intended chiefly for the benefit of teachers.

The publications of the office of information are extending the influence of the Musée Pédagogique to every nation in which education is a matter of serious concern. They embody the results of extended investigations and of practical experience in the conduct of branches of study or of scholastic institutions.[a]

[a] The following references to a few of the works issued since the reorganization illustrate the scope and character of these publications: M. Pellisson, Les Œuvres auxiliaires et complémentaires de l'école en France; Ch. Seignobos, Le Régime de l'enseignement supérieur des lettres, analyse et critique; F. Marotte, L'Enseignement des sciences mathématiques et des sciences physiques dans l'enseignement supérieur des garçons en Allemagne. Conférences du Musée Pédagogique: L'Enseignement de la grammaire, par MM. V. Henry, F. Brunot, H. Goelzer, L. Sudre, Ch. Marquet (1906); L'Enseignement de l'histoire, par MM. Ch. Seignobos, Ch.-V. Langlois, L. Gallouédec, M. Tourneur (1907).

CHAPTER VIII.

EDUCATION IN CENTRAL EUROPE.

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PRUSSIAN SCHOOL STATISTICS.

The Prussian Statistical Yearbook of 1907 contains the results of the last elementary school census, namely, that of 1906. These censuses are taken only at intervals of 5 years. The one of 1906 permits comparisons with those of 1896 and 1901. The following table, which gives a mere summary of the statistics, is instructive in showing the steady increase in the number of pupils from $5\frac{1}{4}$ millions to $6\frac{1}{6}$ millions in 10 years; in demonstrating the decrease in the average number of pupils to a teacher from 66 to 60; in showing also the comparatively rapid increase in the number of women teachers (72.6 per cent), and the very large increase in the expenditures, which amounts to $82\frac{1}{2}$ per cent, while the expenditure per pupil rose from $8.85 to $13.75, an increase of 64.3 per cent.

If we consider the fact that the school year in Prussia has between 236 and 240 days of actual teaching, if we further consider that compulsory school attendance has been the rule for over two centuries, it is easily seen why the per cent of illiteracy in Prussia has decreased to the negligible quantity of 0.02 per cent.

In one regard the accompanying table is slightly misleading; inasmuch as it deals with the public elementary schools, the "Volksschulen" only, it does not give the entire number of children 6 to 14 years old who are under school influence. In order to arrive at the exact number of children subject to the requirements of the compulsory-attendance act who attend school, there should be added to the total mentioned in the table the following pupils:

(1) All pupils in boys' and girls' high schools and in advanced city schools (so-called Mittelschulen) less than 14 years of age. The sec-

ondary schools in Germany begin with the pupils' tenth year of age. The statistics of these schools in Prussia reveal the fact that the number of such pupils is 306,730. (2) All pupils in private elementary schools, namely, 12,964. Adding these to the total in the table gives a grand total of pupils 6 to 14 years of age of 6,484,092, or about one in every six of the population, which was 37,293,324 in 1905.

Summary of the statistics of the public elementary schools in Prussia.

[Compiled from the Statistical Yearbook of the Prussian State, 1907.]

IN CITIES.

Items.	1896.	1901.	1906.
Public elementary schools	4,242	4,414	4,832
Grades or classes	30,153	35,733	42,841
Men teachers	23,304	26,881	31,744
Women teachers	6,596	9,096	11,860
Pupils (see text)	1,773,370	2,005,134	2,306,265
Boys	881,704	996,143	1,146,469
Girls	891,666	1,008,991	1,159,796
Average number of classes to a school	7.11	8.10	8.87
Average number of teachers to a school	7.05	8.15	9.02
Average number of pupils to a school	418	454	477
Average number of classes to a teacher	1.01	0.99	0.98
Average number of pupils to a teacher	59	57	53
Average number of pupils to a class	59	56	54
Protestant schools	2,524	2,624	2,839
Protestant pupils	1,098,909	1,241,889	1,390,843
Catholic schools	1,283	1,341	1,507
Catholic pupils	497,817	574,898	696,171
Jewish schools	170	171	172
Jewish pupils	6,446	5,483	4,792
Schools common to all denominations	265	278	314
Pupils attending such common schools	170,198	182,864	214,459
Pupils separated by sex	1,278,887	1,468,941	1,669,286
Pupils in coeducational schools	494,483	536,193	636,979
Total expenditure, in dollars	$20,782,390	$33,311,464	$43,574,533
Expenditure for salaries	$15,136,395	$23,234,532	$30,556,690
Average cost per school	$4,899.25	$7,090.00	$8,442.25
Average cost per class	$689.25	$875.75	$952.25
Average cost per pupil	$11.75	$15.50	$17.75

IN RURAL DISTRICTS.

Public elementary schools	31,896	32,342	32,929
Grades or classes	61,848	68,349	73,061
Men teachers	45,828	49,461	53,236
Women teachers	3,703	4,770	5,924
Pupils (see text)	3,463,456	3,665,736	3,858,133
Boys	1,743,012	1,843,426	1,937,294
Girls	1,720,444	1,822,310	1,920,839
Average number of classes to a school	1.94	2.11	2.22
Average number of teachers to a school	1.55	1.68	1.80
Average number of pupils to a school	109	133	117
Average number of classes to a teacher	1.25	1.26	1.23
Average number of pupils to a teacher	70	68	65
Average number of pupils to a class	56	54	53
Protestant schools	21,963	22,286	22,644
Protestant pupils	2,129,651	2,201,199	2,259,249
Catholic schools	9,442	9,458	9,631
Catholic pupils	1,251,914	1,361,370	1,478,987
Jewish schools	76	73	68
Jewish pupils	1,677	1,456	1,277
Schools common to all denominations	415	525	586
Pupils attending such common schools	80,214	101,711	118,620
Pupils separated by sex	453,583	502,484	561,537
Pupils in coeducational schools	3,009,873	3,163,252	3,295,596
Total expenditure, in dollars	$25,696,984	$36,184,492	$41,264,775
Expenditure for salaries	$18,341,886	$25,515,335	$29,693,307
Average cost per school	$805.75	$1,056.50	$1,168.75
Average cost per class	$415.50	$500.00	$526.75
Average cost per pupil	$7.50	$9.25	$10.00

Summary of the statistics of the public elementary schools in Prussia—Con.

IN THE WHOLE STATE.

Items.	1896.	1901.	1906.
Public elementary schools	36,138	36,756	37,761
Grades or classes	92,001	104,082	115,902
Men teachers	69,132	76,342	84,980
Women teachers	10,299	13,866	17,784
Pupils (see text)	5,236,826	5,660,870	6,164,398
Boys	2,624,716	2,839,569	3,083,763
Girls	2,612,110	2,831,301	3,080,635
Average number of classes to a school	2.55	2.83	3.09
Average number of teachers to a school	2.20	2.45	2.80
Average number of pupils to a school	145	154	163
Average number of classes to a teacher	1.16	1.15	1.13
Average number of pupils to a teacher	66	62	60
Average number of pupils to a class	57	54.4	53.2
Protestant schools	24,487	24,910	25,483
Protestant pupils	3,228,560	3,443,088	3,650,092
Catholic schools	10,725	10,799	11,138
Catholic pupils	1,749,731	1,936,268	2,175,158
Jewish schools	246	244	230
Jewish pupils	8,123	6,939	6,069
Schools common to all denominations	680	803	900
Pupils attending such common schools	259,412	284,575	330,079
Pupils separated by sex	1,732,470	1,971,425	2,230,823
Pupils in coeducational schools	3,494,356	3,700,445	3,933,575
Total expenditure, in dollars	$46,479,374	$69,495,956	$84,839,308
Expenditure for salaries	$33,478,281	$48,749,867	$60,249,997
Average cost per school	$1,285.85	$1,956.00	$2,246.75
Average cost per class	$505.50	$667.75	$732.00
Average cost per pupil	$8.85	$12.30	$13.75

FEEDING SCHOOL CHILDREN IN GERMANY.

In a little book entitled "Schule und Brot," Helene Simon pleads eloquently for "first bread, then instruction," showing, in a number of statistical statements, that many children attending school are actually suffering from want of a warm breakfast in France, England, and Germany, and that charitable associations and municipal governments are making efforts to meet this want. She deals with countries in which attendance at school is enforced by law, and argues that such attendance is fruitless, if the children are obliged to attend lessons with an empty stomach.

The French school authorities (in Paris and other large cities) met the difficulty by opening "school canteens" in the basements of school buildings. These canteens are managed by the janitors and their wives or daughters, who live in the school buildings. In laborers' families the mothers are often prevented from being home at noon, being employed in factories themselves; so they make arrangements with the managers of the school canteen to give their children dinners or warm luncheons. The children are charged a very trifling sum for the privilege of staying in school during the noon recess of two hours and getting a warm meal (2 or, at most, 3 cents in our money). Those who are too poor to pay even that are given food nevertheless; charitable associations reimburse the janitor. Such arrangements have been in force for nearly 25 years.

Much in the way of feeding hungry children is done also in the large cities of England, especially in London. The author of "Schule

und Brot" shows that Germany and Austria, in which countries charitable efforts are usually so thoroughly organized, were the last of the great countries of Europe in which meals for school children were provided. Late statistics are rarely ever available in regard to charitable efforts, but those of United States Consul B. H. Warner, jr., who writes from Leipzig, cover the winter of 1903, and show that the movement has made great progress.

During that winter the number of children fed in various cities of Germany was as follows: Barmen, 700; Berlin, 7,000; Brunswick, 250; Breslau, 1,100; Charlottenburg (near Berlin), 300; Cologne, 800; Danzig, 1,525; Dortmund, 570; Dresden, number not stated; Düsseldorf, 1,000; Elberfeld, 800; Essen, 337; Frankfort-on-the-Main, 2,100; Halle, 2,969; Hamburg, 3,000; Hanover, 1,000; Kiel, 500; Konigsberg, 2,100; Leipzig, 2,200; Magdeburg, number not stated; Mannheim, 3,000; Munich, number not stated; Posen, 600; Nuremberg, 80; Stettin, number not stated; Strassburg, number not stated.

With the exception of Berlin, Barmen, Brunswick, and Nuremberg, not only poor but also sick and infirm children are given breakfasts. In Magdeburg food is supplied only in hard winter weather. Instead of breakfast, dinner is given to the children in Dresden, Munich, Stettin, and Strassburg, but in Munich it is projected to furnish breakfast also. In Hamburg great weight is attached to providing proper dinners for the children, the expense of which amounts to about $6,700 annually. In Brunswick, Breslau, Cologne, Kiel, Posen, and Nuremberg dinner is furnished in addition to breakfast. In Breslau, Charlottenburg, Düsseldorf, Halle, Mannheim, and Magdeburg the food is distributed by public institutions, while in the other towns it is furnished by charitable societies. The municipal authorities of Danzig, Dortmund, Hamburg, Hanover, Konigsberg, and Posen contribute toward the necessary funds, however.

The breakfast is not always the same. For instance, white bread, dry or buttered, and milk; milk with coffee and bread; coffee or soup and bread; or soup and white bread, are examples. Usually the children receive milk, from 3 gills to 1 pint. The last-mentioned quantity is provided in Kiel. Generally the food is only given during the winter. In Danzig and Kiel it is provided for only three months, while in Hamburg, Cologne, and Hanover the children are fed both summer and winter. The food is usually served in the schoolhouses under supervision of the teachers, but sometimes in near-by charitable institutions, soup kitchens, etc. The importance of such endeavors for the health of the children seems to be recognized more and more, for occasional brief notes in daily papers show an ever-increasing number of school children thus fed. The general meeting of the German Medical Society at Cassel in 1903 indorsed the plan unanimously.

SUICIDE AMONG SCHOOL CHILDREN IN GERMANY.

Cases of suicide among school children have increased in Germany to a degree that has induced the authorities to investigate the causes. Professor Eulenburg, of Berlin, has recently published in a periodical entitled "Schulgesundheitspflege" (School Hygiene) the official statistics of the period from 1880 to 1903, which show a total of 1,152 cases. That number, though, includes only those cases which were recorded in the public press, and is therefore thought to be incomplete. Of the total number reported, there were 284 cases of high-school students at the ages from 10 to 20. The ages below 15 are represented by 653 boys and 159 girls; the ages from 15 to 20 by 242 boys and only 5 girls.

Fear of punishment is assigned as the cause of suicide in 336 cases. Professor Eulenburg believes that this number is much below the actual one. In 70 cases inherited mental disease was plainly demonstrated; in 18 cases the cause was love; however, it is suggested that that cause may be considered to occur much more frequently than the number indicates. Aside from the three causes mentioned, several less frequently occurring play their parts, as, for instance, anger (lack of self-control), not being allowed to participate in certain recreations or excursions, gambling, and others. Among such causes, it is suggested, there are many traceable to mental shortcomings.

The secondary schools show a higher per cent of suicides than the lower schools, and that fact demonstrates the intimate connection between suicide and faults of education. In 51 cases inherited mental disease was plainly traced, since in the students' families were found cases of insanity, inebriety, epilepsy, etc. Especially alcoholism played havoc in this connection.

Parental lack of sense and false ambition were proved in 69 cases of high-school students, who, despite their defective intellectual power and consequent want of success in school, had been compelled to continue their studies, while in 68 cases the students had exceptional talent, but were lacking in will power or were disturbed in their development through sexual errors or alcoholic debauches.

Then there is to be mentioned a separate group of cases arising from erroneous views of life, i. e., students who attempted to imitate the liberty of university students in secret societies, and others who were misled by reading indigestible or depressing literature, such as the writings of Nietsche, Zola, Schopenhauer; and lastly, those who were driven to suicide by religious doubts and conflicts. In 67 cases the causes could not be definitely determined.

Although Professor Eulenburg is ready to admit that the harrowing influence of rigid compulsion of stupid children to attend school, intellectual overtaxing, and other things may have caused many of the suicides, he is emphatic in blaming the home for many cases.

He points to unhygienic diet in many homes, to the evil influence of insanitary housing, and to the faults of omission of many parents, who fail to instruct their offspring concerning sexual errors in youth. All the instruction many children ever get on sexual functions comes to them from sources to be deprecated. Sexual error is particularly frequent during the time of puberty; it destroys character in youth, and may be at the bottom of most cases of suicide reported. Harmonious education in school and home and rational authoritative instruction on this delicate subject alone can counteract the baneful influence of erotic emotions during the time of adolescence.

TEACHERS' SALARIES IN PRUSSIA.

The salaries of teachers in the elementary schools of German States are only partly defrayed by local taxation. The state governments pay a large part of these salaries and all of the teachers' pensions or annuities. Naturally the large sums needed for these purposes have to be appropriated in bulk annually by the diets of the States. Last year it was reported that it was the definite plan of the Prussian government to increase the State's quota of school expenditures, so as to raise the minimum salaries of teachers, as well as the schedule of annual increases. The project was announced in parliament by the minister of public instruction, and the bill in preparation combined the regulation of teachers' salaries with that of the salaries of Prussian civil administrative officers, who were promised increases owing to the higher cost of living.

Many city governments during the year had petitioned the Royal Government for permission to raise the minimum salaries of their teachers, so as to enable them to procure good teachers and to induce young men to enter normal schools for professional preparation. But the minister had declined the request in many cases, because the State's contribution to the school expenditures, consisting of a large part of the whole amount, would have been burdened with obligations for which no specific appropriations had been provided. Wealthy cities along the Rhine felt the noncompliance of the Government acutely, but had to submit. In each case of refusal the minister called attention to the bill in preparation, which provided for a generous increase of salaries of civil officers all over the State.

Early in 1908, however, the minister was obliged to announce in Parliament that the department of finance had declared it impossible to grant the required funds that year, since the proceeds of both direct and indirect taxation did not suffice to provide for the increase in the salary lists as proposed. The effect of this will be, so it is predicted in parliament, that the ranks of men teachers will be still

further depleted and the number of women teachers increased. Industry and commerce absorb more and more those who formerly entered civil employment under state, provincial, and municipal governments. The same state of affairs is met with in the postal and other departments of government, where women are beginning to successfully compete with men, owing to the fact that women can live on less than men, not having families to support. Considering the fact that the female population of Germany exceeds that of the male by nearly a million, the time may not be very distant when the proportion of men teachers (85 per cent) to women teachers (15 per cent) will be reversed.

NORMAL SCHOOL COURSE IN SAXONY.

The normal schools for elementary teachers in the kingdom of Saxony have maintained a high standard since the middle of the nineteenth century, having had courses of 6 years, instead of 3 years as in Prussia. These Saxon schools have been noted particularly for the fact that they taught one or two foreign languages, while schools of this kind in most other States of Germany confined their linguistic instruction to the mother tongue. Lately proposals have been made to lengthen the course of Saxon normal schools to 7 years, and thus raise the rank of these institutions to that of Gymnasia, or classical high schools. By so doing the graduates would be enabled not only to enter upon university studies, if they so chose, but also to accept positions in secondary schools. It is interesting to see, in the following weekly time-table, the distribution of studies in the newly proposed course for Saxon normal schools, especially the importance bestowed upon natural science. The plan is quoted from Pädagogische Studien, 1908, Heft 2.

Proposed seven-year normal school course in Saxony, Germany.

[The figures give the number of hours per week.]

Branch.	First year.	Second year.	Third year.	Fourth year.	Fifth year.	Sixth year.	Seventh year.	Total number of hours.
Pedagogy	.....	.....	.....	.....	5	5	5	15
School practice	.....	.....	.....	.....	.....	4	4	8
Religion	3	3	3	3	3	3	3	21
German language and literature	4	4	4	4	3	3	3	25
Latin language and literature	5	5	5	5	3	2	2	27
French or English	4	4	4	4	3	3	3	25
Universal history	2	2	2	2	2	2	2	14
Geography	2	2	2	2	2	1	1	12
Mathematics	4	4	4	4	3	3	3	25
Natural sciences:								
Biology	2	2	2	2	1	1	1	11
Chemistry and mineralogy	.....	.....	2	2	2	.....	.....	6
Physics	2	2	.....	.....	2	2	2	10
Laboratory practice	2	2	2	2	2	2	2	14
Drawing and designing	2	2	2	2	2	2	2	14
Penmanship	1	.....	.....	.....	.....	.....	.....	1
Gymnastics	2	2	2	2	2	2	2	14

Proposed seven-year normal school course in Saxony, Germany—Cont'd.

Branch.	First year.	Second pear.	Third year.	Fourth year.	Fifth year.	Sixth year.	Seventh year.	Total number of hours.
Music:								
Singing	2	2	2	2	2	2	2	14
Theory of music	.....	1	1	1	1	1	1	6
Piano	1	1	1	1	1	1	1	7
Organ	.....	.....	.....	1	1	1	1	4
Shorthand writing[a]	.....	.....	[a] 2	[a] 1	.....	.....	.....	[a] 3
Total hours per week in each grade	38	38	38 [a] 2	39 [a] 1	40	40	40	273 [a] 3

[a] Optional study.

THE "MIDDLE SCHOOLS" IN PRUSSIA.

The school authorities of many cities of Prussia have established and generously supported, for over 40 years, so-called "middle schools," or advanced elementary schools, which are not to be mistaken for secondary schools, which latter prepare students for higher institutions. To give an idea of the scope of these middle schools, we may compare them to private business high schools of two-year courses, such as we frequently find in the large cities of this country. Dr. B. Maennel, of Halle, in an article entitled "The Prussian middle school in the struggle for existence, and its organization," defends these schools from bitter attacks, justifies their existence, and complains of the teachers of the lower schools who are opposing the establishment and maintenance of middle schools, chiefly because they deprive the lower schools of the more intelligent pupils and thus degrade the elementary schools to institutions for the less talented and the poverty-stricken elements. These teachers maintain that the middle schools promote segregation in the population, whereas it should be the aim of all teachers to raise the "Volksschule" to a common school for all classes and make it the foundation of all advanced and secondary schools, as it is in America, thus aiding in obliterating class distinctions.

Doctor Maennel, being the principal of a middle school in Halle, bases his defense of such schools on the ground that a common school for all is apt to disregard talented children and keep them back or make them take a slower gait to accommodate the slower minds. It must be understood that these middle schools begin, like other elementary schools, with pupils of 6 years of age and aim at a more rapid progress than the elementary-school pupils can make.

A like pronounced opposition to the middle schools Maennel finds among the teachers of secondary schools (so-called Realschulen, or realistic high schools), for they see in the middle school only an unwholesome competition, an institution such as is not infrequently

found in American cities under the name of "drillery," or "short cut" courses. This opposition Maennel meets by saying that many children can not possibly enter high schools owing to proverty and lack of talents. He shows that high schools and middle schools have really different aims, hence can not, or should not, compete with one another. Though many branches of study in both kinds of schools are the same, their scope and their mode of treatment differ.

The immediate object of the middle school is to enable boys to pass the examination for one year's service in the army, and to prepare them for wage-earning at 16 years of age. Most of its graduates enter trade or monotechnical schools, or commercial and other practical courses, where they attend evening lessons, while serving as apprentices in business. But the essential feature of the middle schools is the preparation of boys for occupations more remunerative than day labor, so that they may begin their apprenticeship with a better stock of knowledge than a mere elementary school can give.

Since these schools offer the rudiments of a foreign language, a little higher mathematics, and natural science of a wider range than the elementary school offers, but not as systematically as a high school, the students can meet the demands of practical life at an earlier age, although they are by their scanty preparation excluded from higher aspirations. A day school, which enables a boy to prepare himself for some pursuits better than if he received no specific preparation at all, is most desirable for a large part of the population.

To disregard the necessity of such schools may prevent segregation, but it seems to lie in the interest of the State to call forth as many sources of strength and self-support as possible, and the middle schools, therefore, fill a want in the scheme of popular education. They are vastly more productive than mere evening (so-called continuation) schools, being day schools throughout. Moreover, since many of them are attended by girls also, they aid in the advancement of the female sex in cities, and their establishment is therefore doubly advisable.

GERMAN-AMERICAN EXCHANGE OF SECONDARY SCHOOL TEACHERS.

[The press of Germany recently made some interesting remarks concerning the proposed exchange of high school and college teachers between Germany and the United States, showing that the editors are fully alive to the importance of the matter. The Cologne Gazette of April 30, 1908, reports the steps taken, announces the names of the committee members, and then makes the following comments:]

Looked at from the American point of view, the agreement signifies a practical manner of gathering information on the part of college teachers who take an especial scientific interest in Germany, above all, in its language and school system. Their number has diminished during the present generation, owing partly to the decreased German immigration and the consequent abandonment

of the teaching of German in the common schools, and partly to the independent development of American higher educational institutions.

The matter of expense, also, will influence the number of participants in the proposed exchange; for the hope expressed by the committee that the American schools in which the selected teachers are at present engaged will pay their traveling expenses is not well-founded, and the salary offered them by the Prussian Government, to wit, $25.00 to $27.50 a month, is, according to American standards, too small to be considered more than mere "pocket money."

Finally, it is to be considered that many of the participants will wish to utilize their sojourn in Europe by making excursions to France and England, which would, of course, be at the expense of the immediate designs of those who proposed the plan of exchange.

Despite the obvious drawbacks, the exchange proposed will take place, and many an American teacher will become familiar with German secondary education and will learn its two superior advantages, namely, its strictly scientific instruction and its minutely systematized organization and management. Intercourse with our youth will show these men our national individuality in a more vivid and a truer way than books and magazine articles can, and the historical conditions of our institutions will be revealed to them in the schoolroom as through a condensing lens.

The German teachers who are to spend eight months in American colleges or high schools will experience the truth that America can teach them just as much as the oldest seats of culture in Europe. During their intercourse with the young people of the land, the youth of the American national spirit will be revealed to them and they will enjoy the charm of this youth, which can not be described nor bottled up and sent to Europe, but which acts inspiringly upon every receptive mind, and perhaps demonstrates in the simplest manner the secret of the wonderful adaptability of the people.

Gropingly they will discover new land under their feet, they will imbibe and apprehend new ideas of state and government, school and church, police and civil officers, professions and social classes; they will rid themselves of inherited prejudices and will learn to value freedom of living as America teaches it, as they learned to value freedom of thought, which their universities have been teaching them.

Naturally the imperfections of this youthful people will not escape them, such as the following: Its want of common interests; its national vanity; its mechanical mode of thinking, which is apt to treat all problems alike; its love of the absurd and of abrupt effects; its undeveloped artistic taste. All these things they will learn even in the schoolroom.

But they also will learn to believe that these imperfections will vanish when the years of maturity come, as America itself believes. And in such courageous faith of youth they also will discover the secret of its power. Thus the structure of the American school system, compared with the German, may appear to them as a roughly fashioned log house, for it lacks both the scientifically trained body of teachers as well as systematic articulation in its structure. But in this log house they will find a race growing up which takes delight in learning and is strong willed—a race which is not made to dislike school by moss-grown pedantry, and whose energy for entering life's struggle is not broken down by short-sighted pedagogues. If they are not mentally blind, these teachers will return to Germany full of good will and more than ever willing to give to youth the things that are youth's.

AGRICULTURAL EDUCATION IN GERMANY.

There are noticeable of late new measures on the part of the German state governments for aiding agricultural education, all of which aim at self-support of the people. Unlike England, where agriculture has almost ceased to be considered profitable, Germany has raised the tariff on foodstuffs, so as to make it profitable to the rural population to continue to till the fields. By bringing education, literature, and art closer to the rural population the governments hope to stem the tide of emigration to the cities. Much attention and care is bestowed upon the country schools, so as to maintain for them a high level of perfection. But the governments are not satisfied with these measures; especial efforts are made to improve the farmers' knowledge of their own occupation. Two especially marked examples of state aid to agricultural training are recorded, one in Bavaria and the other in Saxe-Weimar.

The case of state aid in the Grand Duchy of Saxe-Weimar is reported by United States Consul Lowrie. It consists in the government's leasing land at various points of the State for the purpose of instructing women in the art of truck gardening. The land thus set aside will be in charge of experts having a full knowledge of agriculture and horticulture.

An interesting feature of the Weimar public school system is the result of an effort to check the emigration of country boys to large cities and other countries. The district raises great quantities of fruit, and tree nurseries have been established, so that the children may learn the scientific cultivation of fruit trees, vegetables, and flowers. They are in charge of experienced gardeners, and are devoted to the practical work of the soil. The ground is divided into little sections, which are placed in charge of the various grades of school. While the pupils are acquiring a valuable knowledge of the nature of soils, the science of pruning, grafting, planting, etc., they are also made to feel the dignity and importance of agriculture. This training has proven of great economic value, and the children become deeply interested in the work.

The other case is reported by United States Consul Bardel, who says that in order to promote agricultural interests the Government of the Kingdom of Bavaria has established elementary agricultural schools in 31 towns. These schools are in charge of teachers who, in addition to an academic education, must be generally conversant with botany, geology, chemistry, physics, zoology, and biology. The peculiar feature of this movement in Bavaria is that the teachers of these schools travel about the State and give instruction to farmers during the period of inaction in winter. The consul says:

At a time when nothing is doing in the fields, from November to March, these schools are open, and peasant farmers for a nominal fee can attend courses on cultivation and fertilization of the soil, the proper succession of crops on the same land, the best sources for good seeds, irrigation, and the raising of

stock. They are made acquainted with improvements and new inventions in agricultural implements, the adoption of which can be recommended. They are taught the rudiments of bookkeeping and other commercial knowledge essential for the up-to-date farmer.

In the spring, after these farmers have returned to their work in the fields, it becomes the duty of the teachers who instructed them during the winter to travel from county to county and to act as advisers to the farmers. Much good results from the travels of these ambulatory teachers. By practical suggestions to the farmers they induce them to make valuable improvements in the cultivation of their farms.

The wandering teacher helps to form cooperative clubs for the joint interests of a number of farmers in one district. From time to time the teacher has to lecture in these clubs on any subject, practical or scientific, which might prove of interest to the members. These visits and lectures to the different districts are entirely free to the people, since the State assumes all expenses. There is probably no other country in the world in which so much is done by the State for its rural inhabitants as is the case in Bavaria. Other German States have these agricultural schools, but their teachers are not sent in such a practical way direct to the places where they can do the most good, as is done here. The results of this commendable care have been very gratifying.

The Prussian normal schools have ever since the eighteenth century taught pomology and horticulture to their students, and since rural teachers in that Kingdom have plats of land in connection with their schools many valuable hints and lessons are given to the pupils of the rural schools. This may be the reason why Germans, despite their industrial and commercial bent, are, as a rule, successful farmers. In traveling through the country one is constantly brought to a realization of the thrift and ingenuity of the rural population. There is little or no waste land to be seen. If a patch of land is unfit for farming purposes, it is utilized by planting trees on it, and this is greatly encouraged by the Government.

THE EDUCATION OF GIRLS IN GERMANY.

Miss Helene Lange, of Berlin, one of the most prominent advocates of higher education for women in Germany, published in her last work, "The woman movement and its modern problems" (1908), a review of female education which demonstrates the difference between American and German points of view, and opens instructive vistas into German educational history. She bases her solutions on the principle that "the degree of the intellectual and moral efficiency of a people depends upon its success in making its objective culture a personal possession of its individual members." This, she holds, has become exceedingly difficult through the extreme refinement of cultural products under the continuous progress of division of labor, which has made of the individual a mechanical tool and thereby im-

peded his personal culture. The central problem of education is, therefore, how to overcome these difficulties; to determine what knowledge is essential in order to enable the individual to find his way through life; what cultural possessions will enhance his power, his welfare, his value, and how these can be brought within reach of all.

The problem of woman's education she deems in this connection to be more complicated than that of the education of boys, inasmuch as the life-interests of women have been extended, for at least one-third of them permanently and for a growing number temporarily, to industrial and professional fields, to which the life of man is almost wholly confined. Thus realistically practical conditions have been added to the idealistically feminine aims of woman's education.

But this has been done only in late years. From the days of the Reformation to very near the close of the nineteenth century school education in Germany was a matter only for boys. Therefore, from the elementary schools up to the highest, the education of girls is in a state of inadequate compromise in Europe, resting not on a serious consideration of the problems to be solved, but rather on occasional efforts to meet certain crying needs. Such patchwork Miss Lange finds "in all industrial girls' schools, in so far as they, established chiefly by private means, lack uniform organization in their courses and the sustaining influence of a regular obligatory system of continuation schools; also in the Gymnasia for girls, pieced on to the old-time advanced schools for girls, as long as these advanced schools for girls are not modified so as to permit of their organic connection with the Gymnasia (or girls' high schools)."

Recognizing now as fundamental facts that "economic conditions have created the necessity of a serious vocational education for girls," and that "just because the housewife is to-day largely freed from the fetters of drudgery in the home, her intellectual and moral efficiency in the family involves greater elevation, breadth, and refinement," she continues:

> In view of the evident shortcomings of the education of girls, it seems to me, one principle fairly forces itself upon us as the starting point for all requirements: The principle that every course of instruction should be adapted as closely as possible to its own purpose. In the education of girls, too, we must learn to appreciate the fact that it is not possible for all to learn and to do everything, and that under the sway of our modern division of labor the education of girls can become complete and adequate only through specialization. With the cessation of uniform requirements for preparation for domestic life on the part of women, a uniform education of women has become impossible.

The author then proceeds to examine in the light of this principle the current organization of education for girls, in which she distinguishes three ascending lines: (1) The Volksschule (or elementary school) and vocational instruction, supplemented by the obligatory continuation school; (2) the advanced schools for girls and the mid-

dle vocational schools; (3) the secondary schools for girls, the Gymnasia for girls, and the higher vocational instruction in schools of university rank.

With reference to the first of these, which applies to the working women, she divides the latter into two large groups, engaged, respectively, in unskilled and in skilled labor, the first of these groups greatly exceeding the number of unskilled workmen in the same strata of society. This is due to the fact that the girl who, on leaving school, looks forward to marriage, is less interested in preparation for some calling, than merely in earning something while she is waiting; and this applies not alone to those who engage in some light manual work in a factory, but also to the entire range of specific women's trades, such as dressmaking, millinery, etc., as well as textile and other industrial and commercial pursuits. Consequently her work is far inferior to that of the man in the same or corresponding callings. The author, therefore, asks that the same claims of proficiency in their work, and the same opportunities for preparation and continued instruction that apply to boys and men, be afforded also to girls and women. She quotes with approval the demands formulated by Dr. Mary Baumann, formerly an inspector of factories in Baden: "(1) The chambers of trades should strive after measures for regulating and supervising the apprenticeship of women, and should admit women to the optional journeymen's and masters' examinations. (2) The universal admission of girls to vocational schools should be demanded." To these the author adds as a third requisite: "The establishment of vocational schools for exclusively feminine callings should be more energetically encouraged by public corporations."

In the measures for supplementing the work of apprenticeship, and for vocational school instruction in the continuation schools, she finds that the provisions for girls are far behind those for boys. Where, indeed, in connection with the elementary school, obligatory attendance upon the continuation schools has been established also for girls, domestic and not industrial requirements were had in mind. Thus, e. g., in Baden, the general continuation school for girls is practically a school of domestic arts. Nevertheless she considers it impracticable to establish a general system applicable to all cases. Thus, in communities whose industries require only unskilled labor from girls who presumably, after marriage, will have the care of a home, training in the domestic arts is of the greatest importance. On the other hand, where women are engaged in skilled labor, supplementary industrial training is indispensable and domestic training must yield. For this domestic training the author recommends provision in the last school year of the complete elementary school of eight grades, as is done in Munich. Moreover, she assumes that young women engaged in skilled labor would be in possession of the means as well as of the

necessary intelligence and sense of responsibility to enable them to gain the needed elements of domestic training in special schools before marriage.

The author introduces her consideration of the second line of current education of girls, embracing the advanced schools for girls and the middle vocational schools, with the following words: "The higher we rise in institutions for the education of girls the more sharply defined will appear the problem resulting from the two-fold calling of women. The more extended course of instruction affords wider scope for the inquiry into the relative value of the cultural possessions for the personal life equipment and more varied possibilities for the formulation of the educational aims."

Of primal importance is the cultural mission of woman in the family, to which the author refers in a previous chapter as embracing, in addition to her economic duties, the fostering of the personal culture of the family, the acting as mediator between the intellectual culture of the outside world and the personal life of the members of the family. An instinctive apprehension of this unique specific mission of woman led the advanced schools for girls disastrously astray in their efforts to compass "a harmonious cultivation of the intellect, the feelings, and the will," in so far as they undertook "an intense culture of the soul lying far beyond the limits of school education, and, on the other hand, neglected the practical ideals of its task."

The misfortune of our advanced schools for girls [the author continues] was that their emphasis upon heart culture was coupled with the idea of a cultural mission of woman that might be accurately formulated in Rousseau's dictum that "woman is made especially to please man." This led to three grievous errors. The first of these lay in the fact that, for the sake of harmonious and finished culture, it was thought necessary to present the material of instruction in encyclopedic completeness, and that, on the other hand, inasmuch as woman was to share the interests of others, rather than to follow her own, the school relied in its method of instruction more upon authority than upon the independent judgment of the pupils.

The second error arose from a misconception of the bearing of the course of instruction upon the supposed differences between the mental capacities of men and women. Consequently, subjects were selected that seemed to be specially adapted to the mentality of woman, and other "subjectively valuable and objectively important" subjects, such as mathematics and natural science, were excluded. This feminization of the course of instruction led to differentiation in the mutual interests of the sexes, amounting to intellectual alienation.

The third error lay in the failure to place the proper estimate upon the intellectual interests of the modern family and upon the share of the wife in these. This share includes vastly more than the effort to entertain the husband. "It includes responsibility for the new generation, for its physical life and well-being and its psychical development, for both of which our time holds richer possibilities and

greater dangers than former days;" it imposes upon the mother "responsibilities that can not be met by a woman who is merely the shadow of her husband."

Their failure to furnish a basis for vocational training was even more complete, inasmuch as they necessarily declined to consider all that had reference to the economic needs of later life and deliberately ignored the fact that the new economic conditions had established new responsibilities for women that must be reckoned with.

To this should be added the relative inferiority of the teachers, inasmuch as the best prepared sought employment in boys' schools, and inasmuch as the preparation of women teachers for their work was inadequate.

The author finds the remedy for this condition of affairs primarily in securing for girls, either in separate schools or coeducational institutions, the instruction given to boys. Psychical differentiation based on sexual differences will take care of itself, as, under the same physical nourishment, the boy becomes a man and the girl a woman.

The advanced school for girls, too, as an institution for so-called civic education (bürgerliche Bildung), must accomplish the same work that the realistic high school of six grades (Realschule) does for boys. * * * As a Realschule with two foreign languages and strong emphasis upon mathematics and natural sciences, the high school for girls would provide a secure foundation of general culture that would, later on, bring the wife in her interests nearer to her husband than is now the case, and would not place her from the start intellectually upon an island from which she would find it difficult to build bridges to the world of her husband, to the world of her sons that are to be. As a Realschule the high school for girls would furnish a secure foundation for all the industrial and commercial vocational courses to which the girls of the middle classes must have recourse to-day in such great numbers. * * *

In addition to these, it is necessary to establish for the education of women secondary classical institutions of learning, as well as secondary institutions for higher vocational education; and this in all the three forms existing in Germany, as Gymnasia, realistic Gymnasia (Realgymnasien), and realistic high schools (Oberrealschulen).

The objection that the boys' schools are too exclusively intellectual in their tendencies, and that it is possible to aspire to a freer and more beautiful cultural ideal in the secondary school for girls, the author meets as follows:

There has been in the secondary school for girls a surfeit of experiments with this free and beautiful cultural ideal. Women have thereby been forced into an exceptional position that has done them great injury. The education of boys is too intellectual; granted, but in this it is in harmony with the tendencies of our entire civilization. Only a strongly intellectual education can to-day be of vital service to a man in the culture of our time; even the most primitive calling demands headwork; and the wife and mother who can meet her intellectually trained sons and daughters only with matters of sentiment, is inevitably lost. Only together with man will woman be able to establish a new cultural ideal, and surely never in antagonism to him.

The question whether the classical or the upper realistic high school will be able to meet also the specific educational needs of woman, bearing on her mission as housewife and mother, the author leaves open. The results obtained so far from the work of girls' secondary schools furnish, she holds, a weighty argument in favor of perfect mutual accord of the education for girls and boys.

> The presumption [she continues] that cultural material can be selected on the basis of qualities favoring the development of manliness or womanliness, and that woman by sharing in the education of man would become masculine, is a superstition of dilettanteism. On the contrary, in so far as there exists an organic psychical difference between the sexes, it will assert itself the more decidedly and self-consciously, and be developed the more beautifully, the richer the common possession of objective cultural material at its disposal. The danger of obliterating the psychical differences of the sexes need not, therefore, be feared.

On the other hand, the courses of study of the boys' secondary schools contain, especially in the upper classes, in addition to certain elements of general culture, matters that bear on the preparation for higher institutions. Yet, because of their formal value, even this does not justify a contention that thereby these courses are ill-adapted or pernicious to the future wife and mother. Nevertheless, the author maintains, there will always be a great number of girls in the upper grades of school to whose individual talents the exclusively intellectual education of the secondary school can not do justice, or who have definitely in mind only the family life; and these also should be considered; therefore the secondary education for girls should keep in view essentially three elective groups of studies: (1) An advanced scientific education, (2) one having in view the domestic responsibilities of women in their various phases, and (3) the preparation for their participation in social development.

In the scientific group it is not so much a compendious treatment of subjects that is to be sought, but rather an intensive insight into particular, especially rich sections, into complexes of history and literature, language, and natural science. The writer refers here particularly to the rich biographical material, the literature of memoirs, historic documents, and epistolary correspondence, for cultivating the girls' taste and judgment.

> What has to be yielded in this curtailment of the subject will be richly compensated by the intensiveness of the study; nay, familiarity with all the intellectual, religious, and artistic currents, the entire cultural complexes of a great productive epoch of the past, will stimulate the power and the desire for research into other complexes; it will be able to exert upon the personality the influence which we designate by the word "culture," * * * the appreciation of cultural values and cultural complexes which we seek for the mothers, for the guides of the coming generation.

The second group of subjects relates directly to the management of domestic affairs. At their center is pedagogy, the care and guidance

of the physical and psychical life of children. Our knowledge of childhood, the author holds, is just beginning, and we have reached the critical point of passing from the former harshness and compulsion in our methods to an equally unpsychological tenderness and false individualism. There is, therefore, double need of a rational study of childhood in order to find the golden mean.

In order to supplement theory with practice, she suggests that one or two afternoons each week be devoted to occupation with children. This does not contemplate a complete professional kindergarten course, but merely the practical supplementing of theory and of the observations which almost every girl will have opportunity to make in the well-filled German nurseries, "in order to enable them to systematize their observations, to draw valid conclusions, and to gain an intelligent appreciation of their future educational duties." Wherever it is possible, this should be done in connection with a good kindergarten.

The third group of subjects in these supplementary classes would deal with matters of social, rather than of individual, pedagogy. In addition to the theoretical introduction into the elements of political economy—not in a systematic form, but rather in connection with history—this would involve an understanding of the social questions of our time, and of the social duties incumbent upon women of the cultured and wealthy classes.

Instruction in domestic economy in the narrower sense can not, in the author's opinion, receive consideration in the supplementary classes, but must be assigned to the schools of domestic economy. With girls from the elementary school it is necessary that such an education be given in continuation schools, or, under certain conditions, even in the elementary schools themselves, because the mothers of these girls either do not themselves possess such an education, or are engrossed in occupations outside of the home. With women of the middle classes this is not the case, and there is no reason why these classes should be relieved by public institutions of the duty of procuring education in domestic economy for their daughters.

In conclusion, the author considers the question in how far the problems of the education of girls can be solved by coeducational methods apart from these schools. In view of the facts that the contrast between the interests of the sexes is so well marked in Germany in our day, that the education of girls is still so unwarrantably neglected by public institutional factors, and that this education itself is still so arduously struggling to free itself from the false tendencies of a sentimental "feminization," she considers it to be quite logical that the demand for coeducation from bottom to top should have become a principle of the woman movement.

Perhaps [she continues] the absolute value of coeducation has been somewhat overestimated; perhaps the doubts that have arisen in its practical application are underestimated. In all cases, however, it is possible to adduce for the demands of coeducation practical and theoretical arguments whose relevancy has not so far been shaken by any experience. To practical considerations coeducation owes, in the first place, its wide adoption. It is favored, without doubt, wherever separate schools on account of limited attendance would involve disproportionately great expense. It is possible to conceive most varied conditions under which the abandonment of segregation of the sexes would bring relief to the school administration in organization, as well as financially. The second great advantage would be found in the fact that it would no longer be necessary in the budgets of cities and States to provide especially for girls' schools. Under existing conditions in Germany this item of appropriation would naturally be in constant danger of reduction in favor of the boys' schools. When we consider that, e. g., in Prussia the expenditure of the State for girls' secondary schools, including seminaries for women teachers, is only about one-fortieth of the cost of the boys' secondary schools, the vast importance of the coeducative principle in this direction is evident without further argument.

Another group of factors that speak for coeducaton are the theoretical factors. Unquestionably it would strongly influence the future mental relation of the sexes if the schools now were to afford them opportunity to meet and to find mutual points of comparison on purely intellectual grounds. Under existing segregation the boy is not accustomed to look for comradeship in intellectual interests among girls. He looks upon the world as his special prerogative, and if perchance he should desire later on intellectual sympathy with his wife, a certain inner alienation of the sexes, based on separate education, too often keeps them from communion in these fields. The women students at our universities, too, suffer because on the one hand they know too little of the intellectual interests of men to apprehend with full understanding their mode of work, and because on the other hand men do not sufficiently understand the attitude of women toward the world of intellect to treat their specific views with respect and sympathy.

Over against these advantages we should not, however, wholly underestimate the difficulties. The fundamental condition for the introduction of coeducation would, of course, be found in the equivalence of women and men as teachers; for, even for the sake of securing coeducation, we should not yield the principle that, in her inner development, the girl must be under womanly guidance. Another difficulty I see in the fact emphasized by Swedish and Finnish physicians, and probably not to be doubted, that both the physical and the psychical development of girls show a different rhythm from that found in boys. Forbearance is necessary in the treatment of girls at a time when it is not necessary with boys; they develop psychically very rapidly at a time when there is a decided retardation or standstill in the development of boys. Under coeducation the school of course can not adjust itself to these facts. Vigorous and self-dependent natures may not suffer from this, but with more delicate children, psychically more sensitive and physically more dependent, it might lead to troubles that would pay too dearly for the advantages of coeducation. This would be the case more especially in Germany, where the demands of the secondary institutions of learning actually exceed the limits of a rational hygiene of work.

On the whole the author agrees with the resolutions adopted by the congress for the education of women which met at Cassel October 12, 1907, and which declared: (1) For coeducation as one of the most

expedient measures, both for the solution of the problem of higher education for women and for the development of more refined relations between the sexes; (2) for the admission of girls to boys' secondary schools, as practiced in Baden, Wurttemberg, Hesse, Alsace-Lorraine, and other States of Germany, more especially in places that can not or will not perfect the organization of girls' secondary schools by establishing preparatory classes for entrance into the universities; and (3) for the principle that the ideal of coeducation will have been reached and its educative influence for boys and girls fully secured only when in coeducational schools women are employed as teachers as well as men.

The solution of the question of the education of women [the writer sums up] is to be sought, therefore, in Germany in two ways: First, by the admission of girls to boys' schools; in the second place, however, by the establishment in addition of separate schools for girls corresponding in scope with boys' schools. That separate instruction of the sexes in universities can in no way be considered is so self-evident that it does not need special emphasis.

STATISTICAL SUMMARY OF PRUSSIAN SECONDARY SCHOOLS FOR GIRLS.

According to the latest report (of 1906) the number of public secondary schools for girls increased from 213 in 1901 to 270 in 1906; the number of teachers employed full time rose from 2,323 to 3,158, and the number of students from 53,480 to 71,156. Hence the number of schools has increased 27 per cent, that of teachers 36 per cent, and that of students 33 per cent in 5 years. Despite these encouraging figures exhibited by public secondary schools for girls, the private schools of similar character are by far in the lead. Their number is 675 (649 in 1901), with an attendance of 85,797 (73,440 in 1901). The relative increase in attendance during the last 5 years was, it will be seen, only 17 per cent, or about half that of the public schools.

Among the pupils of the public secondary schools for girls there were 56,382 Protestants, 7,415 Catholics, and 7,080 Hebrews. The small number of Catholic girls in these schools is attributed to the disinclination of Catholic parents to have their daughters taught by lay teachers. We find this confirmed by the fact that private girls' schools conducted by religious sisters have a very large attendance.

Among the teachers of girls' public secondary schools there were 1,238 (1,059 in 1901) men, and 1,920 (1,264 in 1901) women. There were also 602 (456 in 1901) assistants not employed full time, namely 376 men and 226 women. The number of men teachers has not increased so much as that of women teachers.

The cost of maintenance of girls' public secondary schools amounted to $1,505,000 in 1896, $2,096,000 in 1901, and $3,065,000 in 1906, an

increase of more than 100 per cent in 10 years. The largest part of the expenditure is required for salaries, which rose from $1,262,500 to $2,552,500. The average income in form of salaries, which does not include allowance for rent nor pensions paid, was for men teachers $1,088.50, for women teachers $478.25. The average salary for men has increased $268 in ten years, that of the women only $79.

TRADE AND OTHER VOCATIONAL SCHOOLS IN PRUSSIA.

There is a well-organized system of supplementary schools in Prussia, as well as in all other German States, mostly evening and secular Sunday schools, known as continuation schools, intended to carry on further the work of the elementary schools; they occupy boys and girls profitably during the years of adolescence, and gradually acquaint them with the more important duties of life. The state has decreed compulsory attendance on these continuation schools, provided the children between 14 and 16 (or 18 in some provinces or counties) do not attend other schools. Employers are fined if they prevent children from attending these schools during apprenticeship. These general continuation schools, which have no particular object in view save the conservation of elementary school education and an undefined extension of that education with reference to future responsibility of citizenship, are not in any way included in the following summary. They belong to the department of the minister of public instruction.

There are, however, a large number of trade, industrial, commercial, and art schools, monotechnical in scope, the supervision and management of which belong to the department of the minister of commerce and industry. Concerning such schools, few, if any, comprehensive reports have been issued till recently, the institutions being for the most part of recent origin. The department of commerce and industry has established within the last two years a separate bureau, under the name of Royal Prussian State Industrial Bureau, which has the management of all monotechnical schools, and attends to the distribution of the state funds for their support.

The second comprehensive report of that bureau, which is for the year 1907, and appeared in the spring of 1908, gives most conclusive evidence of efforts of the state, provinces, and communities to promote vocational training for business clerks, skilled factory laborers, tradesmen, designers, and other productive laborers. The report groups these monotechnical schools as follows:

(1) *Schools for metal workers*, which include machine builders, smelters, and cutlery and other tool makers.

(2) *Schools for trades and industrial arts*, which include schools for woodworkers, schools of design and the graphic arts, ceramic art schools, etc.

(3) *Schools for the building trades*, which include all the trades employed in building, as those of masons, carpenters, plumbers, locksmiths, etc.

(4) *Schools for textile workers*, which include both lower and secondary institutions.

(5) *Boys' secondary continuation schools*, for skilled factory laborers and commercial clerks; these include also commercial colleges of university rank.

(6) *Girls' secondary continuation schools*, for commercial pursuits and for the promotion of home industries.

(7) *Courses for trade masters and factory foremen;* these are ambulatory lecture courses.

Since all these institutions are vocational, and not intended for general educational purposes, a summary of the state's expenditures for their partial support will show what great efforts are being made in promoting productive and skilled labor. The statements, being given for 1901 and for 1906, indicate a large increase during five years.

Group 1, schools for metal workers, 22 in number. There was spent by the State alone for their support in 1901 the sum of $156,445; in 1906 the sum of $265,762.

Group 2, schools for trades and industrial arts, 41 in number. The sum spent by the State alone was $140,312 in 1901 and $218,654 in 1906.

Group 3, schools for the building trades, 23 in number. The sum spent by the State alone was $285,871 in 1901 and $355,876 in 1906.

Group 4, schools for textile workers, 13 in number. The sum spent by the State alone was $69,433 in 1901 and $91,705 in 1906.

Group 5, schools for factory employees and business schools, 2,278 in number. The State alone spent $254,403 in 1901 for these schools and $513,871 in 1906.

Group 6, schools for home industries and business schools for girls only, 70 in number. The State alone spent $9,953 in 1901 and $23,869 in 1906.

Group 7, courses for masters of trades and factory foremen. These are found only in factory districts and are conducted during the winter. There were in all 987 courses in 48 cities. The cost of maintaining traveling teachers can not be stated, but it is large and partially defrayed by the State.

The sums expended by municipal governments are in many cases much larger than the State's contributions, but the report referred to

does not for every group give information as to expenditures from other sources than the state treasury. Thus, for instance, we find that while the State paid to group 2 the sum of $218,654, cities, private corporations, societies, business firms, and individuals contributed more than three times as much, or, to be exact, $702,569. To group 3, schools for the building trades, the State paid $355,876, communities bound themselves to raise an equal amount, and other sources yielded the other sums necessary. Similarly the other groups are well supported by communities, societies, labor guilds, business firms, and private benefactors.

Nothing will reveal the purpose and scope of these vocational schools more plainly than their courses of study. The report referred to gives the courses and time-tables of the more important institutions. Group 1, schools for metal workers, is represented by two courses, as follows:

Course of machine builders' school at Aix-la-Chapelle.

Subject.	Hours per week.
Business practice (including bookkeeping)	2
Algebra in Grade 1	2
Algebra in Grade 2	2
Algebra in Grade 3	2
Natural science in Grade 1	2
Natural science in Grade 2	2
Mechanics in Grade 1	4
Mechanics in Grade 2	4
Mechanics in Grade 3	4
Electric installation	4
Gas and water installation	4
Drawing (geometrical, projective, and machine drawing, 6 courses of four hours each)	24

Course of locomotive engineers' school.

Subject.	Hours per week.	
	Grade 1.	Grade 2.
German language	1	1
Arithmetic	1	1
Natural science	2	.....
Technology	1	1
Mechanics	1	1
Locomotive engineering	.....	2
Drawing (sketching)	4	4

The two following schemes of study are used in schools for the building trades, group 3. (The figures in parentheses are the ones prescribed by the State.)

Course of schools for the building trades.[a]

Obligatory subjects.	Hours per week.				
	Grade 1.	Grade 2.	Grade 3.	Grade 4.	Grade 5.
German language and business practice	2 (2)	2 (–)	–	2 (1)	–
Arithmetic	2 (2)	2 (–)	–	–	–
Algebra	3 (4)	2 (3)	2 (–)	1 (–)	–
Geometry and trigonometry	4 (4)	3 (4)	2 (–)		
Natural science	3 (2)	2 (2)	2 (2)	– (2)	–
Surveying	–	–	– (2)	2 (2)	–
Study of building material	–	2 (3)	2 (–)	– (1)	–
Theory of projection	6 (6)	2 (4)	– (4)	2 (2)	2 (2)
Planning construction	–	4 (4)	3 (5)	3 (4)	4 (4)
Theory of construction	8 (8)	8 (12)	8 (12)	6 (6)	4 (4)
Construction drawing	8 (8)	8 (12)	10 (12)	4 (6)	4 (4)
Architecture (rural, city, factory)	2 (–)	2 (4)	4 (5)	2 (8)	4 (4)
Complete architectural plans	–	–	– (8)	12 (14)	14 (14)
Forms and styles	2 (4)	2 (4)	5 (4)	6 (4)	6 (6)
Freehand drawing	4 (4)	2 (4)	–	4 (–)	4 (4)
Building regulations	–	1 (–)	2 (–)	2 (2)	–
Building laws	–	–			
Estimating cost and supervision	–	2 (–)	2 (2)	– (2)	2 (2)
Optional studies.					
Modeling	4 (4)	4 (4)	4 (2)	2 (2)	–
Lettering[b]	.....	.....	.....	.....	.....
Lessons in first aid in accidents[b]	.....	.....	.....	.....	.....
Fire fighting, theory and practice[b]	.....	.....	.....	.....	.....

[a] The course for underground building is slightly different. [b] Subject to direction.

A simpler course of a school for the building trades.

Subject.	Hours per week.	
	Grade 1.	Grade 2.
German language	2	.....
Arithmetic	2	.....
Algebra	4	3
Geometry and trigonometry	4	4
Natural science	2	2
Study of building materials	.....	3
Statics	.....	4
Descriptive geometry	6	4
Theory of construction	16	12
Architecture (urban)	.....	4
Forms and styles	4	4
Freehand drawing	4	4
Lettering	1	.....
Modeling	4	4

In group 4, schools for textile workers, the courses are very extensive, as is seen from the following:

Course of textile school at Crefeld.

Subject.	Hours per week.					
	First semester.	Second semester.	Third semester.	Fourth semester.	Fifth semester.	Sixth semester.
Inorganic experimental chemistry	6					
Experimental physics	3	3				
Analytic chemistry	1	1				
Organic experimental chemistry		6				
Review of inorganic chemistry		2				
Review of organic chemistry			2			
Technical analysis			4	4		
Review of technical chemistry				1	1	
Lectures on dyeing, bleaching, printing, and finishing					5	5
Electro-chemistry					2	2
Mineralogy			1	1		
Technical botany				2		
Practice with microscope					2	
Stoichiometry		1				
Mechanics (power machines)	2	2				
Mechanics (shearing machines)			2	2		
Raw material, spinning			2	2		
Weaving, finishing goods			2			
Laws affecting the textile branch					1	1
Practical exercises	32	29	30	31	33	36

The commercial schools and colleges of group 5 have a great variety of courses. The following is the course pursued in Frankfort-on-the-Main:

Course of study of the commercial college at Frankfort.

Subject.	Hours per week.			
	First semester.	Second semester.	Third semester.	Fourth semester.
German language	3	3	2	2
French and correspondence	4	4	4	4
English and correspondence	4	4	4	4
Commercial arithmetic	4	4	3	3
General business practice	6			
German correspondence		2	2	2
Bookkeeping		2	3	3
Law of exchange and commercial law		2	3	3
Political economy			2	2
History of commerce	2	2	2	2
Geography of commerce and transportation	2	2	2	2
Physics	2	2	2	2
Chemistry and chemical technology	2	2	2	2
Merchandise and mechanical technology			2	2
Penmanship	2	2		
Gymnastics	2	2	2	2

A simpler course is followed in the Elberfeld Commercial School. For the first year the subjects are as follows:

Elberfeld Commercial School course, first year.

Subjects.	Hours per week.
French correspondence	3
English correspondence	3
German correspondence	6
Commercial arithmetic	6
Bookkeeping	6
Commercial law	2
Political economy	2
Commercial geography	3
Merchandise	3
Shorthand and typewriting (optional)	.....

The course varies slightly from the above in the second and third years.

For group 2, schools for trade and industrial arts, the report gives no courses, inasmuch as there is too great a variety. The following trades are represented by schools:

I. *Workers in wood and stone, constructive trades.*—Bricklayers, carpenters, joiners, stone masons, plasterers, glaziers, locksmiths, plumbers, roof tinners, cabinetmakers, turners, wheelwrights, and coopers.

II. *Metal workers and machine builders or tool makers.*—Blacksmiths, brass founders, tin founders, wire workers, safe builders, tinners, watchmakers, gunmakers, coppersmiths, mechanicians, opticians, machine locksmiths, shipbuilders, pattern makers, electricians.

III. *Decorative trades* (industrial arts).—Painters, sculptors, art glaziers, art locksmiths, passementiers, upholsterers and paper hangers, basket and chair braiders, ceramic workers, engravers, etchers, embossers, goldsmiths, silversmiths, lithographers, compositors, photographers, printers, art printers, bookbinders.

IV. *Clothing trades and others.*—Tailors, shoemakers, hatters, saddlers, other leather workers.

The trades are grouped in the way indicated to facilitate the work in drawing, which is at all times to be shop drawing, and that naturally varies considerably in the different trades.

The course of teachers for women's handiwork lasts one year of 40 weeks, or 1,200 hours, and embraces the following subjects:

Subject.	Hours per week.	
	First semester.	Second semester.
Practice in handiwork	9	12
Machine sewing, cutting, and making simple garments	8	6
Study of materials	1	1
Drawing	4	2
Pedagogy	2	1
Methods and practice in teaching	2	5
Hygiene	1	1
German and civics	2	2
Arithmetic	1	.....
Singing and gymnastics	4	1

The course of teachers of domestic science also lasts 40 weeks, or 1,200 hours, and includes the following branches:

Subject.	Hours per week.	
	First semester.	Second semester.
Cooking	10	10
Housework (including washing and ironing)	6	3
Handiwork	3	.....
Natural science (including theory of nutriment)	3	3
Domestic bookkeeping	.....	1
Pedagogy	2	1
Methods and practice in teaching	.....	7
Hygiene	1	1
German and civics	2	2
Arithmetic	1	.....
Drawing	2	2
Singing and gymnastics	4	4

The course of teachers of dressmaking occupies the same number of hours, and includes the following branches:

Subject.	Hours per week.	
	First semester.	Second semester.
Cutting and sewing	19	17
Study of sewing machine	1	.....
Study of materials	1	1
Professional drawing	4	4
Study of costumes	1	1
Pedagogy	2	2
Practice in teaching	1	5
Civics and political economy	1	.....
Singing and gymnastics	4	4

"Home industries" is a term rarely used in this country. It means trades plied in shops at home. These home trades are chiefly carried on by women, who do basket braiding, lace making, embroidery work, glove making, cravat making, and toy making. Most of these home workers have opportunity to perfect themselves in their trades in supplementary schools for girls, and their teachers (women) must go through courses prescribed by the state authorities, such as are sketched in the foregoing tables.

Besides the so-called trade or factory schools for boys, supported by the state and communities, there are many vocational schools established and maintained by labor guilds and societies. In a total of 2,278 schools (group 5) there are 409 of such guild schools (428 in 1901). The following-named trades are represented by them: Barbers and hair dressers (87 schools), blacksmiths and locksmiths (53 schools), painters (37 schools), bakers and confectioners (21 schools), masons and other workers in building trades (16 schools), joiners (11 schools), butchers (8 schools), shoemakers (6 schools), saddlers and other leather workers (5 schools), cartwrights (5 schools), chimney sweepers and inspectors (4 schools), glaziers (3 schools), tailors (3 schools), potters (3 schools), watchmakers (3 schools), coopers (3 schools), bookbinders (2 schools), innkeepers (2 schools), tinners (2 schools), printers (1 school), turners and woodworkers (1 school), basket braiders (1 school), stone masons (1 school), united metal workers (1 school), dental workers (1 school), mixed guilds (47 schools), free tradesmen's guilds (10 schools). Others are subsidized, after they have agreed to follow the courses prescribed by the authorities.

The courses of group 7, given by traveling teachers during the winter for masters and foremen, are sometimes connected with trade schools, but frequently with permanent exhibitions, so-called industrial halls, where the work of apprentices is exhibited side by side with that of masters, journeymen, or even with the products of factories. Such permanent halls of exhibition are found in Munster, Osnabrück, Dortmund, Konigsberg, Danzig, Cologne, Magdeburg, and other cities.

Examinations for trade masters are conducted by the state authorities, and for that purpose the state is divided into a number of convenient districts, according to the frequency with which certain trades or occupations are found in the district.

One thing is characteristic of all vocational schools in Prussia, namely, the importance attached in them to drawing. There are found courses in freehand drawing, sketching, instrumental drawing, and water-color work. Rarely is anything copied, and if there is any copying, it must be on a different scale, so as to prevent mere mechanical work. Moreover, whatever drawing is taught is invariably

closely connected with the trade of the pupil, so as to enable him to use his talent for perfecting himself in his trade. Nowhere is this more strictly insisted upon than in the "Gewerbeschulen," or schools for the industrial arts. It needs no great penetration to see that a young man who can plan a piece of work on paper is not apt to sink to the level of the mere factory hand, but will soon be found among the foremen, supervisors, and masters. He will represent thinking labor, which always and everywhere commands the highest price.

THE SCHOOL SYSTEM OF SWITZERLAND.

In order to understand the brief summary of Swiss school statistics given in this chapter, a few words of explanation seem to be necessary. They are partly compiled from notes found in the Cologne Gazette of March 10, 1908. The Swiss school system, if viewed without careful analysis, is apt to assume the aspect of a chaos, since each Canton or State is sovereign with reference to public education, and jealously takes care that this sovereignty be not infringed upon by federal interference. Yet, at closer view the various schools are recognized as parts of a well-organized system, which may justly claim to have produced excellent results for the culture of the Swiss people.

The Swiss school system begins with the obligatory primary school, or elementary people's school. Compulsory attendance laws are in force in all the 25 Cantons, and they are not merely laws on paper. The requirements of attendance are, however, adapted to the actual conditions of the Cantons. Cantons with predominating industrial communities have slightly different provisions from those of agricultural regions. The first instruction for children of prescholastic age is not compulsory, but voluntary; it is given in maternal schools and kindergartens which are managed according to Froebel's principles. That they are not generally introduced can be seen from the fact that with 4,362 primary schools in 1905 there are only 887 kindergartens, and these are found only in cities and towns.

The primary schools follow with compulsory attendance of from 6 to 8 or 9 years. Added to them are institutions variously called repetition, continuation, or practice schools. Their courses of study last from 1 to 3 years. Continuation schools, in some Cantons obligatory, are almost all confined to the winter months, and offer rarely more than 6 hours' tuition a week. The primary school which every Swiss child must attend, since preparatory grades are nowhere found in connection with secondary institutions, is, so to speak, the common trunk from which all the other kinds of schools branch off.

The continuation school aims at an extension, or, at least, at a freshening-up of the knowledge gained in the primary school, until

the young people enter practical life, or become of age. In many cases these schools are vocational schools, apprentice schools, and schools for army recruits.

The primary school in most Cantons is followed by an advanced city school, which the Swiss call "Sekundär-Schule," but which, in fact, is the first higher branch of the primary school. Its characteristic feature is the teaching of algebra and one foreign language.

Then come the high schools, which either prepare for the universities and polytechnica, or offer higher education for commercial and industrial occupations; their courses are analogous to the classical, technical, and scientific courses in our high schools. But while we often combine the various courses in one school, the Swiss frequently separate them and give to each a school.

The great variety in each kind of schools is particularly noticeable in the secondary or high schools, since the courses are not uniform in number of years, do not begin at the same year of life, and also vary in the dates of admission and in the requirements for graduation. Still, the inconveniences resulting from those differences are not very great, owing to the settled condition of the population; indeed the differences are no more glaring than those found in the high schools of other countries.

On the other hand, the independence of the Cantons promotes the desire among the people of each to produce better schools than other Cantons have, and that competition has had results not to be underrated. This is at once seen in the structure of the school buildings and their equipment. It is truly said that the most prominent and the handsomest building in any Swiss village is the schoolhouse.

The secondary schools even in small places, unless quite ancient structures, are worthy of their high purpose; some are quite monumental. The internal arrangements are in harmony with the exterior; even in the old structures the hygienic requirements of modern times are fulfilled, as far as it is possible so to do. Collections of natural objects, which sometimes vie in completeness with those of many a museum, offer to teachers and students excellent opportunities for object lessons. The open mind of the Swiss people and their active interest in all progress in technical science, as well as their well-known industrial ingenuity which enables them to make use of modern appliances and inventions, may account for the conspicuous promotion of the so-called empiric sciences in all Swiss schools.

It may be here added that the education of the female sex is particularly well cared for in all Swiss educational institutions. In all of the 25 Cantons woman's handiwork is an obligatory branch of the course in elementary schools. Further opportunities are offered in advanced girls' schools, and in industrial, technical, commercial, and agricultural vocational schools for girls. The profound interest

of the Swiss people in public education is proved by the establishment of a number of permanent school exhibitions (at Zurich, Berne, Lausanne, and Geneva). In those museums the public is made acquainted with the progress of educational endeavors all over the civilized world. Appliances for teaching, school furniture, schoolhouse plans, new appliances for school hygiene, and a large collection of educational books carefully catalogued, are exhibited, and offer not only to teachers, but also to parents and school authorities, desirable information concerning the requirements of a modern school system.

As regards the principles of the internal work of the school, Switzerland, like Germany, is divided into two almost hostile camps. The burning question as to whether the school should be a denominational or a common school, has happily been solved by a clause in the new federal constitution, which provides that instruction in religion shall be " facultative," i. e., optional with the parents of the pupils. Children whose parents desire that they receive instruction in religion and the customs of the church, are taught by their respective parish priests or pastors, and the clergy have made most valuable experiences in doing so. The teachers do not interfere in that instruction, for in all other branches the schools are common to all religious denominations.

Since in lessons not conducted by the clergy no division on denominational or sex lines is made, boys and girls learn to know each other from the first day of school by being taught together. Coeducation prevails not only in primary and advanced elementary schools, but also to a great extent in secondary schools. Only the Canton of Basel-City rejects coeducation and provides for separate boys' and girls' high schools; while in Zurich the principle of coeducation is accepted in theory, but for local causes has not been carried into practice.

The instruction in secondary schools is lively and full of spirit. It lays more stress on the ability to apply knowledge than on its mechanical acquisition. That is plainly seen in the graduation examination, which is partly written, partly oral, and does not call for mere knowledge, for instance in ancient history, but searches for cause and effect, and refers to state actions and political conditions acting on one another. While in many European countries the graduation examination is the cause of much heartburning and much nervous exhaustion, Swiss teachers examine in one branch at a time, and spread these partial examinations over a number of months. At the close of the year the decision lies in the hands of the teachers of the school, though that decision is controlled by the authorities.

That which gives school life in Switzerland a delightful freshness is the spirit of freedom pervading it. It is reasonable to suppose

that the republican form of government, as in this country, influences the entire work of the school. Pedagogical principles, of course, are applicable in Switzerland as elsewhere, so far as they have reference to individuals as human beings, but prescribed methods, sometimes found in other countries, are not allowed to hedge in teachers and pupils. Bureaucratic rule, that subjects teachers and pupils to a sort of lock step, is not found in Swiss schools. The individuality of the child is respected and is allowed to develop freely; that results, naturally, in liberty of action on the part of the teacher with regard to course, method, treatment, and conduct. Great importance is bestowed on the teaching of German, the mother tongue of three-fourths of all the Swiss children, and the results in that branch, especially in secondary schools, are very good.

The life of the pupils outside of school is subject to school regulations to some extent, but the principle is everywhere accepted that the power of the school is limited by the prerogatives of the family. That, of course, gives to the parental home very earnest duties of supervision. Scholars' clubs, or secret societies, are allowed, provided that they conform to certain provisions of the school authorities. Thus, for instance, the students of the upper grades of secondary schools, 18 to 20 years old, are allowed to take refreshments in restaurants and inns, and smoking is not prohibited. The Swiss teachers have long given up interfering with such liberties, leaving it to the parents to determine the limits of the students' freedom. The formation of students' societies, within certain rules of the school, is everywhere permitted in Switzerland; and it is no rare occurrence to see students come to school proudly wearing their society badges.

A most remarkable feature of the Swiss school system is the students' hotels ("scholars' homes") established by cantonal or local governments. These hotels or dormitories are not under the same roof with the high schools, but are situated at a convenient distance from the schoolhouse. Since it is more expensive to erect and maintain a high school in a very small town than to maintain an inexpensive hostelry for students under the supervision and management of teachers, the latter expedient is resorted to. In cities of middle size cantonal (*i. e.*, state) or municipal high schools are established and attended by pupils from far and from wide. Parents not residing at such centers find it convenient to lodge their children in these students' hostelries, where they have a home in the best sense of the word.

Many such houses have been built during recent years. They are attractive in their exterior, comply most rigorously with the requirements of hygiene, have gymnasiums, play rooms, reading rooms, and well-stocked libraries. Since these houses, for a few years of the students' life, are to replace the home, they must be, and are, managed

like homes—that is, they permit the widest liberty consistent with school life and the pupil's age and welfare. The expenses are moderate, so that even parents not well-to-do can afford to send their children to the central high school of the district.

It may well be said that in Switzerland cantonal and communal governments work hand in hand in the most generous manner for the education of the young generation, and quite in harmony with the principles of a republican form of government, which presupposes individual liberty. The following brief summary of the statistics of Swiss public education shows the variety of institutions, as well as the liberality of the people in maintaining them:

Switzerland, consisting of 25 Cantons, had a population in 1900 of 3,325,023; it is estimated at 3,800,000 in 1908.

KINDERGARTENS.

In 1905 Switzerland had 887 kindergartens and maternal schools, with 42,001 pupils and 1,037 teachers, or 40 pupils to a teacher. Only in 5 of the 25 Cantons were public kindergartens in existence; hence most of the 887 institutions are private.

PRIMARY SCHOOLS.

In 1905 there were 4,362 "school districts" and 3,443 "school communities," hence a total of 8,805 classes in primary schools, with 11,183 teachers (6,990 men, 4,193 women) and 502,211 pupils (250,151 boys and 252,063 girls), or 45 pupils to a teacher. The absences of pupils during the entire year amounted to 10.4 per cent excused and 1.4 per cent not excused; the latter came under the jurisdiction of the local police authorities, and the parents were fined.

SEKUNDÄR-SCHULEN, OR ADVANCED CITY SCHOOLS.

In 1905 there were 906 of these schools (see p. 276), with 1,794 teachers (of whom 249 were women) and 46,904 pupils (25,076 boys and 21,828 girls). No truancy is reported from these schools.

GENERAL CONTINUATION SCHOOLS.

There were 2,300 obligatory continuation schools, with 38,065 boys and only 62 girls; 160 continuation schools had voluntary attendance (2,647 boys and 377 girls). Under the head of continuation schools come also the courses arranged for army recruits, which had an attendance of 5,987. All of these continuation schools were general in their character, not vocational in any sense of the term.

VOCATIONAL CONTINUATION SCHOOLS.

In 1905 Switzerland had 271 industrial and drawing schools, with 11,290 boys and 1,802 girls; 85 commercial schools, with 2,804 boys

and 490 girls; 7 agricultural schools, with 160 pupils; 418 schools for domestic science and practice, with 10,547 girl pupils. All of these vocational continuation schools are considered elementary in character.

SECONDARY VOCATIONAL SCHOOLS.

This group exhibits a great variety. There were 6 technical schools, with 1,995 students and 121 teachers; 11 industrial art schools and schools of design, with 1,031 students; 8 polytrade schools, with 2,724 students; 70 watchmakers' and mechanicians' schools, with 995 students; 7 textile schools, with 342 students; 4 woodworkers' schools, with 276 students; 29 commercial high schools, with 3,471 students; 22 agricultural schools, with 750 students, and 37 domestic economy schools for women, with 4,059 students.

NORMAL SCHOOLS.

During the year 1905 Switzerland had 30 public normal schools for the preparation of teachers, with 2,208 students (1,447 men and 751 women), and 13 private normal schools, with 692 students (259 men and 433 women), a total of 2,900 students.

SECONDARY OR MIDDLE SCHOOLS.

(1) Leading up to higher institutions: Switzerland had in 1905 only 43 classical and modern high schools preparing students for higher seats of learning, with 7,295 students. The small number of such schools is owing to the choice of the Swiss people, who maintain scholars' hostelries in connection with the central high schools rather than establish new schools. It is difficult to state the exact number of teachers, owing to the fact that many of them are also engaged in advanced elementary city schools ("Sekundär-Schulen").

(2) Not leading up to higher institutions: There were 27 such high schools, with 2,879 students. Counting all vocational and secondary institutions together under the head of middle schools, we find a total of 23,466 students pursuing studies beyond the elementary grades.

HIGHER INSTITUTIONS.

Switzerland has 1 polytechnicum at Zurich (maintained by the Federal Government), with 2,204 students, 522 of whom are foreigners, and 5 cantonal universities with the customary 4 faculties, and 2 cantonal universities with only 3 faculties. The whole number of students in these 8 universities and 1 polytechnic school was 9,880; of these, 1,502 were women and 3,647 were foreigners; among the foreigners there were 1,361 women, chiefly Russians.

PRIVATE SCHOOLS AND ELEEMOSYNARY INSTITUTIONS.

Switzerland in 1905 had 214 private schools, mostly elementary, with 9,187 pupils and 463 teachers. This statement is not quite complete, since 15 schools failed to report. There were 66 reform schools, with 2,239 inmates; 17 schools for children with defective senses, with 752 pupils; 22 schools for children of defective mentality, with 831 pupils; 9 orphan asylums, with 510 inmates; and 3 private mission schools, with 196 students.

EXPENDITURES FOR EDUCATION.

In 1905 the States, or Cantons, expended the sum of $6,044,873, the communities $6,066,852, and the Federal Government $1,122,013 for purposes of public education, a total of $13,233,738. The federal expenditures in detail are as follows: $280,193 for the federal polytechnicum; $272,787 for vocational schools (both for boys and girls); $53,036 for agricultural schools; $99,163 for commercial schools; and $416,824 for subsidies to communities lacking means to bring up their elementary schools to the desired standard. All of the sums quoted were used for running expenses. There were expended in the various Cantons, in 1905, the sum of $406,252 for new school buildings.

The foregoing statistics are summarized from Doctor Huber's Jahrbuch des Unterrichtswesens in der Schweitz in 1905.

Later statistics (for 1906) show that the sum total for education in Switzerland in that year had increased to $13,840,000. Of this total the communities paid $6,700,000; the States, or Cantons, $6,000,000, while the Federal Government contributed $1,140,000. Elementary education required $9,090,000, secondary schools $1,100,000, vocational and continuation schools $1,480,000, and the higher institutions $1,140,000. Administration of school affairs, schools for defectives, reform schools, and other institutions required the remainder of the sum total, or $1,030,000.

CHAPTER IX.

CURRENT TOPICS—FOREIGN.

THE UNIVERSITIES AND GOVERNMENT EMPLOYMENT IN GERMANY, ETC.

[In reply to an inquiry from an American university, the office of the Prussian minister of education sent the following statement with reference to the extent of academic education among Prussian officials, the spread of socialistic views in Prussian higher seats of learning, etc. The following is substantially the translation made in the United States Department of State.]

EXTENT OF UNIVERSITY EDUCATION AMONG PRUSSIAN GOVERNMENT OFFICIALS.

No. I. A university education is not necessary for membership in the Imperial Diet, the cabinet, or for political appointments. However, a large proportion of the persons holding such positions have naturally had such an education. For instance, there are from 220 to 250 persons in both the imperial and the state diets, or over half the members, who have received an academic training. It is probable that academic education is the rule in the ministers of the several States of the Empire, as well as in the imperial elective offices, with the exception of the ministers for war and navy. There are also individual cases in which persons have been appointed as the heads of other ministries who were formerly farmers, officers, or merchants. The higher political government offices are almost entirely filled by persons with academic training, with the exception, of course, of the military authorities, and this occurs, as a rule, in pursuance to regulations which make it compulsory. Academic training likewise prevails generally, even where it is not compulsory, as in the case of governors of provinces and chiefs of counties.

GOVERNMENTAL EMPLOYMENTS OF PRUSSIAN UNIVERSITY PROFESSORS.

No. II. Professors of universities are employed in the solution of economic and other problems as follows:

1. By being appointed as members of the council of state, a body seldom performing any functions.

2. By being appointed as crown solicitors, who likewise seldom perform duties.

3. By being appointed to subordinate offices in the central departments, such as the Prussian ministry of public worship, the Prussian ministry of agriculture, the Prussian statistical bureau, the imperial naval office, the imperial colonial office, etc. It likewise not infrequently occurs that members of central departments hold professorships in universities at the same time.

4. By appointment as members of other bureaus and permanent commissions, such as the imperial health office, the imperial physical and technical institute, the imperial patent office, commission on labor statistics, college of rural economy, etc.

5. By appointment as members of government examining boards, as for the examination of lawyers, administrative officials, physicians, candidates as teachers of all grades, and technical persons of all kinds.

6. By appointment as members of commissions for the preparation of revised laws, the elaboration of the civil law code, the revision of the code of criminal procedure, the preparation of hygienic legislation, laws on technical questions; as members of commissions of inquiry, such as the commissions of inquiry into stock exchanges and questions regarding silver, the commission regarding the imperial bank and the circulation of money, the cholera commission, the commission of investigation of trusts, etc.

7. By being called upon to give opinions of all kinds regarding scientific questions falling within their province, or for working out important problems concerning public life.

8. By being intrusted with the preparation of government documents, text-books, etc.

EDUCATION EXTENSION COURSES IN GERMANY.

No. III. Within recent years a number of popular university courses have been organized by the Popular University Course Society, composed entirely of academic teachers. They have been very successful in a large number of university cities, such as Berlin, Leipzig, Munich, Freiburg, Kiel, etc.

2. The recently established commercial universities have included in their programme the holding of lectures for larger classes of people at the evening session. Considerable success has been attained in this regard, especially at Cologne and Frankfort. An academic institute especially aiming at the instruction of a large class of people has been established at the royal academy at Posen. Summer and vacation courses have been established by a number of universities for the purpose of the more advanced education of teachers and academicians. The State of Hamburg has established a comprehensive system of academic lectures for large classes.

SOCIALISM IN THE PRUSSIAN UNIVERSITIES.

No. IV. The movement of the so-called academic socialism had its origin chiefly in the universities. The name, however, is misleading to some extent. The movement is an endeavor, which arose in the seventies chiefly among the circles of academic teachers, for the purposes of mitigating and removing, by means of timely reforms, the great evils then and now connected with the transition to the use of machinery in industry under the laisser-faire régime. Theoretical investigations of the doctrines of socialism had convinced the teachers that the advocates of socialism could effectually propagate their theories because there did really exist threatening evils of considerable gravity, but which they were scientifically convinced could still be handled by taking appropriate measures. The university has nothing to do with any sort of political propaganda, especially with that of a social democratic nature, and therefore, of course, takes no attitude toward it. Besides its scientific missions, its duty toward the nation is to constitute a national educational institution and training school for a multitude of official callings. Persons of learning are to be found among the social democracy, but their opinions have nothing to do with their academic training or the impressions which they received at the universities.

POLITICS, ETC., AMONG PRUSSIAN UNIVERSITY STUDENTS.

No. V. The student world, generally speaking, does not concern itself as such with political problems. Isolated groups have taken upon themselves the task of studying political and social tendencies in connection with their meetings for the purpose of fostering good-fellowship. Thus there are, at the various universities, so-called societies for the study of social science and economy, being associations whose object is to hold lectures for laborers and promote education among the popular associations of German students who foster national patriotism. A large number of students, on the contrary, belong to associations which are far removed from such movements, such as musical, gymnastic, boating, and other clubs, intended chiefly for social and sporting purposes. A very small number devote themselves purely to science. A not inconsiderable number seem to remain indifferent to all these things, to perform their work more or less well and to lead a contemplative existence in company with a few comrades without any particular purpose in view.

As compared with former times, from the Napoleonic wars to about 1848, or down to the foundation of the Empire, the political interest of students as a whole has considerably diminished, both with regard to external and internal political questions. The group which cherishes

patriotic sentiments is large, and the group devoting its attention toward political problems is on the increase, but still it can not be said that these matters occupy the student world to-day to anything like the extent that political questions formerly did.

A quite significant movement has taken place in recent years in matters regarding religious denominations, as, for instance, with respect to the position of the Jews, and of late the attitude assumed by the whole student world toward the Catholic students' associations organized for the purpose of serving Catholic denominational interests.

PROGRESS OF EDUCATION IN CHINA.

[Communication to the State Department from the American Legation at Peking.]

AMERICAN LEGATION, PEKING,
March 9, 1908.

To the honorable ELIHU ROOT,
Secretary of State, Washington, D. C.

SIR: I have the honor to inclose two articles on the subject of education in China. The first is from the pen of Dr. Brownell Gage, of the Yolo College in Changsha, China, and the other I have taken from the Peking and Tientsin Times.

It appears that the government schools in Hunan are not in as flourishing a state or as satisfactory a financial condition as they were two years ago. Many schools have closed and the future of others is doubtful. The endowment in favor of the Yolo College at Changsha, which yielded an annual revenue of $4,000, has been withdrawn, as has been the private financial support of numerous other schools. The paper by Doctor Gage shows the stage which the schools of Hunan have reached in the sporadic movement of educational reconstruction started immediately after the imperial edicts of 1898. While the institutions mentioned are all of Changsha, the result reached by investigating their condition is doubtless indicative of the state of educational progress throughout the Province. The schools named represent almost all of what remains of the efforts of former Governor Choa Erh-hsüan in remodeling the schools of the Province along modern lines.

From the article from the Peking and Tientsin Times, it appears that the government schools of Tientsin have been more fortunate in obtaining necessary financial support and are consequently on a sounder basis. These schools, established under the direction of His Excellency Yüan Shih-k'ai, all have some reliable source of revenue, are better equipped with teachers and text-books, and are conducted upon a well-defined system of gradation. A prominent feature of

the Tientsin schools is the preparation of women teachers, there being over 700 Chinese girls and young women now studying for this vocation.

HENRY P. FLETCHER,
Chargé d'Affaires.

I. CONDITION OF THE SCHOOLS IN THE PROVINCE OF HUNAN.

[Reported by Rev. Brownell Gage, of Yolo College, Changsha.]

The subject is broad enough to include past, present, and future—the history of what has been accomplished, a description of the present institutions, and an outline of future prospects, with a discussion of the principles and the needs of the education here being developed. But fortunately for the limits of this paper the subject is broader than it is long, for, strictly speaking, higher education has no past in Hunan, and no present except in embryo, and a man who is lacking in faith might be skeptical of its having a future. We have therefore only to bring in review the conditions and forces and the general institutions out of which must come the higher education of the Province.

One who wishes to study the new Chinese schools will find information difficult to procure, and this for two reasons: First, the schools themselves are changing from year to year in their grade, curriculum, and purpose, their methods, and their text-books, and their teachers and students are coming and going. This is apparent to one who visits them from year to year. Here in Changsha, the capital of the Province, we hardly know from term to term, indeed, what will be the future of each school, and which schools will open the next term. The first Changsha trade report, 1905, says: "The schools of the new learning * * * are continuing to spring up like new shoots in a bamboo grove." In 1907 they are closing with equal suddenness. Secondly, while any educated native will talk volubly about the school system, those alone who are in a position to possess accurate information (if there be any) are very reticent about imparting it. Of course no government reports are published. The sources of the present paper, aside from oral inquiries and visits to schools, are (1) the trade reports just quoted and other information secured by the first acting commissioner, Mr. A. H. Harris; (2) a tabulated report of the Changsha schools, secured through personal investigation and the aid of friends by Mr. C. T. Wang, a teacher in the Yolo High School, in 1906; and (3) a similar but less detailed report obtained through the kindness of the present acting commissioner and the taot'ai from the director of educational matters, last spring. While these reports cover the years of 1905, 1906, and

1907, they are not thorough and complete enough to admit of satisfactory comparison.

When the Government began to open modern schools about four years ago immense difficulties had to be faced. Disappointing as are the results, considered by themselves, when one fairly considers these difficulties he is surprised to see what has been accomplished.

1. First may be mentioned the difficulty of putting new wine into old bottles—the friction between new and old ideas of education. As an instance of this, the imperial edict of 1903 directed that existing colleges be reconstructed as schools of the new learning. In attempting to obey this edict Governor Chao Erh-hsüan "excited the hostility of the scholars and leading gentry, who were enabled later to obtain his transference from the province." This conservative party, both among gentry and officials, has been strengthened in the last year or two by the lawlessness of the students, especially those returned from abroad, and by the fears of revolution which they have excited. The events of a year ago connected with the burial as a martyr, on the sacred Yolo Mountain, of the suicide student, Ts'en T'ien Hua, in spite of official prohibition, and the outrage committed on the person of one of the city superintendents of schools by a revolutionary teacher and a party of students—these and similar events show the difficulties under which any administration labors in attempting to establish a modern educational system here.

2. A second difficulty has been the lack of funds. This is the reason, or at least the excuse, for the closing of so many schools this year. The old order of education required little or no taxation, and no system of revenue was ready to provide for the change. The people wanted new schools, but were not eager to pay for them. Neither endowments nor tuition fees could be depended upon without additional revenue. The old Yolo College had endowments which yielded about 4,000 taels[a] per annum, administered by the Salt Taot'ai, from which the president is said to have received 500 taels, and each of the 138 students enrolled before the new high school was built on the site received some emolument from this source. Less famous schools had no endowments to start with, and yet the students, like the old ones, expected to be supported by the Government. This system of student pauperization is giving way under the financial stress to charges for tuition and board. The educational department's report shows this to be the case in the Yolo school, where only uniforms, caps, and boots are now supplied free, tuition and board being paid for. Both official and private schools which have been charging fees show a tendency to increase the amount of them. Some of the schools, as the Shih Yeh school, of Changsha, had trouble in getting their students to return this year, and were late in

[a] A tael is worth about $1.40.

opening because of the new fees. But until a better system of accounting for public funds is introduced, the lack of money will remain a difficult problem for officials to solve. The salaries of good teachers are high and likely to remain so as long as trained men are so few, while the fees can not be large without being prohibitive. Private endowment, while frequently generous and helpful, can not be depended upon. Such institutions, however, as the Ming Teh school, in Changsha, and the private middle school in Changteh, are examples of what public-spirited philanthropy may do. In the former there was reported in 1906 an erollment of 464 students, with 35 teachers, 2 of whom were Japanese, and 1 an American who gave part of his time to this school. Four courses are offered—primary, middle, normal, and special. Until the present year this school received a government grant in aid. The flourishing Changteh school, with over 100 students, is entirely supported by one of the gentry.

3. But the greatest difficulty of all is the lack of teachers. The population of this province is estimated at 18 to 20 millions. In the United States, 20.47 per cent of the total population are in school; in Great Britain and France 15 per cent, and in Japan about 10 per cent. The accommodations of the Japanese schools are inadequate to meet the demand. But if Hunan is to be provided with educational facilities only as well as Japan, 2 million students, high and low, must be accommodated, and an army of 40,000 teachers must be forthcoming. When the new schools began probably there were not a score of well-trained and qualified teachers available. It is not surprising, therefore, that poorly equipped teachers should fill responsible positions, and the spectacle of professors, with only the most rudimentary knowledge of their subject, obtaining positions with good salaries because there is no one qualified to test them, is less humorous than pathetic. Mr. Harris's report says: "One of the points made against Governor Chao was that he had no suitable teachers to take the place of the men of the old régime whom he was displacing." But the Government wisely went to work building normal schools in every important center. As the teachers in these normal schools were themselves not thoroughly trained, the improvement in the quality of the teachers of this province must be a gradual one, from one school generation to another. What is needed is consistent progress, according to a systematic plan, without too many changes of policies and of rulers.

Two other expedients for providing teachers, besides the normal schools, may be considered, namely, sending students abroad and inviting teachers from abroad. Mr. Harris's data showed 205 students studying abroad, at official charges, in 1905. Of these, 51 were sent

to study education and the Japanese schools, 54 to prosecute general studies, and the rest for special training in such things as military science, mining, police, railways, etc. Besides these, 100 more were supported privately. These numbers can hardly be complete, however, for the investigations of Mr. D. Willard Lyons showed that there were 8,620 Chinese students in Tokyo in November, 1905, and of the provinces sending these, Hunan was in the lead, with 17 per cent of the total number. This number increased in 1906 to over 10,000. Of the 205 mentioned above, all were in Japan except 3 in the United States and 3 in Belgium studying mining. The fact that Tokyo has become such a hotbed of revolution has discouraged officials in sending students there to study, and other countries are too expensive to be within the reach of large numbers. Another factor has prevented the province from reaping the benefits of the policy. This is the deep-seated notion that a foreign education can be obtained in a few months. So able a reformer as H. E. Chang Chih-tung, in his famous book which started the reform edicts of 1898 (a book whose outlines of educational reconstruction have been followed with surprising closeness), says:

> We need not feel discouraged if there is a dearth of efficient teachers at the outset. This difficulty will soon be obviated. This year there are numberless books which treat of foreign subjects in course of publication in Shanghai, and a student should be able to equip himself in 3 months to teach in the high schools. In a couple of years the colleges will also graduate men who are also qualified to teach. * * * There need be no fear on this score.

In the figures obtained by Mr. Harris, the length of the course of study of 62 students is given. Of these, 8 studying in the military schools may be neglected, for they had to fulfill the requirements of the schools into which they were admitted. Of the remaining 54, 24 were taking a 4-year course, 10 were sent for a year, and 20 were sent for only 6 months. General inquiry bears out this proportion. That is, more than half go for a year or less, and most of them have no preparation for a modern education and can not speak the language of the country to which they go.

If the policy of sending students abroad has not been successful, that of inviting foreign teachers to Hunan has also proved unsatisfactory. European and American teachers are too expensive. Japanese teachers came in considerable numbers at first; but they were not of the best, because Japan has need of her good men at home. In 1901 there was a deficit there of 32,000 teachers, and this has not yet been fully met. Most of the Japanese teachers in Hunan labored under the disadvantage of having to lecture through poor interpreters. A reduction of salaries caused the resignation of many about the beginning of the present year. In those schools of higher grade for which figures are available, the Japanese constituted over 20 per cent

of the teaching force in 1906, while in the present year, in the same schools, they constitute less than 10 per cent. Outside help, therefore, has proved only a partial success. Would that mission schools were able to render substantial help by furnishing Christian men, or at least men trained in a Christian environment, to be the instructors of these awakening minds, instead of having to look high and low for teachers for their own infant institutions! If the church as a whole had anticipated, instead of following the popular thirst for knowledge which its own preaching helped to arouse, we should be in a position to seize a strategic advantage. As it is, we still have the chance to do much if we improve it now.

A fourth difficulty has been the lack of good text-books. To be sure, the commercial press is multiplying books rapidly, and foreigners as well as natives are working on original books and translations. A visit to the recently opened agency of the Commercial Press in Changsha will be a revelation to those who have not watched its development. But many of these books are hastily prepared, and translation is difficult into a language for which a technical vocabulary has to be created, as well as the ideographs with which to write it. It is partly for this reason, and still more, I suspect, because the teachers do not know how to use the text-books and are unwilling their pupils should possess sources of knowledge beyond their own powers of explanation, that the text-books are little used here. Mr. Wang's report indicates that English and, in a few cases, mathematics are the only subjects taught with text-books. The sciences, history, geography, etc., are taught by lectures and syllabi furnished by the teacher. It need scarcely be said that only the exceptional and gifted teacher can obtain as good results by this method as with good text-books. Another reason why books are little used, perhaps (but a good reason why they should be), is the fact that Chinese students have not been trained to study quietly by themselves.

A fifth difficulty is the lack of a system of graded schools, well thought out and capable of being progressively realized, to which each school should try to conform. As we know, the Japanese system was adopted in the provinces in theory, with three grades of schools, elementary, middle, and higher, and at the apex of the pyramid the university at Peking. The Japanese "Koto gako," Chinese "Kao Teng Hsueh T'ang," in Japanese translations designated "higher schools," correspond roughly to the last two years of our American high schools and the first two years of our colleges. Of course it is not to be expected that the Hunan Kao Teng Hsueh T'ang should maintain this grade from the start, or that the lower schools should establish proportionate standards. But it would have been more hopeful for Government higher education if a serious attempt had been made to establish a systematic course from lower schools to

higher. Instead of that, each school seems to be quite independent of any system, the lower ones admitting small children and the higher ones big children. The most advanced schools have almost no requirements for admission except the old Chinese subjects, although the ages of the students are from 16 to 22 years. In the Kao Teng Hsueh T'ang, for instance, the age limits are from 16 to 20, and the only admission examinations are in the classics. But this school shows its realization that boys of such age should know something besides the national literature, and it has established a course preparatory to the regular, the former being three years and the latter four years in length.

The future will depend upon the primary schools. If they become efficient in teaching the elements of a modern education, the upper schools will in time be able to build on that foundation, and the whole will form a proper graded school system. At present the 23 primary schools reported officially in the Changsha Hsien and the 19 in the Shan Hua Hsien all teach ethics, composition, reading, arithmetic, music, drawing, and physical culture. But of the 42 schools only 1, that in the Changsha Hsien containing a select class of promoted pupils, teaches geography or history. It is significant, however, that the old practice of memorizing uncomprehended syllables from the classics is giving way to the new era of "reading" with such books as the Commercial Press is turning out.

A brief account of the Changsha schools of middle and higher grade will complete this part of the paper. The more important institutions are the Yolo high school, or Kao Teng Hsueh T'ang, the Ch'iu Chung school, the normal school, the Shih Yeh school, the law school, the agricultural school, and the industrial school. In all these except the law and the industrial school English is studied, and in most of them it occupies the chief place in the curriculum, from 8 to 12 hours a week being devoted to its teaching. Ethics is usually given a place, and gymnastics or drill is found in all except the law school. Law or civil government, physics, chemistry, geometry and history, music and drawing, mathematics and the classics, with composition, make up the full schedule of about 30 hours of class-room work per week. Little study outside the class room is expected. The normal school adds psychology to the studies enumerated above, and the agricultural school studies soils, entomology of the silkworm, and silkworm culture. The law school curriculum, besides political economy, penology, and the Japanese language, includes various forms of law, namely, the "Universal Mirror," or digest of law, corresponding to the English Blackstone, common and statute law, civil and criminal law, international law, the law of torts, the art of government, etc. The industrial school now produces pumps, bleaching powder, carpets, napkin looms, satin scarf looms, copper pressing machines, Jap-

anese treadmill looms, weaving according to pattern, cane sheathing swords, rapiers, hair cloth, and "all varieties of cloth."

The higher education of women has so far been little thought of by the Government, but the girls' school of Changsha should be mentioned, for it has not only a primary but a normal department. It has 200 students studying English, arithmetic, Chinese, and domestic science, under 16 teachers, two of whom are Japanese women. Both courses require 3 years, and the fees of $36 for the primary and $46 (Mexican) for the normal course are paid annually.

Excerpt from a tabulated report upon the government schools in Hunan Province, prepared by Mr. C. T. Wang.

Name of school.	Curriculum.	Text-books.	Number of years in course.	Tuition fees.
(1) Preparatory school to prepare students to go abroad.	English, French, Japanese, mathematics, chemistry, science, history, geography, drill.	English royal readers, English lessons, geography. First lessons in mathematics, chemistry, etc., prepared by the teachers.	2–4	None.
(2) High school at the Yolo Mountain.	.....do.....	.....do.....	7	$50
(3) Middle school.....	Same as above, with Chinese classics added.	McGuffey's primer. Other subjects prepared by native teachers.	3	Free.
(4) "Technical school"	Same as Nos. 1 and 2, with law added.	English, twentieth century readers; French, lectures courantes; mathematics, Smith's.	3	[a] $25
(5) Ming Teh middle school (private).	Same as Nos. 1 and 2. Divided in three courses, primary, middle, and normal.	English, national readers; Westfield's grammar; mathematics, Japanese text-books; other courses prepared by professors.	1–5	$30–$45
(6) Ning Shang middle school.	Same as Nos. 1 and 2.	.....do.....	3	$5–$10
(7) Hsio Mieh middle school.	.....do.....	.....do.....	3	$25
(8) Girls' school. Two grades, primary and normal.	English, Chinese, mathematics, and "household keeping."	None given.	3 in each grade.	Free and $35

[a] Admission fee.

The report shows that in 1907 there were enrolled in the above-named 8 schools 1,914 students, under 117 teachers. The nationalities of the teachers were as follows: Chinese, 101; Japanese, 15; Italian, 1. The purpose of all these schools is stated as being to prepare students to go abroad, for higher schools, or for positions as teachers in primary schools. The girls' school is "to enlighten the girls and women of China." In this school the only women teachers employed were two Japanese; the other 14 teachers were Chinese (men). Two hundred girls and young women were enrolled in 1907. The report conspicuously shows the absence of any well-defined system of adopting text-books.

The author of this report is a young man of ability and one to be relied upon. As he had friends in the other schools, I think his sources of information are in the main as accurate as could be expected from anything in China.

II.—EDUCATION IN TIENTSIN.

[From the Peking and Tientsin Times.]

Educational reform was started in North China by H. E. Yüan Shih-k'ai with the assistance of the Hanlin graduate, Yen Shiou, a native of Tientsin.

GIRLS' SEMINARY.

One of the first establishments visited was the seminary for female teachers. It is a large, modern building behind the viceroy's yamen. Through the kindness of Director Fu Tsen Hsian, a Hanlin graduate, who is the superintendent of all government girls' schools at Tientsin, I was able to inspect the whole institution.

One hundred young girls from all Provinces, but especially from the south, are studying at the seminary. The teaching staff consists of 5 male (Chinese) and 5 female (2 Japanese, 2 Chinese, and 1 German) teachers. The school was established in 1905.

The girls have to go through a 2-year course, after which they receive appointments as teachers. The director of the teaching staff is Mrs. Wang. The classrooms are furnished with the most up-to-date school tables and benches. In a small museum physical and chemical instruments are ready for the experiments of the teaching staff, and there is also a collection of stuffed birds and insects.

All the girls board on the premises of the school. On the first floor are the spacious private rooms of the young ladies, from 7 to 12 of whom are in one room. In the middle of the room is a large table, on the wall a shelf where the cups, glasses, and petty belongings of the students are stored. Along the wall is a large wooden "kang" on which the girls sleep. The "kang" is covered with white linen, and at the head are the blankets neatly folded in military style. Over the "kang" are shelves on which the dresses are neatly stored behind snow-white linen curtains. In the corners are the traveling boxes. The systematic way in which all things are arranged in the rooms and the sharp order prevailing remind one of a barrack room.

The same admirable order can be found throughout the building. I looked in vain for a shred of paper in any corner of the premises, so perfect is the cleanliness. There are a spacious mess room, a reception room for receiving the parents and relatives of the girls, a reading room, and a music room, in which the girls practice singing and the organ, of which instruments there are three or four.

Instruction is free at the seminary, but the girls have to bind themselves to act as paid teachers at the government schools after the completion of their 2-year course. I saw some very neat and artistic drawings made by the pupils while passing through one of the classes.

The first girls' school in Chihli was established by Director Fu Tsen Hsian, who was formerly a secretary to Viceroy Yüan Shih-k'ai. The first school which he established with the assistance of Miss Lu Pih Chen was the "girls' public school."

There are now 9 government schools at Tientsin, with altogether 700 girls. Of these 9 institutions 6 are elementary and 3 higher schools.

The elementary schools are only half-day schools, in which reading, writing, and the principles of mathematics are taught. In the higher schools sewing, music, arithmetic, geography, physics, chemistry, Chinese composition, Chinese writing, drawing, etc., are taught. There are also gymnastic exercises every day. In two of the higher schools English is taught. There are a few private girls' schools, but the total number of schoolgirls here at Tientsin does not exceed 1,000, of whom 700 are in the government schools.

THE COMMERCIAL MIDDLE SCHOOL FOR BOYS.

This school is situated on a main street of the city, leading from Asahi road to the iron bridge at the yamen, and was established by the chairman of the native chamber of commerce, Wang Chou Lin, in the summer of 1906. Mr. Wang now contributes monthly $500 for the maintenance of this school. The instruction at the school is free. There is a 2-year elementary course of 2 classes of 30 pupils each. The hours of instruction are from 8.30 until noon and from 1.30 to 4.30 p. m. Thirty minutes are devoted daily to military drill. The subjects taught include English grammar (Doctor Tenney's), English reader, letter writing, arithmetic (Robinson's), commercial usages and laws (translated from a Japanese book), instruction for traders, Chinese geography, and composition.

Altogether 7 Chinese teachers are employed at this school, 4 teaching Chinese subjects and 3 English.

The schoolrooms are simple, but very clean, and all the pupils are uniformed. On a small blackboard near the entrance of the class room the names of the pupils are written. The teacher is on a rostrum before a large blackboard.

When I inspected the classes, at a short military command of the head pupil, the entire class stood up and the same was repeated when I left the class again.

A short distance from this school is a half-day school maintained out of funds from the salt commissioner's office. There is only 1 class of 40 pupils with 2 teachers. It is an elementary school, at which only Chinese and the principles of mathematics are taught.

What makes this school interesting, however, is the large lecture hall connected with it. In this lecture hall every evening from 8 to 10 o'clock free lectures are delivered for the enlightenment of "the man in the street." The lectures include every branch of science. The hall has room for hundreds of people, who may come in freely from the streets. The house shelters also the branch of the patriotic fund.

The modern Chinese school system here in Chihli includes the following kinds of schools:

(1) *Village schools.*—4 classes; from 8 to 11 a. m., and from 1 to 4 p. m. Subjects: Chinese, advanced Chinese, and geography.

(2) *District schools.*—3 classes. Subjects: Chinese, advanced Chinese, arithmetic, Chinese geography, natural science (zoology), and drawing.

(3) *Prefectural schools.*—4 classes. Subjects: Chinese, geometry, algebra, chemistry, Chinese geography, drawing, English, and military drill.

(4) *Provincial high school.*—4 classes. Subjects: Trigonometry, advanced chemistry, advanced algebra, world's geography, physics, drawing, English, and, if desired, Japanese.

(5) *Peking University.*—(*a*) Mechanical engineering; (*b*) civil engineering; (*c*) law; (*d*) mining engineering; (*e*) medicine, English, German, French, Russian, and Japanese.

REORGANIZATION OF SECONDARY SCHOOLS FOR GIRLS IN PRUSSIA.

The annual report of 1907 of this office referred (p. 184) to a visit of a delegation of ladies sent to Doctor Holle, the Prussian minister of education, by the Woman's Congress in Cassel in 1907, and their urgent solicitations in favor of a reorganization of the entire scheme of girls' education in Prussia. In addition to the arguments advanced during their conference with the minister a further consideration should be of weight, namely, that there is a large excess of women in Germany (about 1,000,000), and therefore a necessity of offering them opportunities to make themselves useful in other vocations than as wives and mothers.

Sooner than was expected, the Royal Government has met the wishes of the ladies. Emperor William, as King of Prussia, issued an order on August 15, 1908, which gives his sanction to a plan of reorganization submitted to him by the minister of education, and leaves it to his office to carry the new scheme into effect.

In reading the King's order the American reader may wonder why it is that he refers, first of all, to titles and rank of the teachers of girls' schools rather than to the contemplated changes in the courses of study. This is explained by the fact that the Germans firmly believe in the maxim, "All educational problems are, first of

all, teachers' problems." Buildings, equipments, text-books, courses of study, and other things do not make schools; it is the personality of the teachers that makes them. In a country like Prussia, where rank, titles, and social standing are valued so highly, and where emoluments often depend upon them, it is a matter of policy to raise the personnel of schools in honors, emolument, and outward distinction, in order to secure improvement in the schools.

The following is the new royal order:

To the minister of ecclesiastical, educational, and medical affairs:

In conformity with your report of July 12, 1908, I authorize you to consign all advanced girls' schools, as well as all other educational institutions for girls intended to lead up to higher seats of learning, to the department of provincial school authorities, where hereafter they are to be treated as secondary institutions; and that the rules and regulations referring to rank and titles of principals and academically trained head-teachers of boys' schools shall henceforth be applicable to those of secondary schools for girls also. In doing so, the rule is to be followed that all girls' advanced schools preparing for lyceums [a] and normal schools, and all secondary schools,[b] as well as independent lyceums, normal schools, and secondary schools for girls, shall hereafter be regarded of equal rank with the complete institutions among the secondary schools for boys, while other advanced schools for girls (i. e., those not preparing for higher education) shall be considered of equal rank with boys' secondary schools of less than nine years' course.

WILHELM R.

CASTLE WILHELMSHÖHE, *August 15, 1908.*
Countersigned: HOLLE.

The regulations of the minister concerning the reorganization refer to the number of grades, the connection of the three kinds of high schools with the advanced schools below, the changes in the course of study, the increases in salaries of the various grades of teachers, which vary from $50 per annum for the lowest elementary teachers and $150 per annum for regular teachers in higher grades to $300 for principals and directors. The order goes into particulars in 34 paragraphs, which cover both public and private institutions. The following time-tables of the reorganized schools plainly show the scope of the schools, as, for instance, the fact that instruction in French begins with the fourth school year (age 9), in English with the seventh (age 12); Latin begins with the eighth year, while Greek may begin with the tenth year. The diagram attached illustrates the bifurcation and trifurcation planned to meet the various objects in view.

As a matter of self-evidence, matriculation in the universities is allowed woman students, now that their preparation is equal to that of young men.

The following time-tables, quoted from the ministers' official publication,[c] show the relation each of the five secondary schools, (*a*) the

[a] Woman's lecture courses and similar institutions.
[b] Leading up to higher seats of learning.
[c] Zentralblatt für die gesamte Unterrichts-Verwaltung in Preussen, August, 1908.

courses for adults, also called lyceums; (*b*) the normal schools; (*c*) the scientific high schools; (*d*) the classical high schools, and (*e*) the combination high schools—will have in future to the advanced girls' schools, or "höhere Mädchenschulen." The diagram makes this still clearer, but there appears to be a disagreement between the diagram and the courses quoted, from the fact that the study of Latin, or rather the beginning of the high schools, is laid in the eighth school year, instead of the seventh, as the course prescribes. It would seem that the Government prescribes the requirements only tentatively, so as to allow the existing schools to adjust their courses and gradually adapt themselves to the new order. This may be inferred from the fact that at the various stages of the scheme the lowest age limit is stated rather than the grade.

A.—*Hours per week devoted to the various branches of study in the advanced girls' schools (höhere Mädchenschulen).*

Branches of study.	Elementary grades (common to all the following schools).						Advanced grades preparatory for normal school.				Total number of hours.
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	
Religion	3	3	3	3	3	3	2	2	2	2	26
German	10	9	8	6	5	5	4	4	4	4	59
French	.....	.....	.....	6	5	5	4	4	4	4	32
English	.....	.....	.....	.....	.....	.....	4	4	4	4	16
History	.....	.....	.....	.....	2	2	2	2	2	3	13
Geography	.....	.....	2	2	2	2	2	2	2	2	16
Mathematics	3	3	3	3	3	3	3	3	3	3	30
Natural science	.....	.....	.....	2	2	2	3	3	3	2	17
Penmanship	.....	3	2	1	1	1	.....	.....	.....	.....	8
Drawing	.....	.....	.....	2	2	2	2	2	2	2	14
Manual work	.....	2	2	2	2	2	[a](2)	[a](2)	[a](2)	[a](2)	10(18)
Music	[b]2/2	2/2	2/2	2	2	2	2	2	2	2	15½
Gymnastics	2/2	2/2	2/2	2	2	2	3	3	3	3	19½
Total per week.	18	22	22	31	31	31	31 (33)	31 (33)	31 (33)	31 (33)	276 (284)

[a] Branches, the time of which is placed in parentheses, are optional.
[b] 2/2 = 2 half hours.

B.—*Branches taught in courses for adults (Frauenschulen).*

Pedagogy, 2 hours a week; domestic science, 5 hours a week; kindergarten practice, 4 hours; hygiene and nursing, 4 hours; civics and political economy, 2 hours; domestic bookkeeping, 1 hour; needlework, 2 hours; religion, German literature, French, English, Latin, or Italian, according to choice, 2 hours a week for each branch; history, geography, natural science, history of art, drawing and painting, gymnastics and music, each 2 hours a week, according to needs or as occasion offers. The course is one of 2 years.

C.—*Hours per week devoted to the various branches in the normal school course (höheres Lehrerinnen-Seminar).*

Branches of study.	Normal school grades.			Total number of hours in grades I–III.	Practical year.
	I.	II.	III.		IV.
Religion	3	3	3	9	1
Pedagogy (theory and history)	2	2	2	6	3
German	3	3	3	9	1
French	4	4	4	12	1
English	4	4	4	12	
History	2	2	2	6	1
Geography	2	1	1	4	
Mathematics	4	4	4	12	1
Natural science	2	3	3	8	1
Methods and trial lessons	.....	.....	a (4)	a (4)	4
Practice in teaching	.....	.....	.....	.....	4–6
Scientific exercises	.....	.....	.....	.....	8
Drawing	2	2	1	5	.....
Music	1	1	1	3	.....
Gymnastics	3	3	3	9	3
Total hours per week	32	32	31(35)	95(99)	28–30

[a] Branches, the time of which is placed in parentheses, are taught in connection with other branches.

D.—*Hours per week devoted to the various branches in the course of study of the modern high school (Ober-Realschule).*

Branches of study.	Grades.					Total number of hours per week.
	I.	II.	III.	IV.	V.	
Religion	2	2	2	2	2	10
German and introduction to philosophy	4	4	4	4	4	20
French	4	4	4	4	4	20
English	4	4	4	4	4	20
History	2	2	2	2	2	10
Geography	1	1	1	1	1	5
Mathematics	4	5	5	5	5	24
Natural science	4	4	4	4	4	20
Drawing	2	2	2	2	2	10
Gymnastics	3	3	3	3	3	15
Music (optional)	a(1)	a(1)	a(1)	a(1)	a(1)	a(5)
Total hours per week	31	32	32	32	32	159

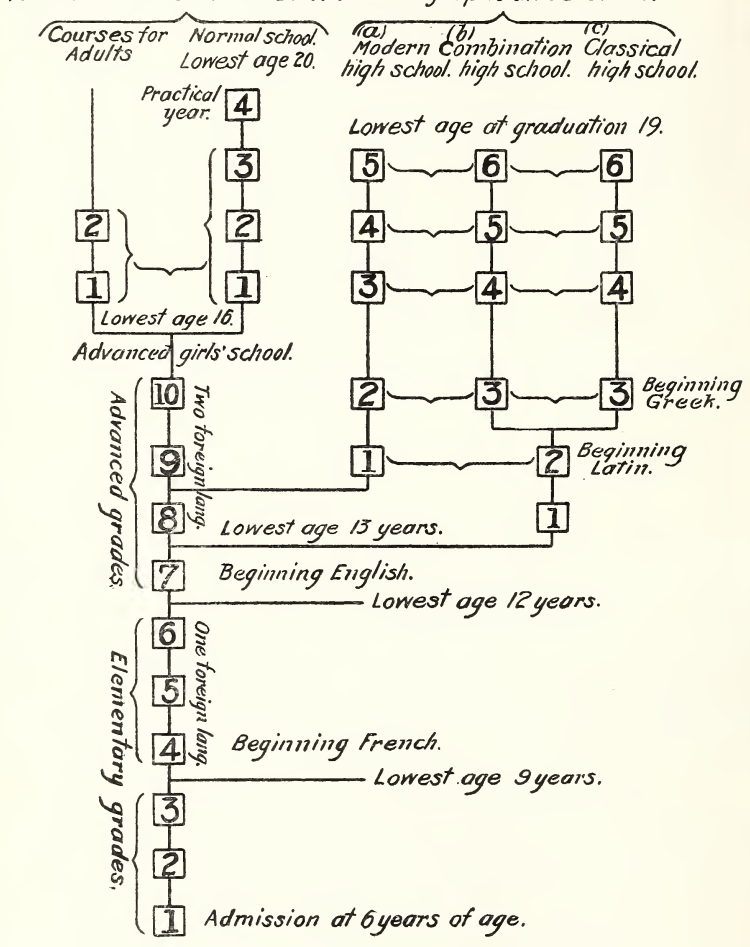
[a] Branches, the time of which is placed in parentheses, are optional.

E.—*Hours per week devoted to the various branches in the course of study of the classical high school (Gymnasium).*

Branches of study.	Grades.						Total number of hours per week.
	I.	II.	III.	IV.	V.	VI.	
Religion	2	2	2	2	2	2	12
German and introduction to philosophy	3	3	3	3	3	3	18
Latin	6	6	6	6	6	6	36
Greek	.....	.....	8	8	8	8	32
French	3	3	2	2	2	2	14
English	3	3	.....	.....	.....	.....	6
History	2	2	2	2	2	2	12
Geography	1	1	1	1	1	1	6
Mathematics	4	4	3	3	3	3	20
Natural science	3	3	2	2	2	2	14
Drawing	2	2	a(2)	a(2)	a(2)	a(2)	4(8)
Gymnastics	3	3	3	3	3	3	18
Music	1	1	1	1	1	1	6
Total hours per week	33	33	35	33	33	33	198

[a] Branches, the time of which is placed in parentheses, are optional.

SCHEME OF REORGANIZATION OF SECONDARY EDUCATION FOR GIRLS IN PRUSSIA.(1)



NOTES:- Squares are grades of a year each. Vertical lines connecting them indicate promotion to higher grades. Horizontal brackets ⌐——⌐ indicate the possibility of combining different branches in schools of small communities.

(1) Adapted from a diagram published in the official organ of the Minister of Education.

F.—*Hours per week devoted to the various branches in the course of study of the combination high school (Realgymnasium).*

Branches of study.	Grades.						Total number of hours per week.
	I.	II.	III.	IV.	V.	VI.	
Religion	2	2	2	2	2	2	12
German and introduction to philosophy	3	3	3	3	3	3	18
Latin	6	6	6	6	6	6	36
French	3	3	3	3	3	3	18
English	3	3	3	3	3	3	18
History	2	2	2	2	2	2	12
Geography	1	1	1	1	1	1	6
Mathematics	4	4	4	4	4	4	24
Natural science	3	3	4	4	4	4	22
Drawing	2	2	2	2	2	2	12
Gymnastics	3	3	3	3	3	3	18
Music (optional)	a(1)	a(1)	a(1)	a(1)	a(1)	a(1)	a(6)
Total hours per week	33	33	34	34	34	34	202

[a] Branches, the time of which is placed in parentheses, are optional.

THE ADMINISTRATION OF EDUCATION IN BELGIUM AND ITS BEARING UPON EVENTS OF CURRENT INTEREST.

The system of public instruction in Belgium resembles that of France in many particulars and also presents some striking differences from the latter.

The chief points of resemblance in the two systems are the separate organization and administration of the three orders of general education, primary, secondary (enseignement moyen, Belgium), and higher, and the close scholastic relation between the secondary schools and the universities. To these analogies should be added the policy, in both countries named, of committing the direction of technical education to other ministries than that constituted specifically for the administration of public instruction. This separation is carried to a greater extreme in Belgium than in France, no less than six ministries in the former country having charge of as many different classes of schools. As a consequence, coordination of programmes in respect to common subjects of instruction is impossible.

The greatest dissimilarity between the two systems here compared is in the centralized control, which is much less positive and direct in Belgium than in France. The Belgian constitution prohibits the monopoly of the control of education by the Government. This fundamental contract, which is above the law, proclaims the liberty of teaching, with no restrictions excepting as to misdemeanors committed in the use of that liberty.

Public education is given at the expense of the state and is regulated by law. The present law defines exactly the rights and obligations of all the authorities, state, provincial, and communal, that cooperate in the general direction of elementary education. The communes have absolute control of their respective primary schools, and

may either establish public schools or adopt one or more schools to serve in that relation. If the latter action is taken, the adopted school has all the rights of a public school, including support by government appropriation. Every commune, acting through its elected council, determines the regulations and programmes for its own schools. As a rule, the communes adopt the model school curriculum prepared and published by the Government.

The completeness of the liberty in respect to education is illustrated by the existence of two independent universities, Brussels and Louvain, equally vigorous with two state universities, Liége and Ghent.

This constitutional liberty has not kept the work of public instruction out of the ferment of politics. Indeed, the two parties, Liberal and Conservative, have waged even more bitter contests over the elementary schools than have taken place in France or in England. The school law of 1879, passed by the Liberal party upon its accession to power, placed all public schools under the control of the civil authorities, and eliminated religion from the programmes. The Conservatives retaliated in 1884 by the law, which through the principle of adopted schools, virtually restored ecclesiastical supremacy in the majority of the communes; this supremacy was still further increased by the school law of 1895.

The present situation gives interest to a plan for the reorganization of the system of public instruction formulated by the association of the professors of secondary education, under the advice of Prof. L. Leclère, of the independent University of Brussels. The plan shows the close sympathy existing between French and Belgian leaders in respect to questions of educational reform. It proposes, as of first importance, the concentration in the hands of a single minister of all the schools and higher institutions of public instruction in the kingdom. The analogous conditions in France are cited, and the proposition accords with that already broached in the French legislature. The plan provides further for closer relations between primary and secondary schools as a means of facilitating the passage from the lower to the higher and preventing waste of resources, and for the reorganization of the secondary school programmes, following pretty closely the scheme adopted in France, with a view of enabling students to enter, immediately after graduation, upon either one of the three orders of higher instruction, classical, scientific, or technical.[a]

The guaranteed liberty of instruction in Belgium has apparently fostered individual initiative and local activity in progressive communities. This is strikingly shown by the educational discussions carried on both in current journals and in the associations of teachers

[a] La réorganisation de l'enseignement public en Belgique, L. Leclère. Revue internationale de l'enseignement, August 15, 1908, pp. 97–99.

and professors. Belgian cities, notably Brussels and Antwerp, have been specially active in providing for the physical and social care of school children.

The absence of official restraints has made Belgium the rallying ground, as it were, for the representatives of different theories of education, and has thereby conduced to the success of the many congresses for the discussion of educational questions and the exploitation of new experiments in education which have convened in recent years in Belgium. Interest is awakened at the present time by the announcement of the Third International Congress on the Education of Children in the Family, to be held in Brussels in 1910, in connection with the universal exposition of that year. The first congress of this series was held in Liege in connection with the exposition of 1905. That enterprise engaged the support of the Government, and the plans, worked out with great precision and under able direction, excited the cooperation of many other governments and the participation of noted specialists. From the official report of the congress, recently published, it appears that it numbered 1,200 members, including the representatives of twenty foreign governments. For the first time an effort was made to bring together the results of child study and the accumulated data of countless investigations and experiments relative to the phenomena of childhood conducted in widely scattered centers. The scientific purpose of the congress is indicated by the list of eminent experts to whom the papers sent in from collaborators in many countries were submitted for analysis and ultimate summary. The official report of the proceedings of the congress, consisting of the individual reports of specialists, both forms a basis, as it were, for further investigations along the many lines considered, and also serves as a consistent record of results and opinions up to the time of the congress.

One of the most important outcomes of this initial congress was the adoption of a preliminary plan for the organization of a permanent international committee to promote the work of future congresses of the same character and to further efforts for the federation of parents and teachers in the interests of the education and training of children.

This committee had general direction of the plans for the Second International Congress on the Home Education of Children, which was held at Milan in 1906, and it is now proposed to strengthen and enlarge the body in the interests of the third congress, announced for 1910.

The congress will be organized in four sections, as follows:

First section: Child study.

Second section: Education of the young: (*a*) General considerations; (*b*) education of the young child at home by the parents;

(*c*) collaboration of the family with the school; (*d*) education in the family after the school days are over.

Third section: Abnormal children.

Fourth section: Various efforts for the welfare of the young.[a]

The programme is comprehensive, but the previous experience of the directing committee warrants the belief that the third congress will yield results of scientific value and great practical utility.

The intimate relation that has existed in Belgium between the administration of public education and that of the fine arts, as a factor in civilization, justifies a reference here to an event of special interest in current official proceedings, namely, the promulgation of a decree providing for the creation of a special commission to inquire into the present state of art in the kingdom and the means of its expansion. This decree was issued under date of April 10, 1908, in response to a recommendation on the subject by the minister of science and arts.

NOTES ON EDUCATION IN ITALY.

The "Lex Orlando" of July 8, 1904, which was to go into effect in October, 1907, provided for the more effectual suppression of illiteracy. Compulsory school attendance, 6 to 9 years of age, is continued for communes where there is no higher elementary school, but where there is such higher school the age limit is extended to 12 years.

Signor Orlando, minister of public instruction from November 4, 1903, to March 22, 1905, has had as successors the Signori Bianchi, De Marinis, Boselli, Fusinato, and Luigi Rava, the present incumbent. His predecessors have numbered fifty since 1847.

A late circular of Minister Rava, which was sent to mayors, inspectors, and heads of institutions, dealt with the carrying out of the "Lex Orlando," so that the six classes of the elementary schools tend toward education of the people as well as train for local needs.

Commencing with the fifth class, the condition of the people in each commune is to be taken into consideration, and the instruction must not be a preparation for secondary schools.

[a] See Commission internationale des congrès d'éducation familiale et de la fédération des parents et des éducateurs. (Bulletin No. 1, March, 1908.)

CHAPTER X.

FOREIGN UNIVERSITIES AND OTHER FOREIGN INSTITUTIONS OF HIGHER EDUCATION IN 1907.

[The author of "Minerva, Jahrbuch der gelehrten Welt" (K. Trübner), which is the chief source of the information offered in the following lists, says that he has submitted his work at various stages of completion to different professors of the countries concerned, so that he is assured that his decision as to which of the learned institutions of the world should be regarded as universities is upheld by the most trustworthy authority. He describes his Jahrbuch as a collection of names of teaching bodies, of universities, or similar institutions of the world.

Since this Report of the Commissioner of Education contains detailed information concerning the higher institutions of learning in the United States, they have been omitted from the following lists, which are devoted exclusively to foreign institutions.]

The following list shows a considerable increase over 1905, both in the number of higher institutions of learning and in the number of professors and students. The increase is found chiefly in Great Britain, France, Germany, and Austria. There is also newly recorded in this list a number of institutions in Brazil, from which, previous to 1907, no reports were received. The increase in the number of professors and students is accompanied by an increase in the number of seminaries, clinics, laboratories, shops, collections, colleges, libraries, and museums, maintained by universities and polytechnica, which is evidence of a healthy growth in the internal affairs of foreign higher seats of learning.

ARGENTINA.

Buenos Ayres.—Universidad Nacional. Rector: Eufemia Uballes. Faculties: Law, medicine, pharmacy, mathematics and natural sciences, philosophy; 268 professors and 2,650 students. National library of 143,500 volumes.

Cordoba.—Universidad Nacional (1613). Rector: Dr. Julio Deheza. Faculties: Law, social science, medicine, exact science, natural science; 130 professors and about 1,000 students. Library of 32,500 volumes, museum, and observatory.

La Plata.—Universidad Nacional (1906). President: Dr. Joaquin V. Gonzalez; 37 professors. Library.

AUSTRALIA.

Adelaide.—University of Adelaide (1872). Chancellor: Sir Samuel J. Way; 38 professors, 20 clinic teachers, and 634 students. Library.

Hobart.—University of Tasmania (1890). Vice-Chancellor: Sir N. E. Lewis; 13 professors and 373 students.

Melbourne.—University of Melbourne (1853). Chancellor: Sir John Madden; 50 professors, 29 demonstrators, and 881 students. Library of 35,000 volumes.

New Zealand.—University of New Zealand (1870). Chancellor: Sir Robert Stout. The university consists of University College at Auckland, Canterbury College, University of Otago in Dunedin, and Victoria University College in Wellington; 71 professors and about 1,800 students. Several libraries and museums.

Sydney.—University of Sydney (1850). Chancellor: Sir Henry N. McLaurin; 96 professors and 870 students. Library and several museums.

AUSTRIA.

[See also HUNGARY with CROATIA below.]

(a) *Universities.*

Czernowitz, Bukowina.—K. K. Franz-Josefs-Universität (1875). Rector: Dr. E. Ehrlich. Faculties: Greek-Oriental theology, law, and philosophy; 60 professors and 766 students. Library of 173,807 volumes.

Gratz, Styria.—K. K. Karl-Franzens-University (1586). Rector: Dr. Gustav Hanausek. Faculties: Theology, law, medicine, philosophy; also 47 institutions such as clinics, seminaries, laboratories, and museums; 147 professors and 1,784 students. Library of 227,348 volumes.

Innspruck, Tyrol.—K. K. Leopold-Franzens-Universität (1673). Rector: Rudolph von Scala. Faculties: Theology, law, medicine, philosophy; also 53 institutions such as clinics, seminaries, laboratories, and museums. Since 1904 it has a separate law faculty for Italian students, with 6 professors. Ninety-eight professors and 1,031 students. Library of 213,581 volumes.

Krakow, Galicia.—Uniwersytet Jagielloński w Krakowie (1364). Rector: Kazimierz Morawski. Faculties: Theology, law, medicine, philosophy; also 51 institutions such as clinics, seminaries, laboratories, and collections; 138 professors and 2,543 students. Library of 394,372 volumes.

Lemberg, Galicia.—C. K. Uniwersytet Imienia Cesarza Franciska I (1784). Rector: Alois Winiarz. Faculties: Theology, law, medicine, philosophy; also 41 institutions such as clinics, seminaries, laboratories, and collections; 136 professors and 3,582 students. Library of 191,263 volumes.

Prague, Bohemia.—K. K. Deutsche Karl-Ferdinand-Universität (1348). Rector: Dr. August Sauer. Faculties: Theology, law, medicine, philosophy; also 52 institutions such as clinics, seminaries, laboratories, and collections; 153 professors and 1,610 students. Library of 340,200 volumes.

Prague, Bohemia.—C. K. Ceská Universita Karlo-Ferdinandova (1882). Rector: Jaroslav Goll. Faculties: Theology, law, medicine, philosophy; also 52 institutions such as clinics, seminaries, laboratories, and collections; 185 professors and 3,961 students. Library of preceding institution used.

Vienna, Nether-Austria.—K. K. Universität (1365). Rector: Victor E. von Rofenstein. Faculties: Theology, law, medicine, philosophy; also 58 institutions such as clinics, seminaries, laboratories, and collections; 481 professors and 8,664 students. Library of 707,188 volumes.

(b) *Polytechnica.*

Brünn, Moravia.—K. K. Deutsche Technische Hochschule (1850). Rector: Dr. Friedr. Niethammer. Departments: Civil and mechanical engineering, electro and chemical technology; also several laboratories, collections, and shops; 89 professors and assistants and 657 students. Library of 30,654 volumes.

Brünn, Moravia.—K. K. Böhmische Technische Hochschule (1899). Rector: Leopold Grimm. Departments: Same as the preceding institution; 62 professors and assistants and 416 students. Library of 9,150 volumes.

Gratz, Styria.—K. K. Technische Hochschule (1811). Rector: Friedrich Emich. Departments: Same as in Brünn; 40 professors and assistants and 675 students. Library.

Lemberg, Galicia.—K. K. Technische Hochschule (1844). Rector: Victor Syniewski. Departments: Same as in Brünn; 47 professors and 1,610 students. Library of 12,966 volumes and 16 institutions.

Prague, Bohemia.—K. K. Deutsche Technische Hochschule (1806). Rector: Dr. Karl Mikolaschek. Departments: Same as in Brünn; 57 professors, 21 assistants, and 956 students; 14 institutions and library.

Prague, Bohemia.—K. K. Böhmische Technische Hochschule (1868). Rector: František Novotný. Departments: Same as in Brünn; 101 professors and assistants and 2,247 students; 14 institutions and library in common with preceding institution.

Vienna, Nether-Austria.—K. K. Technische Hochschule (1815). Rector: Dr. Georg Vortmann. Departments: Same as in Brünn; 125 professors, 46 assistants, and 2,983 students; 18 institutions and library of 113,211 volumes.

(c) *Other higher seats of learning.*

Dublany, Galicia.—Landwirthschaftliche Akademie (1855). Director: Józef Mikulowski-Pomorski. Departments: Agriculture, meteorology, physics, and chemistry; 15 institutions; 26 professors and 82 students. Library of 7,585 volumes.

Krakow, Galicia.—K. K. Kunstakademie (1818). Director: A. von Lada-Cybulski; 9 professors, 4 assistants, and 160 students.

Lemberg, Galicia.—Thierärztliche Hochschule (1881). Rector: Josef Szpilman; 15 professors, 10 assistants, and 102 students.

Leoben, Styria.—Montanistische Hochschule (1894). Rector: Anton Bauer; 26 professors and 264 students. Library.

Olmütz, Moravia.—K. K. Theologische Facultät (1574). Twelve professors and 220 students.

Pribram, Bohemia.—Montanistische Hochschule (1849). Rector: Dr. J. Theurer; 22 professors and 93 students.

Salzburg.—K. K. Theologische Facultät (1623). Eight professors and 58 students.

Trieste.—Handels-Hochschule (1877). Director: Dr. Georg Piccoli; 12 professors and 54 students.

Vienna.—K. K. Evang.-Theologische Facultät (1821). Rector: ——; 7 professors and 56 students.

Vienna.—K. K. Hochschule für Boden-Kultur (1872). Rector: Dr. Gustav A. Koch. Departments: Agriculture, natural science, and 26 laboratories and experimental stations; 57 professors and 701 students. Library.

Vienna.—K. K. Lehranstalt für Orientalische Sprachen (1851). Rector: Leopold Pekotsch; 9 professors and 180 students. Library of 1,150 volumes.

Vienna.—K. K. Militär Thierarznei-Institut und Thierärztliche Hochschule (1764). Rector: Dr. Josef Bayer; 19 professors and 485 students.

Vienna.—K. K. Konsular-Akademie (1754). Director: Anton Edler von Winter; 30 professors and 35 students.

Vienna.—Bildungsanstalt für Weltpriester (1816). Rector: Dr. Laurenz Mayer; 5 professors and 26 students.

Vienna.—Pazman'sches Kollegium für Priester (1623). Rector: Leonhard Lollok; 3 professors and 45 to 50 students.

Vienna.—Israelitisch-Theologische Lehranstalt (1893). Rector: Dr. Ad. Schwarz; 6 professors and 30 students.

BELGIUM.

(a) *Universities.*

Brussels.—Université Libre de Bruxelles (1834). Rector: Auguste Lameere. Faculties: Philosophy, law, natural science, medicine, pharmacy, and polytechnic school; 92 professors and 1,050 students. Library.

Ghent.—Université de l'État de Grand (1816). Rector: Prof. H. Leboucq. Faculties: Philosophy, law, natural science, medicine, and technology; 94 professors and 967 students. City library of 352,071 volumes.

Liege.—Université de Liége (1817). Rector: Dr. F. Thiry. Faculties: Philosophy, law, natural science, medicine, and polytechnic school; also 28 clinics, laboratories, and collections; 88 professors and 2,388 students. Library.

Louvain.—Université Catholique (1426, 1835). Rector: A. Hebbelynck. Faculties: Theology, law, medicine, philosophy, natural science; 106 professors and 2,173 students. Library of 60,000 volumes.

(b) *Polytechnica.*

See Universities of Brussels, Ghent, and Liege which have technological departments.

(c) *Other higher seats of learning.*

Brussels.—École des Sciences Politiques et Sociales (1834), now affiliated with the University of Brussels, see above; 14 professors. Library.

Brussels.—École de Médecine Vétérinaire de l'État (1833). Director: A. Degive; 16 professors and 143 students.

Brussels.—École de Commerce (1834), connected with the preceding institution; 11 professors. Library.

Brussels.—Instituts Solvay, consisting of Institut de Physiologie (1894), 5 professors, and Institut de Sociologie (1901), 8 professors.

Brussels.—École de Médecine Tropicale (1906). Directors: Dr. Émile van Campenhout, 4 professors.

Gembloux.—Institut Agricole de l'État. Director: M. Hubert; 18 professors and 110 students.

Liege.—École du Commerce et des Consulats. President: Ch. Dejace; 11 professors. This school is now affiliated with the University of Liege.

Louvain.—Institut Supérieur de Philosophie (École St. Thomas d'Aquin) (1900). Affiliated with Université Catholique. President: S. Deploige; 21 professors.

Louvain.—École des Sciences Politiques et Sociales. President: P. Poullet. École des Sciences Commerciales et Consulaires. President: L. Dupriez. These two institutions, formerly independent, are now part of the Université Catholique de Louvain.

Mons.—École des Mines et Faculté Polytechnique du Hainaut. Director: A. Macquet; 22 professors and 308 students.

BRAZIL.

(a) *Universities* (none).

(b) *Other higher seats of learning.*

Bahia.—Faculdade de Medicina, Cirurgia e Pharmacia (1808). Director: Dr. Alf. Britto; 38 professors and 650 students. Library.

Bello-Horizonte.—Faculdade Livre de Direito (1892). Director: Affonso A. M. Penna; 22 professors. Library.

Ouro Preto.—Escola de Minas (1875). Director: J. C. da Costa-Sena.

Pernambuco.—Faculdade de Direito (1875). Director: Dr. J. Tavares de Mello Barretto; 25 professors and 250 students. Library of 9,500 volumes.

Porto Alegre.—Faculdade de Medicina, Cirurgia e Pharmacia. Director: Dr. P. A. Alves; 27 professors, 40 assistants.

Rio de Janeiro.—Faculdade de Medicina (1808). Director: Dr. Feijo Filho; 33 professors, 18 assistants, and 850 students. Library of 25,000 volumes.

Rio de Janeiro.—Instituto Psychiatrico. Director: Dr. Juliano Moreira; 24 professors and assistants.

Rio de Janeiro.—Escola Polytechnica. Director: Dr. J. B. Ortiz Monteiro; 32 professors, 19 assistants. Library of 40,000 volumes.

Rio de Janeiro.—Faculdade de Sciencias Juridicas e Socias. Director: Dr. Bulhos Carvalho; 17 professors. Library.

São Paulo.—Escola Polytechnica de São Paulo (1894). Director: Dr. A. F. de Paula Souza; 41 professors and 168 students. Library of 5,370 volumes.

São Paulo.—Escola de Direito. Director: Dr. V. M. de Freitas; 27 professors.

São Paulo.—Escola de Pharmacia. Director: Dr. Amancio de Carvalho; 17 professors, 14 assistants.

BULGARIA.

Sophia.—Visse Uciliste v Sofiya (University) (1888). Rector: Stephan Kirov. Faculties: History and philology, natural science, law; 43 professors and 1,324 students. Library of 58,517 volumes.

CANADA.

(a) *Universities.*

Halifax.—Dalhousie College and University (1818). President: Rev. J. Forrest; 15 professors, 21 examiners, 21 lecturers, and 335 students. Two libraries of 16,000 and 7,500 volumes, respectively.

Kingston.—Queen's University (1840). Chancellor: Sir Sandford Fleming. Faculties: Theology, arts, technology, medicine, law; 70 professors and 1,108 students. Library and observatory.

Montreal.—McGill College and University (1821). Principal: William Peterson; 131 professors, 80 demonstrators and assistants; 1,331 students. University library of 112,000 volumes and McGill medical library of 23,000 volumes.

Montreal.—Université Laval (1852). Vice-rector: Gaspar Dauth. Faculties: Theology, law, medicine, arts, technology, and veterinary science; 89 professors and 38 assistants; 728 students. Library of 49,250 volumes.

Quebec.—Université Laval (1852). Rector: O. E. Mathieu. Faculties: Theology, law, medicine, arts; 59 professors and 359 students. Library of 120,000 volumes and three museums.

Toronto.—University of Toronto (1827). President: Maurice Huton. Faculties: Philosophy, medicine, applied science, and university college; 97 professors, 54 lecturers, 117 demonstrators and assistants; 2,547 students. Library of 97,500 volumes and a biological museum.

Toronto.—Victoria University (1830). President: Rev. N. Burwash. Faculties: Arts and theology; 25 professors and 300 students. Library of 18,940 volumes and a museum.

Winnipeg.—University of Manitoba (1877). Vice-chancellor: Chief Justice Dubuc. Faculties: Science, medicine, theology, pharmacy; 15 professors, many assistants, and 335 students. Consists of the faculty of science and six colleges.

(b) *Polytechnica.*

Montreal.—École Polytechnique, part of Université Laval in Montreal; see above.

Toronto.—Ontario School of Practical Science, Faculty of Applied Science of the University of Toronto; 19 professors, 9 demonstrators, and 16 fellows; 627 students.

(c) *Other higher seats of learning.*

Kingston.—School of Mining (1892), affiliated with Queen's University. Director: William L. Goodwin; professors, lecturers, and demonstrators of Ontario School of Practical Science; 418 students. Museum and library.

Montreal.—School of Veterinary Science and a Polytechnic School, both affiliated with Université Laval; see above.

Toronto.—St. Michael's College (1852), 24 professors; Wycliffe College (1877), 8 professors; Knox College (1844), 7 professors. Theological seminaries.

Toronto.—Trinity Medical College (1850); Ontario Medical College for Women (1883), 40 students; Royal College of Dental Surgeons (1868). Dean: J. Branston Willmott; 19 professors; Ontario College of Pharmacy (1882); 6 professors and 92 students. These four colleges are now affiliated with the University of Toronto.

Toronto.—Ontario Agricultural College. President: G. C. Creelman; 14 professors, 15 assistants, and about 1,000 students. Now affiliated with the University of Toronto. Museum and library.

CAPE COLONY.

Capetown.—University of the Cape of Good Hope (1873). Vice-chancellor: Sir Charles A. Smith. This institution is merely an examining board like those in India.

Capetown.—South African College (1829): 17 professors and 14 assistants; 240 students. Library.

CHILE.

Santiago.—Universidad de Chile (1743). Rector: Valentin Letelier. Faculties: Theology, law, mathematics and natural sciences, philosophy and arts, medicine and pharmacy; 105 professors, many assistants, and about 1,000 students. Library.

Santiago.—Instituto Pedagógico de Chile (1889). Director: D. Amunátegui Solar; 13 professors and 180 students. National library.

CHINA.

Peking.—College of Foreign Knowledge. Particulars wanting.

CUBA.

Habana.—Universidad de la Habana (1728). Rector: Dr. Leopold V. Berriel y Fernandez. Faculties: Philosophy and natural science, pedagogy, medicine and pharmacy, law; 56 professors, 51 assistants, and 554 students; also 24 institutions such as clinics, laboratories, collections, and shops. Library of 18,100 volumes.

DENMARK.

Copenhagen.—Kjobenhavns Universitet (1479). Rector: Dr. M. Cl. Gertz. Faculties: Theology, law, medicine, philosophy, mathematics, and natural science; also 20 institutions such as laboratories and collections; 97 professors and about 2,000 students. Library of 475,000 volumes.

Copenhagen.—Polytekniske Læreanstalt (1829). Director: G. A. Hagemann; 29 professors and 800 students. Affiliated with the University.

Copenhagen.—Veterinair- og Landbo-Hoiskole (1858). Director: F. Friis; 28 professors, 10 assistants, and 480 students. Library of 32,000 volumes.

Copenhagen.—Tandlaegeskolen (Dental College) (1888). Director: Doctor Bock; 7 professors.

Copenhagen.—Pharmacy College (1892). Director: Dr. H. E. Koefoed; 6 professors and 83 students.

Reykjavik (Iceland).—Prestaskóli (Theological College) (1847). Director: Dr. Th. Bjarnarson; 3 professors.

Reykjavik (Iceland).—Loeknaskóli (Medical College) (1876). Director: Dr. G. Björnsson; 6 professors.

ECUADOR.

Quito.—Academia Ecuatoriana. Director: Roberto Espinosa.

EGYPT.

Cairo.—Azhar School (988). Rector: Hassûne il Nawaui; 313 professors and 8,510 students.

École de Droit (1868). Director: M. Hill; 23 professors.

Kasr ii Aini (School of Medicine) (1837). Director: Dr. Keatinge; 12 professors.

Institut Français d'Archéologie Orientale (1881). Director: M. Casanova.

ENGLAND AND WALES.

(See also SCOTLAND and IRELAND below.)

(a) *Universities.*

Birmingham.—University of Birmingham (1875). Vice-chancellor: C. G. Beale. Faculties: Science, arts, medicine, commerce; 83 professors, 20 assistants, and about 1,000 students. Library.

Cambridge.—University of Cambridge (1257). Vice-chancellor: E. S. Roberts. Faculties: Theology, law, medicine, natural science, biology and geology, oriental, modern, and classical philology, history and archeology, agriculture, moral science, music; 18 colleges, with lecture courses; 13 institutions, such as museums, observatory, and societies for research and study; also two women's colleges, Girton and Newnham; 135 professors, 40 assistants, and 3,207 students. Library of over 500,000 volumes.

Durham.—Durham University (1833). Warden: Rev. G. W. Kitchin; 22 professors and 218 students. See also Newcastle.

Leeds.—University of Leeds (1887). Since 1904 an independent institution. Pro-chancellor: A. G. Lupton; 56 professors, 60 assistants, and 1,161 students. Library and museum.

Liverpool.—University of Liverpool (1881). Vice-chancellor: A. W. W. Dale. Faculties and schools: Arts, science, engineering, law, medicine, dentistry, hygiene; 179 professors, numerous assistants and fellows, and 1,003 students. Library.

London.—University of London (1836), formerly an examining institution, since 1900 a teaching institution. (a) The university proper. Vice-chancellor: Sir William Job Collins. Faculties: Theology, arts, law, music, medicine, science, engineering, economics, and the university senate; 98 professors and 767 "recognized teachers;" 60 examinations are held every year; 6,341 students. (b) The following colleges are now parts of the university:

University College (1828). Vice-president: Lord Reay. Faculties: Arts and law, science, medicine, and oriental languages; 85 professors, 43 assistants, and 1,191 students. Library of 105,000 volumes.

King's College (1830). Director: Rev. A. C. Hedlam. Faculties: Theology, philosophy, medicine, and school of modern oriental languages; 124 professors, many assistants, and about 1,300 students.

Hackney College (1803). Principal: Rev. P. T. Forsyth. A divinity school only; 6 professors, 5 assistants, and 30 students.

New College (1850). Principal: Rev. Alfred E. Garvie. Faculties of arts and theology; 9 professors.

Baptist College (1810). Principal: Rev. G. P. Gould; 4 professors, 5 assistants, and 30 students.

Wesleyan College. Principal: Rev. G. Fletcher; 7 professors, 60 students.

London College of Divinity. Principal: Rev. A. W. Greenup; 8 professors.

Royal Holloway College for Women (1886). Principal: Miss E. C. Higgins. Faculties of arts and science; 22 professors and 6 assistants; 154 students. Library of 9,535 volumes.

Bedford College for Women (1849). Principal: Miss M. J. Tuke; 20 professors and 14 assistants; over 220 students. Library.

Westfield College for Women (1882). Mistress: Miss C. L. Maynard; 15 professors and 54 students; laboratories. Library.

Manchester.—Victoria University of Manchester (1851). Vice-chancellor: A. Hopkinson. Faculties: Arts, science, law, commerce, medicine, technology, and music; 191 professors and 1,408 students. Museum and library of about 370,000 volumes.

Oxford.—University of Oxford (1200). Chancellor: Lord Curzon of Kedleston. Faculties: Theology, law, medicine, natural science, arts, philology, and history; 27 colleges and halls with lecture courses; many institutions, such as libraries, infirmaries, collections, etc.; 295 professors and many assistants; 3,663 students. Bodleian library of over 600,000 volumes and several college libraries.

Sheffield.—University of Sheffield (1879). Vice-chancellor: Sir Charles Eliot. Faculties: Arts, science, medicine, applied science; 79 professors, 674 day and 1,444 evening students. Public library of 155,000 volumes.

Wales.—University of Wales (1893) created through a combination of the three university colleges of Aberystwyth, Bangor, and Cardiff. Vice-chancellor: T. F. Roberts; 34 examiners. Colleges, to wit:

University College of Wales in Aberystwyth (1872). Principal: J. H. Davies; 37 professors and 467 students. Library.

University College of North Wales in Bangor (1884). Principal: Sir Henry R. Reichel; 35 professors and 330 students. Library of 25,000 volumes.

University College of South Wales in Cardiff (1883). Principal: E. H. Griffiths. Faculties: Philosophy, science, normal department; 61 professors and 694 students. Library of 8,000 volumes.

(b) *Colleges.*

Bristol.—University College (1876). Principal: Prof. C. Lloyd Morgan. Faculties: Arts and science, medicine; 67 professors and 1,021 students. Library.

Lampeter, Wales.—St. David's College (1828). Principal: J. M. Bebb; 17 professors and 130 students.

London.—University College Hospital Medical School (1907). Dean: Sidney Martin; 39 professors and 220 students.

London.—St. Bartholomew's Hospital and College (1123). Dean: T. W. Shore; 50 professors and about 950 students. Museum and library.

London.—The London Hospital Medical College (1740). Warden: Munro Scott; 57 professors and about 1,000 students. Library.

London.—Guy's Hospital Medical School (1772). Dean: Dr. H. L. Eason; 44 professors and about 500 students. Connected with this is—

Guy's Hospital Dental School (1891). Dean: Dr. H. L. Eason; 9 professors. Library.

London.—St. Thomas's Hospital Medical School (1207). Secretary: G. Q. Roberts; 26 professors and 25 teachers. Museum and library.

London.—St. George's Hospital Medical School (1752). Dean: E. I. Spriggs; 48 professors and 5 teachers; 350 students.

London.—St. Mary's Hospital Medical School (1850). Dean: W. H. C. Greene; 29 professors. Museum and library.

London.—Middlesex Hospital Medical School (1754). Dean: John Murray; 25 professors and 150 students.

London.—Charing Cross Hospital Medical School (1876). Dean: H. F. Waterhouse; 30 professors, many assistants and 140 students. Library of 5,000 volumes.

London.—Westminster Hospital Medical School (1715). Dean: E. P. Paton; 42 professors and 86 students.

London.—(Royal Free Hospital) School of Medicine for Women. President: Mrs. Garrett Anderson; 32 professors, 3 demonstrators, and 169 students.

London.—College of Preceptors. President: Dr. R. Wormell; 7 professors.

(c) *Other higher seats of learning.*

Bristol.—Merchant Venturer's Technical College (1856). Principal: Julius Wertheimer; 5 professors, 54 lecturers, 31 demonstrators, 312 students, and 1,811 students in evening classes. Library.

Cirencester.—Royal Agricultural College (1845). Principal: John B. MacClellan; 7 professors and 85 students. Museum and library.

Liverpool.—School of Tropical Medicine (1899). President: Sir Alfred Jones; 18 professors.

London.—City and Guilds of London Institute (1878), consisting of (a) City and Guilds' Central Technical College (1884). Dean: W. E. Dalby; 435 students. (b) City and Guilds' Technical College (1883). Principal: S. P. Thompson; 700 students.

London.—School of Economics and Political Science (1895). Director: H. J. MacKinder; 35 professors. Library of 20,000 volumes.

London.—Gresham College (1569). Secretary: G. H. Blakesley; 9 professors. Library.

London.—Inns of Court (Law Schools): Lincoln's Inn, Middle Temple, Inner Temple, Gray's Inn. Each is organized for study. Libraries of 55,000, 40,000, 65,000 and 21,000 volumes. The teaching body of the four inns consists of 20 professors and 4 assistants.

London.—Davy Faraday Research Laboratory of the Royal Institution. Director: Sir James Dewar.

London.—Royal College of Physicians (1518). President: Sir R. Douglas Powell; 10 professors. Library.

London.—Royal College of Surgeons of England (1800). President: Henry Morris; 6 professors. Museum and library of 53,000 volumes.

London.—Jews' College (Theological School) (1845). President: Rev. H. Adler; 5 professors.

London.—Royal Ophthalmic Hospital College (1804). Secretary: R. J. Bland; 13 professors and 140 students.

London.—National College of Hospital for the Paralyzed and Epileptic (1859). Secretary: G. H. Hamilton; 25 professors.

London.—The London Skin Hospital (1887). Secretary: J. St. Tyler; 12 professors.

London.—Midwifery Training School (1752). President: Viscount Portman; 15 professors.

London.—Hospital for Consumption (1851). Secretary: Frederick Wood; 19 professors and 6 resident physicians.

London.—Hospital for Sick Children (1852). Chairman: Arthur Lucas; 33 professors and several assistant physicians.

London.—Lister Institute of Preventive Medicine (1891). President: Lord Lister; 12 professors.

London.—School of Tropical Medicine (1900). Director: Dr. C. W. Daniels; 13 professors and 120 students.

London.—Royal Veterinary College (1791). Principal: J. McFadyean; 11 professors and 230 students.

London.—Royal College of Science (with mining department) (1851); 14 professors and 31 assistants. Library.

London.—Royal College of Art (1851); 10 professors and 5 assistants.

London.—School of Clinical Medicine. Secretary: P. J. Michelli; 34 professors.

London.—National Dental Hospital and College (1861). Dean: Sidney Spokes; 15 professors and 9 assistants.

London.—School of Pharmacy (1842). Registrar: R. Brembridge; 5 professors and 3 demonstrators.

London.—School of Modern Oriental Languages. The first division of this school now belongs to University College, the second to King's College; see above.

Newcastle.—Durham College of Medicine (1851). Part of Durham University; see above; 21 professors and 200 students. Museum and two libraries.

Newcastle.—Armstrong College of Science (1871). Principal: Sir I. Owen. Part of Durham University; see above; 47 professors; about 1,700 students. Library of 50,00 volumes.

Nottingham.—University College (1880). Director: J. E. Symes. Departments: Literature and law, chemistry and metallurgy, natural science and engineering; 40 professors, many assistants, and about 1,900 students. Also a commercial department. Library.

Oxford.—Manchester College (1786). Theology and philosophy. Principal: J. E. Carpenter; 10 professors and 22 students. Library of 20,000 volumes.

Oxford.—Mansfield College (1886). Theological school. Principal: Dr. A. M. Fairbairn; 7 professors. Library of 15,000 volumes.

FRANCE.

(a) *State universities.*

Aix-en-Provence.—Université d'Aix-Marseille (1409). Rector: M. Belin. Faculties: Law and philosophy; 34 professors and 1,269 students. Library of about 87,000 volumes. Two faculties, those of science and medicine, are located at Marseille. Library.

Besançon.—Université de Besançon (1422 and 1691). Rector: M. Ardaillon. Faculties: Natural science, philosophy, medicine and pharmacy; 52 professors and 325 students. Library of 25,000 volumes.

Bordeaux.—Université de Bordeaux (1441). Rector: R. Thamin. Faculties: Law, medicine and pharmacy, natural science, and philosophy; 135 professors and 2,496 students. Three libraries with a total of 95,000 volumes. See also Annex under (e).

Caen.—Université de Caen (1437). Rector: M. Zevort. Faculties: Law, natural science, philosophy, medicine and pharmacy; 64 professors and about 814 students. Library of 137,000 volumes.

Clermont-Ferrand.—Université de Clermont (1808). Rector: M. Alfred Coville. Faculties: Natural science, philosophy, medicine and pharmacy; 45 professors and 281 students. Library of 90,000 volumes.

Dijon.—Université de Dijon (1722). Rector: M. Boirac. Faculties: Law, natural science, philosophy, medicine and pharmacy; 67 professors and 996 students. Library of 56,000 volumes.

Grenoble.—Université de Grenoble (1339). Rector: M. R. Moniez. Faculties: Law, natural science, philosophy, medicine and pharmacy; 68 professors and 896 students (exclusive of 300 students of summer school). Library of about 106,000 volumes.

Lille.—Université de Lille (1808). Rector: G. Lyon. Faculties: Law, medicine, natural science, philosophy; 104 professors and 1,560 students. Library of 186,500 volumes. The medical faculty is at Amiens.

Lyon.—Université de Lyon (1808). Rector: M. Paul Joubin. Faculties: Law, medicine, natural science, and philosophy; 150 professors and 2,783 students. Library of over 200,000 volumes.

Marseille.—Université d'Aix Marseille (1854) (see also Aix-en-Provence). Faculties: Natural science, medicine and pharmacy; 89 professors and 515 students. Library of 16,000 volumes.

Montpellier.—Université de Montpellier (1181, 1289). Rector: A. Benoist. Faculties: Law, medicine, natural science, philosophy, and pharmacy; 112 professors and 1,752 students. Library of 210,000 volumes.

Nancy.—Université de Nancy (1572). Rector: M. Ch. Adam. Faculties: Law, medicine, natural science, philosophy, and pharmacy; 140 professors and assistants and about 1,841 students. Library of 138,000 volumes. Connected with the university are (a) Institut Chimique, 110 students; (b) Institut Sérothérapique, 106 students; (c) Institut Électrotechnique, 206 students; (d) Institut Colonial, 12 students; (e) Institut Agricole, 24 professors and 15 students.

Paris.—Université de Paris (1200). President of council: Louis Liard. Faculties: Protestant theology, law, medicine, natural science, philosophy, and pharmacy; 489 professors and 15,789 students. Library, including that of the Sorbonne, of over 800,000 volumes. The library is divided into 7 faculty libraries.

Poitiers.—Université de Poitiers (1431). Rector: M. Cons. Faculties: Law, natural science, philosophy, medicine and pharmacy; 64 professors and 962 students. Library of 180,000 volumes. Another medical school of this university is in Limoges, see below.

Rennes.—Université de Rennes (1808). Rector: M. Laronze. Faculties: Law, natural science, philosophy, medicine and pharmacy; 87 professors and 1,498 students. Library of 166,000 volumes. To this belongs the medical school at Angers, see below.

Toulouse.—Université de Toulouse (1233). Rector: M. Perroud. Faculties: Law, medicine and pharmacy, natural science, philosophy; 110 professors and 2,975 students. Library of 232,000 volumes, of which 25,000 are in Montauban, see below. To this belongs the Faculté de Théologie Protestante at Montauban.

(b) *Catholic free universities.*

Angers.—Université Catholique de l'Ouest (1875). Rector: M. Pasquier. Faculties: Theology, law, natural science, philosophy; 44 professors and 229 students. Library of 35,000 volumes.

Lille.—Facultés Catholiques (1875). Chancellor: Mgr. Hautcœur. Faculties: Theology, law, medicine and pharmacy, science, philosophy, social science, and letters; 83 professors and 600 students. Library.

Lyon.—Facultés Catholiques (1875). Rector: Mgr. Devaux. Faculties: Theology, law, natural science, philosophy; 48 professors and 600 students.

Paris.—Institut Catholique (1875). Rector: M. Péchenard. Faculties: Theology, law, canonic law, philosophy, letters and science; 64 professors and about 700 students. Library of 150,000 volumes.

Toulouse.—Institut Catholique (1875). Rector: M. P. Batiffol. Faculties: Theology and philosophy; 20 professors and 100 students. Library.

(c) *Colleges.*

Paris.—Collège de France (1518, 1545). Administrator: M. Levasseur; 69 professors: 3 laboratories.

Paris.—École Pratique des Hautes Études à la Sorbonne (1868), consisting of 5 sections for science and mathematics, history, and philology; 118 professors; many laboratories and collections. Library, see Université above.

Paris.—École Normale Supérieure (1795). Director: Ernest Lavisse. Sections: Letters and science; 31 professors and 157 students. Library of 200,000 volumes.

(d) *Polytechnica.*

Grenoble.—Institut Électrotechnique (1899). Director: Louis Barbillion; 10 professors and 106 students (also 145 hearers).

Lyon.—(*a*) École de Chimie Industrielle (1883). Director: M. Vignon; 6 professors, 110 students; (*b*) École Française de Tannerie (1899). Director: M. Vignon; 3 professors. These two institutions are affiliated with Université de Lyon.

Marseille.—École de'Ingénieurs de Marseille (1891). Professors same as in the faculty of science of the Université de Marseille; 65 students.

Nancy.—Four institutions affiliated with the Université de Nancy. See above (a).

Paris.—École Polytechnique (1794). Commandant: General Lhéritier; 63 professors and 370 students. Library.

Paris.—École Nationale des Ponts et Chaussées (1747). Director: Auguste Kleine: 31 professors and 143 students. Library of 100,000 volumes.

Paris.—École Municipale de Physique et de Chimie Industrielles (1882). President: M. Lampué; 12 professors and 100 students. Library of 2,000 volumes.

Paris.—École Supérieure d'Électricité (1894). President: E. Mascart; 24 professors and 954 students. Library of 3,500 volumes.

Paris.—École Spéciale d'Architecture (1865). Director: Emile Trélat; 27 professors and 70 students.

(e) *Other higher seats of learning.*

Alfort.—École Vétérinaire (1765). Director: M. Barrier; 22 professors and 300 students. Library of 17,000 volumes.

Algiers.—Académie d'Alger (1849). Rector: M. Jeanmaire. Schools: Law, medicine and pharmacy, science, letters, modern Oriental languages; 64 professors and 1,344 students. Library of 160,000 volumes.

Amiens.—École de Médecine et de Pharmacie, part of the Université de Lille. Director: A. Moulonguet; 18 professors and 104 students.

Angers.—École de Médecine et de Pharmacie, part of the Université de Rennes. Director: M. Meslin; 23 professors and 129 students.

Angers.—École Supérieure Libre d'Agriculture (1898). Director: P. Lavallée; 5 professors.

Beauvais.—Institut Agricole International (1854). Director: Frère Paulin; professors, the Christian Brothers; 130 students. Library of 14,000 volumes.

Bordeaux.—École de Chimie Appliquée à l'Industrie et à l'Agriculture (1891); 7 professors and 50 students.

Bordeaux.—École du Service de Santé de la Marine (affiliated with Université de Bordeaux). Director: A. E. H. Jacquemin; 8 professors.

Brest.—École de Médecine Navalle; 6 professors.

Douai.—École Nationale des Industries Agricoles (1893). Director: U. Dufresse; 14 professors and 30 students. Library.

Grignon.—École Nationale d'Agriculture (1828). Director: M. Trouard-Riolle; 22 professors and 120 students. Library of 8,000 volumes.

Lille.—École des Hautes Études Industrielles et Commerciales (1885). Director: J. B. Ghesquier; 20 professors and 100 students. Library.

Lille.—Institut Pasteur de Lille (1895). Director: A. Calmette; 7 professors and 5 laboratories.

Limoges.—École de Médecine et de Pharmacie (part of Université de Poitiers); 18 professors and 123 students.

Lyon.—École Centrale Lyonnaise (1877). President: M. Ancel; 36 professors and 170 students. Library of 2,500 volumes. A technical school of high repute.

Lyon.—École Vétérinaire de Lyon (1761). Director: M. Arloing; 20 professors and 180 students. Library of 11,000 volumes.

Montauban.—Faculté de Théologie Protestante (part of Université de Toulouse); 9 professors and 75 students. Library of 25,000 volumes.

Montpellier.—École Nationale d'Agriculture (1872). Director: M. Ferrouillat; 14 professors, 12 assistants, and 200 students. Library of 14,000 volumes.

Nancy.—École Nationale des Eaux et Forêts (1824). Director: M. Guyot; 11 professors and 51 students. Library of 9,936 volumes.

Nantes.—École de Plein Exercice de Médecine et de Pharmacie (1808). Director: A. Malherbe; 28 professors and 285 students.

Nantes.—École Libre de Droit et de Notariat de Nantes. Director: G. Maublanc; 16 professors and 100 students.

Paris.—École Supérieure de Guerre (1907). Commandant: General M. G. Valabreque; 22 professors.

Paris.—École Supérieure de Marine (1907). Director: Admiral L. R. Saget de la Jonchère; 14 professors.

Paris.—École Spéciale de Langues Orientales Vivantes (1795). Administrator: Barbier de Meynard; 29 professors and 450 students. Library of 55,000 volumes and MSS.

Paris.—École Nationale des Chartes (School of Archives) (1821). Director: Paul Meyer; 12 professors and 20 students. Library of 16,000 volumes and documents.

Paris.—École Nationale et Spéciale des Beaux-Arts (School of Fine Arts). Director: M. Bonnat; 50 professors and about 2,000 students.

Paris.—Séminaire Israélite de France (1829). Director: Joseph Lehmann; 21 professors and 36 students. Library of 7,000 volumes.

Paris.—Faculté Libre de Théologie Protestante. Director: M. Ménégoz; 10 professors.

Paris.—École Libre des Sciences Politiques. Directors: A Leroy Beaulieu; 47 professors and 529 students. Library.

Paris.—École des Hautes Études Sociales. President: Alfred Croiset. Professors from other institutions of Paris.

Paris.—Collége Libre des Sciences Sociales (1895). Director: E. Delbet; 400 students; professors from other institutions of Paris.

Paris.—École Russe des Hautes Études Sociales (1901). President: E. Metchnikoff; 41 professors and 360 students.

Paris.—École Nationale Supérieure des Mines (1778). Director: M. Nivoit; 35 professors and 150 students.

Paris.—Institut National Agronomique. Director: Dr. Regnard; 36 professors and 240 students.

Paris.—École Supérieure de Commerce. Director: P. Anglès; 4 professors.

Paris.—École Coloniale. Director: M. Doubrère; 34 professors.

Paris.—Conservatoire National des Arts et Métiers (1794). Director: L. Bouguet; 24 professors. Library of 50,000 volumes.

Paris.—École Centrale des Arts et Manufactures (1829). Director: M. P. Buquet; 58 professors and 700 students.

Paris.—École d'Anthropologie (1889). Director: H. Thulié; 12 professors.

Paris.—Musée d'Histoire Naturelle (1626). Director: E. Perrier; 49 professors. Library of over 220,000 volumes, and more than 28,000 drawings and charts.

Paris.—École du Louvre. Director: M. Homolle. (Art School) 11 professors.

Rheims.—École de Médecine et de Pharmacie (1550), part of the Université de Paris; 2 professors and 91 students. Library of 9,000 volumes.

Rennes.—École Nationale d'Agriculture. Director: M. Séguin; 17 professors and 620 students. Library of 8,576 volumes.

Rouen.—École de Médecine et de Pharmacie, part of Université de Caen; 21 professors and 117 students.

St. Etienne.—École des Mines (1816). Director: Georges Friedel; 8 professors and 120 students. Library of 12,000 volumes.

Toulon.—École Pratique de Droit (1898). Director: J. Magnol; 15 professors.

Toulouse.—École Nationale Vétérinaire (1825). Director: M. Labat; 14 professors and 167 students. Library of 9,000 volumes.

Tours.—École de Médecine et de Pharmacie, part of the Université de Poitiers; 19 professors and 96 students.

GERMAN EMPIRE.

BADEN (GRAND DUCHY).

(a) *Universities.*

Freiburg.—Badische Albert-Ludwigs Universität (1457). Rector: Dr. Karl Braig. Faculties: Theology, law, medicine, philosophy in two sections; also 44 institutions, such as clinics, seminaries, laboratories, and collections; 145 professors and 2,578 students. Library of 270,000 volumes.

Heidelberg.—Ruprecht-Karls Universität (1386). Rector: Dr. Georg Jellinek. Faculties: Theology, law, medicine, philosophy in two sections; also 41 institutions, such as clinics, seminaries, laboratories, and collections; 167 professors and 2,089 students. Library of 600,000 volumes.

(b) *Polytechnicum and Art Academy.*

Karlsruhe.—Technische Hochschule (1825). Rector: Prof. Rehbock; 74 professors, 57 assistants, and 1,439 students. Library.

Karlsruhe.—Kunst Akademie (1853). Director: Hermann Volz; 17 professors.

BAVARIA (KINGDOM).

(a) *Universities.*

Erlangen.—Friedrich-Alexanders Universität (1743). Rector: Doctor Hauser. Faculties: Theology, law, medicine, philosophy; also 40 institutions, such as clinics, seminaries, laboratories, and collections; 74 professors and 1,084 students. Library of 237,973 volumes.

Munich.—Ludwig-Maximilians Universität (1472). Rector: Dr. Max Endres. Faculties: Theology, law, medicine, philosophy in two sections; also 34 institutions, such as clinics, seminaries, laboratories, and collections, to which may be added the large royal collections in Munich; 233 professors and 6,337 students. Library of over 500,000 volumes and 3,000 MSS. and charts.

Würzburg.—Julius-Maximilians Universität (1402). Rector: Prof. Philipp Stöhr. Faculties: Theology, law, medicine, and philosophy; also 44 institutions, such as clinics, seminaries, laboratories, and collections; 97 professors and 1,467 students. Library of 370,000 volumes.

(b) *Polytechnicum.*

Munich.—Technische Hochschule (1868). Rector: Dr. Friedrich von Thiersch. Departments: General, civil engineering, architecture, mechanical engineering, chemical, and agricultural; 70 professors, 89 assistants, and 2,748 students. Library of 130,000 volumes.

(c) *Theological colleges.*

Augsburg.—Theologisches Lyceum. Rector: P. W. Weihmayr; 5 professors and 23 students.

Bamberg.—Theologisches Lyceum (1647). Rector: P. Hartung; 11 professors and 74 students. Library of 9,000 volumes.

Dillingen.—Theologisches Lyceum (1549). Rector: P. David Leistle; 10 professors and 146 students. Library of about 50,000 volumes.

Eichstätt.—Bischöfliches Lyceum (1843). Rector: Karl Kiefer. Faculties: Theology and philosophy; 12 professors and 89 students. Libraries of, together, 71,000 volumes.

Freising.—Theologisches Lyceum (1834). Rector: Balthasar von Daller. Faculties. Theology and philosophy; 12 professors and 142 students. Library of 17,500 volumes.

Passau.—Theologisches Lyceum (1834). Rector: Joseph Wimmer. Faculties: Theology and philosophy; also 4 laboratories and collections; 10 professors and 80 students. Library of 36,000 volumes.

Regensburg.—Theologisches Lyceum (1736). Rector: Doctor Schenz; 11 professors and 187 students. Library of 4,600 volumes.

(d) *Other higher seats of learning.*

Aschaffenburg.—Forstliche Hochschule (1844). Rector: Dr. Hermann von Fürst; 8 professors and 63 students. Library.

Munich.—Thierärztliche Hochschule (1790). Director: Dr. M. Albrecht; 13 professors, 11 assistants, and 329 students. Library of 13,000 volumes.

Munich.—Akademie der bildenden Künste (1770). Director: Ferd. von Miller. Library of 10,000 volumes and large collections of objects of art.

Munich.—Landwirthschaftliche Abteilung der Technischen Hochschule. See above.

PRUSSIA (KINGDOM).

(a) *Universities.*

Berlin.—Friedrich-Wilhelms Universität (1809). Rector: Dr. Karl Stumph. Faculties: Theology, law, medicine, and philosophy; also 70 institutions, such as clinics, seminaries, laboratories, and collections; 484 professors and 6,140 matriculated and 7,741 other students, total 13,881. Library of 431,881 volumes. To this belongs a school for oriental languages, 40 professors and 340 students.

Bonn.—Friedrich-Wilhelms Universität (1818). Rector: Professor Erdmann. Faculties: Theology in two sections, law, medicine, and philosophy; also 40 institutions, such as clinics, seminaries, laboratories, and collections; 192 professors and 3,603 students. Library of about 355,000 volumes.

Breslau.—Universität (1506). Rector: Doctor Appel. Faculties: Same as in Bonn; also 40 institutions, such as in Bonn; 183 professors and 2,051 students. Library of about 350,000 volumes.

Göttingen.—Georg-Augusts Universität (1737). Pro-Rector: Dr. August Cramer. Faculties: Same as in Berlin; also 55 institutions like those in Berlin; 155 professors and 2,141 students. Library of 536,038 volumes.

Greifswald.—Universität (1456). Rector: Vacant. Faculties: Same as in Berlin; also 31 institutions like those in Berlin; 103 professors and 1,038 students. Library of 189,630 volumes.

Halle.—Friedrichs Universität Halle-Wittenberg (1502, 1694). Rector: Professor Loofs. Faculties: Same as in Berlin; also 36 institutions like those in Berlin; 173 professors and 2,355 students. Library of 228,000 volumes.

Kiel.—Christian-Albrechts Universität (1665). Rector: Theodor Niemeyer. Faculties: Same as in Berlin; also 39 institutions like those in Berlin; 123 professors and 1,353 students. Library of 263,000 volumes.

Königsberg.—Albertus Universität (1544). Rector: Paul Volkmann. Faculties: Same as in Berlin; also 43 institutions like those in Berlin; 151 professors and 1,112 students. Library of 478,700 volumes.

Marburg.—Universität (1527). Rector: Doctor Tuczek. Faculties: Same as in Berlin; also 38 institutions like those in Berlin; 128 professors and 1,954 students. Library of about 416,000 volumes.

Münster.—Universität (1771). Rector: Professor Erler. Faculties: Catholic theology, law, and philosophy; also 21 institutions like those in other German universities; 75 professors and 1,624 students. Library of 290,000 volumes.

(b) *Polytechnica.*

Aix-la-Chapelle (Aachen).—Technische Hochschule (1870). Rector: Doctor Bräuler. Departments: Architecture, civil engineering, mechanical engineering, mining and metallurgy, general department; also higher commercial school; 59 professors, 55 assistants, and 805 students. Library of 62,000 volumes and 712,840 patents.

Charlottenburg (Berlin).—Technische Hochschule (1879). Rector: Professor Kammerer. Departments: Architecture, civil engineering, mechanical engineering, shipbuilding, chemistry and metallurgy, general department; 164 professors and 3,211 students. Library of 89,000 volumes and office for testing material.

Danzig.—Technische Hochschule (1904). Rector: Doctor Krohn. Departments: Architecture, civil and mechanical engineering, shipbuilding, chemistry, and general department; 47 professors, 20 assistants, and 971 students. Library.

Hanover.—Technische Hochschule (1831). Rector: Professor Ost. Departments: Architecture, civil and mechanical engineering, chemistry and electrotechnics, general department; 68 professors and 1,107 students. Library of 175,000 volumes.

(c) *Other higher seats of learning.*

Aix-la-Chapelle (*Aachen*).—Handels-Hochschule in connection with Technische Hochschule (see above); 102 students. Library of 62,000 volumes.

Berlin.—Landwirthschaftliche Hochschule (1806). Rector: Doctor Zuntz: 19 institutions such as experimental stations, laboratories, and collections; 46 professors and 930 students. Library.

Berlin.—Akademie der Künste (1882). President: Dr. Johannes Otzen; many professors, a library, and several museums.

Berlin.—Thierärztliche Hochschule (1790). Rector: Doctor Schmaltz; 30 professors and 375 students. Library of about 13,500 volumes.

Berlin.—Handelshochschule (1906). Rector: Doctor Jastrow; 8 professors, 30 other docents. Library of chamber of commerce.

Berlin.—Geologisches Landesamt und Bergakademie (1770 and 1783). Director: Professor Beyschlag; 60 professors and 172 students. Library of 70,000 volumes.

Berlin.—Lehranstalt für die Wissenschaft des Judenthums (1872). Vorsteher; Dr. H. Veit Simon; 5 professors.

Berlin.—Institut für Infektions-Krankheiten (1895). Director: Doctor Gaffky; 8 professors and 14 assistants.

Berlin.—Seminar für Orientalische Sprachen, is part of the University (see above); 40 professors and 340 students.

Braunsberg.—Lyceum Hosianum (1568). Rector: Professor Kranich. Faculties: Theology and philosophy; 13 professors and 34 students. Library of 23,400 volumes.

Breslau.—Jüdisch-Theologisches Seminar (1854); 4 professors and 32 students. Library of 23,000 volumes.

Clausthal.—Berg-Akademie (1775). Director: G. Köhler; 12 professors and 150 students. Library of 30,000 volumes.

Cologne.—Städtische Handels-Hochschule (1901). Director: Christian Eckert; 48 professors and 1,394 students. Library.

Cologne.—Akademie für Praktische Medizin (1904). Rector: Dr. Heinrich Hochhaus. Includes all city hospitals, with 1,665 beds, laboratories, etc.; 24 professors.

Düsseldorf.—Kunst-Akademie (1767). Director: Peter Janssen. Library of 8,500 volumes and several art collections with 51,040 objects.

Düsseldorf.—Akademie für praktische Medizin (1907). Director: Dr. Witzel. Many clinics, 14 professors.

Eberswalde.—Forst-Akademie (1830). Director: Dr. Alfred Möller; 16 professors and 72 students. Library of 18,500 volumes and several collections.

Frankfort on the Main.—Akademie für Sozial-und Handelswissenschaften (1901). Rector: Dr. M. Freund; 37 professors and 546 students. Library.

Hanover.—Thierärztliche Hochschule (1778). Director: Doctor Dammann: 18 professors and 252 students; 5 clinics and library of 10,500 volumes.

Münden.—Forst-Akademie (1868). Director: Dr. Paul Riebel; 18 professors and 63 students. Library of 9,000 volumes.

Poppelsdorf-Bonn.—Landwirthschaftliche Akademie (1847). Director: Dr. Ulrich Kreusler; 51 professors and 489 students.

Posen.—Akademie (for scientific study) (1903). Rector: Erich Wernicke; 20 professors, 10 assistants, and 913 students. Library.

SAXONY (KINGDOM).

(a) *University and polytechnicum.*

Leipzig.—Universität (1409). Rector: Doctor Chun. Faculties: Theology, law, medicine, philosophy; also 65 institutions, such as clinics, seminaries,

laboratories, and collections; 230 professors and 4,916 students. Library of 550,000 volumes.

Dresden.—Sächsische Technische Hochschule (1828). Rector: Bernhard Pattenhausen. Departments: Architecture, civil and mechanical engineering, chemistry, factory technics, and a general department; 63 professors, 52 assistants, and 1,152 students. Library of 49,121 volumes and about 700,000 patents.

(b) *Other higher seats of learning.*

Dresden.—Thierärztliche Hochschule (1780). Rector: Doctor Ellenberger; 21 professors, 18 assistants, and 217 students. Library of 5,921 volumes.

Dresden.—Akademie der Bildenden Künste (1705). Director: Professor Kuehl; 22 professors and 224 students. Library of 6,500 volumes.

Freiberg.—Königliche Berg-Akademie (1765). Rector: Dr. Erhard; 21 professors, 8 assistants, and 479 students. Library of 47,000 volumes.

Leipzig.—Handels-Hochschule (1898), affiliated with Universität. Director: Doctor Reydt; 390 students.

Tharandt.—Sächsische Forst-Akademie (1811). Director: Doctor Weinmeister; 15 professors and 99 students.

WURTTEMBERG (KINGDOM).

(a) *University and polytechnicum.*

Tübingen.—Eberhard-Karls Universität (1477). Rector: Prof. Ernst von Koken. Faculties: Theology (Protestant and Catholic), law, medicine, philosophy, and natural science; also 35 institutions, such as clinics, seminaries, laboratories, and collections; 129 professors and 1,807 students. Library of about 475,000 volumes.

Stuttgart.—Technische Hochschule (1829). Rector: Dr. Moritz Fünfstück. Departments: Architecture, civil and mechanical engineering, chemistry, metallurgy, pharmacy, natural science, and a general department; 80 professors and 1,363 students. Library and several institutions and collections.

(b) *Other higher seats of learning.*

Hohenheim.—Landwirthschaftliche Anstalt (1818). Director: E. V. von Strebel; 22 professors and 109 students. Library of 16,900 volumes and several collections.

Stuttgart.—Thierärztliche Hochschule (1821). Director: Doctor Sussdorf; 13 professors and 128 students.

SMALLER STATES OF GERMANY.

(a) *Universities.*

Giessen (*Hesse*).—Ludwigs Universität (1607). Rector: Prof. Alexander Leist. Faculties: Law, medicine, and philosophy; also 49 institutions, such as clinics, seminaries, laboratories, and collections; 82 professors and 1,192 students. Library of 309,770 volumes.

Jena (*Thuringia*).—Sächsische Gesamt-Universität (1558). Rector: Doctor Eggeling. Faculties: Theology, law, medicine, and philosophy; also 49 institutions, such as clinics, seminaries, laboratories, and collections; 110 professors and 1,632 students. Library of over 370,000 volumes.

Rostock (*Mecklenburg*).—Landes Universität (1419). Rector: Professor Walther. Faculties: Theology, law, medicine, philosophy; also 33 institutions, such as clinics, seminaries, laboratories, and collections; 65 professors and 722 students. Library of 340,000 volumes.

Strassburg (*Alsace-Lorraine*).—Kaiser Wilhelms Universität (1567, 1872). Rector: Dr. G. F. Knapp. Faculties: Theology (Protestant and Catholic), law, medicine, philosophy, and natural science; also 40 institutions, such as clinics, seminaries, laboratories, and collections; 164 professors and 1,744 students. Library of 896,000 volumes.

(b) *Polytechnica.*

Brunswick.—Carola Wilhelmina Technische Hochschule (1745). Rector: Dr. O. Reinke; 67 professors and 478 students. Library and 23 institutions.

Darmstadt (*Hesse*).—Technische Hochschule (1868). Rector: Professor Walbe; 81 professors, 49 assistants, and 2,063 students. Library and 14 institutions.

(c) *Other higher seats of learning.*

Eisenach (*Saxe-Weimar*).—Forstakademie (1830). Director: Dr. Herm. Stötzer; 7 professors and 61 students.

Hamburg.—Wissenschaftliche Anstalten des Staates Hamburg (1901). Consist of lecture courses arranged by an executive committee; chemical and physical laboratories.

NOTE.—Dentistry is taught in the medical faculties of nearly every German university; agriculture and veterinary science are taught in some universities and in most polytechnica, as is also forestry in connection with agriculture.

GREECE.

Athens.—National University (*Τὸ ἐν Ἀθήναις ἐθνικὸν Πανεπιστήμιον*) (1837). Rector: Prof. M. Katsarás. Faculties: Theology, law, medicine, philosophy, and physical science; also 20 institutions, such as clinics, seminaries, laboratories, and collections; 134 professors and 2,536 students. National library, 270,000 volumes and 200,000 documents.

Athens.—Metzovic Polytechnicum (*Μετσό-βιον πολυτεχνεῖον*) (1837). Director: K. Mitsopulos; 20 professors and about 300 students. An art school (8 professors) is connected with this institution.

Athens.—American School of Classical Studies (1882). Director: Dr. B. H. Hill; 4 professors. Library of 4,200 volumes.

Athens.—École Française d'Athènes (1846). Director: M. Holleaux; 5 professors. Library.

Athens.—British School at Athens (1886). Director: R. M. Dawkins; 20 members of committee. Library.

HUNGARY [WITH CROATIA].

(a) *Universities.*

Agram (*Croatia*).—Kralj. Sveučilište Franje-Josipa I. u Zagrebu (University) (1776). Rector: Milivoj Maurović. Faculties: Theology, law, and philosophy; also 5 institutions; 64 professors, 22 assistants, and 1,366 students. Library of 118,979 volumes.

Budapest.—Királyi Magyar Tudomány-Egyetem (University, 1465). Rector: Török Aurél. Faculties: Theology, law, medicine, and philosophy; also 45 institutions, such as clinics, seminaries, laboratories, and collections; 287 professors and 6,835 students. Library of over 300,000 volumes.

Klausenburg.—Magyar Királyi Ferencz József Tudomány-Egyetem (University, 1872). Rector: Farkas Gyula. Faculties: Law, medicine, philosophy, and natural science; also 27 institutions like those in Budapest; 90 professors and 2,131 students. Library of 70,000 volumes.

(b) *Polytechnicum.*

Budapest.—Királyl József-Müegyetem Budapesten (1856). Rector: K. Jónás Ödön; 75 professors and 1,455 students. Library of 81,000 volumes.

(c) *Other higher seats of learning.*

Altenburg.—Magyar-Ovári M. Kir. Gazdasági Akadémia (1818). Agricultural school. Director: Vörös Sandor von Kis-Kér; 19 professors and 320 students.

Budapest.—Magyar Kir. Allatorvosi Föiskola (1786). Veterinary school. Rector: Hutyra Ferencz; 19 professors and 368 students; also 12 clinics. Library.

Budapest.—Országos Rabbiképzö Intézet (1877). Jewish theological school; 5 professors and 94 students. Library of 31,000 volumes.

Budapest.—Evangelisch-Reformirte Theologische Akademie (1855). Rector: Bish. Alexander Baksav; 10 professors and 76 students.

Debreczen.—Evangelisch-Reformirte Hochschule (1549). Rector: Prof. Eröss Lajos. Faculties: Theology, law, and philosophy; 20 professors and 400 students. Library of 71,600 volumes.

Debreczen.—Magyar Kir. Gazdasági Tanintézet (1868). Agricultural school. Director: Johann Sztankovics; 13 professors and 140 students. Library of 7,000 volumes.

Eperjes.—Evangelisch-Theologische und Rechts-Akademie (1667). Rector: Franz Raffay. Faculties: Theology and law; 22 professors and 389 students. Four libraries, with a total of 34,286 volumes.

Erlau.—Egri Erseki Joglyceum (1740). Law academy. Director: Rapaics Rajmond; 11 professors and 156 students. Library of 60,000 volumes.

Fünfkirchen.—Bischöfliche Rechts-Akademie (1367). Law academy. Director: Victor Mutschenbacher; 10 professors and 140 students. Library.

Grosswardein.—Királyi Jogakademia (1788). Law academy. Director: Bozoky Alajos; 11 professors and 239 students. Library of 13,988 volumes.

Kaschau.—Királyi Jogakademia (1657). Director: Dr. Esterházy Sándor; 11 professors and 179 students. Library of 25,531 volumes.

Kaschau.—Királyi Gazdasági Tanintézet. Agricultural school. Director: Zalka Zsigmond v.; 12 professors and 136 students.

Kecskemét.—Evangelisch-Reformirte Rechts-Akademie (1599). Law academy. Director: Kiss Albert; 18 professors and 101 students. Library of 33,000 volumes.

Keszthely.—Királyi Gazdasági Tanintézet (1865). Agricultural school. Director: Czakó Bela v. Diósgyör; 15 professors and 156 students.

Klausenburg.—Királyi Gazdasági Tanintézet (1869). Agricultural school. Director: Dr. Szentkirályi Akos; 11 professors and 140 students.

Pressburg.—Királyi Jogakademia (1794). Law academy. Director: Georg von Fésüs; 13 professors and 299 students. Library.

Sarospatak.—Evangelisch-Theologische und Rechts-Akademie (1531). Theology and law. Rector: Dr. Novák Ludwig. Faculties: Theology, law, and philosophy; 20 professors and 220 students. Library of 60,000 volumes.

Schemnitz.—K. Hochschule für Berg- und Fortswesen. Rector: Herrmann M.; 20 professors and 276 students.

INDIA.

(a) *Universities.*

Allahabad.—University of Allahabad (1887). Examining institution for the provinces of Agra and Oudh. Vice-chancellor: Pt. Sundar Lal; 79 fellows and 4,224 candidates, of whom 2,023 passed.

Bombay.—University of Bombay (1857). Examining institution. Vice-chancellor: F. G. Selby; 12 professors in the syndicate; 105 fellows and 4,009 candidates, of whom 1,888 passed.

Calcutta.—University of Calcutta (1857). Examining institution. Vice-chancellor: A. Mookerjee Saraswati; 18 professors in the syndicate; 183 fellows and about 7,171 candidates, of whom about 1,883 passed.

Lahore.—Panjab University (1882). Examining institution. Vice-chancellor: Justice P. C. Chatterji; 20 professors from the faculties form the syndicate. Faculties: Oriental, arts, law, medicine, science, and engineering; 85 fellows, 30 professors, and 3,552 candidates, of whom 1,682 passed.

Madras.—University of Madras (1857). Examining institution. Vice-chancellor: R. S. Benson; 12 professors in the syndicate; 88 fellows and 8,959 candidates, of whom 3,079 passed.

(b) *Colleges and other higher institutions.*

Agra.—Agra College (1904). Principal: T. C. Jones; 18 professors, 850 students.

Agra.—St. John's College (1850). Principal: J. P. Haythornthwaite; 12 professors and 200 students. Library.

Ahmedabad.—Gujarat College. Principal: W. A. Hirst; 7 professors, 3 fellows, and 212 students. Library.

Ajmere.—Ajmere Government College. Principal: E. F. Harris; 8 professors and 670 students. Library of 4,000 volumes.

Ajmere.—Mayo College. Principal: C. W. Waddington; 16 professors and 123 students. Library.

Aligarh.—Muhammadan Anglo-Oriental College. Principal: T. Morrison; 12 professors and about 500 students. Library of 5,400 volumes.

Allahabad.—Muir Central College. Principal: J. C. Jennings; 20 professors and 464 students. Library of 5,000 volumes.

Amritsar.—Municipal Board College.

Bangalore.—Central College. Principal: J. Cook; 10 professors and 450 students. Library of 5,000 volumes.

Bahawalpur.—Egerton College.

Bareli.—Bareli College. Principal: G. S. Carey; 9 professors and 112 students. Library.

Baroda.—Baroda College. Principal: A. B. Clarke; 14 professors and 236 students. Library.

Benares.—Queen's College. Principal: A. Venis; 8 professors and 120 students. Library of 25,000 volumes.

Benares.—Government Sanskrit College. Principal: A. Venis; 13 professors and 480 students. Library of 4,300 volumes.

Benares.—Maharajah Dharbanga's Sanskrit College. Principal: Pandit S. Kumar Shastri; 7 professors.

Benares.—Central Hindu College (1899). Principal: A. Richardson; 36 professors. To this belongs Ranavira Sanskrit Pathshala with 125 students. Library.

Bombay.—Elphinstone College. Principal: W. H. Sharp; 11 professors and 392 students. Library of 12,000 volumes.

Bombay.—Wilson College. Principal: D. Mackichan; 15 professors and 520 students.

Bombay.—St. Xavier's College. Rector: Rev. F. Dreckmann; 14 professors and 15 teachers in preparatory department; 1,685 students in both college and preparatory departments.

Bombay.—Grant Medical College. Principal: H. P. Dimmock; 11 professors, 18 tutors, 6 fellows, and 638 students.

Bombay.—School for Parsi Students of the University (1863); 4 professors and 50 students. Library of 1,500 volumes.

Calcutta.—Armenian College and Philanthropic Academy. Principal: Maj. W. P. S. Milsted; 8 professors and 100 students.

Calcutta.—Madrasah College. Principal: Dr. E. D. Ross. Departments: Anglo-Persian and Arabic; 25 professors and 780 students. Library.

Calcutta.—City College. Principal: Hermamb. Maitra; 18 professors and over 1,000 students.

Calcutta.—Doveton College. Principal: J. S. Zemin; 5 professors and 200 students.

Calcutta.—Duff College. Principal: A. Tomory; 11 professors and 16 teachers in preparatory department; 226 students in college.

Calcutta.—Free Sanskrit College. Principal: P. K. M. Nyayaratna; 7 professors and 50 students.

Calcutta.—Medical College of Bengal. Principal: C. P. Lukis; 14 professors and about 550 students. Library of 20,000 volumes.

Calcutta.—Sanskrit College. Principal: M. Haraprasad Shastri; 11 professors and 119 students. Library of 16,000 volumes.

Calcutta.—Presidency College. Principal: C. Little; 25 professors, 29 assistants, and 720 students. Library of 36,000 volumes.

Calcutta.—St. Xavier's College. Rector: Rev. E. O'Neill; 20 professors and 770 students. Library of 3,600 volumes.

Calcutta.—Civil Engineering College. Principal: B. Heaton. Departments: Engineering, agriculture, and apprentice; 16 professors and 350 students. Library of 15,000 volumes.

Chittagong.—Chittagong College. Principal: B. K. Ch. Bhattacharjea; 8 professors and 276 students.

Cooch Behar.—Victoria College (1888). Principal: B. N. Seal; 7 professors and about 300 students. Library of 4,000 volumes.

Cuttack.—Ravenshaw College. Principal: B. Gupta; 8 professors and 163 students. Library of 5,979 volumes.

Dacca.—Dacca College. Principal: C. H. Browning; 11 professors and 231 students. Library of 7,900 volumes.

Dehli.—St. Stephen's College. Principal: S. K. Rudra; 9 professors and 90 students. Library of 3,700 volumes.

Dehra-Dun.—Imperial Forest School. Director: J. H. Lace; 7 professors and 50 students.

Ernakulam.—Ernakulam College. Principal: F. S. Davies; 3 professors, 25 assistants, and about 700 students.

Gwalior.—Victoria College, Lashkar. Principal: Pandit Pran Nath; 10 professors and 103 students. Library of 3,369 volumes.

Hooghly.—Hooghly College. Principal: R. Shaw; 9 professors and 160 students. Library of 9,000 volumes.

Hyderabad.—Nizam College. Principal: E. A. Seaton; 10 professors and 38 students.

Indore.—Canadian Mission College. Principal: Rev. R. A. King; 8 professors and 50 students.

Indore.—State College. Principal: E. C. Cholmondeley; 6 professors and 82 students.

Indore.—Day College. College for princes and noblemen. Principal: J. H. Smith; 54 students.

Jabalpur.—Government College. Principal: K. B. Williamson; 8 professors and about 120 students.

Jaipur.—Maharajah's College. Principal: S. Ganguli; 7 professors and 73 students. Library of 2,700 volumes.

Jaipur.—Sanskrit College. Superintendent: Lakshminath Sastri; 12 professors and about 100 students.

Jodhpur.—Jaswant College. Principal: P. S. Prakash; 7 professors and 40 students.

Kapurthala.—Randhir College. Principal: Manchar Lal; 4 professors, many assistants, and 573 students.

Krishnagar.—Krishnagar College. Principal: S. Dutt; 6 professors and 121 students. Library of 9,142 volumes.

Kumbakonum.—Kumbakonum College. Principal: H. S. Duncan; 5 professors and 184 students. Library of 4,300 volumes.

Lahore.—Oriental College. Principal: A. C. Woolner; 15 professors and 164 students. Library of 2,324 volumes.

Lahore.—Government College. Principal: S. Robson; 10 professors and 280 students. Library of 4,000 volumes.

Lahore.—Forman Christian College. Principal: Rev. H. D. Griswold; 12 professors and 390 students.

Lahore.—Dayanand Anglo-Vedic College. Principal: L. H. Raj; 13 professors and 400 students.

Lahore.—Islamia College. Principal: Ali Tafari; 10 professors and 107 students.

Lahore.—University Law College. Principal: George Serrell; 7 professors and 230 students.

Lahore.—Lahore Medical College. Principal: F. F. Perry; 12 professors and 236 students. Library of 6,668 volumes.

Lucknow.—Canning College. Principal: A. H. Pirie; 12 professors and 324 students.

Lucknow.—Reid Christian College. Principal: C. L. Bare; 8 professors and 76 students.

Madras.—College of Engineering. Principal: H. D. Love; 15 professors and 337 students. Library of 4,563 volumes.

Madras.—Madras Christian College. Principal: Rev. Doctor Miller, 13 professors and 750 students. Library of 4,100 volumes.

Madras.—College of Agriculture. Principal: W. Kees; 7 professors and 31 students.

Madras.—Medical College. Principal: W. B. Browning; 23 professors and 340 students.

Madras.—Presidency College. Principal: H. J. Allen; 25 professors and about 450 students. Library of 11,280 volumes.

Mangalore.—Government College. Principal: Herbert Malim; 8 professors and 172 students.

Mangalore.—St. Aloysius College (1880). Rector: Rev. Paul Perini; 35 professors and 617 students. Library of 7,826 volumes.

Meerut.—Meerut College. Principal: W. Jesse; 13 professors and 222 students.

Mysore.—Maharajah's College. Principal: J. Weir; 12 professors and 350 students.

Nagpur.—Hislop College. Principal: Rev. D. Whitton; 8 professors and 68 students.

Patiala.—Mohindra College.

Patna.—Patna College. Principal: H. R. James; 9 professors and 190 students. Library of 7,000 volumes.

Poona.—College of Science. Principal: W. C. Scudamore; 7 professors and 470 students.

Poona.—Deccan College. Principal: F. W. Bain; 9 professors and 195 students. Library of 4,500 volumes.

Rajahmundry.—Rajahmundry College. Principal: M. Hunter; 10 professors and 238 students. Library of 5,220 volumes.

Rajshahi.—Rajshahi College. Principal: B. K. K. Banerji; 11 professors and 170 students.

Rangoon.—Rangoon College. Principal: E. D. Marshall; 7 professors. Library of 3,000 volumes.

Rangoon.—Baptist College. Principal: Rev. L. E. Hicks; 6 professors, several assistants, and 900 students. Library.

Roorkee.—Thomason Engineering College. Principal: E. H. de Atkinson; 24 professors and 430 students. Library of 20,800 volumes.

Serampur.—Serampur College. Principal: Dr. George Howells; 5 professors and 107 students.

Shimoga.—Shimoga College. Principal: A. G. King; 7 professors.

Sialkot.—Scotch Mission College.

Sibpore.—Civil Engineering College.

Trichinopoly.—St. Joseph's College. Rector: Rev. L. Besse; 35 professors, 33 teachers, and 1,850 students. Library of 5,050 volumes.

Trivandrum.—Maharajah's College. Principal: A. C. Mitchell; 13 professors and about 266 students.

Ujjin.—Madhava College. Principal: P. B. N. Dhekne; 7 professors.

Vijayanagaram.—Waharaja's College. Principal: K. Ramanujachari; 9 professors and 400 students.

IRELAND.

(a) *Universities.*

Dublin.—University of Dublin (Trinity College, 1591). Vice-Chancellor: D. H. Madden; 58 professors, 22 assistants, and 1,017 students. Library of 297,009 volumes.

Dublin.—Royal University of Ireland (1880). Vice-Chancellor: Sir Christopher Meredith; 4 officers, 45 fellows, 42 examiners, 1 curator. This is an examining institution.

(b) *Colleges.*

Belfast.—Queen's College (1845). President: Th. Hamilton; 28 professors and 389 students. Library of 60,000 volumes.

Cork.—Queen's College (1845). President: Bertram C. A. Windle; 31 professors and 260 students. Library.

Galway.—Queen's College (1845). President: Alex. Anderson; 21 professors and 141 students. Library.

(c) *Technical school and other higher seats of learning.*

Belfast.—Municipal Technical Institute (1901). Principal: F. C. Forth. Day and evening classes with 11 professors and 100 assistants and over 4,600 students.

Dublin.—Royal College of Science for Ireland (1901). Dean: W. N. Hartley; 13 professors and 11 assistants. Library and museum.

Dublin.—Metropolitan School of Art. Head master: vacant; 6 professors.

Dublin.—Royal College of Surgeons in Ireland (1784). President: H. R. Swanzy.

ITALY.

(a) *Universities.*

Bologna.—Regia Università degli Studi (1119). Rector: Vittorio Puntoni. Faculties: Philosophy and letters, natural science, agriculture, law, medicine, pharmacy, veterinary science, engineering, and a general department; also 26 institutions such as clinics, seminaries, laboratories, and collections; 211 professors and about 2,000 students. Library of 300,000 volumes.

Cagliari.—Regia Università degli Studi (1596). Rector: Roberto de Ruggiero. Faculties: Law, medicine, natural science, and pharmacy; also 21 institutions like those in Bologna; 52 professors and 270 students. Library of 95,500 volumes.

Camerino.—Libera Università degli Studi (1727). Rector: Giovanni Gallerani. Faculties: Law, medicine, pharmacy, veterinary science; also a few institutions like those in Bologna; 30 professors and 460 students. Library of 40,000 volumes.

Catania.—Regia Università degli Studi (1444). Rector: Pietro Grimaldi. Faculties: Law, medicine, natural science, philosophy and letters, and pharmacy; also 23 institutions like those in Bologna; 125 professors and 1,060 students. Library of 209,000 volumes.

Ferrara.—Libera Università di Ferrara (1391). Rector: Giovanni Martinelli. Faculties: Law, natural science, medicine, and pharmacy; also 4 institutions like those in Bologna; 30 professors and 270 students. Library of 94,500 volumes.

Genoa.—Regia Università degli Studi (1812). Rector: Carlo Felice Restagno. Faculties: Law, medicine, natural science, philosophy, engineering, and pharmacy; also 24 institutions like those in Bologna; 146 professors and 1,325 students. Library of 187,000 volumes.

Macerata.—Regia Università degli Studi (1540). Rector: Dr. G. Arangio-Ruiz. Faculty: Law only; 15 professors and 432 students. Library.

Messina.—Regia Università degli Studi (1548). Rector: Vittorio Martinetti. Faculties: Law, medicine, natural science, philosophy, and pharmacy; also 24 institutions like those in Bologna: 108 professors and 666 students. Library of 43,183 volumes.

Modena.—Regia Università degli Studi (1683). Rector: Giuseppe Cesari. Faculties: Law, medicine, natural science, pharmacy, and veterinary science; also 24 institutions like those in Bologna; 79 professors and 426 students. Library of 30,238 volumes.

Naples.—Regia Università degli Studi (1224). Rector: Carlo Fadda. Faculties: Law, medicine and pharmacy, natural science, and philosophy; also 36 institutions like those in Bologna: 468 professors and 6,348 students. Library of 282,653 volumes.

Padua.—Regia Università degli Studi (1222). Rector: Vittorio Polacco. Faculties: Law, medicine, natural science, philosophy, engineering, and pharmacy; also 45 institutions like those in Bologna; 199 professors and 1,538 students. Library of over 200,000 volumes.

Palermo.—Regia Università degli Studi (1779). Rector: Luigi Manfredi. Faculties: Law, medicine, natural science, philosophy, pharmacy, and engineering; also 35 institutions like those in Bologna; 171 professors and 1,324 students. Library of about 200,000 volumes.

Parma.—Regia Università degli Studi (1025). Rector: Leone Pesci. Faculties: Law, medicine, natural science, veterinary science, and pharmacy; also 28 institutions like those in Bologna; 82 professors and 683 students. Library of 370,000 volumes.

Pavia.—Regia Università degli Studi (1361). Rector: Camillo Golgi. Faculties: Law, medicine, natural science, philosophy, and pharmacy; also 32 institutions like those in Bologna; 154 professors and 1,627 students. Library of 290,000 volumes.

Perugia.—Università Libera degli Studi (1266). Rector: Icilio Tarducci. Faculties: Law, medicine, pharmacy, and veterinary science; also 18 institutions like those in Bologna; 38 professors and 350 students. Library of 56,000 volumes.

Pisa.—Regia Università degli Studi (1343). Rector: David Supino. Faculties: Law, medicine, philosophy, natural science, engineering, pharmacy, and veterinary science; also a higher agricultural school and 38 institutions like those in Bologna; 130 professors and 1,233 students. Library of 280,000 volumes.

Rome.—Regia Università degli Studi (1303). Rector: Alberto Tonelli. Faculties: Law, medicine, natural science, philosophy, engineering, pharmacy; also a complementary course in agriculture and a diplomatic and consular school; 34 institutions like those in Bologna; 316 professors and 3,316 students. Library of 204,885 volumes.

Rome.—Regia Instituto Superiore di Magistero Femminile (1882). Director: G. A. Costanzo; 19 professors and 170 students.

Sassari.—Regia Università degli Studi (1556). Rector: Giovanni Dettori. Faculties: Law, medicine, and pharmacy; also 18 institutions like those in Bologna; 49 professors and 239 students. Library of about 90,000 volumes.

Siena.—Regia Università degli Studi (1357). Rector: Domenico Barduzzi. Faculties: Law, medicine, and pharmacy; also 20 institutions like those in Bologna; 62 professors and 235 students. Library of 17,000 volumes and communal library of 152,000 volumes.

Turin.—Regia Università degli Studi (1412, 1632). Rector: Rodolfo Renier. Faculties: Law, medicine, philosophy, natural science, pharmacy, and two colleges; also 37 institutions like those in Bologna; 205 professors and 2,700 students. Library.

Urbino.—Libera Università degli Studi (1671). Rector: Antonio Vanni. Faculties: Law and pharmacy; 18 professors and 297 students. Library of 33,000 volumes.

(b) *Colleges.*

Florence.—Reg. Instituto di Studi Superiori, Pratici e di Perfezionamento (1872). President: March. Carlo Ridolfi. Faculties: Philosophy, natural science, medicine, and pharmacy; also 28 institutions, such as clinics, laboratories, and cabinets; 129 professors and 633 students. Libraries (two) of 71,000 and 55,500 volumes.

Florence.—Reg. Instituto Superiore di Magistero Femminile. Director: Agostino Grandi; 17 professors and 150 students. Library.

Milan.—Reg. Accademia Scientifico-Letteraria (1859). President: Francesco Novati. Faculties: Philosophy and science; 31 professors and 146 students. Library.

Rome.—Pontificium Collegium Urbanum de Propaganda Fide (1572). Rector: Monsign. Giovanni Bonzano. Faculties: Theology, philosophy, philology, oriental languages; 27 professors and 430 students. Two libraries of, together, 50,000 volumes.

Rome.—Pontificia Universitas Gregoriana in Collegio Romano (1582). Rector: R. P. Aloise Querini. Faculties: Theology, canonic law, and philosophy; 25 professors and 1,030 students. Library.

Rome.—Instituto d'Insegnamento Scientifico-Letterario del Pontificio Seminario Romano (1556). Prefect: Monsign. G. Sebastianelli. Faculties: Theology, law, philosophy, and letters; 38 professors and 500 students. Library.

Rome.—Collegio di San Tommaso d'Aquino (1577). Rector: R. P. Enrico Buonpensiere; 17 professors and 150 students. Library.

Rome.—Collegio di Sant' Anselmo (1888). Prefect: Vincenzo Sardi; 9 professors and 60 students. Museum.

Rome.—Accademia Pontificio dei Nobili Eccl. Prorector: Cardinal D. Ferrara; 8 professors.

NOTE.—There are in Rome a number of small ecclesiastical colleges which can not be classified, particulars being wanting.

(c) *Technological schools.*

Milan.—Instituto Tecnico Superiore (1862). Director: G. Colombo; 54 professors, 20 assistants, and 677 students.

Naples.—Regia Scuola Superiore Politecnica (1863). Director: Gaetano Bruno; 37 professors and 161 students. Library of 11,100 volumes.

Turin.—Regia Politecnico di Torino (1906). The former school of engineering and the royal Italian industrial museums have been united under this name. President: Enrico D'Ovidio; 32 professors, 40 assistants, and 963 students.

NOTE.—There are also engineering schools connected with the following universities: Bologna, Genoa, Padua, Palermo, Pisa, and Rome, which see above.

(d) *Other higher seats of learning.*

Florence.—R. Instituto di Belle Arti. Director: Riccardo Mazzanti; 15 professors.

Florence.—Instituto di Scienze Sociali Cesare Alfieri (1874). Fourteen professors. Library.

Milan.—Università Commerciale Luigi Bocconi (1902). President: Luigi Bocconi; 29 professors and 423 students. Library.

Milan.—Scuola Superiore di Medicina Veterinaria (1808). Director: N. Lanzillotti-Buonsanti; 22 professors and 101 students.

Milan.—Scuola Superiore di Agricoltura. Director: G. Kœrner; 12 professors.

Milan.—R. Accademia di Belle Arti. President: Camillo Boito; 9 professors.

Milan.—R. Instituto Lombardo di Scienze e Lettere. President: Vigilio Inama; 26 professors. Library of 150,000 volumes.

Naples.—Scuola Superiore di Medicina Veterinaria. Director: S. Baldassarre; 21 professors and 230 students.

Naples.—Regia Instituto Orientale (1727). Director: Enrico Cocchia; 12 professors and 221 students.

Naples.—Instituto di Belle Arti. President: A. d'Orsi; 15 professors.

Pisa.—Agricultural and veterinary schools are departments of the university, see above.

Pisa.—Scuola Normale Superiore (1862). President: The rector of the university; 5 professors. Library of 18,400 volumes.

Portici.—Regia Scuola Superiore di Agricoltura (1872). Director: Orazio Comes; 22 professors and 100 students. Library of 14,000 volumes.

Rome.—Numerous small schools devoted to special studies; also a school of fine arts.

Turin.—Scuola Superiore di Medicina Veterinaria. Director: R. Bassi; 18 professors and 90 students.

Vallombrosa.—Instituto Forestale (1869). Director: F. Piccioli; 40 students.

NOTE.—Pharmaceutical schools are found in connection with medical faculties of universities, which see. Veterinary schools are connected with the universities of Bologna, Camerino, Modena, Parma, Perugia, and Pisa. Art schools, 12 in number, are found in Bologna, Carrara, Florence, Lucca, Milan, Modena, Naples, Palermo, Parma, Rome, Turin, and Venice.

JAPAN.

(a) *Universities.*

Kyoto.—Teikoku Daigaku, Imperial University (1897). President: H. Kinoshita. Faculties: Law, medicine, science, and engineering; 147 professors and 1,412 students. Library of 34,000 volumes.

Tokyo.—Teikoku Daigaku, Imperial University (1868). President: Arata Hamao. Faculties: Law, medicine, engineering, philology, natural science, agriculture; also 5 institutions such as hospitals and collections; 308 professors and 5,062 students. Library of 358,895 volumes.

(b) *Other higher seats of learning.*

Fukuoka.—Medical college (affiliated with University of Kyoto); 26 professors and 163 students.

Tokyo.—Engineering school, part of the university, see above. Agricultural school, part of the university also.

MEXICO.

Mexico.—Instituto Médico Nacional (1888). Director: Dr. Fernando Altamirano; 25 professors. Library of 3,000 volumes.

NETHERLANDS.

(a) *Universities.*

Amsterdam.—Universiteit van Amsterdam (1632). Rector: C. Ph. Sluiter. Faculties: Theology, law, natural science, medicine, and philosophy; also 20 institutions such as seminaries, clinics, laboratories, and collections; 92 professors and 1,051 students. Library.

Amsterdam.—Free University. Rector: J. Woltjer. Faculties: Theology, philosophy, and law; 17 professors and 170 students. Library.

Groningen.—Rijks-Universiteit te Groningen (1614). Rector: Dr. M. E. Mulder. Faculties: Theology, law, medicine, natural science, letters; also 18 institutions like those in Amsterdam; 51 professors and 484 students. Library of 140,000 volumes.

Leyden.—Rikjs-Universiteit (1575). Rector: Dr. J. J. Hartman. Faculties: Law, medicine, natural science, philosophy, and theology; also 17 institutions like those in Amsterdam; 81 professors and 1,435 students. Library of about 200,000 volumes.

Utrecht.—Rijks-Universiteit (1636). Rector: Dr. W. H. Julius. Faculties: Theology, law, medicine, philosophy, and letters; also 22 institutions like those in Amsterdam; 67 professors and 975 students. Library of 250,000 volumes.

(b) *Polytechnicum and other higher seats of learning.*

Delft.—Polytechnische Hochschule (1864). Director: Dr. S. Hoogewerff; 51 professors and 1,174 students. Library.

Utrecht.—Rijks Veeartsenijschool, Veterinary School. Director: Dr. A. W. H. Wirtz; 9 professors and 142 students.

Wageningen.—Rijks Land- Tuin- en Boschbouwschool (1876). Director: L. Broekema; 5 professors as heads of divisions; each has a staff of professors and regular as well as special students.

Haarlem.—Industrial Art School (in connection with museum). Director: E. A. von Saher.

NORWAY.

Christiania.—Kongelige Frederiks Universitet (1811). Rector: Dr. W. C. Brögger. Faculties: Theology, law, medicine, philosophy, and natural science; also 28 institutions, such as clinics, collections, and laboratories; 95 professors and 1,500 students. Library of 420,000 volumes.

Aas.—Norges Landbrugshöiskole (1897). Director: N. K. Ödegaard; 15 professors.

PARAGUAY.

A national college at Asunción.

PERSIA.

Teheran.—College of Military Science, Art, and Natural Science. Ten European besides many native professors.

Several Mohammedan colleges or schools.

PERU.

Lima.—Universidad Mayor de San Marcos (1551). Rector: L. V. Villarán. Faculties: Theology, law, medicine, philosophy and letters, natural science, and administration; 93 professors. Library.

PALESTINE.

Jerusalem.—École Pratique d'Études Bibliques (1890); 8 professors and 20 students.

PHILIPPINE ISLANDS.

Manila.—Real y Pontificia Universidad de Santo Tomás (1605). Rector: Raymundo Velázquez. Faculties: Theology, law, medicine, philosophy and letters, science, and pharmacy; 48 professors and about 1,200 students. Library and observatory.

PORTUGAL.

Coimbra.—Universidade de Coimbra (1288). Rector: João d'Alarcão V. Sarmento Osorio. Faculties: Theology, law, medicine, mathematics, and philosophy; also 18 institutions, such as clinics, cabinets, laboratories, etc.; 68 professors, some assistants, and 2,916 students. Library of over 100,000 volumes.

Lisbon.—Academia Real das Sciencias (1779). Vice-president: J. J. da Silva Amado; 2 sections, mathematical and philosophic sciences.

Lisbon.—Curso Superior de Lettras (1858). Director: Z. C. Pedroso; 10 professors and 110 students.

Lisbon.—Escola Polytechnica (1837). Director: Pina Vidal; 24 professors and 387 students.

Lisbon.—Escola Medico-Cirurgica (1836). Director: Silva Amado; 18 professors and 310 students. Connected with this is the following school: Escola da Pharmacia de Lisboa; 5 professors.

Lisbon.—Instituto de Agronomia e Veterinaria (1852). Director: Augusto José da Cunha.

Oporto.—Academia Polytechnica (1837). Director: F. Gomes Teixeira; 30 professors and 200 students. Library and observatory.

ROUMANIA.

(a) *Universities.*

Bucharest.—Universitatea din Bucuresti (1864). Rector: C. Dimitrescu-Jaşi Faculties: Natural science, philosophy, law, medicine, pharmacy, and theology; also 34 institutions, such as clinics, seminaries, laboratories, and collections; 90 professors and 4,140 students. Libraries (2) of 66,679 and 115,246 volumes.

Jassy.—Universitatea din Jassy (1860). Rector: C. Climescu. Faculties: Law, philosophy and letters, natural science, and medicine; also 18 institutions, such as clinics, laboratories, and collections; 62 professors and 908 students. Library of 160,000 volumes.

(b) *Other higher seats of learning.*

Bucharest.—Scoala Superioară de Medicină Veterinară (1861). Director: A. J. Locusteanu; 11 institutions, such as clinics and laboratories; 11 professors and 56 students.

Bucharest.—Scoala de Podurisi Sosele (1850). School of Engineering; 30 professors, 8 assistants, and 332 students.

Bucharest.—Scoala de Arte-Frumoase, Academy of Fine Arts (1864). Director: G. D. Mirea.

RUSSIA.

[See also SIBERIA.]

(a) *Universities.*

Helsingfors (Finland).—Kejserliga Alexanders Universitet (1640). Rector: Edvard Immanuel Hjelt. Faculties: Theology, law, medicine, and philosophy; also 26 institutions, such as clinics, seminaries, laboratories, and collections; 169 professors and 2,087 students. Library of 200,000 volumes.

Jurjew (formerly Dorpat).—Imperatorskij Jurjevskij Universitet (1632). Rector: G. V. Levickij. Faculties: Theology, law, medicine, history and philology, physics and mathematics; also a few institutions; 97 professors and 2,090 students. Library of about 230,000 bound volumes and 169,000 pamphlets.

Kazan.—Imperatorskij Kasanskij Universitet (1804). Rector: N. P. Zagoskin. Faculties: History and philology, physics and mathematics, law, and medicine; also 39 institutions like those in Helsingfors; 116 professors and 1,510 students. Library of 247,046 volumes.

Kharkof.—Imperatorskij Charkovskij Universitet (1804). Kurator: S. A. Rajevskij. Faculties: Philosophy, physics and mathematics, law, and medicine; also 33 institutions, such as clinics, seminaries, laboratories, and collections; 125 professors and 1,380 students. Library of nearly 187,000 volumes.

Kief.—Imperatorskij Universitet Sv. Vladimira (1832). Rector: N. M. Cytovič. Faculties: Same as in Kazan; also 35 institutions like those in Helsingfors; 132 professors and about 3,000 students. Library of 120,000 volumes.

Moscow.—Imperatorskij Moskovskij Universitet (1755). Rector: A. A. Manuilov. Faculties: History and philology, physics and mathematics, law, and medicine; also 42 institutions like those in Helsingfors; 357 professors and 8,698 students. Library of 340,000 volumes.

Odessa.—Imperatorskij Novorossijskij Universitet (1865). Rector: Ivan M. Zančevskij. Faculties: Same as in Moscow; 115 professors and 2,854 students. Library of 250,000 volumes.

St. Petersburg.—Imperatorskij St. Petersbergskij Universitet (1819). Rector: Ivan I. Borgmann. Faculties: Same as in Moscow; also 26 institutions like those in Helsingfors; 229 professors and 8,090 students. Library of 366,807 volumes.

Warsaw.—Imperatorskij Varšavskij Universitet (1869). Rector: J. F. Karskij. Faculties: Same as in Moscow; 78 professors and 1,400 students. Library of 545,205 volumes.

(b) *Polytechnica.*

Helsingfors.—Polytekniska Institutet i Finland (1849). Director: Gustav Nyström. Several laboratories and shops; 50 professors and 364 students. Library of 3,000 volumes.

Kharkof.—Technologičeskij Institut Imperatora Alexandra III. Director: P. M. Muchačev. Departments: Mechanical engineering and chemistry; 27 professors and 1,200 students. Library.

Kief.—Technologičeskij Institut Imperatora Alexandra II (1898). Director: V. F. Timofejev. Departments: Civil engineering, mechanical engineering, technical chemistry, agriculture; 48 professors and 2,000 students. Library of 12,500 volumes.

Moscow.—Imperatorskij Moskovskeje Techničeskoje Učilišče (1832). Director: A. P Gavrilenko. Departments: Mechanical and civil engineering; several laboratories and shops; 75 professors and about 2,000 students.

Moscow.—Imperatorskij Technčskij Učilišče (1896). Director: Alexander Eichenwald; 36 professors, 40 assistants, and 567 students. Library.

St. Petersburg.—Technologičeskij Institut Imperatora Nikolaja I (1828). Director: A. A. Voronov; 65 professors and 1,610 students. Library.

St. Petersburg.—Technologičeskij Institut Sosnowka (1902). Director: Alexander S. Posnikov. Departments: Electro-mechanics, economics, shipbuilding, and metallurgy; 36 professors, 40 assistants, and about 700 students. Library.

St. Petersburg.—Institut Inženerov Putej Soobščenija (1809). Director: A. Andr. Brandt; 41 professors and 1,067 students. Library of 40,000 volumes.

St. Petersburg.—Institut Graždanskich Inženerov (1877). Director: V. A. Kosjakov; 19 professors, 56 teachers, and 673 students. Library of 12,500 volumes.

St. Petersburg.—Electro-Technical Institute (1899). Director: N. N. Kačalov; 31 professors, 15 assistants, and 360 students.

Riga.—Rižskoje Politechinčeskoje Učilišče (1862). Director: Dr. P. Walden. Six departments and 20 institutions; 63 professors, 30 assistants, and 1,342 students. Library of 39,200 volumes.

Warsaw.—Warschavskago Polytechničeskago Instituta (1898). Director: Vacant; 49 professors and (January, 1907) 48 students. Library of 25,000 volumes.

(c) *Other higher seats of learning.*

Evois (*Finland*).—Institute of Forestry (1862). Director: B. Ericson; 5 professors and 40 students.

Helsingfors.—Agricultural and Economic Section of University, which see above.

Jaroslawl.—Demidovskij Juridičeskij Licej (1803). Director: Mich. P. Cubinskij. Law and theological school; 17 professors and 859 students. Library of 45,700 volumes.

Jekaterinoslaw.—Higher Mining School. Director: S. N. Sučkov; 30 professors and teachers, 260 students. Library.

Jurjew (*Dorpat*).—Jurevskij Veterinarnyj Institut. Director: Ludvig Kundsin; 14 professors and 310 students. Library of 17,100 volumes.

Kazan.—Kazanskaja Duchovnaja Akademija (1798). Rector: Bishop Alexij. Theological school; 39 professors and 170 students. Library of 77,500 volumes.

Kazan.—Kazanskij Veterinarnyj Institut. Director: Karl M. Holzmann; 27 professors and 664 students. Library of 11,431 volumes.

Kharkof.—Veterinarnij Institut (1887). Director: A. P. Ostapenko; 19 professors and about 500 students.

Kief.—Kijevskaja Duchovnaja Akademija (1705). Rector: V. P. Rybinskij. Theological school; 28 professors and 212 students. Library.

Moscow.—Moskovskaja Duchovnaja Akademija (1654). Rector: Bishop Jevdokim. Theological school; 30 professors and 215 students. Libraries (2) of 140,000 volumes.

Moscow.—Lazarevskij Institut Vostočnych Jazykov (1815). Director: V. F. Miller. School of Oriental languages; 16 professors and 130 students.

Moscow.—Lyceum Cäsarewitsch Nicolaus (1868). Director: Lev. A. Georgievski; 16 professors and 201 students. Library of 4,000 volumes.

Moscow.—Moskovskij Selsko-Chozjajstvennyj Institut (1776). Director: A. P. Simkov. Agricultural school; 33 professors and 500 students.

Nezin.—Istoriko-Filologičeskij Institut (1820). Director: I. I. Ivanov. School of history and philology; 20 professors and 98 students. Library of 59,219 volumes.

Nowaja-Alexandria.—Institut Selskago Chosjaistva i Lěsovodstva (1831). Director: Anton St. Sanockij. Agriculture and forestry; 22 professors and 330 students.

St. Petersburg.—St. Petersburgskaja Duchovnaja Akademija (1797). Rector: Bishop von Jamburg Sergij. Theological school; 30 professors and 240 students. Library of about 200,000 volumes.

St. Petersburg.—Rimsko-Katoličeskaja Duchovnaja Akademija (1842). Rector: Prelate Zarnowiecki. School of Roman Catholic theology; 13 professors. Library of 50,000 volumes.

St. Petersburg.—Imperatorskij Učilišče Pravovčdenija (1835). Director: V. V. Olderogge. Law school; 36 professors and 330 students. Library.

St. Petersburg.—Alexandrovskaja Vojenna Juridičeskaja Akademija. Chief: Gen. Vladimir O. Baskov. Military law school; 22 professors.

St. Petersburg.—Imperatorskij Alexandrovskij Licej (1811). Director: A. P. von Salomon. Law school; 38 professors.

St. Petersburg.—Imperatorskij Istoriko-Filolgičéskij Institut (1867). Director: V. V. Latyšer. School of history and philology; 28 professors and 107 students. Library.

St. Petersburg.—Archeological Institute (1877). Director: N. V. Pokrovskij; 13 professors. Library of 16,300 volumes.

St. Petersburg.—Vojenno-Medicinskaja Akademija (1798). President: A. J. Danielevskij. Military medical school; 128 professors and 750 students. Library. In connection with this are two hospital clinics with 28 professors and 15 assistants.

St. Petersburg.—Institute for Experimental Medicine (1890). Director: V. V. Podvysockij; 20 professors. Library of 15,800 volumes.

St. Petersburg.—Gornyj Institut (1773). Director: E. St. Fedorov. Mining school; 28 professors, 15 assistants, and 640 students. Several institutes and a library of 250,000 volumes.

St. Petersburg.—Lěsnoj Institut (1803). Director: M. M. Orlov. Forestry school; 22 professors, 15 assistants, and 560 students. Library of 24,700 volumes.

St. Petersburg.—Imperatorskij Klinič. Institut. Director: Gustav F. Tiling. Clinical institute; 20 professors.

St. Petersburg.—Higher courses for women (1889). Director: V. Andr. Faussek. Historical-philosophical and physical-mathematical department; 70 professors and about 1,500 students. Library.

St. Petersburg.—Polytechnic courses for women (1906). Director: N. L. Sčukin; 18 professors.

St. Petersburg.—Zenskij Medicinskij Institut (1897). Director: S. Salaskin. Women's medical institute; 37 professors, 59 assistants, and about 1,800 students. Library.

St. Petersburg.—Zenskij Pedagogičeskij Institut (1903). Director: Sergius F. Platonov. Women's pedagogical institute; 15 professors.

Warsaw.—Varšavskij Veterinarnyj Institut. Director: P. A. Zacharov. Veterinary college; 13 professors.

SCOTLAND.

(a) *Universities.*

Aberdeen.—University of Aberdeen (1494). Rector: Sir Frederick Treves. Faculties: Philosophy, natural science, theology, law, medicine; also 11 institutions, museums, and clinics; 90 professors and about 1,100 students. Library of 180,000 volumes.

Edinburgh.—University of Edinburgh (1583). Rector: Sir William Turner. Faculties: Philosophy, natural science, theology, law, and medicine; also music; a large number of institutions; 109 professors and 3,226 students. Library of 237,000 volumes.

Glasgow.—University of Glasgow (1451). Rector: H. H. Asquith. Faculties: Same as in Edinburgh; no music, but commerce; 88 professors and 2,504 students. Library of 200,000 volumes.

St. Andrews.—University of St. Andrews (1411). Rector: Andrew Carnegie. Comprises St. Salvador, St. Leonard, and St. Mary colleges; 35 professors, 11 assistants, and 306 students. Library of 115,000 volumes.

(b) *Colleges.*

Aberdeen.—United Free Church College (1846). Principal: James Iverach. Theological school; 8 professors, 22 students, and a library of 30,000 volumes.

Dundee.—University College (1880). Principal: J. Y. Mackay; 46 professors and 204 students. Library of 16,500 volumes.

Edinburgh.—New College (1847). Principal: J. Duff McCulloch; 9 professors. Library of 50,000 volumes.

Glasgow.—Glasgow College. Principal: Th. M. Lindsay; 9 professors. Library.

(c) *Polytechnicum and other schools.*

Aberdeen.—North of Scotland College of Agriculture (1904). Director: A. M. Gordon; 7 professors and 50 students.

Glasgow.—The Glasgow and West of Scotland Technical College (1886). Director: H. F. Stockdale; 40 professors and 76 assistants; 535 students and 3,812 evening students. Laboratories and museums. Library of 15,000 volumes.

Glasgow.—The West of Scotland Agricultural College (1886.) Formerly a part of the college preceding, now independent; 18 professors.

Edinburgh.—School of Medicine of the Royal Colleges (1802). Secretary: R. N. Ramsay; 59 professors and 1,200 students.

Edinburgh.—Royal College of Physicians (1681). An examining board. President: Charles E. Underhill. Library of 75,000 volumes.

Edinburgh.—Royal College of Surgeons (1505). An examining board. President: Charles W. MacGillivray.

Edinburgh.—United Free Church College (1847). Principal: Marcus Dods; 7 professors.

Edinburgh.—Faculty of Actuaries (1856). President: A. Hewat; 188 fellows, 124 students.

Edinburgh.—Royal Veterinary College (1823). Principal: J. R. U. Dewar; 9 professors and about 100 students. Library of 500 volumes.

Edinburgh.—East of Scotland College of Agriculture (1901). Director: Robert Wallace; 20 professors and 241 students.

Glasgow.—Anderson College Medical School (1799). Secretary: B. G. Cormack; 15 professors and 300 students.

SERVIA.

Belgrade.—Srpska Kraljevska Velika Skola. Rector: Joan Cvijic. Faculties: Philosophy, law, and technology. Some laboratories, seminaries, and collections; 65 professors, 8 assistants, and 1,022 students. Library of about 60,000 volumes.

SIBERIA.

Tomsk.—Tomskij Universitet (1888). Curator: L. I. Lavrentjev. Faculties: Medicine and law; 45 professors and 786 students. Library of 200,000 volumes.

Tomsk.—Technologičeskij Institut Imperatora Nikolaja II (1896). Director: J. L. Zubašov; 48 professors and about 800 students.

Etschmiadzin.—Theological and Philosophical Faculty (1874). Library of 20,000 volumes.

Vladivostok.—Oriental Language School (1899). Director: A. V. Rudakov; 21 professors and 176 students. Library of 46,613 volumes.

SPAIN.

(a) *Universities.*

Barcelona.—Universidad de Barcelona (1450). Rector: Joaquin Bonet y Amigó. Faculties: Philosophy, law, natural science, medicine, and pharmacy; 61 professors and about 1,900 students. Library of 159,000 volumes.

Granada.—Universidad de Granada (1531). Rector: E. Garcia Solá. Faculties: Philosophy, law, natural science, medicine, and pharmacy; 55 professors and about 1,003 students. Library of 40,000 volumes.

Madrid.—Universidad Central de España (1508). Rector: R. Conde y Luque. Faculties: Philosophy, law, natural sciencé, medicine, and pharmacy; 134 professors, 51 assistants, and 5,258 students. Libraries of, together, 233,000 volumes.

Oviedo.—Universidad Literaria (1578). Rector: Fermin Canella y Secades. Faculties: Philosophy, law, natural science, and school of social science; 30 professors and 900 students. Library of 40,000 volumes.

Salamanca.—Universidad Literaria (1243). Rector: M. de Unamuno y Juga. Faculties: Philosophy and law; 46 professors and 1,200 students. Library of 80,200 volumes.

Santiago.—Universidad (1504). Rector: Jacobo Gil y Villanueva; 40 professors. Library of about 40,000 volumes.

Saragossa.—Universidad (1474). Rector: M. Rippollès Baranda; 51 professors. Library of 45,250 volumes.

Seville.—Universidad (1502). Rector: F. Caballero Infante; 43 professors and 1,000 students. Library of 95,000 volumes.

Valencia.—Universidad Literaria (1500). Rector: J. M. Machi y Burguete. Faculties: Philosophy, law, natural science, and medicine; 44 professors and 1,700 students. Library of 72,000 volumes.

Valladolid.—Universidad (1346). Rector: D. Gonzales Ibarra. Faculties: Law, science, medicine, philosophy, and letters; 40 professors and 1,586 students. Library of 35,000 volumes.

(b) *Polytechnica.*

Madrid.—Escuela Superior de Arquitectura (1844). Director: F. Aparíci y Soriano; 20 professors and 220 students. Library.

Madrid.—Escuela de Ingenieros de Caminos, Canales y Puertos. Director: P. Perez de Sala; 15 professors and 80 students.

(c) *Other higher seats of learning.*

Cadiz.—Facultad de Medicina (1748). Part of University of Seville; 23 professors. Library of 8,300 volumes.

Cordoba.—Escuela de Veterinaria. Director: C. Tomás y Gomez; 8 professors and 75 students.

Leon.—Escuela de Veterinaria. Director: C. Diez Garrote; 9 professors and about 100 students.

Madrid.—Escuela de Ingenieros Agrónomos. Director: A. Botija; 17 professors.

Madrid.—Escuela de Veterinaria (1792). Director: S. de la Villa y Martin; 10 professors and 345 students. Library.

Oviedo.—Escuela Práctica de Estudios Políticos y Sociales (1895). Now part of the University of Oviedo.

Santiago.—Escuela de Veterinaria. Director: R. Garcia y Suarez; 9 professors.

Saragossa.—Escuela de Veterinaria. Director: J. Robert y Serrat; 9 professors and 275 students.

SWEDEN.

(a) *Universities.*

Gottenborg.—Göteborgs Högskola (1887). Rector: Johann Vising; 35 professors and 121 matriculated students and 997 hearers. Institutes with separate libraries.

Lund.—Kungl. Karolinska Universitetet (1666). Rector: A. V. Bäcklund. Faculties: Theology, law, medicine, and philosophy; also some institutes; 92 professors and 874 students. Library of 200,000 volumes.

Stockholm.—Stockholms Högskola (1878). Rector: Gerard de Geer; 46 professors and 365 students. Seven institutes and several libraries.

Upsala.—Kungl. Universitetet i Upsala (1477). Rector: Henrik Schück. Faculties: Theology, law, medicine, and philosophy; also 50 institutes, such as clinics, seminaries, laboratories, and collections; 138 professors and 1,710 students. Library of 327,000 volumes.

(b) *Polytechnicum and other schools.*

Alnarp.—Landtbruks och Mejeri Institutet (1862). Agricultural college. Director: H. Winberg; 23 professors.

Stockholm.—K. Tekniska Högskolan (1798). Director: Anders Lindstedt; 40 professors and 476 students. Library of about 24,500 volumes.

Stockholm.—Karolinska Institutet (1571). Medical school. Rector: K. A. Hampus Count Mörner; 55 professors and 293 students. Library of 40,000 volumes.

Stockholm.—Veterinär-Institutet (1821). Director: R. T. Berg; 9 professors and 73 students. Library of 10,000 volumes.

Stockholm.—K. Skogs-Institutet. Director: A. Wahlgren. Forestry school; 8 professors and 50 students.

Stockholm.—Tandläkare-Institutet (1898). Dental school; 5 professors and 70 students.

Stockholm.—Kungl. Landtbrucks-Akademien (1811). Agricultural school. Director: Albrecht Th. Odelberg; 6 sections, 12 professors. Library of 10,000 volumes.

SYRIA.

Beirut.—Université St. Joseph (1875). Rector: H. Gressien. Faculties of theology and philosophy, oriental languages, and medicine; 34 professors, 200 students, and 500 in preparatory department. Library of about 100,000 volumes.

Beirut.—Syrian Protestant College (1863). President: Howard S. Bliss; 22 professors, 40 teachers, and 883 students.

SWITZERLAND.

(a) *Universities.*

Basel.—Universität (1460). Rector: Prof. Karl Schmidt. Faculties: Theology, law, medicine, and philosophy, in two sections; also nine scientific collections; 104 professors and 683 students. Library of 251,500 volumes.

Berne.—Kantonale Universität (1834). Rector: Dr. A. Thürlings. Faculties: Theology (Protestant and Catholic), law, medicine, veterinary science, and philosophy, in two sections; also 41 institutions, such as clinics, seminaries, laboratories, and collections; 152 professors and 2,184 students, including 850 women. Library of 200,000 volumes.

Freiburg.—Universität (1889). Rector: Dr. Ulrich Lampert. Faculties: Theology, law, philosophy, natural science; 76 professors and 639 students. Library of 182,000 volumes.

Geneva.—Université de Genève (1559). Rector: Prof. Bernhard Bouvier. Faculties: Theology, law, medicine, philosophy, and natural science; also several collections; 136 professors and 1,634 students. Library (public) of 171,800 volumes.

Lausanne.—Université (1537). Rector: Dr. Alexis De Loës. Faculties: Theology, law, medicine, philosophy, and natural science; seven collections; 112 professors and 1,372 students. Libraries with 280,000 volumes.

Zurich.—Universität (1832). Rector: Dr. H. Hitzig-Steiner. Faculties: Theology, law, medicine, veterinary science, and philosophy, in two sections; also 39 institutions, such as clinics, laboratories, seminaries, and collections; 134 professors and 1,418 students. Library of about 99,000 volumes and 150,000 pamphlets.

(b) *Polytechnicum.*

Zurich.—Eidgenössische Polytechnische Schule (1885). Director: Dr. J. Franel. Departments: Architecture, civil and mechanical engineering, chemical technology, agriculture and forestry, natural science, general philosophical and political science, military science; also numerous laboratories and shops; 116 professors and 2,200 students. Library.

(c) *Other higher seats of learning.*

Geneva.—École de Théologie de Genève (1831). President: H. Veyrassat; 11 professors and 30 students. Library of 32,000 volumes.

Lausanne.—Faculté de Théologie de l'Église Évangélique (1847). President: Alfred Périllard; 6 professors and 16 students. Library of 40,000 volumes.

Neuchatel.—Académie (1866). Rector: Alexandre Perrochet. Faculties: Philosophy, natural science, theology, law; 55 professors and 316 students. Library.

Neuchatel.—Faculté de Théologie de l'Église Évangélique (1873); 4 professors and 19 students.

Zurich.—Veterinary School, connected with the university. Agricultural School and Forestry School connected now with the Polytechnicum, which see above.

TURKEY.

Constantinople.—A Mohammedan university with 17 professors. No other details reported. Also an art school with 10 professors and a school of theology with 75 students.

Constantinople.—Great National School for Greek Teachers. Director: Dr. Michael Kleobulos; 500 students.

URUGUAY.

Montevideo.—Universidad. Rector: Dr. Francisco Soca. Faculties: Medicine, law, and mathematics; 83 professors, 36 assistants, and 730 students. Library of 44,500 volumes.

CHAPTER XI.

EDUCATIONAL DIRECTORY.[a]

I.—Chief State School Officers.

Name.	Address.	Official designation.
H. C. Gunnels	Montgomery, Ala	State superintendent of education.
R. L. Long	Phoenix, Ariz	Territorial superintendent of public instruction.
George B. Cook	Little Rock, Ark	State superintendent of public instruction.
Edward Hyatt	Sacramento, Cal	Do.
Miss Katherine L. Craig	Denver, Colo	Do.
Charles D. Hine	Hartford, Conn	Secretary of state board of education.
Thomas C. Roe	Dover, Del	Do.
A. T. Stuart	Washington, D. C	Superintendent of District schools.
W. M. Holloway	Tallahassee, Fla	State superintendent of public instruction.
Jere M. Pound	Atlanta, Ga	State school commissioner.
S. Belle Chamberlain	Boise, Idaho	State superintendent of public instruction.
Frank G. Blair	Springfield, Ill	Do.
F. A. Cotton	Indianapolis, Ind	Do.
John F. Riggs	Des Moines, Iowa	Do.
E. T. Fairchild	Topeka, Kans	Do.
J. G. Crabbe	Frankfort, Ky	Do.
T. H. Harris	Baton Rouge, La	State superintendent of public education.
Payson Smith	Augusta, Me	State superintendent of public schools.
M. Bates Stephens	Annapolis, Md	State superintendent of public education.
George H. Martin	Boston, Mass	Secretary of state board of education.
Luther L. Wright	Lansing, Mich	State superintendent of public instruction.
J. W. Olsen	St. Paul, Minn	Do.
J. N. Powers	Jackson, Miss	State superintendent of public education.
Howard A. Gass	Jefferson City, Mo	State superintendent of public schools.
W. C. Harmon	Helena, Mont	State superintendent of public instruction.
J. L. McBrien	Lincoln, Nebr	Do.
Orvis Ring	Carson, Nev	Do.
H. C. Morrison	Concord, N. H	Do.
Chas. J. Baxter	Trenton, N. J	Do.
J. F. Clark	Santa Fe, N. Mex	Territorial superintendent of public instruction.
Andrew S. Draper	Albany, N. Y	State commissioner of education.
J. Y. Joyner	Raleigh, N. C	State superintendent of public instruction.
W. L. Stockwell	Bismarck, N. Dak	Do.
E. A. Jones	Columbus, Ohio	State commissioner of common schools.
E. D. Cameron	Guthrie, Okla	State superintendent of public instruction.
J. H. Ackerman	Salem, Oreg	Do.
Nathan C. Schaeffer	Harrisburg, Pa	Do.
Walter E. Ranger	Providence, R. I	Commissioner of public schools.
O. B. Martin	Columbia, S. C	State superintendent of education.
H. A. Ustrud	Pierre, S. Dak	State superintendent of public instruction.
R. L. Jones	Nashville, Tenn	Do.
R. B. Cousins	Austin, Tex	Do.
A. C. Nelson	Salt Lake City, Utah	Do.
Mason S. Stone	Montpelier, Vt	State superintendent of education.
J. D. Eggleston, jr	Richmond, Va	State superintendent of public instruction.
Henry B. Dewey	Olympia, Wash	Do.
Thomas C. Miller	Charleston, W. Va	State superintendent of free schools.
C. P. Cary	Madison, Wis	State superintendent of public schools.
A. D. Cook	Cheyenne, Wyo	State superintendent of public instruction.
Wm. B. Hoggatt	Juneau, Alaska	Governor, and ex officio superintendent of education.
W. H. Babbitt	Honolulu, Hawaii	Superintendent of public instruction.
D. P. Barrows	Manila, P. I	Director of education.
E. G. Dexter	San Juan, P. R	Commissioner of education.

[a] Corrected to the middle of September, 1908, in so far as changes have been reported to the Bureau.

II.—City Superintendents, 1907–8.[a]

(Cities of 4,000 population and upward.)

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
ALABAMA.					
Anniston	9,695	D. R. Murphy	(b)	(b)	(b)
Bessemer	6,358	Joseph M. Dill	(b)	(b)	(b)
Birmingham	38,415	John Herbert Phillips	5	May —, 1908	$3,600
Eufaula	4,532	Frank Lee McCoy	1	Dec. —, 1909	1,800
Florence	6,478	James Bothwell Lockhart	2	June 26, 1909	1,200
Gadsden	4,282	Walter E. Striplin	2	June —, 1909	1,700
Huntsville	8,068	George D. Godard[c]	1	June 30, 1908	1,500
Mobile	38,469	S. S. Murphy	4	Aug. —, 1908	3,000
Montgomery	30,346	Charles Lewis Floyd	2	July 1, 1909	2,500
New Decatur	4,437	Arthur Fort Harman[d]	2	July 1, 1908	1,600
Opelika	4,245	Isaac William Hill	2	June 1, 1909	2,000
Phoenix	4,163	J. A. Albright	(b)	(b)	(b)
Pratt City	3,485	Perry M. McNeil[e]	1	May 22, 1908	1,100
Selma	8,713	Miss Emily Florence Ferguson	1	May 31, 1908	1,500
Talladega	5,056	D. A. McNeil	(b)	(b)	(b)
Troy	4,097	John P. Selman	3	—— —, 1908	1,500
Tuscaloosa	5,094	James H. Foster	1	June 30, 1908	2,100
Woodlawn	2,848	James Dean Williams	1	July 1, 1908	1,500
ARIZONA.					
Phoenix	5,544	J. F. Stillwell	(b)	(b)	(b)
Tucson	7,531	William Morrison Ruthrauff	1	July 1, 1908	2,400
ARKANSAS.					
Fayetteville	4,061	Frank S. Root	1	June —, 1908	1,200
Fort Smith	11,587	J. W. Kuykendall	1	June 1, 1908	2,400
Helena	5,550	Samuel Hamilton Spragins	1	June 5, 1908	1,500
Hot Springs	9,973	George B. Cook[f]	1	June 30, 1908	2,400
Jonesboro	4,508	D. T. Rogers	(b)	(b)	(b)
Little Rock	38,307	Burr Walter Torreyson	2	June 1, 1909	2,800
Paragould	3,324	H. R. Partlow	(b)	(b)	(b)
Pine Bluff	11,496	Junius Jordan	1	May 31, 1908	2,000
Texarkana	4,914	Frank Ward Miller[g]	1	July 1, 1908	1,800
CALIFORNIA.					
Alameda	16,464	Fred Thompson Moore	4	May 1, 1911	3,000
Bakersfield	4,836	David Whitson Nelson	4	July 1, 1910	1,725
Berkeley	13,214	Sylvanus D. Waterman[h]	4	June 30, 1909	2,400
Eureka	7,327	D. L. Thornbury[i]	4	July 1, 1911	1,800
Fresno	12,470	C. L. McLane	4	July 1, 1909	2,760
Grass Valley	4,719	J. S. Hennessy	(b)	(b)	(b)
Los Angeles	102,479	Ernest Carroll Moore	4	June —, 1910	4,250
Napa	4,036	John L. Shearer[j]	(b)	(b)	(b)
Oakland	66,960	John William McClymonds	4	Apr. 1, 1909	3,300
Pasadena	9,117	Arthur L. Hamilton	4	June 30, 1911	2,700
Petaluma	3,871	A. J. Hamilton[k]	(b)	(b)	(b)
Pomona	5,526	Parke W. Kauffman	4	July 1, 1910	2,400
Redlands	4,797	Lewis B. Avery[l]	1	June —, 1908	2,700
Riverside	7,973	Arthur N. Wheelock	1	June 30, 1908	2,400
Sacramento	29,282	Oliver Wm. Erlewine	4	Jan. 1, 1910	2,700
San Bernardino	6,150	F. W. Conrad	1	June 16, 1908	1,800
San Diego	17,700	Duncan MacKinnon	4	July 1, 1910	2,400
San Francisco	348,782	Alfred Roncovieri	4	Jan. —, 1911	4,000
San Jose	21,500	Alexander Sherriffs	4	July 1, 1910	2,500
San Rafael	3,879	John S. Drew[k]	1	July 1, 1908	1,800
Santa Ana	4,933	John A. Cranston	4	July —, 1910	2,250
Santa Barbara	6,587	Henry Augustus Adrian	4	June 30, 1909	2,500
Santa Clara	3,650	W. J. Hayward	2	July —, 1908	1,200
Santa Cruz	5,659	John W. Linscott	1	June 30, 1908	2,400
Santa Rosa	6,673	E. Morris Cox[m]	1	June —, 1908	2,200
Stockton	17,506	James A. Barr	4	Oct. 19, 1911	3,000
Vallejo	7,965	Howard Ford[k]	(b)	(b)	(b)
Watsonville	3,528	Thomas Smith MacQuiddy	1	June 30, 1908	1,800

[a] Changes later than July 1, 1908, appear in the form of footnotes.
[b] No data.
[c] Resigned; successor for 1908–9 not known.
[d] Samuel Adams, 1908–9.
[e] E. O. Sanders, 1908–9.
[f] Frank Ward Miller, 1908–9.
[g] E. A. Brennan, 1908–9.
[h] Frank H. Bunker, 1908–9.
[i] George B. Albee, 1908–9.
[j] For 1906–7; no later information.
[k] Supervising principal.
[l] Wayne P. Smith, 1908–9.
[m] J. E. Williamson, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
COLORADO.					
Aspen	3,303	E. A. Lanning [a]	(b)	(b)	(b)
Boulder	6,150	William V. Casey	(b)	(b)	(b)
Canyon City	3,775	F. F. Thompson	(b)	(b)	(b)
Colorado Springs	21,085	John Dietrich [c]	(b)	(b)	(b)
Cripple Creek	10,147	Wilson M. Shafer	1	Sept. —, 1908	$2,750
Denver	133,859	Charles E. Chadsey	3	Sept. 1, 1910	5,000
Florence	3,728	Elmer A. Kenyon	1	May 28, 1908	1,500
Grand Junction	3,503	John Henry Allen	3	May —, 1910	2,000
Leadville	12,455	Frederick P. Austin	1	Sept. 1, 1908	2,200
Pueblo:					
District No. 1	28,157	George W. Loomis [d]	3	Sept. —, 1908	3,500
District No. 20		John Francis Keating	3	July 1, 1909	4,000
Salida	3,722	Edgar Kesner	1	June 30, 1908	1,500
Trinidad	5,345	Jay P. Treat	(f)	(f)	1,900
Victor [e]	4,986	Wilson M. Shafer	1	Sept. —, 1908	2,750
CONNECTICUT.					
Ansonia	12,681	Edwin Carleton Andrews	1	July 14, 1908	2,000
Bridgeport	70,996	Charles W. Deane	3	Aug. 20, 1909	3,900
Bristol	6,268	Newell Jennings	1	July 14, 1908	(b)
Danbury	19,474	George H. Tracy	(f)	(f)	(f)
Derby	7,930	John W. Peck	(f)	(f)	2,000
Hartford	79,850	Thomas S. Weaver	1	June 1, 1908	2,000
Manchester:					
Town schools	10,601	Edward D. MacCollum [c]	(b)	(b)	(b)
Ninth district (south).		Fred A. Verplanck [c]	(b)	(b)	(b)
Meriden	28,695	William Powers Kelly	3	Aug. 1, 1910	3,000
Middletown	9,589	Clarence Hood Woolsey	1	June —, 1908	2,500
Naugatuck	10,541	Frank Warren Eaton	1	July 1, 1908	2,200
New Britain	25,998	Stanley H. Holmes	1	Aug. —, 1908	3,200
New Haven	108,027	Frank Herbert Beede	5	—— —, 1911	3,800
New London	17,548	Charles B. Jennings	1	—— —, 1908	2,100
Norwalk	19,932	Abiathar Blanchard [g c]	(b)	(b)	(b)
Norwich:					
Central district	17,251	Nathan Lee Bishop	1	June —, 1908	2,400
West Chelsea district		John Byron Stanton	1	July 1, 1908	1,700
Putnam	6,667	W. R. Barber [g]	(b)	(b)	(b)
Rockville	7,287	Harry B. Marsh [c h]	(b)	(b)	(b)
Southington	5,890	Charles M. Morse	1	July —, 1908	1,600
South Norwalk	6,591	W. C. Foote [j]	(b)	(b)	(b)
Stamford	15,997	Everett C. Willard	1	July 1, 1908	3,000
Torrington	8,360	Edwin H. Forbes	1	Sept. —, 1908	2,500
Wallingford	6,737	Clinton S. Marsh	1	July 31, 1908	2,500
Waterbury	45,859	Berlin Wright Tinker	2	July 1, 1909	3,400
West Haven	5,247	Edgar C. Stiles	1	July 1, 1908	2,550
Willimantic	8,937	(b)	(b)	(b)	(b)
Winsted	6,804	William Henry Millington	1	July 15, 1908	1,500
DELAWARE.					
Wilmington	76,508	George Wells Twitmyer	2	June 30, 1909	2,500
DISTRICT OF COLUMBIA.					
Washington	278,718	Alexander T. Stuart [k]	3	Jan. 6, 1908	5,000
FLORIDA.					
Jacksonville	28,429	(b)	(b)	(b)	(b)
Key West	17,114	J. V. Harris [c i]	(b)	(b)	(b)
Lake City	4,013	T. H. Owens [c i]	(b)	(b)	(b)
Palatka	3,301	L. K. Tucker [c i]	(b)	(b)	(b)
Pensacola	17,747	Nathan B. Cook [i]	4	Jan. 1, 1909	2,100
St. Augustine	4,272	R. B. Rutherford [i]	(b)	(b)	(b)
Tampa	15,839	W. B. Dickinson [i]	4	Jan. 3, 1909	2,400

[a] James Henry Adams, 1908–9.
[b] No data.
[c] For 1906–7; no later information.
[d] Milton C. Potter, 1908–9.
[e] Included in Cripple Creek district.
[f] Indefinite.
[g] Secretary board of school visitors.
[h] Principal of high school.
[i] County superintendent.
[j] William Estabrook Chancellor, 1908–9.
[k] Succeeded William E. Chancellor, January 4, 1908.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
GEORGIA.					
Albany	4,606	S. R. de Jarnette	1	July 1,1908	$1,600
Americus	7,674	Augustus Griffin Miller	1	.....do.....	1,800
Athens	10,245	George Glenn Bond	3	June 30,1908	2,000
Atlanta	89,872	William Martin Slaton	1	June 5,1908	3,000
Augusta	39,441	Lawton Bryan Evans	1	July 1,1909	3,000
Brunswick	9,081	Nathaniel Harrison Ballard	1	.....do.....	2,400
Columbus	17,614	Carleton B. Gibson	1	.....do.....	2,250
Dalton	4,315	Julius Martin Weatherly	1	May 22,1908	1,200
Dublin	2,987	Kyle Terry Alfriend	1	June 1,1908	1,500
Elberton	3,834	Wilber Colvin	1	June 30,1908	1,500
Gainesville	4,382	E. J. Robeson	1	June 1,1908	1,500
Griffin	6,857	Charles B. Mathews [a]	(b)	(b)	(b)
Lagrange	4,274	Clifford Lewis Smith	1	May 31,1908	1,560
Macon	23,272	Carleton B. Chapman	1	June 19,1908	2,400
Marietta	4,446	William T. Dumas	1	June 1,1908	1,575
Milledgeville	4,219	W. E. Reynolds [a]	(b)	(b)	(b)
Newnan	3,654	Charles Kennon Henderson, jr	1	June 3,1908	1,500
Rome	7,291	James C. Harris	2	July 1,1909	2,000
Savannah	71,239	Otis Ashmore	1	June —,1908	3,600
Thomasville	5,322	Alexander B. Christy	1	May 22,1908	1,300
Valdosta	5,613	Roland Bird Daniel	1	June 1,1908	1,575
Waycross	5,919	E. Aldine Pound	1	June —,1908	2,220
IDAHO.					
Boise	5,957	J. E. Williamson [c]	1	Sept. —,1908	2,500
Pocatello	4,046	Walter R. Siders	1	June 1,1908	2,750
ILLINOIS.					
Alton	14,210	Robert A. Haight	1	July 1,1908	2,250
Aurora:					
District No. 4 (west side).	24,147	A. V. Greenman	1	June 18,1908	2,300
District No. 5 (east side).		C. M. Bardwell	1	July 1,1908	2,800
Batavia	3,871	Lawrence F. Wentzel [d]	1	Aug. —,1908	1,600
Beardstown	4,827	Joseph Gladden Hutton	1	June 1,1908	1,400
Belleville	17,484	George S. Busick	1	.....do.....	2,200
Belvidere:					
North side	6,937	Eugene D. Merriman	1	June —,1908	1,600
South side		C. H. LeVitt [a]	(b)	(b)	(b)
Bloomington	23,286	J. K. Stableton	(b)	(b)	(b)
Blue Island	6,114	J. E. Lemon	1	June —,1908	3,000
Cairo	12,566	Taylor C. Clendenen	1	June 15,1908	2,400
Canton	6,564	G. W. L. Meeker	1	May —,1908	1,850
Centralia	6,721	Samuel Hallam Bohn	1	June 2,1908	1,500
Champaign	9,098	Frank Dickinson Haddock [e]	1	Aug. 1,1908	2,000
Charleston	5,488	De Witt Elwood	1	June 30,1908	1,800
Chicago	1,698,575	Edwin Gilbert Cooley	1	—— —,1908	10,000
Chicago Heights	5,100	Francis Martin Richardson	1	July 1,1908	2,200
Clinton	4,452	Henry H. Edmunds	1	June 1,1908	1,350
Collinsville	4,021	Samuel J. Curlee [a]	(b)	(b)	(b)
Danville	16,354	Lin H. Griffith	1	Aug. 1,1908	2,500
Decatur	20,754	Harry B. Wilson	1	Sept. 1,1908	2,200
De Kalb	5,904	Luther A. Hatch	1	July —,1908	1,800
Dixon:					
North side	7,917	H. V. Baldwin	1	May 31,1908	1,500
South side		Vernon Griffith Mays	1	.....do.....	1,600
Duquoin	4,353	Charles William Houk	1	May 28,1908	1,500
East St. Louis	29,655	John E. Miller	1	July 31,1908	2,500
Edwardsville	4,157	Heywood Coffield	1	June —,1908	1,400
Effingham	3,774	Thomas B. Sullins	1	May 31,1908	1,080
Elgin	22,433	Robert I. White	1	July 1,1908	2,200
Evanston:					
District No. 75	19,259	Homer H. Kingsley	1	June 30,1908	3,500
District No. 76		Fred W. Nichols	1	July 1,1908	3,250
Forest Park [f]	.....	Asa P. Goddard	1	June —,1908	1,100
Freeport	13,258	Sigel Elza Raines	1	.....do.....	2,400
Galena	5,005	Benjamin L. Birkbeck	1	June 5,1908	1,200
Galesburg	18,607	William L. Steele	1	June 30,1908	2,700
Harvey	5,395	Frank C. Miller	1	—— —,1908	1,800
Hoopeston	3,823	Arthur Verner	1	May 31,1908	1,500

[a] For 1906–7; no later information.
[b] No data.
[c] Charles Meek, 1908–9.
[d] J. N. Adee, 1908–9.
[e] Succeeded March 7, 1908, by W. W. Earnest.
[f] Formerly Harlem.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
ILLINOIS—continued.					
Jacksonville	15,078	William A. Furr	1	June 1,1908	$2,000
Joliet	29,353	John Andrews Long	1	July 1,1908	2,800
Kankakee	13,595	Franklin N. Tracy	1	....do....	2,000
Kewanee	8,382	Robinson G. Jones	1	June 1,1908	2,000
La Grange	5,969	F. E. Sanford	(a)	(a)	(a)
La Salle	10,446	James B. McManus	1	June 20,1908	1,700
Lincoln	8,962	Leander Dallas Ellis	1	May 30,1908	1,700
Litchfield	5,918	C. E. Richmond	1	June 1,1908	1,500
Macomb	5,375	James Clinton Burns	1	Sept. 1,1908	1,500
Mattoon	9,622	Gilbert P. Randle	1	June 30,1907	2,000
Maywood	4,532	John Porter Adams	1	June 18,1908	2,000
Mendota (east side)	3,736	G. B. Coffman	1	June —,1908	1,300
Metropolis	4,069	F. C. Prowdley	1	Aug. 1,1908	1,100
Moline	17,248	Bennett B. Jackson	1	June —,1908	2,300
Monmouth	7,460	W. R. Snyder [b]	(a)	(a)	(a)
Morris	4,273	Rupert Simpkins [b]	(a)	(a)	(a)
Mount Carmel	4,311	Walter S. Booth	1	June 1,1908	1,500
Mount Vernon	5,216	William Miner	1	May 1,1908	1,500
Murphysboro	6,463	William Calhoun	(a)	(a)	(a)
Normal	3,795	Herbert Bassett	1	June —,1908	1,800
Olney	4,260	J. O. Marberry	1	May 31,1908	1,200
Ottawa	10,588	Christopher J. Byrne	1	June 30,1908	1,800
Pana	5,530	Clarence E. Avis [c]	1	May 22,1908	1,300
Paris	6,105	E. B. Brooks [b]	(a)	(a)	(a)
Pekin	8,420	James J. Crosby	1	June 12,1908	1,700
Peoria	56,100	Gerard T. Smith [b]	(a)	(a)	(a)
Peru	6,863	James Robert Hart	1	June —,1908	1,500
Pontiac	4,266	C. E. De Butts	1	Sept. 1,1908	2,200
Princeton	4,023	George W. Gayler	1	June —,1908	1,500
Quincy	36,252	David B. Rawlins	1	June 30,1908	2,200
Rockford	31,051	Peleg R. Walker	1	....do....	2,500
Rock Island	19,493	Herbert B. Hayden	1	July 31,1908	2,400
Springfield	34,159	J. H. Collins	(a)	(a)	(a)
Spring Valley	6,214	Charles P. Hulce	1	May 31,1908	1,400
Sterling:					
District No. 11	6,309	H. L. Chapman [b]	(a)	(a)	(a)
District No. 8 (Wallace School)		Miss A. Laurie Hill	1	June 12,1908	1,200
Streator	14,079	M. G. Clark	1	July —,1908	2,100
Sycamore	3,653	Hugh A. Bone	1	Sept. —,1908	1,500
Taylorville:					
East side	4,248	Henry L. Fowkes	1	May 1,1908	1,000
West side		E. B. Couch	1	....do....	1,000
Urbana	5,728	A. P. Johnson	1	July 31,1908	1,800
Waukegan	9,426	Miriam A. Besley	(a)	(a)	(b)
INDIANA.					
Alexandria	7,221	Oscar Morton Pittenger	1	June —,1908	1,700
Anderson	20,178	J. B. Pearcy [b]	(a)	(a)	(a)
Bedford	6,115	Joseph B. Fagan	1	Aug. 1,1908	2,000
Bloomington	3,460	William Henry Sanders	3	July 31,1909	2,000
Bluffton	4,479	Philemon A. Allen	1	July 1,1909	1,500
Brazil	7,786	C. C. Coleman	3	June 15,1911	2,100
Columbus	8,130	T. F. Fitzgibbon	3	July 31,1910	2,000
Connersville	6,836	Edwin A. Turner	1	July 1,1908	1,500
Crawfordsville	6,649	William A. Millis [d]	3	June —,1909	2,250
Decatur	4,142	William Beachler	2	....do....	1,400
East Chicago	3,411	Edwin N. Canine	(a)	(a)	(a)
Elkhart	15,184	Ellis H. Drake	2	July 1,1908	2,400
Evansville	59,007	Frank W. Cooley	1	Aug. —,1908	4,000
Fort Wayne	45,115	Justin N. Study	3	July 1,1909	3,000
Frankfort	7,100	Edwin S. Monroe	3	June 1,1909	2,000
Franklin	4,005	Alva Otis Neal	2	Sept. 1,1909	1,800
Garrett	3,910	Francis M. Merica	1	Aug. 1,1908	1,350
Gas City	3,622	James H. Jeffrey	1	May 29,1908	1,250
Goshen	7,810	Lillian E. Michael	2	—— —,1908	1,700
Greenfield	4,489	William Chester Goble	3	—— —,1909	1,500
Greensburg	5,034	Elmer C. Jerman	1	Sept. 1,1908	1,500
Hammond	12,376	C. M. McDaniell [b]	(a)	(a)	(a)

[a] No data. [b] For 1906–7; no later information. [c] G. B. Coffman, 1908–9.
[d] Elected president Hanover College 1908–9; successor not known.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
INDIANA—continued.					
Hartford City	5,912	Linnaeus N. Hines	1	May 26, 1908	$1,800
Huntington	9,491	William Patterson Hart	1	Aug. 31, 1908	2,100
Indianapolis	169,164	Calvin N. Kendall	4	July 1, 1909	5,000
Jeffersonville	10,774	C. McHenry Marble	1	Aug. 1, 1908	1,800
Kokomo	10,609	Robert A. Ogg	1	....do....	1,800
Lafayette	18,116	Robert F. Hight	1	June 12, 1908	2,000
Laporte	7,113	John Anderson Wood	1	Aug. 1, 1908	2,340
Lawrenceburg	4,326	Jesse W. Riddle	1	....do....	1,500
Lebanon	4,465	Henry Grant Brown	2	June —, 1909	1,600
Linton	3,071	Joseph H. Haseman [a]	(b)	(b)	(b)
Logansport	16,204	Albert H. Douglass	1	July 1, 1908	2,400
Madison	7,835	W. A. Jessup	2	June —, 1909	1,700
Marion	17,337	Benjamin F. Moore [c]	1	Aug. 1, 1908	2,700
Martinsville	4,038	Jeremiah E. Robinson	1	July 31, 1908	1,400
Michigan City	14,850	Louis Ward Keeler	1	Mar. 1, 1908	2,200
Mishawaka	5,560	John F. Nuner	3	Aug. 1, 1909	1,800
Montpelier	3,405	L. E. Kelley	1	June 3, 1908	1,200
Mount Vernon	5,132	Edward G. Bauman	2	June 1, 1909	1,800
Muncie	20,942	George L. Roberts [d]	1	Aug. 1, 1908	2,600
New Albany	20,628	C. A. Prosser	1	June 1, 1909	2,000
Noblesville	4,792	Edwin L. Holton [a]	(b)	(b)	(b)
Peru	8,463	Albert A. Campbell	2	July 1, 1908	1,800
Plymouth	3,656	Ray Arah Randall	3	Aug. 1, 1909	1,750
Portland	4,798	G. E. Derbyshire	1	June 30, 1908	1,500
Princeton	6,041	Harold Barnes	1	June —, 1908	1,700
Richmond	18,226	Thomas Abbott Mott	3	Aug. —, 1908	2,200
Rushville	4,541	Joseph Hiram Scholl	1	Aug. 1, 1908	1,400
Seymour	6,445	H. C. Montgomery	(b)	(b)	(b)
Shelbyville	7,169	James Harney Tomlin [e]	2	July 1, 1908	2,000
South Bend	35,999	Calvin Moon	3	Sept. 7, 1908	2,520
Terre Haute	36,673	Walter Piety Morgan [f]	1	Aug. 1, 1908	2,600
Tipton	3,764	C. F. Patterson [a]	(b)	(b)	(b)
Valparaiso	6,280	Arthur A. Hughart	3	May —, 1910	1,800
Vincennes	10,249	Robert I. Hamilton	1	June 30, 1908	2,300
Wabash	8,618	Adelaide Steele Baylor	3	June —, 1909	2,000
Warsaw	3,987	John Jacob Early [g]	1	Sept. 1, 1908	(b)
Washington	8,551	William F. Axtell	1	Aug. 1, 1908	(b)
Whiting	3,983	John Calvin Hall	1	June 30, 1908	1,920
IOWA.					
Albia	2,889	F. E. George	1	May 29, 1908	1,400
Atlantic	5,046	Charles E. Blodgett	1	Sept. —, 1908	1,600
Boone	8,880	J. C. King	1	July 1, 1908	2,000
Burlington	23,201	Francis M. Fultz	1	....do....	2,100
Cedar Falls	5,319	I. M. Kelley [a]	(b)	(b)	(b)
Cedar Rapids	25,656	J. J. McConnell	1	Aug. —, 1908	3,000
Centerville	5,256	E. N. Gibson	1	June —, 1908	1,600
Chariton	3,989	C. J. Johnson	1	May 15, 1908	1,400
Charles City	4,227	Charles Almet Kent	1	June —, 1908	1,750
Cherokee	3,865	L. H. Maus [a]	(b)	(b)	(b)
Clarinda	3,276	Willard E. Salisbury	1	June 1, 1908	1,500
Clinton	22,698	Ozro P. Bostwick	1	July 1, 1908	2,500
Council Bluffs	25,802	Wesley N. Clifford [h]	1	Aug. 1, 1908	2,600
Creston	7,752	Adam Pickett	1	July 1, 1908	1,500
Davenport	35,254	Frank L. Smart	1	June 30, 1908	2,500
Decorah	3,246	Henry C. Johnson	1	June 12, 1908	1,500
Des Moines	62,139	William Otis Riddell	1	June —, 1908	3,600
Dubuque	36,297	F. T. Oldt	(b)	(b)	(b)
Fairfield	4,689	S. A. Power	(b)	(b)	(b)
Fort Dodge	12,162	George H. Mullin [i]	(b)	(b)	(b)
Fort Madison	9,278	Charles W. Cruikshank [g]	1	June 1, 1908	1,500
Grinnell	3,860	Eugene Henely	1	....do....	1,600
Iowa City	7,987	H. E. Blackmar	1	July —, 1908	1,800
Keokuk	14,641	William Aldrich	1	July 1, 1908	1,800
Le Mars	4,146	Thomas B. Hutton	1	June 1, 1909	2,000
Marion	4,102	Grant E. Finch	1	June —, 1908	1,600
Marshalltown	11,544	Aaron Palmer	3	Jan. 1, 1910	2,000
Mason City	6,746	W. A. Brandenburg	3	Sept. 1, 1910	2,000

[a] For 1906–7; no later information.
[b] No data.
[c] J. T. Giles, 1908–9.
[d] Benjamin F. Moore, 1908–9.
[e] S. C. Ferrell, 1908–9.
[f] James Harvey Tomlin, 1908–9.
[g] Resigned; successor for 1908–9 not known.
[h] Elected assistant superintendent Philadelphia, Pa., for 1908–9; successor not known.
[i] R. B. Crone, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
IOWA—continued.					
Missouri Valley	4,010	John H. Beveridge	1	June —, 1908	$1,700
Mount Pleasant	4,109	Bruce Francis [a]	1	....do....	1,500
Muscatine	14,073	William Franklin Chevalier	1	July 1, 1908	1,800
Newton	3,682	E. J. H. Beard	1	Aug. —, 1908	1,600
Oelwein	5,142	Orris W. Herr	1	June —, 1908	1,550
Oskaloosa	9,212	Frank Whittier Else	1	July 1, 1908	1,800
Ottumwa	18,197	A. W. Stuart	(b)	(b)	(b)
Perry	3,986	W. B. Thornburgh	1	June 1, 1908	1,400
Red Oak	4,355	W. F. Cramer	(b)	(b)	(b)
Sioux City	33,111	William M. Stevens	1	July —, 1908	2,300
Washington	4,255	R. B. Crone [c]	1	Sept. —, 1908	1,800
Waterloo:					
East side	12,580	Fred D. Merritt [d]	1	July 1, 1908	2,100
West side		Anson T. Hukill	1	Aug. 30, 1908	1,800
Webster City	4,613	(b)	(b)	(b)	(b)
KANSAS.					
Argentine	5,878	Hardin Price Butcher	1	July 1, 1908	1,500
Arkansas City	6,140	John Frederick Bender	1	Sept. 1, 1908	1,300
Atchison	15,722	Nathan T. Veatch	1	July 31, 1908	1,600
Chanute	4,208	James Henry Adams [e]	1	July 1, 1908	1,350
Cherryvale	3,472	A. J. Lovett	1	May 31, 1908	1,200
Coffeyville	4,953	William M. Sinclair	(b)	(b)	(b)
Concordia	3,401	A. F. Senter [f]	(b)	(b)	(b)
Emporia	8,223	Lloyd A. Lowther	1	July —, 1908	1,760
Fort Scott	10,322	David M. Bowen	(b)	(b)	2,000
Galena	10,155	Leslie T. Huffman	1	May 22, 1908	1,500
Horton	3,398	William Wright Wood	1	July 1, 1908	1,100
Hutchinson	9,379	Richard Rees Price	1	June 30, 1908	1,800
Independence	4,851	Charles Sumner Risdon	1	June 1, 1908	2,100
Iola	5,791	L. W. Mayberry	1	July 1, 1908	1,600
Junction City	4,695	William S. Heusner	1	....do....	1,700
Kansas City	51,418	M. E. Pearson	(b)	(b)	(b)
Lawrence	10,862	Frank P. Smith	1	Aug. 1, 1908	1,900
Leavenworth	20,735	George W. Kendrick	1	....do....	2,400
Newton	6,208	David F. Shirk [g]	1	July 1, 1908	1,500
Osawatomie	4,191	Floyd B. Lee	1	June —, 1908	1,000
Ottawa	6,934	Arch L. Bell	1	July 1, 1908	1,500
Parsons	7,682	J. A. Higdon	1	Aug. —, 1908	1,500
Pittsburg	10,112	A. H. Bushey [f]	(b)	(b)	(b)
Rosedale	3,270	George E. Rose	1	May 18, 1908	1,400
Salina	6,074	John Lofty	1	July 1, 1908	1,500
Topeka	33,608	Luther Denny Whittemore	1	Aug. 1, 1908	2,500
Wellington	4,245	W. M. Massey	(b)	(b)	(b)
Wichita	24,671	Robert Franklin Knight	1	Sept. 1, 1908	2,500
Winfield	5,554	John W. Spindler	1	July 1, 1908	1,500
KENTUCKY.					
Ashland	6,800	W. C. Campbell	1½	Sept. —, 1909	1,800
Bellevue	6,332	Harvey L. Eby	1	June 30, 1908	1,500
Bowling Green	8,226	Thomas Crittenden Cherry	2	June —, 1908	1,800
Covington	42,938	Homer O. Sluss	2	Aug. 1, 1909	2,400
Danville	4,285	John W. Rawlings [f]	(b)	(b)	(b)
Dayton	6,104	James McGinnis	1	July 1, 1908	1,500
Frankfort	9,487	Hugh C. McKee	1	June 13, 1908	1,800
Georgetown	3,823	R. L. Garrison	(b)	(b)	(b)
Henderson	10,272	Livingstone McCartney	2	June 30, 1908	2,000
Hopkinsville	7,280	Barksdale Hamlett	1	....do....	1,800
Lexington	26,369	Massillon Alexander Cassidy	4	June —, 1911	2,400
Louisville	204,731	Edgar H. Mark	2	Sept. 1, 1909	5,000
Madisonville	3,628	Ralph B. Rubins	1	May 16, 1908	1,200
Maysville	6,423	D. S. Clinger [e]	(b)	(b)	(b)
Middlesboro	4,163	M. Oliver Winfrey	1	June 30, 1908	1,500
Newport	28,301	Ellsworth Regenstein	(h)	(h)	2,160
Owensboro	13,189	McHenry Rhoads	4	—— —, 1910	2,400
Paducah	19,446	John A. Carnagey	1	Aug. 1, 1908	2,000
Paris	4,603	George W. Chapman	3	Sept. 1, 1910	1,550
Richmond	4,653	T. J. Coates	(b)	(b)	(b)
Somerset	3,384	J. P. W. Brouse	1	July 1, 1908	1,950
Winchester	5,964	R. M. Shiff [f]	(b)	(b)	(b)

[a] Charles W. Cruikshank, 1908–9.
[b] No data.
[c] Bruce Francis, 1908–9.
[d] Addison W. Chamberlin, 1908–9.
[e] Resigned; successor for 1908–9 not known.
[f] For 1906–7; no later information.
[g] L. J. Hall, 1908–9.
[h] Indefinite.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
LOUISIANA.					
Alexandria	5,648	H. H. Harper [a] [c]	(b)	(b)	(b)
Baton Rouge	11,269	Stephen S. Thomas	(b)	(b)	(b)
Crowley	4,214	James Gibson Chapman	1	June 4,1908	$1,200
Donaldsonville	4,105	David B. Showalter	4	Nov. 15,1908	1,800
Houma	5,428	William P. Tucker	4	Nov. —,1908	1,100
Lake Charles	6,680	D. F. Dudley [a]	(b)	(b)	(b)
Monroe	5,428	George W. Reid	1	May 29,1908	2,000
New Iberia	6,815	J. C. Ellis	(b)	(b)	(b)
New Orleans	287,104	Warren Easton	4	June —,1908	4,000
Shreveport	16,013	C. E. Byrd	1	Oct. 23,1908	3,000
MAINE.					
Auburn	12,951	Henry H. Randall	1	July 1,1908	1,700
Augusta	11,683	Daniel Wolford La Rue	1	Aug. 1,1908	2,000
Bangor	21,850	Charles Edward Tilton	1	June —,1908	1,800
Bath	10,477	Frederick W. Freeman	1	June 30,1908	1,600
Belfast	4,615	Alonzo J. Knowlton	1	Aug. 1,1908	1,000
Biddeford	16,145	Royal E. Gould	5	——— —,1910	1,750
Brewer	4,835	Charles Norman Perkins	1	July 1,1908	1,500
Brunswick	5,210	Charles M. Pennell	(b)	(b)	1,400
Calais	7,655	Ashley St. Claire	1	Apr. —,1908	300
Eastport	5,311	John Wheeler Foster	1	July 1,1908	1,200
Ellsworth	4,297	John F. Royal	(b)	(b)	(b)
Gardiner	5,501	Charles O. Turner	3	July 1,1910	1,300
Houlton	4,686	Fred L. Putnam	1	——— —,1908	300
Lewiston	23,761	Arthur J. Collins	1	July 31,1908	1,800
Oldtown	5,763	D. Lyman Wormwood	1	Apr. —,1908	1,750
Portland	50,145	W. H. Brownson	1	Dec. —,1908	2,250
Rockland	8,150	L. E. Moulton	1	July 1,1908	1,500
Saco	6,122	Joseph H. Hefflon	1	.....do.....	1,000
Sanford	6,078	Henry Jewett Hall	1	Mar. 11,1908	1,000
Skowhegan	4,266	David Wilder Colby	1	June 30,1908	1,000
South Portland	6,287	James Otis Kaler	1	Mar. —,1908	1,000
Waterville	9,477	Dennis E. Bowman	1	July —,1908	1,650
Westbrook	7,283	Fred Benson	1	Jan. —,1909	1,000
MARYLAND.					
Annapolis	8,402	Harry R. Wallis [a] [d]	(b)	(b)	(b)
Baltimore	508,957	James H. Van Sickle	(e)	(e)	5,000
Cambridge	5,747	William P. Beckwith [d]	2	Aug. 7,1908	1,200
Cumberland	17,128	Archibald C. Willison [d]	1	July 31,1908	1,800
Frederick	9,296	Oscar B. Coblentz [d]	2	Aug. 1,1908	1,500
Hagerstown	13,591	John P. Fockler [d]	2	.....do.....	1,350
Salisbury	4,277	H. Crawford Bounds [d]	2	.....do.....	1,400
MASSACHUSETTS.					
Abington [f]	4,489	C. A. Record	1	July 31,1908	2,200
Adams	11,134	Francis A. Bagnall	1	Sept. —,1908	2,400
Amesbury [g]	9,473	Charles E. Fish	(b)	(b)	(b)
Amherst	5,028	Audubon Levi Hardy	1	Sept. —,1908	1,800
Andover	6,813	Corwin F. Palmer [h]	1	.....do.....	1,900
Arlington	8,603	John F. Scully	(b)	(b)	(b)
Athol	7,061	Winfield Scott Ward	1	Sept. —,1908	2,000
Attleboro	11,335	Lewis A. Fales	1	Aug. 15,1908	2,000
Barnstable	4,364	George Homer Galger	1	Aug. 1,1908	1,500
Belmont [i]	3,929	George P. Armstrong	1	.....do.....	[j] 1,500
Beverly	13,884	Adelbert L. Safford	1	Sept. —,1908	2,200
Blackstone	5,721	Ambrose Kennedy	1	Mar. 15,1908	900
Boston	560,892	Stratton D. Brooks	6	Sept. 1,1912	6,000
Braintree [k]	5,981	John Clinton Anthony	1	June —,1908	1,800
Bridgewater [f]	5,806	C. A. Record	1	July 31,1908	2,200
Brockton	40,063	Don C. Bliss	1	Sept. —,1908	2,800
Brookline	19,935	George I. Aldrich	1	Aug. 2,1908	4,000
Cambridge	91,886	William Clinton Bates	1	Sept. 1,1908	3,500
Canton	4,584	James S. Perkins	1	Mar. 6,1908	1,800
Chelmsford	3,984	Frederick Lincoln Kendall	1	July 31,1908	1,500
Chelsea	34,072	Benjamin Carlisle Gregory	(e)	(e)	2,800
Chicopee	19,167	John C. Gray	1	July 1,1908	2,000

[a] For 1906–7, no later information.
[b] No data.
[c] Principal of high school.
[d] County superintendent.
[e] Indefinite.
[f] Abington and Bridgewater have the same superintendent.
[g] Amesbury and Manchester have the same superintendent.
[h] Elected superintendent at St. Johnsbury, Vt., for 1908–9; successor not known.
[i] Belmont and Lexington have the same superintendent.
[j] For 3 days per week; receives also $900 for services at Lexington.
[k] For 1908–9 united with Brookfield and Randolph to form supervision district.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
MASSACHUSETTS—con.					
Clinton	13,667	Charles L. Hunt	1	June —, 1908	$2,000
Concord	5,652	Wells Albert Hall	1	Sept. 1, 1908	500
Danvers	8,542	Henry C. Sanborn	1	July 1, 1908	1,600
Dartmouth	3,669	Albert S. Cole	(a)	(a)	(a)
Dedham	7,457	Roderick W. Hine	1	July 1, 1908	(a)
Easthampton	5,603	W. D. Miller	1	....do....	1,700
Easton	4,837	Frederic S. Pope	1	Aug. 31, 1908	1,700
Everett	24,336	Ulysses G. Wheeler	(b)	(b)	2,500
Fairhaven	3,567	Frank M. Marsh	(a)	(a)	(b)
Fall River	104,863	Everett Brownell Durfee	1	Aug. 31, 1908	3,000
Fitchburg	31,531	Joseph G. Edgerly	1	July 31, 1908	2,700
Framingham	11,302	Samuel F. Blodgett	1	Sept. 1, 1908	2,000
Franklin	5,017	Irving H. Gamwell	1	June 30, 1908	1,000
Gardner	10,813	Judson I. Wood	1	June —, 1908	2,100
Gloucester	26,121	Freeman Putney	1	July —, 1907	2,300
Grafton	4,869	Robert Orange Small	1	Apr. —, 1908	1,925
Great Barrington	5,854	J. Francis Allison	1	Aug. 27, 1908	1,700
Greenfield	7,927	Herbert Eliot Richardson	1	July 1, 1908	2,000
Haverhill	37,175	George Edwin Gay	1	Sept. 1, 1908	c 2,400
Hingham	5,059	Nelson G. Howard	1	Mar. —, 1908	2,350
Holyoke	45,712	J. J. O'Donnell	(a)	(a)	(a)
Hudson	5,454	C. S. Lyman	1	Sept. —, 1908	d 1,950
Hyde Park	13,244	Horace L. Brittain	1	....do....	2,200
Ipswich	4,658	Robert M. Martin	1	Aug. 31, 1908	720
Lawrence	62,559	Bernard M. Sheridan	1	Jan. 1, 1909	3,500
Lee	3,596	Preston Barr	1	July 1, 1908	1,500
Leominster	12,392	Thomas E. Thompson e	(a)	(a)	(a)
Lexington f	3,831	George P. Armstrong	1	Aug. 31, 1908	900
Lowell	94,969	Arthur K. Whitcomb	1	Sept. —, 1908	3,000
Lynn	68,513	Frank J. Peaslee	1	....do....	3,000
Malden	33,664	Henry Dwight Hersey	1	July 1, 1908	2,700
Manchester g	2,522	Charles E. Fish	(a)	(a)	(a)
Mansfield h	4,006	Edward P. Fitts	1	Apr. —, 1908	1,800
Marblehead	7,582	Almorin Orton Caswell	1	Aug. 1, 1908	1,500
Marlboro	13,609	Orion A. Morton	1	June —, 1908	2,000
Maynard	3,142	John Clarence Mackin	1	Sept. 1, 1908	1,500
Medford	18,244	Charles H. Morss	1	June 30, 1908	2,800
Melrose	12,962	Fred Herbert Nickerson	1	Aug. —, 1908	2,450
Merrimac	.....	George E. Chickering e	(a)	(a)	(a)
Methuen	7,512	Charles Albert Breck	1	Sept. 1, 1908	1,300
Middleboro	6,885	Charles H. Bates e	(a)	(a)	(a)
Milford	11,376	Charles W. Haley	1	Mar. —, 1909	1,800
Millbury	4,460	Ira T. Chapman	1	Aug. 1, 1908	1,600
Milton	6,578	Asher Johnson Jacoby	1	Sept. 1, 1908	2,500
Monson	3,402	Frederic A. Wheeler	1	July 1, 1908	1,500
Montague	6,150	Frank P. Davison	1	....do....	1,800
Natick	9,488	Albert L. Barbour	(a)	(a)	(a)
Needham	4,016	Walter Knight Putney	3	Jan. 1, 1910	1,000
New Bedford	62,442	William Edwin Hatch i	1	June 1, 1908	4,000
Newburyport	14,478	Edgar Lincoln Willard	j 2	Sept. 1, 1908	1,600
Newton	33,587	Frank E. Spaulding	1	....do....	5,000
North Adams	24,200	Isaac Freeman Hall	1	....do....	2,500
Northampton	18,643	Fayette K. Congdon	1	Aug. 1, 1908	2,000
North Andover	4,243	Wallace Edward Mason	1	Sept. 1, 1908	2,100
North Attleboro	7,253	Robert Jaquith Fuller	1	Sept. —, 1908	1,800
Northbridge	7,036	S. A. Melcher	1	Apr. —, 1908	2,350
North Brookfield	4,587	B. J. Merriam	(a)	(a)	(a)
Norwood	5,480	William C. Hobbs	1	Sept. 1, 1908	2,000
Orange	5,520	Edward Dixon	1	July 1, 1908	1,700
Palmer	7,801	Lee T. Gray	(a)	(a)	(a)
Peabody	11,523	Albert Robinson	1	June —, 1908	1,800
Pittsfield	21,766	Charles A. Byram	1	Sept. 1, 1908	2,300
Plymouth	9,592	Francis J. Heavens	1	....do....	2,000
Provincetown	4,247	Alvan R. Lewis e	(a)	(a)	(a)
Quincy	23,899	Frank Edson Parlin	1	Dec. 31, 1908	2,700
Randolph k	3,993	Watson Clark Lea	1	July 1, 1908	1,500
Reading	4,969	Melville A. Stone	1	Sept. 1, 1908	1,700
Revere	10,395	William Henry Winslow l	1	July 1, 1908	2,200
Rockland	5,327	William L. Coggins	1	Sept. 1, 1908	1,000
Rockport	4,592	William Francis Eldredge	1	July 1, 1908	1,200
Salem	35,956	John W. Perkins	1	June 30, 1908	2,500

a No data.
b Indefinite.
c Maximum, $2,800.
d For services also at Lincoln.
e For 1906–7; no later information.
f Belmont and Lexington have the same superintendent.
g Amesbury and Manchester have the same superintendent.
h Mansfield and Stoughton have the same superintendent.
i Allen P. Keith, 1908–9.
j Permanent tenure after two years.
k For 1908–9 united with Braintree and Brookfield to form supervision district.
l Clarence H. Dempsey, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
MASSACHUSETTS—con.					
Saugus [a]	5,084	Charles Edwin Stevens [b]	1	June 30, 1908	$2,200
Somerville	61,643	Gordon A. Southworth [c]	1	Apr. 30, 1908	3,000
Southbridge	10,025	F. E. Corbin	1	Aug. —, 1908	2,000
South Hadley	4,526	Frederick E. Whittemore	1	Apr. —, 1908	1,750
Spencer	7,627	Charles F. Adams	1	Aug. —, 1908	1,600
Springfield	62,059	Wilbur Fisk Gordy	1	Apr. 1, 1908	4,000
Stoneham [a]	6,197	Charles Edwin Stevens	1	June 30, 1908	2,200
Stoughton [d]	5,442	Edward P. Fitts	1	Apr. 9, 1908	1,800
Swampscott	4,548	William J. Peto	2	July 1, 1908	1,000
Taunton	31,036	Henry W. Harrub	1	Aug. 31, 1908	2,400
Tewksbury	3,683	Seth Howard Chace	1	Apr. —, 1908	2,000
Wakefield	9,290	Jacob H. Carfrey	1	May 1, 1908	2,000
Waltham	23,481	William D. Parkinson	(e)	(e)	2,350
Ware	8,263	George Wilbert Cox	1	Aug. 31, 1908	2,000
Warren	4,417	Parker T. Pearson	1	Aug. 1, 1908	1,600
Watertown	9,706	Wilfred H. Price	1	Sept. 1, 1908	1,800
Webster	8,804	Ernest William Robinson	1	Aug. 1, 1908	1,400
Wellesley	5,072	Marshall Livingston Perrin	1	——— —, 1908	1,500
Westboro	5,400	Harry C. Waldron	1	Aug. —, 1908	1,800
Westfield	12,310	Charles L. Simmons	1	Sept. 1, 1908	2,400
West Springfield	7,105	Clarence E. Brockway	1	July 1, 1908	1,800
Weymouth	11,324	Abner A. Badger	1	.....do.....	2,000
Whitman	6,155	Henry M. Walradt	1	June 30, 1908	[f] 1,000
Williamstown	5,013	Walter G. Mitchell	1	Apr. —, 1908	1,200
Winchendon	5,001	Wilbur B. Sprague	1	May 1, 1908	2,000
Winchester	7,248	Schuyler F. Herron	1	July 31, 1908	2,300
Winthrop	6,058	Frank A. Douglas	1	Sept. —, 1908	2,200
Woburn	14,254	George I. Clapp	3	Sept. 1, 1908	2,000
Worcester	118,421	Homer Pierce Lewis	3	June 1, 1909	4,000
MICHIGAN.					
Adrian	4,519	Charles W. Mickens	2	June —, 1908	2,000
Albion	9,654	W. J. McKone	1	Sept. 1, 1908	1,700
Alpena	11,802	George A. Hunt	(g)	(g)	(g)
Ann Arbor	14,509	Herbert M. Slauson	1	Sept. 1, 1908	2,500
Battle Creek	18,563	William G. Coburn	1	July 15, 1908	2,400
Bay City	40,747	John A. Stewart	1	July 31, 1908	3,000
Benton Harbor	6,562	William Robins Wright	1	May 29, 1908	1,800
Bessemer	3,911	Matthew J. Walsh	1	June 19, 1908	1,500
Big Rapids	4,686	Arthur S. Hudson	1	July —, 1908	1,500
Cadillac	5,997	George A. McGee	1	.....do.....	2,000
Calumet	40,704	Henry Elton Kratz	2	.....do.....	3,500
Charlotte	4,092	Charles Howard Carrick	1	June 19, 1908	1,650
Cheboygan	6,489	Allen F. Wood	1	.....do.....	1,350
Coldwater	6,212	Edward M. McElroy	1	June —, 1908	1,600
Detroit	285,704	Wales C. Martindale	3	July —, 1909	6,000
Dowagiac	4,151	Warren E. Conkling	1	June —, 1908	1,600
Escanaba	9,549	F. Dayton Davis	3	Sept. 1, 1908	2,500
Flint	13,103	Alvin Nelson Cody	2	July 1, 1908	2,000
Gladstone	3,380	E. J. Willman [h]	(g)	(g)	(g)
Grand Haven	4,743	Lawrence H. Van den Berg	1	June 24, 1908	1,400
Grand Rapids	87,565	William Albert Greeson	1	July 1, 1908	3,500
Hancock	4,050	Eugene La Rowe	1	June —, 1900	1,900
Hillsdale	4,151	S. J. Gier	3	——— —, 1910	1,500
Holland	7,790	Willis T. Bishop	2	July —, 1909	1,800
Houghton	3,359	John A. Doelle	1	June —, 1908	2,000
Ionia	5,209	Hiram C. Daley	1	Sept. —, 1908	1,400
Iron Mountain	9,242	Lee E. Amidon	1	June 30, 1908	2,500
Ironwood	9,705	John V. Brennan	1	.....do.....	2,200
Ishpeming	13,255	E. E. Scribner	1	June —, 1908	3,000
Jackson	25,180	Le Roy S. Norton	1	June 19, 1908	2,500
Kalamazoo	24,404	Shattuck O. Hartwell	1	July 1, 1908	2,800
Lansing	16,485	Edward P. Cummings	1	June —, 1908	2,000
Ludington	7,166	Guy D. Smith [i]	1	July 13, 1908	1,800
Manistee	14,260	Samuel W. Baker	1	June 30, 1908	2,000
Manistique	4,126	W. E. Hanson	1	July 1, 1908	1,800
Marine City	3,829	Leland W. Carr	1	June 30, 1908	1,250
Marquette	10,058	Kendall P. Brooks [j]	1	July 1, 1908	2,250
Marshall	4,370	Ralph Stillman Garwood	1	June —, 1908	1,600
Menominee	12,818	Richmond Henry Kirtland [k]	1	July —, 1908	2,400
Monroe	5,043	F. J. S. Tooze	2	Sept. 3, 1909	1,800
Mount Clemens	6,576	John P. Everett	1	June 26, 1908	1,700
Mount Pleasant	3,362	Charles Erna White	1	June 15, 1908	1,250
Muskegon	20,818	Joseph M. Frost	1	July —, 1908	2,800
Negaunee	6,935	Orr Schurtz	1	Sept. 7, 1908	1,900
Niles	4,287	John D. Schiller	1	June —, 1908	1,600

[a] Saugus and Stoneham have the same superintendent.
[b] Fairfield Whitney, 1908–9.
[c] Charles S. Clark, 1908–9.
[d] Mansfield and Stoughton have the same superintendent.
[e] Indefinite.
[f] For 2½ days per week.
[g] No data.
[h] For 1906–7; no later information.
[i] F. E. Millar, 1908–9.
[j] Gustave Wm. Gehrand, 1908–9.
[k] E. J. Shives, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
MICHIGAN—continued.					
Norway	4,170	Charles Edward Cullen	1	July 1,1908	$1,800
Owosso	8,696	James W. Simmons	1	Sept. 3,1908	1,800
Petoskey	5,285	Howard Martin Elliott	1	June 19,1908	1,500
Pontiac	9,769	F. P. Buck [a]	(b)	(b)	(b)
Port Huron	19,158	Walter F. Lewis	1	July 1,1908	2,050
Saginaw:					
East side	42,345	Eugene Clarence Warriner	1	June 30,1908	2,000
West side		Philipp Huber	1	July 1,1908	2,100
St. Joseph	5,155	Ernest P. Clarke	1	June 1,1908	1,800
Sault Ste. Marie	10,538	Edgar E. Ferguson	1	June 30,1908	2,500
South Haven	4,009	Arthur Douglas Prentice	1	Sept. —,1908	1,400
Three Rivers	3,550	Leon Lewis Tyler	1	June 12,1908	1,400
Traverse City	9,407	Isaac B. Gilbert	2	June —,1909	2,100
Wyandotte	5,183	F. H. Sooy [a]	(b)	(b)	(b)
Ypsilanti	7,378	William Benton Arbaugh	3	July 1,1910	2,000
MINNESOTA.					
Albert Lea	4,500	Eugene M. Phillips	1	July 1,1908	2,000
Anoka	3,769	Frederick J. Sperry	1	June 1,1908	1,500
Austin	5,474	George A. Franklin	1	June —,1908	2,100
Brainerd	7,524	T. B. Hartley	(b)	(b)	(b)
Crookston	5,359	Ezra Elmer McIntire	3	June —,1910	2,000
Duluth	52,969	Robert E. Denfeld	3	Aug. 1,1911	4,000
Ely	3,717	Charles L. Newberry	1	June 15,1908	2,000
Eveleth	2,752	Burton O. Greening	1	Sept. 1,1908	2,500
Faribault	7,868	Virgil Laurens Jones	1	June —,1908	1,700
Fergus Falls	6,072	Ray B. MacLean	1	June 10,1908	1,500
Hastings	3,811	Edgar L. Porter [a]	(b)	(b)	(b)
Little Falls	5,774	Harry E. White	1	June 1,1908	1,800
Mankato	10,599	James M. McConnell	1	.....do.....	1,900
Minneapolis	202,718	Charles Morison Jordan	3	July 1,1910	5,250
Moorhead	3,730	Freeman E. Lurton	1	June —,1908	1,700
New Ulm	5,403	Ernest T. Critchett	2	July 31,1909	1,800
Owatonna	5,561	P. J. Kuntz	3	June 1,1908	1,800
Red Wing	7,525	John L. Silvernale	1	.....do.....	1,700
Rochester	6,843	Lester S. Overholt	1	Sept. —,1908	1,900
St. Cloud	8,663	August N. Farmer	1	June 1,1908	2,150
St. Paul	163,065	S. L. Heeter	2	June —,1908	4,000
St. Peter	4,302	P. B. Kennedy	1	June 1,1908	1,500
Stillwater	12,318	Darius Steward	1	July 31,1908	2,100
Virginia	2,962	Lafayette Bliss	(b)	—— —,1909	2,600
Willmar	3,409	P. C. Tonning	1	Sept. 1,1908	1,600
Winona	19,714	Charles R. Frazier	1	July 31,1908	2,300
MISSISSIPPI.					
Biloxi	5,467	Jackson M. Young	1	May 29,1908	1,500
Columbus	6,484	Joe Cook	3	June —,1908	2,000
Corinth	3,661	William Peyton Dobbins	1	May 27,1908	1,500
Greenville	7,642	E. E. Bass	(c)	(c)	2,000
Hattiesburg	4,175	Friley B. Woodley	2	Sept. 1,1908	2,000
Jackson	7,816	Robert Torrey	1	.....do.....	2,000
Laurel	3,193	Richard Henry Watkins	1	.....do.....	1,800
McComb	4,477	Lowrey R. Powell	1	May 29,1908	1,800
Meridian	14,050	John Clayton Fant	3	Apr. —,1910	2,250
Natchez	12,210	J. H. Owings	(b)	(b)	(b)
Vicksburg	14,834	J. P. Carr	1	Sept. —,1908	2,000
Water Valley	3,813	Nathaniel E. Traywick	3	May 29,1908	1,800
Yazoo City	4,944	M. Rose	1	June 1,1908	2,000
MISSOURI.					
Aurora	6,191	Millard F. Butler	1	May 22,1908	1,000
Boonville	4,377	M. A. O'Rear	1	May 21,1908	1,500
Brookfield	5,484	J. W. White	1	Sept. —,1908	1,400
Cape Girardeau	4,815	A. W. Lawson [a]	(b)	(b)	(b)
Carterville	4,445	O. N. Waltz [a]	(b)	(b)	(b)
Carthage	9,416	Joseph Martin White	1	June 30,1908	2,500
Chillicothe	6,905	Frank L. Wiley	1	.....do.....	1,200
Clinton	5,061	Arthur Lee	1	June 1,1908	1,450
Columbia	5,651	William Henry Hays	1	Aug. 1,1908	1,500
De Soto	5,611	W. C. Ogier	1	July 1,1908	1,320
Fulton	4,883	J. C. Humphreys	(b)	(b)	(b)
Hannibal	12,780	(b)	(b)	(b)	(b)
Independence	6,974	William L. C. Palmer	1	May 29,1908	1,720
Jefferson City	9,664	R. B. D. Simonson	1	May 22,1908	1,500
Joplin	26,023	Edmund J. Vert [d]	2	July 31,1908	2,500
Kansas City	163,752	James Mickleborough Greenwood	1	July 1,1908	4,500
Kirksville	5,966	W. J. Banning [a]	(b)	(b)	(b)
Lexington	4,190	Melvin J. Patterson	1	May 31,1908	1,500

[a] For 1906–7; no later information.
[b] No data.
[c] Indefinite.
[d] George Victor Buchanan, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
MISSOURI—continued.					
Louisiana	5,131	Elizabeth Whitaker	1	May 22, 1908	$1,300
Macon	4,068	William A. Annin [a]	1	June 30, 1908	1,200
Marshall	5,086	Henry H. Edmiston	(b)	(b)	(b)
Maryville	4,577	Charles A. Hawkins	1	May 22, 1908	1,500
Mexico	5,099	Lee B. Hawthorne	1	June —, 1908	1,500
Moberly	8,012	J. C. Lilly [c]	(b)	(b)	(b)
Nevada	7,461	J. W. Storms	(b)	(b)	(b)
Poplar Bluff	4,321	W. L. Barrett [c]	(b)	(b)	(b)
Rich Hill	4,053	L. F. Robinson [c]	(b)	(b)	(b)
St. Charles	7,982	Joseph Herring [c]	(b)	(b)	(b)
St. Joseph	102,979	John A. Whiteford	2	July 1, 1908	3,000
St. Louis	575,238	F. Louis Soldan [d]	4	May 8, 1909	7,000
Sedalia	15,231	George Victor Buchanan [e]	1	Sept. 1, 1908	2,200
Springfield	23,267	Jonathan Fairbanks	1	June 30, 1908	2,250
Trenton	5,396	C. A. Greene	(b)	(b)	(b)
Warrensburg	4,724	W. E. Morrow	1	July 1, 1908	1,200
Webb City	9,201	R. S. Nichols [c]	(b)	(b)	(b)
MONTANA.					
Anaconda	9,453	William Kilian Dwyer	1	July 31, 1908	2,700
Bozeman	3,419	Risdon J. Cunningham	1	Aug. 31, 1908	2,000
Butte	30,470	Robert G. Young	1	Sept. 30, 1908	4,000
Great Falls	14,930	Samuel D. Largent	1	Sept. 1, 1908	2,750
Helena	10,770	Randall J. Condon	1	Aug. —, 1908	3,600
Missoula	4,366	J. Ulysses Williams	1	Apr. 1, 1908	1,800
NEBRASKA.					
Beatrice	7,875	Clark A. Fulmer [f]	3	Aug. 1, 1910	2,000
Fremont	7,241	A. H. Waterhouse	(b)	(b)	(b)
Grand Island	7,554	Robert J. Barr	3	July —, 1909	2,000
Hastings	7,188	John D. French [g]	1	May 29, 1908	1,900
Kearney	5,634	George Burgert	1	June —, 1908	1,560
Lincoln	40,169	William Logan Stephens	3	Aug. —, 1909	2,700
Nebraska City	7,380	Neil Sinclair	1	June 5, 1908	1,600
Norfolk	3,883	Edwin J. Bodwell [g]	3	June 1, 1910	1,650
North Platte	3,640	Paul Goss	2	—— —, 1908	1,400
Omaha	102,555	W. M. Davidson	(b)	(b)	(b)
Plattsmouth	4,964	John W. Gamble	1	July 1, 1908	1,500
South Omaha	26,001	N. M. Graham	3	July —, 1910	2,500
York	5,132	Walter Wells Stoner	3	July —, 1908	1,500
NEVADA.					
Reno	4,500	W. E. Pruett	1	Sept. 1, 1908	2,500
NEW HAMPSHIRE.					
Berlin	8,886	George H. Whitcher	1	July 1, 1908	1,800
Claremont	6,498	William H. Cummings	1	Aug. 1, 1908	1,950
Concord:					
Union district	19,623	Louis John Rundlett	1	July 1, 1908	2,000
Penacook district [h]		William H. Slayton	1	Sept. —, 1908	[i] 1,450
Dover	13,207	Austin H. Keyes	1	Feb. —, 1908	2,000
Exeter	4,922	(b)	(b)	(b)	(b)
Franklin [h]	5,946	William H. Slayton [j]	1	Sept. —, 1908	[i] 1,450
Keene (Union district)	9,165	George A. Keith	1	July 1, 1908	1,300
Laconia	8,042	Joseph H. Blaisdell	1	.....do.....	1,300
Manchester	56,987	Charles W. Bickford	2	.....do.....	2,300
Nashua	23,898	James H. Fassett	1	Jan. 1, 1909	2,000
Portsmouth	10,537	Ernest Leroy Silver	1	July —, 1908	1,850
Rochester	8,466	Andrew Jackson	1	.....do.....	1,000
Somersworth	7,032	Chauncey C. Ferguson	1	July 15, 1908	1,500
NEW JERSEY.					
Asbury Park	4,148	Fred Strong Shepherd	1	Sept. —, 1908	3,000
Atlantic City	27,838	Charles B. Boyer	3	July 1, 1910	3,000
Bayonne	32,722	James H. Christie	3	Sept. —, 1910	3,000
Bloomfield	9,668	George Morris	3	—— —, 1909	3,200
Boonton	3,901	Milo P. Reagle	1	June 30, 1908	1,550
Bordentown	4,110	William Macfarland	3	June 30, 1909	1,500
Bridgeton	13,913	Edgar J. Hitchner	1	June —, 1908	1,200
Burlington	7,392	Wilbur Watts [c]	(b)	(b)	(b)
Camden	75,935	James E. Bryan	3	Jan. 1, 1911	3,500

[a] S. E. Seaton, 1908–9.
[b] No data.
[c] For 1906–7; no later information.
[d] Died March 27, 1908.
[e] John P. Gass, 1908–9.
[f] Edwin J. Bodwell, 1908–9.
[g] Resigned; successor for 1908–9 not known.
[h] Penacook district, Concord, and Franklin have the same superintendent.
[i] Total salary from district comprising Franklin, Penacook district of Concord and Boscawen.
[j] For 1908–9 a new district, comprising Franklin, Northfield, and Tilton, was formed, electing Ernest Caleb superintendent.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
NEW JERSEY—cont'd.					
Dover	5,938	J. Howard Hulsart	1	June 30, 1908	$2,000
East Orange	21,506	Vernon L. Davey	5	July —, 1908	4,000
Elizabeth	52,130	Richard Ernest Clement	7	July 1, 1914	2,700
Englewood	6,253	Elmer C. Sherman	3	July 1, 1908	3,000
Garfield	3,504	William H. Steegar	1	June —, 1908	1,450
Gloucester City	6,840	William C. Sullivan [a]	(b)	(b)	(b)
Hackensack	9,443	Isaac A. Demarest [c]	(b)	(b)	(b)
Harrison	10,596	John Dwyer	2	Mar. 30, 1910	2,100
Hoboken	59,364	Abraham Jay Demarest	(d)	(d)	3,000
Irvington	5,255	Frank H. Morrell	1	July —, 1908	2,000
Jersey City	206,433	Henry Snyder	(d)	(d)	6,000
Kearny (P. O., Arlington).	10,896	Herman Dressel, jr	1	July 1, 1908	2,500
Lambertville	4,637	Louis E. Boutwell	1	June 30, 1908	1,500
Long Branch	8,872	Christopher Gregory	(d)	(d)	3,300
Madison	3,754	Marcellus Oakey	(b)	(b)	(b)
Millville	10,583	Harry F. Stauffer	1	June 21, 1908	1,700
Montclair	13,962	Randall Spaulding	(d)	(d)	4,000
Morristown	11,267	W. L. R. Haven	1	July 1, 1908	3,750
Newark	246,070	Addison B. Poland	(b)	(b)	(b)
New Brunswick	20,006	William Clinton Armstrong	1	June 30, 1908	2,500
Newton	4,376	Charles J. Majory	1	June —, 1908	1,500
North Plainfield	5,009	Henry C. Krebs	1	June 30, 1908	1,800
Orange	24,141	James G. Riggs	1	June —, 1908	3,500
Passaic	27,777	O. I. Woodley [a]	(b)	(b)	(b)
Paterson	105,171	John R. Wilson	(d)	(d)	3,600
Perth Amboy	17,699	S. E. Shull	(b)	(b)	(b)
Phillipsburg	10,052	Lewis Osmon Beers	2	Apr. —, 1908	1,620
Plainfield	15,369	Henry M. Maxson	(d)	(d)	4,000
Princeton	3,899	Mabel T. Vanderbilt, principal	(b)	(b)	(b)
Rahway	15,369	William James Bickett	3	July —, 1910	2,400
Red Bank	5,428	Stephen V. Arrowsmith	1	June 20, 1908	2,450
Ridgewood	2,685	William T. Whitney [a]	(b)	(b)	(b)
Rutherford	4,411	Stephen Bedle Gilhuly	1	June 30, 1908	2,200
Salem	5,811	Morris H. Stratton [a]	(b)	(b)	(b)
Somerville	4,843	William A. Ackerman	1	June —, 1908	2,000
South Amboy	6,349	Russel M. Fitch	1	.....do.....	1,320
South Orange	4,608	H. W. Foster	3	June 30, 1909	3,000
Summit	5,302	Miss Louise Connolly	1	June 30, 1908	2,400
Town of Union	15,187	Otto Ortel	(d)	(d)	2,800
Trenton	73,307	Ebenezer Mackey	(d)	(d)	3,400
Vineland	4,370	J. J. Unger	1	July 1, 1907	1,650
Westfield	4,328	J. J. Savitz [a]	(b)	(b)	(b)
West Hoboken	23,094	Elleott J. Tomlinson	(b)	(b)	(b)
West New York	5,267	Jared Barhite	(b)	(b)	(b)
West Orange	6,889	Alton Harvey Sherman	1	June —, 1908	3,000
Woodbury	4,087	Henry C. Dixon	3	June —, 1910	1,800
NEW MEXICO.					
Albuquerque	6,238	Wellington D. Sterling	1	July 1, 1908	2,200
Raton	.....	A. D. Hoenshel [e]	(b)	(b)	(b)
Santa Fe	.....	James A. Wood	1	July 1, 1908	1,200
NEW YORK.					
Albany	94,151	Charles W. Cole	(d)	(d)	3,000
Albion	4,477	Willis G. Carmer	1	Aug. 1, 1908	1,800
Amsterdam	20,929	Harrison T. Morrow	(d)	(d)	(d)
Auburn	30,345	Alfred C. Thompson	1	Aug. 1, 1908	3,000
Ballston Spa	3,923	A. A. Lavery	1	July —, 1908	1,400
Batavia	9,180	John Kennedy	1	July 1, 1908	2,000
Bath	4,994	Floyd M. Fernalld	2	June —, 1909	1,350
Binghamton	39,647	Joseph Edward Banta	(d)	(d)	2,700
Buffalo	352,387	Henry P. Emerson	4	Jan. 1, 1912	5,000
Canandaigua	6,151	Luther Norton Steele	1	Aug. 1, 1908	2,000
Catskill	5,484	J. T. P. Calkins	1	.....do.....	1,500
Cohoes	23,910	Edward Hayward	4	July 1, 1909	2,000
Corning:					
District No. 9	11,061	Leigh Richmond Hunt	(d)	(d)	2,750
District No. 13		A. M. Blodgett	1	June —, 1908	1,600
Cortland	9,014	Ferdinand E. Smith	3	Aug. 1, 1909	2,250
Dansville	3,633	Edward J. Bonner	1	June 25, 1908	1,700
Dunkirk	11,616	George M. Wiley	1	July 31, 1908	2,200
Elmira	35,672	William J. Deans	(d)	(d)	2,350
Fishkill Landing	3,673	G. F. Du Bois	(b)	(b)	(b)
Fredonia	4,127	William B. Blaisdell	(b)	(b)	(b)
Fulton	5,281	James R. Fairgrieve	2	Dec. 31, 1909	2,400

[a] For 1906–7; no later information.
[b] No data.
[c] Bert Emery Merriam, 1908–9.
[d] Indefinite.
[e] Thomas W. Conway, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
NEW YORK—continued.					
Geneva	10,433	William Henry Truesdale	(a)	(a)	$2,500
Glens Falls	12,613	E. W. Griffith	(b)	(b)	(b)
Gloversville	18,349	James A. Estee	1	July 31, 1908	2,600
Gouverneur	3,689	John B. Laidlaw	1	June —, 1908	1,600
Granville	2,700	Raymond E. Brown	1	June 30, 1908	1,600
Green Island	4,770	James Heatly	1	Aug. 1, 1908	1,800
Haverstraw	5,935	L. O. Markham	1	Sept. —, 1908	1,800
Hempstead	3,582	H. H. Chapman	1	June 20, 1908	2,300
Herkimer	5,555	Charles Latimer Mosher	1	June —, 1908	1,900
Hoosick Falls	5,671	Clyde L. Harvey	1	Sept. —, 1908	1,650
Hornell	11,918	Elmer S. Redman	1	June —, 1908	2,400
Hudson	9,528	Charles S. Williams	1	July —, 1908	2,000
Ilion	5,138	Frank D. Warren	1	June —, 1908	1,800
Ithaca	13,136	Frank D. Boynton	5	—— —, 1910	(b)
Jamestown	22,892	Rovillus R. Rogers	3	July 1, 1908	2,500
Johnstown	10,130	Frank W. Jennings	1	Sept. 1, 1908	2,200
Kingston	24,535	Sylvester R. Shear	(a)	(a)	2,800
Lancaster	3,750	Levi C. Higley	1	June 19, 1908	1,400
Lansingburg	12,595	George F. Sawyer	1	Sept. 1, 1908	1,800
Lestershire	3,111	Frank M. Smith	1	June 30, 1908	1,500
Little Falls	10,381	A. J. Merrell	1	July 31, 1908	2,000
Lockport	16,581	Emmet Belknap	1	Aug. 31, 1908	2,400
Lyons	4,300	W. H. Kinney	1	Sept. —, 1908	1,800
Malone	5,935	Miss Sarah Perry	(b)	(b)	(b)
Mamaroneck	4,722	George J. McAndrew	1	Sept. —, 1908	c 2,000
Matteawan	5,807	Norman C. Gile d	(b)	(b)	(b)
Mechanicsville	4,695	Lyman B. Blakeman	1	July 1, 1908	1,500
Medina	4,716	James C. Van Etten	1	June 26, 1908	1,800
Middletown	14,522	James F. Tuthill	1	June —, 1908	2,200
Mount Vernon	20,346	Charles E. Nichols	4	Feb. 15, 1909	3,250
Newark	4,578	William Marion Fort	1	Sept. —, 1908	1,600
Newburgh	24,943	James M. Crane	1	Mar. —, 1908	2,200
New Rochelle	14,720	Albert Leonard	3	Aug. 31, 1910	3,000
New York	3,437,202	William H. Maxwell	6	Mar. —, 1910	10,000
Niagara Falls	19,457	Reuben A. Taylor	1	July 31, 1908	2,500
North Tarrytown	4,241	C. Leslie Jaynes	1	June 16, 1908	1,600
North Tonawanda	9,069	Richard A. Searing	3	July —, 1909	2,300
Norwich	5,766	Stanford J. Gibson	1	June —, 1908	1,800
Nyack	4,275	Ira H. Lawton	(b)	(b)	(b)
Ogdensburg	12,633	H. H. Southwick d	(b)	(b)	(b)
Olean	9,462	Samuel J. Slawson	1	Aug. 1, 1908	2,200
Oneida	6,364	Avery W. Skinner	3	Aug. 1, 1910	2,000
Oneonta	7,147	Harry Westcott Rockwell	1	Sept. —, 1908	1,700
Ossining	7,939	W. H. Ryan	2	July —, 1909	2,500
Oswego	22,199	George E. Bullis	(b)	(b)	(b)
Owego	5,039	Francis C. Byrn e	1	Aug. 1, 1908	1,100
Peekskill:					
Dist. No. 7 (Drumhill).	10,358	William J. Millar	1	Aug. 31, 1908	1,800
Dist. No. 8 (Oakside).		Alexander D. Dunbar	1	July 31, 1908	2,000
Penn Yan	4,650	N. Winton Palmer	1	....do.....	1,200
Plattsburg	8,434	Frank K. Watson	1	June 26, 1908	1,900
Port Chester	7,440	Edgar G. Lantman	3	July 1, 1910	2,800
Port Jervis	9,385	John M. Dolph	1	July 31, 1908	1,800
Potsdam	3,843	L. E. Roberts	1	June —, 1908	1,100
Poughkeepsie	24,029	William Alexander Smith	(a)	(a)	2,500
Rensselaer	7,466	Austin R. Coulson	2	July 31, 1908	1,500
Rochester	162,608	Clarence F. Carroll	4	July 15, 1911	5,000
Rome	15,343	Lewis N. Crane	1	Sept. —, 1908	2,300
Rye	3,603	Forrest F. Shults	3	June —, 1910	2,200
Salamanca	4,251	Thomas Stone Bell	1	June 26, 1908	1,700
Sandy Hill	4,473	Francis A. Tefft	(a)	(a)	1,600
Saratoga Springs	12,409	Thomas R. Kneil	(b)	(b)	(b)
Schenectady	31,682	John Thomas Freeman f	(a)	(a)	3,000
Seneca Falls	6,519	Everett K. Van Allen	1	June —, 1908	1,600
Solvay	3,493	C. O. Richards	1	Sept. —, 1908	1,800
Syracuse	108,374	Andrew Burr Blodgett	4	Jan. 1, 1911	4,000
Tarrytown	4,770	L. V. Case d	(b)	(b)	(b)
Tonawanda	7,421	Frank K. Sutley	3	June —, 1908	2,000
Troy	60,651	Edwin S. Harris g	(a)	(a)	3,000
Utica	56,383	Martin G. Benedict	(a)	(a)	3,300
Waterloo	4,256	Harry B. Smith	1	July —, 1908	1,800
Watertown	21,696	Frank S. Tisdale	1	Aug. 1, 1908	2,500
Watervliet	14,321	Hugh Henry Lansing	1	Sept. 1, 1908	1,800
Waverly	4,465	Edwin B. Robbins	1	July 1, 1908	1,500
Whitehall	4,377	George S. Ellis	1	June 30, 1908	1,600
White Plains	7,899	Guy H. Baskerville h	3	Aug. 1, 1908	2,900
Yonkers	47,931	Charles E. Gorton	(a)	(a)	5,000

a Indefinite.
b No data.
c Not including an allowance of $400 for expenses.
d For 1906–7; no later information.
e Isaac S. Carroll, 1908–9.
f A. R. Brubacher, 1908–9.
g Edward Edwards, jr., 1908–9.
h Charles C. Ramsay, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
NORTH CAROLINA.					
Asheville	14,694	Richard J. Tighe	1	Aug. —, 1908	$2,200
Burlington	3,692	Frank H. Curtiss	1	June 30, 1908	1,500
Charlotte	18,091	Alexander Graham [a]	(b)	(b)	(b)
Concord	7,910	Jay D. Lentz [c]	(b)	(b)	(b)
Durham	6,679	William Donald Carmichael	1	June 3, 1908	2,100
Elizabeth City	6,348	Samuel Lloyd Sheep	1	July 1, 1908	1,500
Fayetteville	4,670	J. A. Jones	1	May 19, 1908	1,600
Gastonia	4,610	Joseph S. Wray	1	May 31, 1908	1,500
Goldsboro	5,877	Albert E. Waltz	1	May 22, 1908	1,500
Greensboro	10,035	W. H. Swift [a]	(b)	(b)	(b)
Henderson	3,746	J. T. Alderman	(b)	(b)	(b)
High Point	4,163	George H. Crowell	1	May 2, 1908	1,500
Kinston	4,106	L. Cranmer Brogden	1	May 8, 1908	1,200
Newbern	9,090	Harvey B. Craven	1	June 30, 1908	1,500
Raleigh	13,643	Francis Marion Harper	1	May 29, 1908	2,000
Salisbury	6,277	Isaac C. Griffin	1	June 1, 1908	1,500
Washington	4,842	Harry Howell	1	July 1, 1908	1,500
Wilmington	20,976	John Jay Blair [a]	(b)	(b)	(b)
Wilson	3,525	Charles L. Coon	1	July 1, 1908	1,500
Winston-Salem	10,008	William Seaton Snipes	1	June 1, 1908	1,500
NORTH DAKOTA.					
Bismarck	3,319	William Moore	(b)	(b)	(b)
Fargo	9,589	William E. Hoover	1	July 31, 1908	2,400
Grand Forks	7,652	J. Nelson Kelly	(b)	(b)	(b)
Jamestown	2,853	A. G. Crane	1	May 29, 1908	1,700
Minot	1,277	Samuel Henry Wolf	1	June 1, 1908	1,800
Valley City	2,446	George W. Hanna	1	July 1, 1908	1,800
OHIO.					
Akron	42,728	Henry V. Hotchkiss	5	Sept. 1, 1910	3,600
Alliance	8,974	John E. Morris	3	July —, 1908	2,000
Ashland	4,087	E. P. Dean [a]	(b)	(b)	(b)
Ashtabula	12,949	E. A. Hotchkiss	4	July 1, 1911	2,400
Barberton	4,354	James M. Carr	2	Sept. 1, 1909	1,650
Barnesville	3,721	William R. Butcher	1	Aug. 31, 1908	1,500
Bellaire	9,912	J. R. Anderson [a]	(b)	(b)	(b)
Bellefontaine	6,649	John W. MacKinnon	2	Aug. 31, 1909	750
Bellevue	4,101	E. F. Warner	2	(b)	1,400
Bowling Green	5,067	N. D. O. Wilson [a]	(b)	(b)	(b)
Bridgeport	3,963	Samuel A. Gillett	2	Sept. —, 1909	1,800
Bucyrus	6,500	William Nelson Beetham	3	June —, 1910	1,700
Cambridge	8,241	H. Z. Hobson	4	Sept. 1, 1911	1,800
Canal Dover	5,422	Franklin P. Geiger	2	July 1, 1909	1,650
Canton	30,667	John K. Baxter	3	July —, 1908	2,700
Chillicothe	12,976	M. E. Hard	(b)	(b)	(b)
Cincinnati	325,902	Frank B. Dyer	5	Sept. —, 1912	6,000
Circleville	6,991	C. L. Boyer	1	Sept. 1, 1908	1,800
Cleveland	381,768	William H. Elson	5	—— —, 1912	6,000
Collinwood	3,639	Frank P. Whitney	3	June —, 1908	1,900
Columbus	125,560	Jacob A. Shawan	(b)	(b)	(b)
Conneaut	7,133	C. T. Northrop	5	July —, 1910	2,000
Coshocton	6,473	Herman S. Piatt [d]	3	—— —, 1908	1,800
Dayton	85,333	John Wesley Carr [e]	3	Aug. 31, 1908	4,800
Defiance	7,579	Frank E. Reynolds	4	Aug. 31, 1910	1,500
Delaware	7,940	William McK. Vance	3	Aug. 31, 1909	2,200
Delphos	4,517	T. W. Shimp	1	Sept. —, 1908	1,600
Dennison	3,763	W. H. Angel [a]	(b)	(b)	(b)
East Liverpool	16,485	Robert E. Rayman [f]	(b)	(b)	(b)
Elyria	8,791	William R. Comings	2	Sept. 1, 1908	2,000
Findlay	17,613	J. N. Zeller	4	—— —, 1911	[g] 2,300
Fostoria	7,730	Samuel Herrick Layton [h]	2	July —, 1908	1,800
Fremont	8,439	J. E. Collins [a]	(b)	(b)	(b)
Galion	7,282	I. C. Guinther	3	July —, 1909	1,900
Gallipolis	5,432	Harvey Evan Conard	2	July 1, 1908	1,800
Greenfield	3,979	E. Wallace Patterson	2	Aug. —, 1909	1,500
Greenville	5,501	William S. Rowe	1	July 1, 1908	2,000
Hamilton	23,914	Darrell Joyce	3	Aug. —, 1908	2,500
Hillsboro	4,535	F. H. Warren [i]	2	.....do.....	1,500
Ironton	11,868	Sardine P. Humphrey	4	Sept. 1, 1909	1,900
Jackson	4,672	James E. Kinnison	3	June —, 1908	1,700
Kent	4,541	Reed P. Clark	3	June 12, 1908	1,800
Kenton	6,852	N. E. Hutchinson [a]	(b)	(b)	(b)
Lancaster	8,991	H. A. Cassidy	2	June 30, 1909	1,800
Lima	21,723	John Davison	5	June 30, 1910	2,400
Lorain	16,028	Albert C. Eldredge	3	Sept. 1, 1908	2,000

[a] For 1906–7; no later information.
[b] No data.
[c] Acting superintendent.
[d] Succeeded by C. E. Bryant, April 1, 1908.
[e] Edwin J. Brown, 1908–9.
[f] F. H. Warren, 1908–9.
[g] For each of the last two years, $2,400.
[h] Successor for 1908–9 not known.
[i] W. E. Arter, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
OHIO—continued.					
Mansfield	17,640	H. H. Helter	(a)	(a)	(a)
Marietta	13,348	J. V. McMillan	3	Aug. —,1908	$2,100
Marion	11,862	H. L. Frank	(a)	(a)	(a)
Martins Ferry	7,760	Lewis Edwin York	2	Aug. —,1909	2,000
Massillon	11,944	C. L. Cronebaugh	3	Aug. 31,1908	2,100
Miamisburg	3,941	William F. Trump	3	Sept. —,1910	1,800
Middletown	9,215	Arthur Powell	4	—— —,1909	2,400
Mount Vernon	6,633	John S. Alan	3	—— —,1910	2,000
Nelsonville	5,421	Aaron Grady	(a)	(a)	(a)
Newark	18,157	Joshua Dean Simkins	3	Sept. —,1908	2,200
Newburg	5,909	B. F. Stevenson [b]	(a)	(a)	(a)
New Philadelphia	6,212	George C. Maurer	3	July —,1908	1,850
Niles	7,468	Frank J. Roller	3	Sept. 1,1908	2,220
North Baltimore	3,561	Gilbert L. Brown	1	May 22,1908	1,200
Norwalk	7,074	A. D. Beechy	2	Aug. 31,1908	1,700
Norwood	6,480	W. S. Cadman	(a)	(a)	(a)
Oberlin	4,082	Ward H. Nye [b]	(a)	(a)	(a)
Painesville	5,024	Franklin H. Kendall	3	June —,1910	1,750
Piqua	12,172	J. Reuben Beachler	2	Sept. 1,1909	2,000
Pomeroy	4,639	C. T. Coates	(a)	(a)	(a)
Portsmouth	17,870	John Imboden Hudson [c]	1	June 30,1908	2,100
Ravenna	4,003	Edward O. Trescott	4	Sept. —,1911	1,800
St. Bernard	3,384	U. L. Monce	(a)	(a)	(a)
St. Marys	5,359	Charles C. McBroom	1	June 1,1908	1,200
Salem	7,582	Jesse S. Johnson	1	Aug. 31,1908	2,000
Sandusky	19,664	Homer B. Williams	5	Aug. 31,1909	2,600
Shelby	4,685	S. H. Maharry	4	May 29,1910	1,500
Sidney	5,688	Herbert R. McVay	3	Sept. 1,1908	1,950
Springfield	38,253	Carey Boggess	5	Aug. 31,1912	2,700
Steubenville	14,349	Robert Louis Ervin	1	Aug. 31,1908	2,300
Tiffin	10,989	Charles A. Krout	5	June —,1912	1,800
Toledo	131,822	Charles L. Van Cleve	4	July 1,1911	4,500
Toronto	3,526	S. K. Mardis	3	July —,1908	1,650
Troy	5,881	Charles W. Cookson	3	Aug. 7,1910	2,000
Uhrichsville	4,582	Luther E. Everett	3	Sept. —,1908	1,350
Urbana	6,808	I. N. Keyser	3	(a)	1,800
Vanwert	6,422	J. P. Sharkey	5	Sept. —,1910	1,800
Wapakoneta	3,915	Charles Haupert	1	Sept. 1,1908	1,644
Warren	8,529	Charles E. Carey	5	Aug. 1,1910	2,500
Washington C. H	5,751	James F. Tuttle	2	Aug. 31,1909	1,800
Wellston	8,045	Elmer Sheridan McCall	3	.....do.....	1,500
Wellsville	6,146	James L. MacDonald [b]	(a)	(a)	(a)
Wilmington	3,613	Edwin P. West	3	Sept. 1,1909	1,716
Wooster	6,063	E. L. Thompson [b]	(a)	(a)	(a)
Xenia	8,696	Edwin Bruce Cox	3	Aug. 31,1908	2,000
Youngstown	44,885	N. H. Chaney	5	Aug. 31,1910	3,500
Zanesville	23,538	William D. Lash	3	July 1,1908	2,500
OKLAHOMA.					
Ardmore	5,681	Charles Evans	1	May 1,1908	1,800
Chickasha	3,209	W. P. Stewart	1	Sept. 2,1907	1,500
Durant	2,969	Joseph C. Adamson	1	June 1,1908	1,000
El Reno	3,383	Fred N. Howell	1	May 31,1908	1,500
Enid	3,444	T. W. B. Everhart	1	July 5,1908	2,000
Guthrie	10,006	Roy C. Cain	1	July 1,1908	1,500
McAlester	3,479	William Gay	1	May 29,1908	1,500
Muskogee	4,254	Charles W. Briles	1	June 30,1908	1,700
Oklahoma City	10,037	John Blackstone Taylor	1	July 1,1908	2,200
Perry	3,351	William Z. Smith	1	May 22,1908	1,200
Ponca	2,528	R. E. Tope	2	June 1,1908	1,200
Shawnee	3,462	Scott Glen [b]	(a)	(a)	(a)
OREGON.					
Astoria	8,381	Abraham L. Clark	1	Aug. 1,1908	1,500
Baker City	6,663	Julius A. Churchill	1	—— —,1908	2,100
Eugene	3,236	L. R. Alderman	(a)	(a)	(a)
Pendleton	4,406	J. S. Landers	1	May 31,1908	1,800
Portland	90,426	Frank Rigler [b]	(a)	(a)	(a)
Salem	4,258	James M. Powers	1	July 1,1908	1,500
The Dalles	3,542	Arthur C. Strange	1	June —,1908	1,550
PENNSYLVANIA.					
Allegheny	129,896	John Morrow	(a)	(a)	(a)
Allentown	35,416	Francis D. Raub	3	June 1,1908	1,750
Altoona	38,973	Homer J. Wightman [d]	3	May —,1908	2,400
Archbald	5,396	William A. Kelly	3	June 1,1908	1,200
Ashland	6,438	William C. Estler	3	—— —,1908	1,260

[a] No data.
[b] For 1906–7; no later information.
[c] Succeeded Jan. 1, 1908, by Frank Appel.
[d] H. H. Baish, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
PENNSYLVANIA—con.					
Ashley (Sta., Wilkes-Barre).	4,046	George W. Houck	(a)	(a)	(a)
Athens	3,749	George E. Rogers	1	Sept. —, 1908	$1,400
Bangor	4,106	John Wesley Gruver	3	June 1, 1908	1,200
Beaver Falls	10,054	Edward Maguire [b]	3	....do	1,800
Bellefonte	4,216	John D. Meyer	3	June —, 1908	1,500
Bellevue	3,416	Curtis C. Williamson	1	....do	2,050
Berwick	3,916	James G. Sigman	1	June 1, 1908	1,200
Bethlehem	7,293	Fred W. Robbins	3	....do	1,800
Blakely (P. O., Peckville).	3,915	Harry Bevan Anthony [c]	1	June 15, 1908	900
Bloomsburg	6,170	Lloyd Parvin Sterner	3	June 1, 1908	1,300
Braddock	15,654	Grant Norris	3	June —, 1908	2,400
Bradford	15,029	E. E. Miller	3	(a)	2,600
Bristol	7,104	Louise D. Baggs	3	June 1, 1908	1,000
Butler	10,853	John Arthur Gibson	3	....do	2,500
Carbondale	13,536	Thomas L. Gilmartin	(a)	(a)	(a)
Carlisle	9,626	John C. Wagner	3	June —, 1908	1,400
Carnegie	7,330	William S. Bryan [d]	3	June 1, 1908	1,710
Catasauqua	3,963	H. J. Reinhard [c e]	(a)	(a)	(a)
Chambersburg	8,864	Samuel Gelwix	3	June 1, 1908	1,200
Charleroi	5,930	William D. Wright	1	....do	1,600
Chester	33,988	Thomas S. Cole	3	June —, 1908	2,200
Clearfield	5,081	William H. Sprenkle	1	....do	1,500
Coatesville	5,721	William T. Gordon	3	June 1, 1908	1,500
Columbia	12,316	Daniel Fleisher	(a)	(a)	(a)
Connellsville	7,160	Walter S. Deffenbaugh	2	June —, 1909	1,500
Conshohocken	5,762	Elmer Bergey Ziegler	3	June —, 1908	1,500
Corry	5,369	Virgil G. Curtis	3	....do	1,600
Danville	8,042	Daniel N. Dieffenbacher	3	June 1, 1908	1,200
Darby	3,429	Charles P. Sweeney [c]	1	June —, 1908	1,500
Dickson City	4,948	James P. Wilson	3	Aug. 14, 1909	1,020
Donora	.....	Ora Earnest Rose	1	June 1, 1908	1,500
Dubois	9,375	J. H. Alleman	3	....do	2,000
Dunmore	12,583	Charles F. Hoban	3	June —, 1908	1,800
Duquesne	9,036	Clyde Henry Walford	1	June 1, 1908	2,100
Duryea	.....	Frederick J. Regan	3	July —, 1910	1,200
Easton	25,238	William White Cottingham	3	June —, 1908	2,000
Edwardsdale	5,165	J. O. Herman [e]	(a)	(a)	(a)
Erie	52,733	Henry Clay Messimer	3	June —, 1908	3,600
Etna	5,384	J. Q. A. Irvine	3	....do	1,700
Forest City	4,279	F. D. Van Orsdale	1	May 13, 1908	900
Franklin	7,317	Charles E. Lord	3	June 1, 1908	1,800
Freeland	5,254	E. F. Hanlon [e]	(a)	(a)	(a)
Gilberton	4,373	Michael J. Shore [d e]	(a)	(a)	(a)
Greensburg	6,508	Thomas S. March	3	June —, 1908	2,100
Greenville	4,814	James J. Palmer	3	June 1, 1908	1,600
Hanover	5,302	Joseph Caldwell Carey	3	....do	1,200
Harrisburg	50,167	Frederick E. Downes	3	June —, 1908	2,800
Hazleton	14,230	David A. Harman	3	June 8, 1908	2,200
Homestead	12,554	James M. Norris	3	June 1, 1908	2,400
Huntingdon	6,053	E. R. Barclay	3	....do	1,350
Indiana	4,142	James F. Chapman [d e]	(a)	(a)	(a)
Jeannette	5,865	Theo. B. Shank	3	June 6, 1908	1,500
Jersey Shore	3,070	H. H. Weber [d e]	(a)	(a)	(a)
Johnsonburg	3,894	G. B. Gerberich	3	—— —, 1908	1,550
Johnstown	35,936	James Nicol Muir	3	May 30, 1908	2,500
Kane	5,296	T. E. Lytle	3	June —, 1908	1,750
Kingston	3,846	George Evans [d]	1	Sept. 1, 1908	1,600
Kittanning	3,902	Frank W. Goodwin	3	June 1, 1908	1,600
Knoxville	3,511	Frederick C. Wilcox [d e]	(a)	(a)	(a)
Lancaster	41,459	Robert Koch Buehrle	3	—— —, 1908	2,000
Lansford	4,888	Elmer E. Kuntz	3	June 1, 1908	1,500
Latrobe	4,614	Arthur C. Klock	3	June 1, 1910	2,000
Lebanon	17,628	Robert T. Adams	3	June —, 1908	1,600
Lehighton	4,629	B. M. Shull [e]	(a)	(a)	(a)
Lewistown	4,451	W. F. Kennedy [c]	(a)	(a)	(a)
Lock Haven	7,210	Thomas M. Morrison [f]	3	June —, 1908	1,100
Luzerne	3,817	Theron G. Osborne [e]	(a)	(a)	(a)
McKeesport	34,227	J. Burdett Richey	(a)	(a)	(a)
McKees Rocks	6,352	F. H. Powers	3	June 1, 1910	2,250
Mahanoy City	13,504	William N. Ehrhart	3	June 1, 1908	1,650
Mauch Chunk	4,029	Halliday R. Jackson [e]	(a)	(a)	(a)
Meadville	10,291	Ulysses Grant Smith [g]	3	June —, 1908	1,800
Middletown	5,608	Harry J. Wickey	3	June 1, 1908	1,080
Millvale (Sta., Allegheny).	6,736	John C. R. Johnston	1	Sept. —, 1908	1,375

[a] No data.
[b] Andrew Lester, 1908–9.
[c] Supervising principal.
[d] Principal.
[e] For 1906–7; no later information.
[f] E. S. Ling, 1908–9.
[g] R. H. Bellows, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
PENNSYLVANIA—con.					
Milton	6,175	William Andrew Wilson	3	June 1,1908	$1,800
Minersville	4,815	Henry H. Spayd	3	June 9,1908	1,500
Monessen	2,197	Robert Wesley Himelich	3	June —,1908	1,800
Monongahela City	5,173	Renwick G. Dean	3	June 1,1910	1,600
Mount Carmel	13,179	Samuel H. Dean	3	June 1,1908	1,500
Mount Pleasant	4,745	Uric Lee Gordy	1	.....do.....	1,500
Nanticoke	12,116	John William Griffith	(a)	(a)	(a)
New Brighton	6,820	Clyde C. Green	2	June 1,1908	1,700
New Castle	28,339	Thomas A. Kimes	3	June —,1908	1,800
New Kensington	4,665	Arthur D. Horton	1	June 1,1908	1,620
Norristown	22,265	A. S. Martin	3	.....do.....	2,250
North Braddock	6,535	J. L. Spetler	1	.....do.....	1,600
Oil City	13,264	C. A. Babcock [b]	(a)	(a)	(a)
Old Forge	5,630	Francis R. Coyne	3	June 1,1908	1,200
Olyphant	6,180	Michael W. Cummings	3	.....do.....	1,200
Philadelphia	1,293,697	Martin G. Brumbaugh	1	Dec. 31,1908	7,500
Phoenixville	9,196	Robert Edward Laramy	3	June 1,1908	1,500
Pittsburg	321,616	Samuel Andrews	3	June —,1908	6,000
Pittston	12,556	Robert S. Thompson Shiel	3	June 7,1908	1,800
Plymouth	13,649	Edwin H. Scott	1	June 1,1908	1,500
Pottstown	13,696	William W. Rupert	3	May 4,1908	1,600
Pottsville	15,710	Stephen A. Thurlow	2	May —,1908	1,800
Punxsutawney	4,375	A. M. Hammers	1	June —,1908	1,800
Rankin	3,775	M. E. Thompson [c]	(a)	(a)	(a)
Reading	78,961	Charles S. Foos	3	June —,1908	3,000
Renovo	4,082	Jesse McKe Hostetter [d]	1	May 17,1908	1,000
Ridgway	3,515	Walter Merton Peirce	3	May 31,1908	2,000
Rochester	4,688	Orrin C. Lester	3	June 1,1908	1,500
St. Clair	4,638	Thomas G. Jones [c]	(a)	(a)	(a)
St. Marys	4,295	J. J. Lynch	1	May 22,1908	1,500
Sayre	5,243	I. F. Stetler [e]	(a)	(a)	(a)
Scottdale	4,261	Edgar Reed	1	June 1,1908	1,650
Scranton	102,026	George W. Phillips [f]	3	.....do.....	4,000
Sewickley	3,568	Frank E. Fickinger	1	.....do.....	2,200
Shamokin	18,202	Joseph Howerth	3	.....do.....	2,000
Sharon	8,916	Samuel H. Hadley	3	.....do.....	2,000
Sharpsburg	6,842	C. C. Kelso	3	June —,1908	1,800
Shenandoah	20,321	J. W. Cooper	3	June 9,1908	1,800
Slatington	3,773	James Wilson Snyder	2	June —,1908	1,500
South Bethlehem	13,241	Owen R. Wilt	3	.....do.....	1,500
South Sharon	.....	Calvin Grant Canon [g]	3	June 1,1908	1,600
Steelton	12,086	L. E. McGinnes	3	.....do.....	2,250
Sunbury	9,810	Ira Shipman [h]	3	June —,1908	1,500
Tamaqua	7,267	J. F. Derr	(a)	(a)	(a)
Tarentum	5,472	Andrew D. Endsley	3	June —,1908	1,800
Taylor	4,215	M. J. Lloyd	(a)	(a)	(a)
Titusville	8,244	Henry Pease	3	June 1,1908	2,100
Towanda	4,663	J. H. Humphries	1	June 10,1908	1,500
Turtle Creek	3,262	David R. Sumstine	3	June —,1909	1,800
Tyrone	5,847	Ira C. M. Ellenberger [i]	3	June 1,1908	1,540
Uniontown	7,344	Clifford John Scott	1	Aug. 1,1908	2,000
Warren	8,043	W. L. MacGowan	3	—— —,1908	2,250
Washington	7,670	William Krichbaum	(a)	(a)	(a)
Waynesboro	5,396	J. H. Reber	3	June —,1908	1,300
West Chester	9,524	Addison L. Jones	3	June 1,1908	2,500
West Pittston	5,846	Louis P. Bierly	1	June —,1908	1,800
Wilkes-Barre	51,721	James M. Coughlin	3	.....do.....	3,500
Wilkinsburg	11,886	James L. Allison	3	June 1,1908	2,500
Williamsport	28,757	Charles Loose	3	.....do.....	2,200
Wilmerding	4,179	W. G. Gans [c]	(a)	(a)	(a)
Windber	.....	D. M. Hetrick	1	May 1,1908	1,000
York	33,708	Atreus Wanner	3	—— —,1908	2,000
RHODE ISLAND.					
Bristol	6,901	John P. Reynolds	1	Sept. 26,1908	1,500
Burrillville	6,317	Leroy G. Staples	1	June 30,1908	1,500
Central Falls	18,167	Wendell A. Mowry	1	Feb. —,1908	2,000
Coventry (P. O., Anthony).	5,279	J. G. Ulmer	1	Aug. —,1908	1,500
Cranston	13,343	Valentine Almy	1	Nov. —,1908	1,700
Cumberland	8,925	Charles C. Richardson	1	June 30,1908	1,500
East Providence	12,138	J. W. Dows	1	Jan. —,1909	1,700
Johnston	4,305	Rev. William Henry Starr	1	Nov. —,1908	1,500

[a] No data.
[b] James J. Palmer, 1908–9.
[c] For 1906–7; no later information.
[d] Elected superintendent at South Sharon, 1908–9; successor not known.
[e] Succeeded January, 1908, by L. Edwin Delaney.
[f] George Howell, 1908–9.
[g] Jesse McKe Hostetter, 1908–9.
[h] Ira C. M. Ellenberger, 1908–9.
[i] Elected superintendent at Sunbury, 1908–9; successor not known.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
RHODE ISLAND—cont'd.					
Lincoln	8,937	Emerson Leland Adams	1	Dec. 1, 1908	$1,500
Newport	22,034	Herbert Warren Lull	1	Jan. 11, 1909	3,000
North Kingstown	4,194	Frederic Dana Blake	1	June 6, 1908	400
Pawtucket	39,231	Frank O. Draper	1	Jan. —, 1909	2,800
Providence	175,597	Walter H. Small	(a)	(a)	5,000
South Kingstown (P. O., Kingston).	4,972	B. E. Helme [b]	(c)	(c)	(c)
Warren	5,108	Charles G. Persons	1	June —, 1908	1,800
Warwick	21,316	Elwood T. Wyman	1	Dec. 1, 1908	2,000
Westerly	7,541	William H. Holmes, jr	1	June —, 1908	2,500
Woonsocket	28,204	Frank E. McFee	1	Jan. —, 1909	2,000
SOUTH CAROLINA.					
Abbeville	3,766	Leonard White Dick	1	May 27, 1908	1,200
Aiken	3,414	W. L. Brookes	(c)	(c)	(c)
Anderson	5,498	E. C. McCants	2	June 22, 1909	1,500
Beaufort	4,110	Lueco Gunter	(c)	(c)	(c)
Charleston	55,807	Henry P. Archer	4	Dec. 31, 1911	2,500
Chester	4,075	W. H. McNairy	1	June 1, 1908	1,400
Columbia	21,108	Ernest S. Dreher	1	Sept. —, 1908	2,000
Florence	4,647	J. L. Mann [b]	(c)	(c)	(c)
Gaffney	3,937	Joseph Theodore Spears	1	May —, 1908	900
Georgetown	4,138	William Clarence Bynum	1	June 12, 1908	1,200
Greenville	11,860	E. L. Hughes [b]	(c)	(c)	(c)
Greenwood	4,824	Edward C. Coker [b]	(c)	(c)	(c)
Laurens	4,029	R. A. Dobson [b]	(c)	(c)	(c)
Newberry	4,607	W. A. Stuckey	(c)	(c)	(c)
Orangeburg	4,455	Albert Jerome Thackston	1	June —, 1908	1,700
Rockhill	5,485	John Coleman Cork	1	June 1, 1908	1,500
Spartanburg	11,395	Frank Evans	1	June 6, 1908	1,650
Sumter	5,673	S. H. Edmunds	(c)	(c)	2,400
Union	5,400	Davis Jeffries	1	May 29, 1908	1,400
SOUTH DAKOTA.					
Aberdeen	4,087	W. Lemuel Cochrane [d]	1	Sept. 1, 1908	2,000
Deadwood	3,498	Alexander Strachan	1	June 30, 1908	2,000
Lead	6,210	Anson H. Bigelow	2	July 1, 1908	2,700
Mitchell	4,055	Freeman Hugh Hoff	1	May 29, 1908	1,700
Sioux Falls	10,266	Archibald A. McDonald	1	July 1, 1908	1,800
Watertown	3,352	Lester B. Parsons	1	June 1, 1908	1,500
Yankton	4,125	Rufus Clark Shellenbarger	1	June —, 1908	1,800
TENNESSEE.					
Bristol	5,271	Samuel G. Anspach	1	June 30, 1908	1,300
Chattanooga	30,154	Sidney G. Gilbreath	3	June —, 1910	2,500
Clarksville	9,431	Perry Lee Harned	1	June 30, 1908	1,800
Cleveland	3,858	D. C. Arnold [b]	(c)	(c)	(c)
Columbia	6,052	William Eugene Bostick	1	June 15, 1908	1,200
Dyersburg	3,647	Clarence M. Walker	1	May 31, 1908	1,125
Harriman	3,442	J. V. Rymer [b]	(c)	(c)	(c)
Jackson	14,511	Gentry R. McGee	1	Aug. 31, 1908	1,700
Johnson City	4,645	John Edwin Crouch	1	.....do.....	1,200
Knoxville	32,637	Seymour A. Mynders [b]	(c)	(c)	(c)
Memphis	102,320	I. C. McNeill	2	July —, 1909	3,000
Murfreesboro	3,999	J. W. W. Daniels [b]	(c)	(c)	(c)
Nashville	80,865	Henri C. Weber	5	June —, 1910	3,000
TEXAS.					
Austin	22,258	A. N. McCallum	(c)	(c)	(c)
Beaumont	9,427	H. F. Triplett	2	July 15, 1908	2,000
Belton	3,700	James B. Hubbard	1	June 5, 1908	2,000
Bonham	5,042	I. W. Evans	1	May 29, 1908	1,500
Brenham	5,968	Peyton Irving, jr	1	Sept. 1, 1908	1,600
Brownsville	5,308	Ignatius L. Candler	2	May 30, 1908	1,200
Brownwood	3,965	George H. Carpenter	2	May 22, 1908	1,500
Cleburne	7,493	R. G. Hall	(c)	(c)	(c)
Corpus Christi	4,703	Charles Walton Crossley	2	Aug. 31, 1908	1,800
Corsicana	9,313	James William Cantwell [e]	1	July 1, 1908	1,800
Dallas	42,638	J. L. Long [f]	(b)	(b)	(b)
Denison	11,807	Frank Ben Hughes	2	June 7, 1908	1,800
Denton	4,187	J. S. Carlisle	(b)	(b)	(b)
El Paso	15,906	G. P. Putman [g]	2	Sept. —, 1908	2,400
Ennis	4,919	Samuel Alexander Wyatt	1	May 15, 1908	1,500
Fort Worth	26,688	Walter D. Williams [h]	1	June 30, 1908	2,400

[a] Indefinite.
[b] For 1906–7; no later information.
[c] No data.
[d] W. P. Dunlevy, 1908–9.
[e] Elected for 1908–9 at Fort Worth; successor not known.
[f] Arthur Lefevre, 1908–9.
[g] F. M. Martin, 1908–9.
[h] James William Cantwell, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
TEXAS—continued.					
Gainesville	7,874	E. F. Comegys	1	May 30,1908	$2,000
Galveston	37,789	John William Hopkins	1	June —,1908	3,000
Gonzales	4,297	Miss Rozelle Nicholson	1	May 29,1908	1,200
Greenville	6,860	Louis Clyde Gee	1	July 31,1908	1,500
Hillsboro	5,346	Thomas Dudley Brooks	1	.....do.....	1,320
Houston	44,633	Paul Whitfield Horn	2	June 12,1908	3,000
Laredo	13,429	L. J. Christen	(a)	(a)	(a)
McKinney	4,342	John H. Hill	1	Aug. 31,1908	1,000
Marlin	3,090	Walter Francis Doughty	1	July —,1908	1,500
Marshall	7,855	W. H. Attebery	1	Sept. 1,1908	1,500
Navasota	3,857	William Bennett Bizzell	1	June 1,1908	1,500
Orange	3,835	S. B. Foster	(a)	(a)	(a)
Palestine	8,297	Walker King	1	Aug. 31,1908	1,600
Paris	9,358	J. G. Wooten	2	Aug. 31,1909	2,000
San Antonio	53,321	Lloyd E. Wolfe [b]	1	Aug. 31,1908	3,000
Sherman	10,243	J. C. Pyle	1	June 1,1908	1,800
Taylor	4,211	William M. Williams [c]	2	.....do.....	1,500
Temple	7,065	Justin F. Kimball	(a)	(a)	(a)
Terrell	6,330	S. M. N. Marrs	1	June 30,1908	1,500
Texarkana	5,256	Edgar Elliott Bramlette	2	July 31,1909	2,000
Tyler	8,069	W. T. Adams	(a)	(a)	(a)
Victoria	4,010	Arthur Lefevre	1	Aug. 31,1908	2,000
Waco	20,686	John C. Lattimore	1	June 30,1908	2,000
Waxahatchie	4,215	Walter Acker	1	Aug. 31,1908	1,560
Weatherford	4,786	Thomas Williams Stanley	1	May 31,1908	1,200
UTAH.					
Logan	5,451	A. Molyneux	5	Aug. —,1908	1,500
Ogden	16,313	William Allison	2	June —,1908	2,000
Park City	3,759	J. M. Martin	2	June 5,1908	1,800
Provo	6,185	William S. Rawlings	2	June —,1908	1,250
Salt Lake City	53,531	D. H. Christensen	2	June 30,1908	4,000
VERMONT.					
Barre	8,448	O. D. Mathewson	1	Apr. —,1909	2,500
Bellows Falls	4,337	Bert Emery Merriam [d]	1	June 30,1908	1,650
Bennington	5,656	Albert W. Varney	1	July 1,1909	1,800
Brattleboro	5,297	Miss Marguerite Tucker	1	June 19,1908	950
Burlington	18,640	Henry O. Wheeler	1	Apr. —,1908	2,000
Montpelier	6,266	Fred J. Brownscombe	1	June —,1908	2,000
Rutland	11,499	David B. Locke [e]	1	June 30,1908	1,800
St. Albans	6,239	James Annan Ayers	1	.....do.....	2,400
St. Johnsbury	5,666	Clarence H. Dempsey [f]	1	July 1,1908	2,000
VIRGINIA.					
Alexandria	14,528	Kosciusko Kemper	4	July 31,1909	720
Bristol	4,579	S. R. McChesney [g]	(a)	(a)	(a)
Charlottesville	6,449	James W. Lane [g]	(a)	(a)	(a)
Danville	16,520	William Holmes Davis	4	July —,1909	2,075
Fredericksburg	5,068	Benjamin P. Willis	4	July 1,1909	400
Lynchburg	18,891	E. C. Glass [g]	(a)	(a)	(a)
Manchester	9,715	David L. Pulliam [g]	(a)	(a)	(a)
Newport News	19,635	William C. Morton	4	July 1,1909	1,650
Norfolk	46,624	Richard Augustus Dobie	4	.....do.....	2,755
Petersburg	21,810	Duncan M. Brown	4	June 30,1909	1,600
Portsmouth	17,427	John C. Ashton	4	July 1,1909	975
Radford	3,344	Leonidas W. Irwin	4	.....do.....	200
Richmond	85,050	Wm. F. Fox	4	—— —,1909	2,685
Roanoke	21,495	Bushrod Rust	4	June 30,1909	1,675
Staunton	7,289	Francis H. Smith, jr	4	July 1,1909	1,520
Suffolk	3,827	Lee Britt	4	June 30,1909	720
Winchester	5,161	Maurice M. Lynch	4	.....do.....	600
WASHINGTON.					
Aberdeen	3,747	H. M. Cook [h]	3	July 1,1910	2,500
Ballard [i]	.....	.....	.....	.....	.....
Bellingham	11,062	W. J Hughes	(a)	(a)	(a)
Everett	7,838	D. A. Thornburg	3	July 1,1907	2,500
North Yakima	3,154	David Craig Reed	3	Aug. 1,1910	2,400
Olympia	4,082	Frank Oren Kreager	1	June 30,1908	1,500
Seattle	80,671	Frank B. Cooper	3	—— —,1910	5,000
Spokane	36,848	James A. Tormey [j]	3	July 1,1910	4,000
Tacoma	37,714	Albert Henry Yoder	3	July 1,1909	3,250
Vancouver	4,006	Charles W. Shumway	1	Aug. —,1908	1,620
Walla Walla	10,049	Orrin S. Jones	2	July —,1908	2,400

[a] No data.
[b] C. J. Lukin, 1908–9.
[c] Successor not known.
[d] Marshall O. Edson, 1908–9.
[e] Charles L. Randall, superintendent for 1908 of Rutland, Holden, Paxton, and Oakham.
[f] Corwin F. Palmer, 1908–9.
[g] For 1906–7; no later information.
[h] Arthur Wilson, 1908–9.
[i] Annexed to Seattle, May 27, 1907.
[j] Bruce M. Watson, 1908–9.

II.—City Superintendents, 1907–8—Continued.

City.	Population. (Census of 1900.)	Superintendent.	Term of office in years.	Expiration of present term.	Salary per annum.
WEST VIRGINIA.					
Benwood	4,511	Harry Lewis Pedicord	1	June 12,1908	$1,000
Bluefield	4,644	George M. Ford	1	June 30,1908	1,700
Charleston	11,099	George S. Laidley	1	June 8,1908	2,700
Clarksburg	4,050	Frank L. Burdette	1	June 30,1908	1,500
Fairmont	5,655	Joseph Rosier	1	....do	1,800
Grafton	5,650	M. M. Brooks	1	May —,1908	1,500
Hinton	3,763	I. B. Bush [a]	(b)	(b)	(b)
Huntington	11,923	Wilson M. Foulk	1	June 30,1908	2,000
Martinsburg	7,564	George W. Brindle	2	....do	1,200
Moundsville	5,362	William M. Henderson	1	July 1,1908	1,250
Parkersburg	11,703	Daniel C. Tabler	1	....do	2,000
Wheeling	38,878	Hervey B. Work	2	July —,1909	2,500
WISCONSIN.					
Antigo	5,145	W. H. Hickok	1	July 1,1908	1,800
Appleton	15,085	Carrie E. Morgan	1	....do	700
Ashland	13,074	J. T. Hooper	1	July 31,1908	2,500
Baraboo	5,751	Gustave Wm. Gehrand [c]	1	July 1,1908	2,000
Beaver Dam	5,128	John T. Wilson	1	June 26,1908	1,400
Beloit	10,436	Franklin E. Converse	1	Aug. —,1908	2,300
Berlin	4,489	Edwin Thomas O'Brien [d]	1	Sept. 8,1909	1,750
Chippewa Falls	8,094	G. W. Swartz	1	Sept. 5,1908	2,000
Depere:					
East side	4,038	John W. Steenis [e]	1	June 14,1908	1,330
West side		Thomas J. Berto	1	June —,1908	1,000
Eau Claire	17,517	W. H. Schulz	(b)	(b)	(b)
Fond du Lac	15,110	William Wilson	1	June 30,1908	1,800
Grand Rapids	4,493	Henry S. Yonker	1	June 1,1908	1,800
Green Bay	18,684	A. W. Burton	1	Aug. —,1908	2,000
Janesville	13,185	H. C. Buell	(b)	(b)	(b)
Kaukauna	5,115	Leslie Bunker	(b)	Aug. 15,1908	(b)
Kenosha	11,606	P. J. Zimmers	1	June 30,1908	2,200
La Crosse	28,895	John P. Bird	1	July —,1908	2,300
Madison	19,164	Richard B. Dudgeon	1	June 30,1908	2,500
Manitowoc	11,786	Walter E. Larson	2	June 30,1909	1,400
Marinette	16,195	George H. Landgraf	1	June 30,1908	2,400
Marshfield	5,240	Durant C. Gile	1	June 15,1908	1,750
Menasha	5,589	John Callahan	1	Apr. 15,1908	1,800
Menomonie	5,655	L. D. Harvey	(f)	(f)	5,000
Merrill	8,537	Gilbert J. Roberts	1	May 29,1908	1,600
Milwaukee	285,315	Carroll Garner Pearse	3	July 1,1910	6,000
Monroe	3,927	E. J. Shives [g]	(b)	(b)	(b)
Neenah	5,954	Edward Monroe Beeman	1	July 1,1908	1,800
Oconto	5,646	G. F. Loomis [h]	1	June —,1908	1,800
Oshkosh	28,284	Matthew N. McIver	1	Aug. —,1908	2,400
Platteville	3,340	O. E. Gray	(b)	(b)	(b)
Portage	5,459	W. G. Cough [a]	(b)	(b)	(b)
Racine	29,102	Burton E. Nelson	1	Aug. 1,1908	2,500
Rhinelander	4,998	W. B. Collins [i]	(b)	(b)	(b)
Sheboygan	22,962	Henry F. Leverenz	1	Apr. 1,1908	2,000
South Milwaukee	3,392	John Henry Stauff	1	July 1,1908	1,350
Stevens Point	9,524	John Nicholas Davis	1	Sept. —,1908	1,800
Stoughton	3,431	George Orton Banting	2	June —,1909	1,800
Sturgeon Bay	3,372	Charles G. Stangel	1	July 1,1908	1,650
Superior	31,091	William E. Maddock	1	....do	2,400
Two Rivers		William James Hamilton	1	....do	1,600
Washburn	6,814	Stephen A. Oscar	1	June 1,1908	1,400
Watertown	8,437	W. P. Roseman	1	May —,1908	1,800
Waukesha	7,419	Addison W. Chamberlin [j]	1	June 12,1907	1,850
Wausau	12,354	Silas B. Tobey	1	July —,1908	2,300
WYOMING.					
Cheyenne	14,087	S. S. Stockwell	1	July 10,1908	2,200
Laramie	8,207	F. W. Lee	(b)	(b)	(b)
Rock Springs	4,363	Oscar J. Blakesley	1	June —,1908	1,800
Sheridan	1,559	Charles R. Atkinson [k]	1	June 1,1908	1,800

[a] For 1906–7; no later information.
[b] No data.
[c] H. R. Chamberlain, 1908–9.
[d] H. C. Stair, 1908–9.
[e] Charles C. Bishop, 1908–9.
[f] Indefinite.
[g] George P. Haverson, 1908–9.
[h] J. F. Bergen, 1908–9.
[i] F. A. Harrison, 1908–9.
[j] G. F. Loomis, 1908–9.
[k] John Jacob Early, 1908–9.

III.—College Presidents.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology.*

Location.	University or college.	Name of president.
ALABAMA.		
Auburn	Alabama Polytechnic Institute	Charles C. Thach, A. M.
Eastlake	Howard College	A. P. Montague, LL. D.
Greensboro	Southern University	Rev. S. M. Hosmer, D. D.
St. Bernard	St. Bernard College	Rev. Benedict Menges, O. S. B.
Spring Hill	Spring Hill College	Rev. William Tyrrell, S. J.
University	University of Alabama	John W. Abercrombie, LL. D.
ARIZONA.		
Tucson	University of Arizona	Kendric C. Babcock, Ph. D.
ARKANSAS.		
Arkadelphia	Henderson College	John H. Hinemon, A. M.
Do	Ouachita College	Henry S. Hartzog.
Batesville	Arkansas College	Eugene R. Long, Ph. D.
Clarksville	Arkansas Cumberland College	Rev. G. D. Crawford.
Conway	Hendrix College	Rev. S. Anderson, A. B.
Fayetteville	University of Arkansas	John N. Tillman, LL. B.
Little Rock	Philander Smith College	Rev. J. M. Cox, D. D.
CALIFORNIA.		
Berkeley	University of California	B. I. Wheeler, LL. D.
Claremont	Pomona College	Rev. George A. Gates, LL. D.
Los Angeles	Occidental College	John W. Baer, LL. D.
Do	St. Vincent's College	Rev. J. S. Glass, C. M., D. D.
Do	University of Southern California	Rev. George F. Bovard, D. D.
Oakland	California College	Arthur R. Macurda, A. M.
Do	St. Mary's College	Rev. Brother Vellesian, F. S. C.
Pasadena	Throop Polytechnic Institute	Arthur H. Chamberlain, A. M.
San Francisco	St. Ignatius College	Rev. John P. Frieden, S. J.
San Jose	University of the Pacific	Moses S. Cross, D. D., acting.
Santa Clara	Santa Clara College	Rev. Richard A. Gleeson, S. J.
Stanford University	Leland Stanford Junior University	D. S. Jordan, LL. D.
COLORADO.		
Boulder	University of Colorado	James H. Baker, LL. D.
Colorado Springs	Colorado College	Rev. W. F. Slocum, LL. D.
Denver	College of the Sacred Heart	Rev. J. J. Brown.
Do	Westminster University	Rev. Joseph L. Weaver, D. D.
Fort Collins	Colorado Agricultural College	Barton O. Aylesworth, LL. D.
Golden	State School of Mines	Victor C. Alderson, Sc. D.
University Park	University of Denver	Rev. Henry A. Buchtel, LL. D., chancellor.
CONNECTICUT.		
Hartford	Trinity College	Flavel S. Luther, LL. D.
Middletown	Wesleyan University	Wm. N. Rice, acting.
New Haven	Yale University	Arthur T. Hadley, LL. D.
Storrs	Connecticut Agricultural College	C. H. Beach.
DELAWARE.		
Dover	State College for Colored Students	Rev. W. C. Jason, A. M.
Newark	Delaware College	Geo. A. Harter, Ph. D.
DISTRICT OF COLUMBIA.		
Washington	Catholic University of America	Rev. Dennis J. O'Connell, S. T. D., rector.
Do	Gallaudet College	E. M. Gallaudet, LL. D.
Do	Georgetown University	Rev. Joseph Himmel, S. J.
Do	George Washington University	Charles W. Needham, LL. D.
Do	Howard University	Rev. Wilbur P. Thirkield, D. D.
Do	St. John's College	Rev. Brother Germanus, F. S. C.
FLORIDA.		
Deland	John B. Stetson University	Lincoln Hulley, Ph. D.
Gainesville	University of Florida	Andrew Sledd, Ph. D.
Winter Park	Rollins College	Rev. Wm. F. Blackman, Ph. D.
GEORGIA.		
Athens	University of Georgia	David C. Barrow, M. E., chancellor.
Atlanta	Atlanta Baptist College	John Hope, A. M.
Do	Atlanta University	Edward T. Ware, A. B.
Do	Morris Brown College	Rev. J. S. Flipper, D. D.
Do	State School of Technology	Kenneth G. Matheson, A. M., LL. D.
Bowdon	Bowdon College	V. D. Whatley.
Dahlonega	North Georgia Agricultural College	G. R. Glenn.
Macon	Mercer University	Charles L. Smith, LL. D.
Oxford	Emory College	Rev. J. E. Dickey, D. D.
South Atlanta	Clark University	W. H. Crogman, Litt. D.
Wrightsville	Warthen College	W. E. Lumley.
Young Harris	Young Harris College	Rev. Joseph A. Sharp, A. B.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con.

Location.	University or college.	Name of president.
IDAHO.		
Moscow	University of Idaho	James A. MacLean, Ph. D.
ILLINOIS.		
Abingdon	Hedding College	Rev. Harry B. Gough, A. B.
Bloomington	Illinois Wesleyan University	Rev. Francis G. Barnes, D. D.
Bourbonnais	St. Viateur's College	Rev. John P. O'Mahoney, C. S. V., A. M.
Carlinville	Blackburn College	Walter H. Bradley, acting.
Carthage	Carthage College	Rev. Fred L. Sigmund, D. D.
Chicago	Armour Institute of Technology	Rev. Frank W. Gunsaulus, D. D.
Do	Lewis Institute	George N. Carman, A. M., director.
Do	St. Ignatius College	Rev. Alexander J. Burrowes, S. J.
Do	St. Stanislaus College	Rev. John J. Kosinski, C. R.
Do	University of Chicago	Harry Pratt Judson, LL. D.
Decatur	James Millikin University	A. R. Taylor, Ph. D.
Elmhurst	Evangelical Proseminary	Rev. Daniel Irion.
Eureka	Eureka College	Robert E. Hieronymus, A. M.
Evanston	Northwestern University	Abram W. Harris, LL. D.
Ewing	Ewing College	Rev. J. A. Leavitt, D. D.
Galesburg	Knox College	Rev. Thomas McClelland, D. D.
Do	Lombard College	Rev. Lewis B. Fisher, D. D.
Greenville	Greenville College	Eldon Grant Burritt, A. M.
Jacksonville	Illinois College	Charles H. Rammelkamp, Ph. D.
Lake Forest	Lake Forest College	John S. Nollen, Ph. D.
Lebanon	McKendree College	M. H. Chamberlin, LL. D.
Lincoln	Lincoln College	J. H. McMurray, A. M.
Monmouth	Monmouth College	Rev. Thos. H. McMichael, D. D.
Naperville	Northwestern College	Rev. H. J. Kiekhoefer, Ph. D.
Quincy	St. Francis Solanus College	Rev. Anselm Mueller, O. S. F.
Rock Island	Augustana College	Gustav A. Andreen, Ph. D.
Teutopolis	St. Joseph's College	Rev. P. Hugoline Storff, O. F. M., rector.
Upper Alton	Shurtleff College	John D. S. Riggs, L. H. D.
Urbana	University of Illinois	Edmund J. James, LL. D.
Westfield	Westfield College	Rev. Benjamin F. Daugherty, A. M.
Wheaton	Wheaton College	Rev. C. A. Blanchard, D. D.
INDIANA.		
Bloomington	Indiana University	William L. Bryan, Ph. D., LL. D.
Collegeville	St. Joseph's College	Rev. Augustine Seifert, C. PP. S.
Crawfordsville	Wabash College	George Lewes Maekintosh, D. D.
Earlham	Earlham College	Robert L. Kelly, Ph. M.
Fort Wayne	Concordia College	Rev. Martin Luecke.
Franklin	Franklin College	Elmer B. Bryan, LL. D.
Greencastle	De Pauw University	Rev. Francis J. McConnell.
Hanover	Hanover College	William A. Millis, LL. D.
Irvington	Butler College	W. E. Garrison, Ph. D.
Lafayette	Purdue University	W. E. Stone, Ph. D.
Merom	Union Christian College	O. B. Whitaker.
Moores Hill	Moores Hill College	Rev. Frank C. English, D. D.
Notre Dame	University of Notre Dame	Rev. John Cavanaugh, C. S. C.
Oakland City	Oakland City College	Wm. P. Dearing.
St. Meinrad	St. Meinrad College	Rev. A. Schmitt, O. S. B.
Terre Haute	Rose Polytechnic Institute	Carl L. Mees, Ph. D.
Upland	Taylor University	Rev. Monroe Vayhinger, A. M.
IOWA.		
Ames	Iowa College of Agriculture and Mechanic Arts.	Albert B. Storms, LL. D.
Cedar Rapids	Coe College	Wm. W. Smith, LL. D.
Charles City	Charles City College	Rev. Frank E. Hirsch, D. D.
Clinton	Warburg College	J. Fritsehel.
College Springs	Amity College	Rev. R. T. Campbell, D. D.
Decorah	Luther College	Rev. C. K. Preus.
Des Moines	Des Moines College	Loran D. Osborn, Ph. D.
Do	Drake University	Hill M. Bell, A. M., LL. D.
Dubuque	St. Joseph's College	Very Rev. Daniel M. Gorman.
Fairfield	Parsons College	Rev. W. E. Parsons, D. D.
Fayette	Upper Iowa University	Rev. W. A. Shanklin, LL. D.
Grinnell	Iowa College	J. H. T. Main, Ph. D.
Hopkinton	Lenox College	Rev. E. E. Reed, A. M., D. D.
Indianola	Simpson College	Charles E. Shelton, LL. D.
Iowa City	State University of Iowa	Geo. E. MacLean, LL. D.
Lamoni	Graceland College	David Allen Anderson.
Legrand	Palmer College	Erey C. Kerr, A. M.
Mount Pleasant	German College	Rev. E. S. Havighorst, D. D.
Do	Iowa Wesleyan University	Rev. Edwin A. Schell.
Mount Vernon	Cornell College	Rev. Wm. F. King, LL. D.
Oskaloosa	Penn College	A. Rosenberger, A. B.
Pella	Central University of Iowa	Rev. L. A. Garrison, A. B., D. D.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con.

Location.	University or college.	Name of president.
IOWA—continued.		
Sioux City	Morningside College	Rev. W. S. Lewis, D. D.
Storm Lake	Buena Vista College	Rev. Robert L. Campbell, A. M., D. D.
Tabor	Tabor College	George N. Ellis, A. M.
Toledo	Leander Clark College	Rev. Cyrus J. Kephart, D. D.
KANSAS.		
Atchison	Midland College	Rev. Millard F. Troxell, D. D.
Do	St. Benedict's College	Rt. Rev. I. Wolf, O. S. B., D. D.
Baldwin	Baker University	Rev. L. H. Murlin, D. D.
Emporia	College of Emporia	Henry Coe Culbertson, A. B., B. D.
Highland	Highland University	Geo. E. Knepper.
Holton	Campbell College	T. D. Crites.
Kansas City	Kansas City University	Rev. D. S. Stephens, D. D., chancellor.
Lawrence	University of Kansas	Frank Strong, Ph. D.
Lincoln	Kansas Christian College	
Lindsborg	Bethany College	Rev. Ernst F. Pihlblad, A. M.
McPherson	McPherson College	Edward Frantz.
Manhattan	Kansas Agricultural College	Ernest R. Nichols, A. M.
Ottawa	Ottawa University	S. E. Price.
St. Marys	St. Mary's College	Rev. Aloysius A. Breen, S. J.
Salina	Kansas Wesleyan University	Thomas W. Roach, A. M.
Sterling	Cooper College	Rev. F. M. Spencer, D. D.
Topeka	Washburn College	Frank K. Sanders.
Wichita	Fairmount College	
Do	Friends University	Edmund Stanley, A. M.
Winfield	St. John's Lutheran College	Rev. A. W. Meyer.
Do	Southwest Kansas College	F. E. Mossman, A. M.
KENTUCKY.		
Barbourville	Union College	Rev. James W. Easley, A. M.
Berea	Berea College	Rev. Wm. G. Frost, Ph. D.
Danville	Central University of Kentucky	Frederick W. Hinitt, Ph. D.
Georgetown	Georgetown College	Rev. J. J. Taylor, LL. D.
Hopkinsville	McLean College	A. C. Kuykendall, A. B.
Lexington	Transylvania University	Thomas B. McCartney, jr., M. A., Ph. D.
Do	State University	J. K. Patterson, LL. D.
Russellville	Bethel College	William H. Harrison, A. M.
St. Marys	St. Mary's College	Rev. Michael Jaglowicz, C. R.
Winchester	Kentucky Wesleyan College	H. K Taylor, A. M.
LOUISIANA.		
Baton Rouge	Louisiana State University	Thomas D. Boyd, LL. D.
Convent	Jefferson College	Rev. R. H. Smith, S. M.
New Orleans	College of the Immaculate Conception	Rev. E. Mattern, S. J.
Do	Leland University	R. W. Perkins, Ph. D.
Do	New Orleans University	Frederic H. Knight, Ph. D.
Do	Tulane University of Louisiana	E. B. Craighead, LL. D.
MAINE.		
Brunswick	Bowdoin College	Rev. Wm. De Witt Hyde, LL. D.
Lewiston	Bates College	Rev. G. C. Chase, LL. D.
Orono	University of Maine	George E. Fellows, LL. D.
Waterville	Colby College	Rev. Charles L. White, D. D.
MARYLAND.		
Annapolis	St. John's College	Thomas Fell, LL. D.
Do	United States Naval Academy	Capt. C. J. Badger, U. S. N., superintendent.
Baltimore	Johns Hopkins University	Ira Remsen, LL. D.
Do	Loyola College	Rev. Francis X. Grady, S. J.
Do	Morgan College	Rev. John O. Spencer, Ph. D.
Chestertown	Washington College	James W. Cain, LL. D.
College Park	Maryland Agricultural College	R. W. Silvester.
Ellicott City	Rock Hill College	Rev. Brother Abraham.
Do	St. Charles College	Rev. F. X. McKenny, S. S.
Emmitsburg	Mount St. Mary's College	Very Rev. D. J. Flynn, LL. D.
New Windsor	New Windsor College	Rev. James Fraser, Ph. D.
Westminster	Western Maryland College	Rev. Thomas H. Lewis, D. D.
MASSACHUSETTS.		
Amherst	Amherst College	Rev. George Harris, LL. D.
Do	Massachusetts Agricultural College	K. L. Butterfield, A. M.
Boston	Boston College	Rev. William Gannon, S. J.
Do	Boston University	Rev. W. E. Huntington, Ph. D.
Do	Massachusetts Institute of Technology	Arthur A. Noyes, Ph. D., acting.
Cambridge	Harvard University	Charles W. Eliot, LL. D.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con.

Location.	University or college.	Name of president.
MASSACHUSETTS—con.		
Springfield	American International College	Rev. Samuel H. Lee, A. M.
Tufts College	Tufts College	Frederick W. Hamilton, LL. D.
Williamstown	Williams College	Harry A. Garfield, LL. D.
Worcester	Clark University	G. Stanley Hall, LL. D.
Do	Collegiate Department of Clark University	Carroll D. Wright, LL. D.
Do	College of the Holy Cross	Rev. Thomas E. Murphy, S. J.
Do	Worcester Polytechnic Institute	Edmund A. Engler, LL. D.
MICHIGAN.		
Adrian	Adrian College	Rev. B. W. Anthony, D. D.
Albion	Albion College	Samuel Dickie, LL. D.
Alma	Alma College	Rev. August F. Bruske, D. D.
Ann Arbor	University of Michigan	James B. Angell, LL. D.
Detroit	Detroit College	Rev. Richard D. Slevin, S. J.
East Lansing	Michigan Agricultural College	J. L. Snyder, Ph. D.
Hillsdale	Hillsdale College	Joseph W. Mauck, LL. D.
Holland	Hope College	Gerrit J. Kollen, LL. D.
Houghton	Michigan College of Mines	F. W. McNair, B. S.
Kalamazoo	Kalamazoo College	A. G. Slocum, LL. D.
Olivet	Olivet College	E. G. Lancaster, Ph. D.
MINNESOTA.		
Collegeville	St. John's University	Rev. P. Engel, O. S. B., Ph. D.
Minneapolis	Augsburg Seminary	Sven Oftedal.
Do	University of Minnesota	Cyrus Northrop, LL. D.
Northfield	Carleton College	Rev. Wm. H. Sallmon, A. M.
Do	St. Olaf College	Rev. John N. Kildahl.
St. Paul	Hamline University	Rev. Geo. H. Bridgman, LL. D.
Do	Macalester College	Thomas M. Hodgman, A. M.
St. Peter	Gustavus Adolphus College	Rev. P. A. Mattson, B. D.
Winnebago	Parker College	Rev. E. W. Van Aken, A. M., B. D.
MISSISSIPPI.		
Agricultural College	Mississippi Agricultural and Mechanical College.	J. C. Hardy, LL. D.
Alcorn	Alcorn Agricultural and Mechanical College.	Levi J. Rowan, B. S.
Clinton	Mississippi College	Rev. Wm. T. Lowrey, D. D.
Holly Springs	Rust University	Rev. Wm. W. Foster, jr., D. D.
Jackson	Millsaps College	Rev. W. B. Murrah, LL. D.
University	University of Mississippi	A. A. Kincannon, chancellor.
MISSOURI.		
Cameron	Missouri Wesleyan College	Rev. Walter D. Agnew, A. B., S. T. B.
Canton	Christian University	Carl Johann, LL. D.
Clarksburg	Clarksburg College	F. C. Richards.
Columbia	University of Missouri	Albert Ross Hill, LL. D.
Conception	Conception College	Rt. Rev. Frowin Conrad, O. S. B.
Fayette	Central College	William A. Webb.
Fulton	Westminster College	Rev. D. R. Kerr, Ph. D.
Glasgow	Pritchett College	U. S. Hall, A. B.
Lagrange	Lagrange College	Jere T. Muir, LL. D.
Liberty	William Jewell College	Rev. J. P. Greene, LL. D.
Marshall	Missouri Valley College	Rev. Wm. H. Black, LL. D.
Morrisville	Morrisville College	Allen H. Godbey, Ph. D.
Parkville	Park College	L. M. McAfee, LL. D.
St. Louis	Christian Brothers College	Rev. Brother Justin, LL. D.
Do	St. Louis University	Rev. John P. Frieden, S. J.
Do	Washington University	David F. Houston, LL. D.
Springfield	Drury College	Joseph H. George, D. D.
Tarkio	Tarkio College	Rev. J. A. Thompson, D. D.
Warrenton	Central Wesleyan College	Rev. Geo. B. Addicks, D. D.
MONTANA.		
Bozeman	Montana College of Agriculture and Mechanic Arts.	James M. Hamilton, M. S.
Butte	Montana State School of Mines	Charles H. Bowman.
Missoula	University of Montana	C. A. Duniway.
NEBRASKA.		
Bellevue	Bellevue College	Rev. Guy W. Wadsworth, D. D.
Bethany	Cotner University	W. P. Aylsworth, LL. D.
College View	Union College	C. C. Lewis, B. S.
Crete	Doane College	Rev. David B. Perry, D. D.
Grand Island	Grand Island College	Rev. Geo. Sutherland, D. D.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con.

Location.	University or college.	Name of president.
NEBRASKA—continued.		
Hastings	Hastings College	Archelaus E. Turner, LL. D.
Lincoln	University of Nebraska	Rev. E. B. Andrews, LL. D., chancellor.
Omaha	Creighton University	Rev. M. P. Dowling, S. J.
University Place	Nebraska Wesleyan University	Rev. D. W. C. Huntington, LL. D., chancellor.
York	York College	Rev. Wm. E. Schell, D. D.
NEVADA.		
Reno	State University of Nevada	Rev. J. E. Stubbs, LL. D.
NEW HAMPSHIRE.		
Durham	New Hampshire College of Agriculture and Mechanic Arts.	W. D. Gibbs, M. S
Hanover	Dartmouth College	Rev. W. J. Tucker, LL. D.
Manchester	St. Anselm's College	Rev. Leonard Walter.
NEW JERSEY.		
Hoboken	Stevens Institute of Technology	Alexander C. Humphreys, Sc. D.
Jersey City	St. Peter's College	Rev. Edward J. Magrath, S. J.
Newark	St. Benedict's College	Rev. Vincent Amberg, O. S. B.
New Brunswick	Rutgers College	Rev. Wm. H. S. Demarest, D. D.
Princeton	Princeton University	Woodrow Wilson, LL. D.
South Orange	Seton Hall College	Very Rev. James F. Mooney.
NEW MEXICO.		
Agricultural College	New Mexico College of Agriculture and Mechanic Arts.	W. E. Garrison.
Albuquerque	University of New Mexico	William G. Tight, Ph. D.
Socorro	New Mexico School of Mines	Robert P. Noble.
NEW YORK.		
Alfred	Alfred University	Rev. B. C. Davis, Ph. D.
Annandale	St. Stephen's College	Rev. Thomas R. Harris, D. D.
Brooklyn	Adelphi College	C. H. Levermore, Ph. D.
Do	Polytechnic Institute of Brooklyn	F. W. Atkinson, Ph. D.
Do	St. Francis College	Brother Vincent, O. S. F.
Do	St. John's College	Very Rev. John W. Moore, C. M.
Buffalo	Canisius College	Rev. Augustine A. Miller, S. J.
Canton	St. Lawrence University	Rev. Almon Gunnison, LL. D.
Clinton	Hamilton College	Rev. M. W. Stryker, LL. D.
Geneva	Hobart College	Rev. L. C. Stewardson, LL. D.
Hamilton	Colgate University	W. H. Crawshaw, acting.
Ithaca	Cornell University	J. G. Schurman, LL. D.
New York	College of St. Francis Xavier	Rev. D. W. Hearn, S. J.
Do	College of the City of New York	John H. Finley, LL. D.
Do	Columbia University	Nicholas M. Butler, LL. D.
Do	Manhattan College	Rev. Brother Peter, F. S. C.
Do	Fordham University	Rev. David J. Quinn, S. J.
Do	New York University	Rev. H. M. MacCracken, LL. D., chancellor.
Niagara University	Niagara University	Very Rev. P. J. Conroy, C. M.
Potsdam	Clarkson School of Technology	W. S. Aldrich, M. E., director.
Rochester	University of Rochester	Rev. Rush Rhees, LL. D.
St. Bonaventure	St. Bonaventure's College	Very Rev. Joseph F. Butler, O. F. M.
Schenectady	Union College	Rev. A. V. V. Raymond, LL. D.
Syracuse	Syracuse University	Rev. J. R. Day, LL. D., chancellor.
Troy	Rensselaer Polytechnic Institute	Palmer C. Ricketts, C. E.
West Point	United States Military Academy	Col. Hugh L. Scott, U. S. A., supt.
NORTH CAROLINA.		
Belmont	St. Mary's College	Rev. Leo Haid, D. D., O. S. B.
Chapelhill	University of North Carolina	F. P. Venable, LL. D.
Charlotte	Biddle University	H. L. McCrorey.
Davidson	Davidson College	Henry L. Smith, Ph. D.
Durham	Trinity College	Rev. John C. Kilgo, D. D.
Elon College	Elon College	E. L. Moffitt, LL. D.
Greensboro, N. C	Agricultural and Mechanical College for the Colored Race.	David H. Hill.
Guilford College	Guilford College	L. Lyndon Hobbs, A. M.
Hickory	Lenoir College	Rev. R. L. Fritz, A. M.
Newton	Catawba College	W. R. Weaver, dean.
Raleigh	Shaw University	Chas. F. Meserve, LL. D.
Salisbury	Livingstone College	Rev. William H. Goler, LL. D.
Wake Forest	Wake Forest College	Wm. L. Poteat, LL. D.
Weaverville	Weaverville College	Rev. L. B. Abernethy.
West Raleigh	North Carolina College of Agriculture and Mechanic Arts.	George T. Winston, LL. D.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con.

Location.	University or college.	Name of president.
NORTH DAKOTA.		
Agricultural College	North Dakota Agricultural College	J. H. Worst, LL. D.
Fargo	Fargo College	Rev. Edmund M. Vittum, A. M., D. D.
Grand Forks	Wesley College	Edward P. Robertson, D. D.
University	University of North Dakota	Webster Merrifield, A. M.
OHIO.		
Akron	Buchtel College	Rev. A. B. Church, LL. D.
Alliance	Mount Union College	Rev. Albert B. Riker, D. D.
Ashland	Ashland College	J. L. Gillin.
Athens	Ohio University	Alston Ellis, LL. D.
Berea	Baldwin University	Rev. Robert L. Waggoner, D. D.
Do	German Wallace College	Rev. C. Riemenschneider, Ph. D.
Cedarville	Cedarville College	Rev. David McKinney, D. D.
Cincinnati	St. Xavier College	Rev. Joseph Grimmelsman.
Do	University of Cincinnati	Chas. W. Dabney, LL. D.
Cleveland	Case School of Applied Science	Charles S. Howe, Ph. D.
Do	St. Ignatius College	Rev. Geo. J. Pickel, S. J.
Do	Western Reserve University	Rev. C. F. Thwing, LL. D.
Columbus	Capital University	Rev. L. H. Schuh, Ph. D.
Do	Ohio State University	Rev. W. O. Thompson, LL. D.
Dayton	St. Mary's Institute	Rev. Louis A. Tragesser, S. M.
Defiance	Defiance College	P. W. McReynolds, A. M.
Delaware	Ohio Wesleyan University	Rev. Herbert Welch, D. D.
Findlay	Findlay College	Rev. C. I. Brown, A. M.
Gambier	Kenyon College	Rev. Wm. F. Peirce, L. H. D.
Granville	Denison University	Rev. Emory W. Hunt, LL. D.
Hiram	Hiram College	Miner Lee Bates, A. M.
Lima	Lima College	Chas. C. Miller, Ph. D.
Marietta	Marietta College	Rev. Alfred T. Perry, D. D.
New Athens	Franklin College	A. M. Campbell.
New Concord	Muskingum College	Rev. J. K. Monigomery, D. D.
Oberlin	Oberlin College	Rev. Henry C. King, D. D.
Oxford	Miami University	Rev. Guy P. Benton, D. D.
Richmond	Richmond College	Rev. G. W. MacMillan, Ph. D.
Rio Grande	Rio Grande College	Rev. J. M. Davis, Ph. D.
Scio	Scio College	R. Emory Beetham.
Springfield	Wittenberg College	Rev. Charles G. Heckert, D. D.
Tiffin	Heidelberg University	Rev. Charles E. Miller, D. D.
Westerville	Otterbein University	Louis Bookwalter.
West Lafayette	West Lafayette College	James H. Straughn.
Wilberforce	Wilberforce University	Rev. Joshua H. Jones, D. D.
Wilmington	Wilmington College	Rev. Albert J. Brown, D. D.
Wooster	University of Wooster	Rev. Louis E. Holden, LL. D.
Yellowsprings	Antioch College	S. D. Fess, LL. D.
OKLAHOMA.		
Bacone	Indian University	E. N. Collette.
Kingfisher	Kingfisher College	J. T. House, A. M.
Norman	University of Oklahoma	Rev. Arthur G. Evans.
Oklahoma City	Epworth University	Rev. Geo. H. Bradford, D. D., chancellor.
Stillwater	Oklahoma Agricultural and Mechanical College.	J. H. Connell, M. S.
Tulsa	Henry Kendall College	L. H. Beeler.
OREGON.		
Albany	Albany College	H. M. Crooks, A. B.
Corvallis	Oregon Agricultural College	W. J. Kerr.
Dallas	Dallas College	Rev. Charles A. Mock, Ph. D.
Eugene	University of Oregon	Prince L. Campbell, A. B.
Forest Grove	Pacific University	Wm. N. Ferrin, LL. D.
McMinnville	McMinnville College	Leonard W. Riley, A. B.
Newberg	Pacific College	Edwin McGrew, M. S.
Philomath	Philomath College	O. V. White, M. S., dean.
Salem	Willamette University	Fletcher Homan.
PENNSYLVANIA.		
Allentown	Muhlenberg College	Rev. J. W. A. Haas, D. D.
Annville	Lebanon Valley College	Rev. A. P. Funkhouser, A. B.
Beatty	St. Vincent College	Rev. Leander Schnerr, O. S. B.
Beaver Falls	Geneva College	Rev. W. P. Johnston, D. D.
Bethlehem	Moravian College	Rev. Aug. Schultze, L. H. D.
Carlisle	Dickinson College	Rev. G. E. Reed, LL. D.
Chester	Pennsylvania Military College	Col. C. E. Hyatt, C. E.
Collegeville	Ursinus College	Rev. A. Edwin Keigwin, D. D.
Easton	Lafayette College	Rev. E. D. Warfield, LL. D.
Gettysburg	Pennsylvania College	Rev. Samuel G. Hefelbower, A. M.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con

Location.	University or college.	Name of president.
PENNSYLVANIA—con.		
Grove City	Grove City College	Rev. I. C. Ketler, Ph. D.
Haverford	Haverford College	Isaac Sharpless, LL. D.
Huntingdon	Juniata College	Martin G. Brumbaugh, A.M., LL. D.
Lancaster	Franklin and Marshall College	Rev. J. S. Stahr, Ph. D.
Lewisburg	Bucknell University	John H. Harris, LL. D.
Lincoln University	Lincoln University	Rev. John B. Rendall, D. D.
Meadville	Allegheny College	Rev. Wm. H. Crawford, D. D.
Myerstown	Albright College	Rev. James D. Woodring, D. D.
New Wilmington	Westminster College	Rev. Robert M. Russell, D. D.
Philadelphia	Central High School	Rev. R. E. Thompson, S. T. D.
Do	La Salle College	Brother Wolfred.
Do	Temple University	Russell H. Conwell, LL. D.
Do	University of Pennsylvania	C. C. Harrison, LL. D., provost.
Pittsburg	Holy Ghost College	Rev. M. A. Hehir, C. S. Sp.
Do	Western University of Pennsylvania	Rev. S. B. McCormick, LL. D., chancellor.
Selinsgrove	Susquehanna University	Rev. Charles T. Aikens, A. M.
South Bethlehem	Lehigh University	Henry S. Drinker, LL. D.
State College	Pennsylvania State College	James A. Beaver, LL. D.
Swarthmore	Swarthmore College	Joseph Swain, LL. D.
Villanova	Villanova College	Rev. L. A. Delurey, O. S. A.
Volant	Volant College	C. F. Ball, A. M.
Washington	Washington and Jefferson College	Rev. J. D. Moffat, LL. D.
Waynesburg	Waynesburg College	Jacob F. Bucher, M. D.
RHODE ISLAND.		
Kingston	Rhode Island College of Agriculture and Mechanic Arts.	Howard Edwards, LL. D.
Providence	Brown University	Rev. W. H. P. Faunce, LL. D.
SOUTH CAROLINA.		
Charleston	College of Charleston	Harrison Randolph, LL. D.
Do	South Carolina Military Academy	Asbury Coward, LL. D., supt.
Clemson College	Clemson Agricultural College	P. H. Mell, Ph. D.
Clinton	Presbyterian College of South Carolina	Almon E. Spencer, vice-president.
Columbia	Allen University	Rev. Wm. D. Johnson, D. D.
Do	University of South Carolina	S. C. Mitchell, Ph. D.
Due West	Erskine College	James Strong Moffatt, D. D.
Greenville	Furman University	Rev. Edwin McNeil Poteat, D. D
Newberry	Newberry College	James A. B. Scherer, Ph. D.
Orangeburg	Claflin University	Rev. L. M. Dunton, D. D.
Spartanburg	Wofford College	Henry N. Snyder, A. M.
SOUTH DAKOTA.		
Brookings	South Dakota Agricultural College	Robert L. Slagle, Ph. D.
Huron	Huron College	Rev. C. H. French, D. D.
Mitchell	Dakota Wesleyan University	Rev. Thomas Nicholson, D. D.
Rapid City	State School of Mines	Charles H. Fulton.
Redfield	Redfield College	
Vermilion	University of South Dakota	Franklin B. Gault.
Yankton	Yankton College	Rev. H. K. Warren, LL. D.
TENNESSEE.		
Bristol	King College	F. P. Ramsay.
Chattanooga	Chattanooga University	Rev. J. H. Race, D. D.
Clarksville	Southwestern Presbyterian University	
Jackson	Southwestern Baptist University	Rev. P. T. Hale, LL. D.
Jefferson City	Carson and Newman College	M. D. Jeffries.
Knoxville	Knoxville College	Rev. R. W. McGranahan, D. D.
Do	University of Tennessee	Brown Ayres, Ph. D.
Lebanon	Cumberland University	Nathan Green, acting
McKenzie	Bethel College	W. E. Johnston.
Maryville	Maryville College	Rev. Samuel T. Wilson, D. D.
Memphis	Christian Brothers College	Brother Maurelian, F. S. C.
Milligan	Milligan College	Frederick D. Kershner, A. M.
Nashville	Fisk University	Rev. James G. Merrill, D. D.
Do	University of Nashville	James D. Porter, LL. D.
Do	Vanderbilt University	James H. Kirkland, LL. D., chancellor.
Do	Walden University	Rev. John A. Kumler, D. D.
Sewanee	University of the South	B. Lawton Wiggins, LL. D., vice-chancellor.
Spencer	Burritt College	W. N. Billingsley, A. M.
Sweetwater	Hiwassee College	Eugene Blake.
Tusculum	Greeneville and Tusculum College	L. C. Haynes, vice-president.
Washington College	Washington College	Rev. James T. Cooter, A. M.

III.—College Presidents—Continued.

1.—*Colleges for men, coeducational colleges of liberal arts, and schools of technology*—Con.

Location.	University or college.	Name of president.
TEXAS.		
Austin	St. Edward's College	Rev. John T. Boland, C. S. C.
Do	University of Texas	Sidney E. Mezes.
College Station	Agricultural and Mechanical College of Texas.	Henry H. Harrington.
Brownwood	Howard Payne College	John H. Humphries, acting.
Fort Worth	Fort Worth University	Rev. William Fielder, D. D.
Do	Polytechnic College	Rev. H. A. Boaz, A. M.
Galveston	St. Mary's University	Rev. A. E. Otis, S. J.
Georgetown	Southwestern University	Robert S. Hyer, LL. D.
Greenville	Burleson College	W. I. Gibson, A. M.
Marshall	Wiley University	Rev. M. W. Dogan, Ph. D.
North Waco	Texas Christian University	Clinton Lockhart, Ph. D.
Sherman	Austin College	Rev. Thomas S. Clyce, D. D.
Waco	Baylor University	Samuel P. Brooks, LL. D.
Do	Paul Quinn College	Rev. William J. Laws, D. D.
Waxahachie	Trinity University	
UTAH.		
Logan	Agricultural College of Utah	John A. Widtsoe.
Do	Brigham Young College	James H. Linford, B. S.
Salt Lake City	University of Utah	Joseph T. Kingsbury, Ph. D.
Do	Westminster College	Rev. M. H. Stevenson.
VERMONT.		
Burlington	University of Vermont	Rev. M. H. Buckham, LL. D.
Middlebury	Middlebury College	John Martin Thomas, D. D.
Northfield	Norwich University	Charles H. Spooner, LL. D.
VIRGINIA.		
Ashland	Randolph-Macon College	Robert E. Blackwell, LL. D.
Blacksburg	Virginia Agricultural and Mechanical College and Polytechnic Institute.	P. B. Barringer, LL. D.
Bridgewater	Bridgewater College	W. B. Yount, Ph. B.
Charlottesville	University of Virginia	E. A. Alderman, LL. D.
Emory	Emory and Henry College	Rev. R. G. Waterhouse, D. D.
Fredericksburg	Fredericksburg College	Rev. J. W. Rosebro, D. D., acting.
Hampden-Sidney	Hampden-Sidney College	Rev. James G. McAllister, D. D.
Lexington	Virginia Military Institute	Edward W. Nichols, supt.
Do	Washington and Lee University	George H. Denny, Ph. D.
Lynchburg,	Virginia Christian College	Joseph Hopwood, A. M.
Richmond	Richmond College	F. W. Boatwright, LL. D
Do	Virginia Union University	Rev. George R. Hovey, D. D.
Salem	Roanoke College	Rev. John A. Morehead, D. D
Williamsburg	College of William and Mary	L. G. Tyler, LL. D.
WASHINGTON.		
Pullman	State College of Washington	E. A. Bryan, LL. D.
Seattle	University of Washington	Thomas F. Kane, Ph. D.
Spokane	Gonzaga College	Rev. H. J. Goller, S. J.
Tacoma	University of Puget Sound	Lee L. Benbow.
Do	Whitworth College	Rev. Borend H. Kroeze, D. D.
Walla Walla	Whitman College	Rev. S. B. L. Penrose, A. B.
WEST VIRGINIA.		
Barboursville	Morris Harvey College	D. W. Shaw, A. M.
Bethany	Bethany College	T. E. Cramblet, A. M., LL. D.
Buckhannon	Wesleyan University	Carl G. Downey, Ph. D.
Elkins	Davis and Elkins College	M. C. Allaben, A. B.
Morgantown	West Virginia University	D. B. Purinton, LL. D.
WISCONSIN.		
Appleton	Lawrence University	Rev. S. Plantz, Ph. D.
Beloit	Beloit College	Rev. Edward D. Eaton, LL. D.
Madison	University of Wisconsin	Charles R. Van Hise, Ph. D.
Milton	Milton College	Rev. Wm. C. Daland, D. D.
Milwaukee	Concordia College	Rev. M. J. F. Albrecht.
Do	Marquette College	Rev. James McCabe, S. J.
Plymouth	Mission House	Rev. H. A. Meier, D. D.
Ripon	Ripon College	Rev. Richard C. Hughes, D. D
Watertown	Northwestern University	Rev. A. F. Ernst.
Waukesha	Carroll College	Rev. W. O. Carrier, D. D.
WYOMING.		
Laramie	University of Wyoming	Charles O. Merica, LL. D.

III.—College Presidents—Continued.

2.—*Colleges for women.*

Location.	College.	Name of president.
ALABAMA.		
Athens	Athens Female College	Miss Mary N. Moore.
Eufaula	The Alabama Brenau	A. W. Van Hoose; H. J. Pearce.
Marion	Judson College	Rev. Robert G. Patrick, D. D.
Do	Marion Female Seminary	Rev. L. W. Brown.
Talladega	Alabama Synodical College for Women	Rev. T. Peyton Walton.
Tuscaloosa	Central Female College	Rev. B. F. Giles, A. M.
Do	Tuscaloosa Female College	R. J. Holston, A. M.
Tuskegee	Alabama Conference Female College	John Massey, LL. D.
ARKANSAS.		
Conway	Central Baptist College	W. W. Rivers, A. M.
CALIFORNIA.		
Mills College	Mills College	Mrs. Susan L. Mills.
San Jose	College of Notre Dame	Sister Mary Bernardine.
DISTRICT OF COLUMBIA.		
Washington	Trinity College	Sister Julia.
FLORIDA.		
Tallahassee	Florida Female College	A. A. Murphree.
GEORGIA.		
Athens	Lucy Cobb Institute	Mildred Lewis Rutherford.
College Park	Cox College	John W. Gaines.
Cuthbert	Andrew Female College	J. W. Malone.
Dalton	Dalton Female College	Geo. S. Fulton.
Decatur	Agnes Scott College	Rev. F. H. Gaines, D. D.
Forsyth	Monroe Female College	C. H. S. Jackson, A. M.
Gainesville	Brenau College	A. W. Van Hoose; H. J. Pearce.
Lagrange	Lagrange Female College	Rufus W. Smith, A. M.
Do	Southern Female College	M. W. Hatton, A. M.
Macon	Wesleyan Female College	Du Pont Guerry.
Rome	Shorter College	T. J. Simmons, A. M.
ILLINOIS.		
Jacksonville	Illinois Woman's College	Rev. Joseph R. Harker, Ph. D.
Knoxville	St. Mary's School	Rev. C. W. Leffingwell, D. D., rector.
Rockford	Rockford College	Julia H. Gulliver, Ph. D.
INDIANA.		
Notre Dame	St. Marys' College and Academy	Mother M. Pauline.
KANSAS.		
Topeka	College of the Sisters of Bethany	Rev. F. R. Millspaugh, D. D.
KENTUCKY.		
Bowling Green	Potter College	Rev. Benj. F. Cabell, D. D.
Danville	Caldwell College	John C. Acheson, A. M.
Glasgow	Liberty College	Robert E. Hatton, Ph. D.
Harrodsburg	Beaumont College	Th. Smith, A. M.
Hopkinsville	Bethel Female College	Rev. Edmund Harrison, LL. D.
Lexington	Hamilton Female Institute	Mrs. L. W. St. Clair.
Do	Sayre Female Institute	Rev. J. M. Spencer.
Millersburg	Millersburg Female College	Rev. C. C. Fisher, A. M.
Nicholasville	Jessamine Female Institute	H. H. Savage, A. B.
Owensboro	Owensboro Female College	J. Byron La Rue.
Russellville	Logan Female College	B. E. Atkins, A. M.
Versailles	Margaret College	Thomas C. Walton, Ph. D.
LOUISIANA.		
Clinton	Silliman Collegiate Institute	Rev. H. H. Brownlee.
Keatchie	Louisiana Female College	G. W. Thigpen, A. M.
Mansfield	Mansfield Female College	T. S. Sligh, A. M.
New Orleans	H. Sophie Newcomb Memorial College	Brandt V. B. Dixon, LL. D.
MARYLAND.		
Baltimore	Woman's College of Baltimore	Eugene A. Noble.
Frederick	Woman's College	J. H. Apple, A. M.
Hagerstown	Kee Mar College	Page Milburn.
Lutherville	Maryland College for Young Ladies	Rev. J. H. Turner, D. D.

III.—College Presidents—Continued.

2.—*Colleges for women*—Continued.

Location.	College.	Name of president.
MASSACHUSETTS.		
Auburndale	Lasell Seminary for Young Women	C. C. Bragdon, LL. D.
Boston	Simmons College	Henry Lefavour, LL. D.
Cambridge	Radcliffe	Le Baron R. Briggs, LL. D.
Northampton	Smith College	Rev. L. Clark Seelye, LL. D.
South Hadley	Mount Holyoke College	Mary E. Woolley, Litt. D.
Wellesley	Wellesley College	Miss Caroline Hazard, Litt. D.
MISSISSIPPI.		
Blue Mountain	Blue Mountain Female College	B. G. Lowrey, A. M.
Brookhaven	Whitworth Female College	Rev. I. W. Cooper, D. D.
Clinton	Hillman College	W. J. Lowrey.
Columbus	Industrial Institute and College	Henry L. Whitfield.
French Camp	Central Mississippi Institute	J. A. Sanderson, principal.
Jackson	Belhaven College for Young Ladies	J. R. Preston.
Meridian	Meridian Female College	J. W. Beeson, A. M.
Natchez	Stanton College for Young Ladies	J. K. Morrison.
Pontotoc	Chickasaw Female College	Miss Katherine E. Crawford.
Port Gibson	Port Gibson Female College	Henry G. Hawkins, A. B.
MISSOURI.		
Columbia	Christian College	Mrs. W. T. Moore.
Do	Stephens College	William B. Peeler.
Fayette	Howard Payne College	Rev. Henry E. Stout.
Fulton	Synodical Female College	Rev. C. A. McPheeters, A. M.
Do	Central Female College	Alfred F. Smith.
Lexington	Lexington College for Young Women	Edward W. White, A. M.
Liberty	Liberty Ladies College	C. M. Williams, A. M.
Mexico	Hardin College	J. W. Million, A. M.
Nevada	Cottey College for Young Ladies	Mrs. V. A. C. Stockard.
St. Charles	Lindenwood College for Women	Rev. George F. Ayres, Ph. D.
NEW YORK.		
Aurora	Wells College	Rev. George M. Ward, LL. D.
Elmira	Elmira College	Rev. A. C. Mackenzie, LL. D.
New Rochelle	College of St. Angela	Rev. M. C. O'Farrell.
New York	Barnard College	Wm. T. Brewster, acting dean.
Poughkeepsie	Vassar College	Rev. J. M. Taylor, LL. D.
NORTH CAROLINA.		
Charlotte	Elizabeth College	Rev. C. B. King, A. M.
Greensboro	Greensboro Female College	Mrs. Lucy H. Robertson.
Hickory	Claremont Female College	Joseph L. Murphy.
Louisburg	Louisburg Female College	Mrs. Mary Davis Allen.
Murfreesboro	Chowan Baptist Female Institute	John C. Scarborough, A. B.
Oxford	Oxford Female Seminary	F. P. Hobgood, A.M.
Raleigh	Baptist Female University	Rev. R. T. Vann, D. D.
Salem	Salem Female Academy and College	Rev. John H. Clewell, Ph. D.
Statesville	Statesville Female College	Rev. John A. Scott, D. D.
OHIO.		
Oxford	Oxford College	Jane Sherzer, Ph. D.
Do	Western College for Women	Rev. John D. Newman, D. D.
Painesville	Lake Erie College	Miss Mary Evans, Litt. D.
PENNSYLVANIA.		
Allentown	Allentown College for Women	Rev. Thomas S. Land.
Beaver	Beaver College	Rev. George D. Chrissman, Ph. D.
Bethlehem	Moravian Seminary and College for Women.	Rev. J. Max Hark, D. D.
Blairsville	Blairsville College	Rev. N. S. Fiscus, B. D.
Bryn Mawr	Bryn Mawr College	Miss M. Carey Thomas, LL. D.
Chambersburg	Wilson College	M. H. Reaser, Ph. D.
Mechanicsburg	Irving Female College	E. E. Campbell, Ph. D.
Pittsburg	Pennsylvania College for Women	Rev. Henry D. Lindsay, D. D.
SOUTH CAROLINA.		
Columbia	Columbia Female College	Rev. W. W. Daniel, D. D.
Do	College for Women	Miss Euphemia McClintock, A. B.
Due West	Due West Female College	Rev. James Boyce.
Greenville	Greenville College for Women	A. S. Townes.
Do	Greenville Female College	Edward C. James, Litt. D.
Greenwood	Lander Female College	Rev. John O. Willson, D. D.
Spartanburg	Converse College	Robert P. Pell, A. B.
Union	Clifford Seminary	Rev. B. G. Clifford, Ph. D.

III.—College Presidents—Continued.

2.—*Colleges for women*—Continued.

Location.	College.	Name of president.
TENNESSEE.		
Bristol	Sullins College	W. E. Martin, Ph. D., A. M.
Franklin	Tennessee Female College	T. E. Allen.
Gallatin	Howard Female College	Amos L. Edwards, B. S.
Jackson	Memphis Conference Female Institute	Rev. A. B. Jones, LL. D.
Murfreesboro	Tennessee College	Geo. J. Burnett, A. M.
Nashville	Boscobel College	Mrs. J. O. Rust.
Do	Ward Seminary	J. D. Blanton, LL. D.
Rogersville	Synodical Female College	Lawrence Rolfe, A. B.
TEXAS.		
Bonham	Carlton College	Rev. C. T. Carlton, A. B.
Belton	Baylor Female College	W. A. Wilson, D. D.
Chappel Hill	Chappell Hill Female College	James E. Willis, A. M.
San Antonio	San Antonio Female College	Rev. J. E. Harrison, A. B.
Sherman	North Texas Female College	Mrs. Lucy A. Kidd-Key.
VIRGINIA.		
Abingdon	Martha Washington College	S. D. Long.
Do	Stonewall Jackson Institute	Miss Kate M. Hunt, A. B.
Bristol	Southwest Virginia Institute	J. T. Henderson, A. M.
Charlottesville	Rawlings Institute	Rev. H. W. Tribble, D. D.
Danville	Roanoke College of Danville	John B. Brewer, A. M.
Hollins	Hollins Institute	Miss Matty L. Cocke.
Lynchburg	Randolph-Macon Woman's College	W. W. Smith, LL. D.
Marion	Marion Female College	Rev. J. J. Scherer, D. D.
Petersburg	Southern Female College	Arthur K. Davis, A. M.
Richmond	Woman's College	Rev. James Nelson, D. D.
Winchester	Episcopal Institute	W. C. Marshall, principal.
WEST VIRGINIA.		
Charlestown	Powhatan College	Stewart P. Hatton, LL. D.
Lewisburg	Lewisburg Female Institute	Rev. R. L. Telford, D. D.
WISCONSIN.		
Milwaukee	Milwaukee-Downer College	Miss Ellen C. Sabin, A. M.

IV.—Professors of Pedagogy and Heads of Departments of Pedagogy in Universities and Colleges.

Address.	University or college.	Name of professor.
University, Ala	University of Alabama	Fletcher B. Dresslar, Ph. D.
Fayetteville, Ark	University of Arkansas	Wm. S. Johnson, Ph. D.
Berkeley, Cal	University of California	A. F. Lange, Ph. D.
Pasadena, Cal	Throop Polytechnic Institute	A. H. Chamberlain, A. M.
Stanford University, Cal.	Leland Stanford Junior University	E. P. Cubberley, A. M.
Boulder, Colo	University of Colorado	Vivian A. C. Henmon, Ph. D.
Colorado Springs, Colo	Colorado College	H. A. Ruger, A. B.
University Park, Colo	University of Denver	D. E. Phillips, Ph. D.
Washington, D. C	George Washington University	Williston S. Hough, Ph. M.
Do	Howard University	Lewis B. Moore, Ph. D.
De Land, Fla	John B. Stetson University	Lincoln Hulley, Ph. D., president.
Gainesville, Fla	University of the State of Florida	W. F. Yocum, D. D.
Athens, Ga	University of Georgia	T. J. Woofter, Ph. D.
Atlanta, Ga	Atlanta University	George A. Towns, A. M.
Dahlonega, Ga	North Georgia Agricultural College	Gustavus R. Glenn, LL. D., pres.
South Atlanta, Ga	Clark University	Arthur W. Rowell.
Moscow, Idaho	University of Idaho	M. F. Reed, B. S.
Chicago, Ill	University of Chicago	Nathaniel Butler, LL. D.
Decatur, Ill	James Milliken University	A. R. Taylor, Ph. D., president.
Eureka, Ill	Eureka College	Elizabeth Baxter, A. B.
Evanston, Ill	Northwestern University	Herbert F. Fisk, LL. D.
Greenville, Ill	Greenville College	Candis J. Nelson, A. B.
Urbana, Ill	University of Illinois	W. C. Bagley, Ph. D.
Bloomington, Ind	Indiana University	Wm. W. Black, A. M.
Crawfordsville, Ind	Wabash College	Geo. H. Tapy, A. B.
Earlham, Ind	Earlham College	Robt. L. Kelly.

IV.—Professors of Pedagogy and Heads of Departments of Pedagogy in Universities and Colleges—Continued.

Address.	University or college.	Name of professor.
Greencastle, Ind	De Pauw University	Rufus B. Von Kleinsmid, A. M.
Hanover, Ind	Hanover College	Wm. A. Millis.
Indianapolis, Ind	Butler College	Arthur K. Rogers, Ph. D.
Moores Hill, Ind	Moores Hill College	Frederick L. Fagley, B. S.
Oakland City, Ind	Oakland City College	Newton C. Johnson.
Cedar Rapids, Iowa	Coe College	J. P. Hugget, A. M.
Charles City, Iowa	Charles City College	Frederick Schaub, A. M.
Des Moines, Iowa	Drake University	William F. Barr, Ph. D.
Fairfield, Iowa	Parsons College	Katharine I. Hutchison, A. M.
Fayette, Iowa	Upper Iowa University	A. E. Bennett, A. M.
Indianola, Iowa	Simpson College	Charles E. Shelton, LL. D., pres.
Iowa City, Iowa	State University of Iowa	F. E. Bolton, Ph. D.
Lamoni, Iowa	Graceland College	R. M. Stewart, A. B.
Mount Pleasant, Iowa	Iowa Wesleyan University	Elizabeth Dean.
Mount Vernon, Iowa	Cornell College	Hugh S. Buffum.
Sioux City, Iowa	Morningside College	E. A. Brown, A. M.
Tabor, Iowa	Tabor College	J. F. Crawford, A. M.
Atchison, Kans	Midland College	Harold W. Foght, A. M.
Baldwin, Kans	Baker University	Lilian Scott, Ph. B.
Emporia, Kans	Emporia College	Mary A. Ludlum, A. M.
Holton, Kans	Campbell College	W. S. Reese, Ph. M.
Lawrence, Kans	University of Kansas	A. S. Olin, A. M.
Lindsborg, Kans	Bethany College	
McPherson, Kans	McPherson College	John A. Clement, A. M.
Ottawa, Kans	Ottawa University	Herbert H. Foster, Ph. D.
Salina, Kans	Kansas Wesleyan University	Albert H. King, M. Ped.
Sterling, Kans	Cooper College	Elizabeth Duff.
Topeka, Kans	Washburn College	Emil C. Wilm, Ph. D.
Wichita, Kans	Fairmount College	Herbert L. Wilbur, A. M.
Do	Friends University	B. W. Truesdell, A. B.
Winfield, Kans	Southwest Kansas College	Henrietta V. Race, A. B.
Barbourville, Ky	Union College	George H. Reibold, B. S.
Berea, Ky	Berea College	John W. Dinsmore, A. M.
Lexington, Ky	State University	James T. Noe, A. M.
Baton Rouge, La	Louisiana State University	Alexander B. Coffey, dean.
New Orleans, La	H. Sophie Newcomb Memorial College	Margaret E. Cross.
Do	Leland University	R. W. Perkins, Ph. D.
Do	Tulane University of Louisiana	Joseph M. Gwinn, A. M.
Orono, Me	University of Maine	Chas. Davidson, Ph. D.
Baltimore, Md	Morgan College	Chas. A. Johnson, A. B.
Chestertown, Md	Washington College	Robt. H. Gault, Ph. D.
Boston, Mass	Simmons College	Mary E. Parker, A. M.
Cambridge, Mass	Harvard University	Paul H. Hanus, B. S., LL. D.
South Hadley, Mass	Mount Holyoke College	George E. Dawson, Ph. D.
Wellesley, Mass	Wellesley College	Anna J. McKeag, Ph. D.
Worcester, Mass	Clark University	W. H. Burnham, Ph. D.
Do	Collegiate Department, Clark University	Rufus C. Bentley, A. M., dean.
Adrian, Mich	Adrian College	Sarah J. Knott, M. S.
Alma, Mich	Alma College	Albert P. Cook.
Ann Arbor, Mich	University of Michigan	Allen S. Whitney, A. B.
Hillsdale, Mich	Hillsdale College	Charles H. Gurney, A. M.
Holland, Mich	Hope College	John E. Knizenga, A. M.
Kalamazoo, Mich	Kalamazoo College	Herbert L. Stetson, LL. D.
Olivet, Mich	Olivet College	E. G. Lancaster, Ph. D., president.
Minneapolis, Minn	University of Minnesota	George F. James, Ph. D.
St. Paul, Minn	Macalester College	Andrew W. Anderson, A. M.
St. Peter, Minn	Gustavus Adolphus College	Emil O. Chelgren, A. B.
Winnebago, Minn	Parker College	Elbert Wayland Van Aken, A. M., president.
University, Miss	University of Mississippi	Thos. P. Bailey, Ph. D.
Columbia, Mo	University of Missouri	J. L. Meriam, Ph. D.
St. Louis, Mo	Washington University	Edgar J. Swift, Ph. D.
Missoula, Mont	University of Montana	Wm. F. Book, Ph. D.
Bellevue, Nebr	Bellevue College	Wm. C. T. Adams, Ph. D.
Bethany, Nebr	Cotner University	Jas. A. Beattie, LL. D.
College View, Nebr	Union College	Charles C. Lewis, president.
Grand Island, Nebr	Grand Island College	John L. Beyl, Ph. D.
Hastings, Nebr	Hastings College	Albert G. Owen, A. M.
Lincoln, Nebr	University of Nebraska	Charles Fordyce, Ph. D., dean.
University Place, Nebr	Nebraska Wesleyan University	Wm. R. Jackson, A. M.
York, Nebr	York College	M. Lillie Irwin, B. S.
Reno, Nev	University of Nevada	Romanzo Adams, Ph. M.
Hanover, N. H	Dartmouth College	Franklin C. Lewis, A. M.
New Brunswick, N. J	Rutgers College	E. R. Payson, Ph. D.
Albuquerque, N. Mex	University of New Mexico	Charles E. Hodgin, B. Ped.
Alfred, N. Y	Alfred University	Charles B. Clark, A. M.
Brooklyn, N. Y	Adelphi College	E. N. Henderson, A. M.
Do	Polytechnic Institute of Brooklyn	Fred W. Atkinson, Ph. D.
Canton, N. Y	St. Lawrence University	F. C. Foster, A. M., acting.
Clinton, N. Y	Hamilton College	W. H. Squires, Ph. D.
Elmira, N. Y	Elmira College	Vida F. Moore, Ph. D.

IV.—Professors of Pedagogy and Heads of Departments of Pedagogy in Universities and Colleges—Continued.

Address.	University or college.	Name of professor.
Hamilton, N. Y.	Colgate University	M. S. Read, Ph. D.
Ithaca, N. Y.	Cornell University	Charles De Garmo, Ph. D.
New York, N. Y.	College of the City of New York	Stephen P. Duggan, Ph. D.
Do	Columbia University (Teachers College)	James E. Russell, LL. D., dean.
Do	New York University	T. M. Balliet, Ph. D.
Rochester, N. Y.	University of Rochester	George M. Forbes, A. M.
Syracuse, N. Y.	Syracuse University	J. R. Street, Ph. D.
Chapel Hill, N. C.	University of North Carolina	Marcus C. S. Noble.
Salisbury, N. C.	Livingstone College	W. R. Connors, A. B.
Wake Forest, N. C.	Wake Forest College	J. Henry Highsmith.
University, N. Dak.	University of North Dakota	Joseph Kennedy, A. M.
Alliance, Ohio	Mount Union College	John B. Bowman, A. M.
Ashland, Ohio	Ashland College	L. Leedy Garber, A. M.
Athens, Ohio	Ohio University	Henry G. Williams, A. M.
Berea, Ohio	Baldwin University	Fletcher D. Ward, B. S.
Cincinnati, Ohio	University of Cincinnati	Wm. P. Burris, A. M., dean.
Columbus, Ohio	Ohio State University	Frank P. Graves, Ph. D.
New Athens, Ohio	Muskingum College	John G. Lowery.
Oberlin, Ohio	Oberlin College	Edward A. Miller, A. B.
Oxford, Ohio	Miami University	Harvey C. Minnich, A. M.
Tiffin, Ohio	Heidelberg University	Aaron W. Ricksecker, A. B.
Westerville, Ohio	Otterbein University	Thomas J. Sanders, Ph. D.
Wilberforce, Ohio	Wilberforce University	Sarah C. B. Scarborough, M. Pd.
Yellow Springs, Ohio	Antioch College	W. W. Weaver, A. M.
Eugene, Oreg.	University of Oregon	H. D. Shelden, Ph. D.
Salem, Oreg.	Willamette University	Mary E. Reynolds, B. S.
Allegheny, Pa.	Western University of Pennsylvania	E. B. Huey, Ph. D.
Allentown, Pa.	Muhlenberg College	G. T. Ettinger, Ph. D.
Carlisle, Pa.	Dickinson College	Wm. L. Gooding, Ph. D.
Collegeville, Pa.	Ursinus College	Geo. L. Omwake, A. M., dean.
Bryn Mawr, Pa.	Bryn Mawr College	James H. Leuba, Ph. D.
Grove City, Pa.	Grove City College	C. M. Thomas, Ph. D.
Huntingdon, Pa.	Juniata College	J. H. Brumbaugh.
Lewisburg, Pa.	Bucknell University	Thomas A. Edwards, A. M.
Philadelphia, Pa.	Central High School	Francis B. Brandt, Ph. D.
Do	Temple University	Herbert Stotesbury, Ph. D.
Do	University of Pennsylvania	A. D. Yocum, Ph. D.
Selinsgrove, Pa.	Susquehanna University	William Noetling, A. M.
Providence, R. I.	Brown University	W. B. Jacobs, A. M.
Columbia, S. C.	University of South Carolina	Patterson Wardlaw, A. B.
Orangeburg, S. C.	Claflin University	G. Le Roy Noyes, A. B.
Brookings, S. Dak.	South Dakota Agricultural College	Rufus B. McClenon, A. M.
Mitchell, S. Dak.	Dakota Wesleyan University	Samuel Weir, Ph. D.
Vermilion, S. Dak.	University of South Dakota	A. W. Trettien.
Yankton, S. Dak.	Yankton College	Henry K. Warren, LL. D.
Knoxville, Tenn.	University of Tennessee	P. P. Claxton, A. M.
Nashville, Tenn.	University of Nashville	Albert T. Barrett, LL. D.
Austin, Tex.	University of Texas	W. S. Sutton, A. M.
Waco, Tex.	Baylor University	Frederick Eby, Ph. D.
Logan, Utah	Brigham Young College	Daniel C. Jensen, A. B.
Salt Lake City, Utah	University of Utah	Wm. M. Stewart, M. Di.
Charlottesville, Va.	University of Virginia	Wm. H. Heck, A. M.
Emory, Va.	Emory and Henry College	J. P. McConnell, Ph. D., acting.
Lynchburg, Va.	Randolph-Macon Woman's College	Wilmot B. Lane, Ph. D.
Salem, Va.	Roanoke College	F. V. N. Painter, A. M.
Williamsburg, Va.	College of William and Mary	
Pullman, Wash.	State College of Washington	Hiram C. Sampson, A. B.
Seattle, Wash.	University of Washington	Edward O. Sisson, Ph. D.
Tacoma, Wash.	University of Puget Sound	B. E. McProud, A. M.
Morgantown, W. Va.	West Virginia University	Jasper N. Deahl, A. M.
Beloit, Wis.	Beloit College	Almon W. Burr, A. M.
Madison, Wis.	University of Wisconsin	M. Vincent O'Shea, B. L.
Ripon, Wis.	Ripon College	Wm. J. Mutch, Ph. D.
Waukesha, Wis.	Carroll College	Samuel B. Ray, A. M.
Laramie, Wyo.	University of Wyoming	John Franklin Brown, Ph. D.

V.—Principals of Normal Schools.

1.—*Public normal schools.*

Location.	Name of institution.	Principal.
ALABAMA.		
Falkville	Falkville Normal College	Henry T. Lile.
Florence	State Normal College	Marshall C. Wilson.
Jacksonville	do	C. W. Daugette.
Livingston	Alabama Normal College for Girls	Miss Julia S. Tutwiler.
Normal	Agricultural and Mechanical College for Negroes	W. H. Council.
Troy	State Normal College	E. M. Shackelford.
ARIZONA.		
Flagstaff	Northern Arizona Normal School	A. N. Taylor.
Tempe	Tempe Normal School of Arizona	A. J. Matthews.
ARKANSAS.		
Pine Bluff	Branch Normal College (colored)	Isaac Fisher.
CALIFORNIA.		
Chico	California State Normal School	Chas. C. Van Liew.
Los Angeles	State Normal School	Jesse F. Millspaugh.
San Diego	do	Samuel T. Black.
San Francisco	do	Frederick Burk.
San Jose	do	Morris Elmer Dailey.
COLORADO.		
Greeley	Colorado State Normal School	Z. X. Snyder.
CONNECTICUT.		
Bridgeport	Bridgeport Training School	Besse E. Howes.
Danbury	State Normal School	John R. Perkins.
New Britain	Normal Training School	Marcus White.
New Haven	State Normal Training School	Arthur B. Morrill.
Willimantic	do	Henry T. Burr.
DELAWARE.		
Wilmington	Wilmington Teachers Training School	Clara Mendenhall.
DISTRICT OF COLUMBIA.		
Washington	Washington Normal School No. 1	Anne M. Goding.
Do	Washington Normal School No. 2 (colored)	Lucy E. Moten.
FLORIDA.		
Tallahassee	Florida State Normal and Industrial College (colored).	Nathan B. Young.
GEORGIA.		
Athens	State Normal School	E. C. Branson.
Douglas	Southern Normal Institute	J. Walter Hendricks.
Milledgeville	Georgia Normal and Industrial College	M. M. Parks.
Savannah	State Industrial College (colored)	R. R. Wright.
IDAHO.		
Albion	State Normal School	G. A. Axline.
Lewiston	do	Geo. H. Black.
ILLINOIS.		
Carbondale	Southern Illinois State Normal University	D. B. Parkinson.
Charleston	Eastern Illinois State Normal School	L. C. Lord.
Chicago, Station O	Chicago Normal School	Ella Flagg Young.
De Kalb	Northern Illinois State Normal School	John W. Cook.
Macomb	Western Illinois State Normal School	Alfred Bayliss.
Normal	Illinois State Normal University	David Felmley.
INDIANA.		
Indianapolis	Indianapolis Normal School	M. E. Nicholson.
Terre Haute	Indiana State Normal School	William W. Parsons.
IOWA.		
Cedar Falls	Iowa State Normal School	Homer H. Seerley.
Woodbine	Woodbine Normal and Commercial School	M. A. Reed.
KANSAS.		
Emporia	State Normal School	Joseph H. Hill.
Hays	Western Branch State Normal School	William S. Picken.
Pittsburg	State Manual Training Normal School	R. S. Russ.

V.—Principals of Normal Schools—Continued.

1.—*Public normal schools*—Continued.

Location.	Name of institution.	Principal.
KENTUCKY.		
Bowling Green	Western Kentucky State Normal School	H. H. Cherry.
Frankfort	State Normal and Industrial Institute for Colored Persons.	John H. Jackson.
Louisville	Louisville Normal School	W. J. McConathy.
Richmond	Eastern Kentucky State Normal School	R. N. Roark.
LOUISIANA.		
Natchitoches	Louisiana State Normal School	B. C. Caldwell.
New Orleans	New Orleans Normal School	Miss Margaret C. Hanson.
MAINE.		
Castine	Eastern State Normal School	Albert F. Richardson.
Farmington	Farmington State Normal School	George C. Purington.
Fort Kent	Madawaska Training School	Mary P. Nowland.
Gorham	State Normal School	Walter E. Russell.
Lee	Lee Normal Academy	Albert A. Towne.
Springfield	Springfield Normal School	Florence A. Parker.
MARYLAND.		
Baltimore	Baltimore Normal School for Education of Colored Teachers.	Geo. Harrison.
Do	Baltimore Teachers Training School	Sarah C. Brooks.
Do	Maryland State Normal School	Geo. W. Ward.
Frostburg	do	Edward D. Murdaugh.
MASSACHUSETTS.		
Boston	Boston Normal School	Wallace C. Boyden.
Do	Massachusetts Normal Art School	George H. Bartlett.
Bridgewater	State Normal School	Albert G. Boyden.
Fitchburg	do	John G. Thompson.
Framingham	do	Henry Whittemore.
Hyannis	do	Wm. A. Baldwin.
Lowell	do	Cyrus A. Durgin.
Do	Training School for Teachers	Gertrude Edmund.
North Adams	State Normal School	F. F. Murdock.
Salem	do	Joseph Asbury Pitman.
Westfield	do	Clarence A. Brodeur.
Worcester	do	E. Harlow Russell.
MICHIGAN.		
Detroit	Washington Normal School	Chas. L. Spain.
Kalamazoo	Western State Normal School	Dwight B. Waldo.
Marquette	State Normal School	James H. B. Kaye.
Mount Pleasant	Central State Normal School	Chas. T. Grawn.
Ypsilanti	Michigan State Normal School	Lewis H. Jones.
MINNESOTA.		
Duluth	State Normal School	E. W. Bohannon.
Mankato	do	Chas. H. Cooper.
Moorhead	do	Frank A. Weld.
St. Cloud	do	W. A. Shoemaker.
St. Paul	Teachers Training School	Hiram W. Slack.
Winona	State Normal School	G. E. Maxwell.
MISSISSIPPI.		
Sherman	Mississippi Normal Institute	John B. Thompson.
Walnut Grove	Mississippi Central Normal School	John Rundle.
MISSOURI.		
Cape Girardeau	State Normal School	W. S. Dearmont.
Kirksville	State Normal School (first district)	John R. Kirk.
Maryville	State Normal School	Homer M. Cook.
St. Louis	Teachers College	John W. Withers.
Warrensburg	State Normal School (second district)	W. J. Hawkins.
MONTANA.		
Dillon	Montana Normal School	Henry H. Swain.
NEBRASKA.		
Kearney	State Normal School	A. O. Thomas.
Peru	Nebraska State Normal School	J. W. Crabtree.
NEW HAMPSHIRE.		
Plymouth	State Normal School	J. E. Klock

V.—Principals of Normal Schools—Continued.

1.—*Public normal schools*—Continued.

Location.	Name of institution.	Principal.
NEW JERSEY.		
Jersey City	Teachers Training School	Joseph H. Brensinger.
Newark	Newark Normal and Training School	W. S. Willis.
Paterson	Paterson Normal Training School	Frank W. Smith.
Trenton	New Jersey State Normal and Model Schools	James M. Green.
NEW MEXICO.		
Las Vegas	New Mexico Normal University	W. E. Garrison.
Silver City	Normal School of New Mexico	C. M. Light.
NEW YORK.		
Albany	New York State Normal College	Wm. J. Milne.
Do	Teachers Training School	J. D. Burks.
Auburn	Auburn Training School	Miss M. Blanche Sheldon.
Brockport	State Normal and Training School	Charles T. McFarlane.
Brooklyn	Training School for Teachers	Emma L. Johnston.
Buffalo	State Normal School	James M. Cassety.
Cohoes	Cohoes Training School	Cora F. Bratton.
Cortland	State Normal and Training School	Francis J. Cheney.
Fredonia	do	Myron T. Dana.
Geneseo	Geneseo State Normal School	James V. Sturges.
Jamaica	Normal and Training School	A. C. McLachlan.
New Paltz	State Normal School	R. W. Abrams.
New York	New York Training School for Teachers	E. N. Jones.
Do	Normal College of the City of New York	George S. Davis.
Oneonta	State Normal School	Percy I. Bugbee.
Oswego	Oswego State Normal and Training School	Isaac D. Poucher.
Plattsburg	State Normal School	Geo. K. Hawkins.
Potsdam	State Normal and Training School	Thomas B. Stowell.
Rochester	Rochester Training School	Edith A. Scott.
Syracuse	Syracuse High School, Normal Department	G. A. Lewis.
NORTH CAROLINA.		
Elizabeth City	State Colored Normal School	P. W. Moore.
Fayetteville	do	E. E. Smith.
Greensboro	State Normal and Industrial School	J. I. Foust.
Painter	Cullowhee Normal and Industrial School	R. L. Madison.
Pembroke	Croaton Normal College	H. L. Edens.
Winston	Slater Industrial and State Normal School	C. G. O'Kelly.
NORTH DAKOTA.		
Mayville	State Normal School	Thos. A. Hillyer.
Valley City	do	George A. McFarland.
OHIO.		
Akron	Perkins Normal School	Lee R. Knight.
Cleveland	Cleveland Normal and Training School	J. W. McGilvrey.
Columbus	Columbus Normal School	Margaret W. Sutherland.
Dayton	Dayton Normal School	Grace A. Greene.
Toledo	Toledo Normal Training School	Mrs. Ella M. R. Baird.
OKLAHOMA.		
Alva	Northwestern State Normal School	Walter L. Ross.
Edmond	Central State Normal School	Thos. W. Butcher.
Langston	Colored Agricultural and Normal University	Inman E. Page.
Weatherford	Southwestern State Normal School	J. F. Sharp.
OREGON.		
Ashland	Southern Oregon State Normal School	Harry M. Shafer.
Drain	Central Oregon State Normal School	A. L. Briggs.
Monmouth	State Normal School	Edwin De Vore Ressler.
Weston	Eastern State Normal School	Robert Carver French.
PENNSYLVANIA.		
Bloomsburg	State Normal School	D. J. Waller, jr.
California	Southwestern State Normal School	Theo. B. Noss.
Clarion	Clarion State Normal School	J. George Becht.
East Stroudsburg	East Stroudsburg State Normal School	E. L. Kemp.
Edinboro	State Normal School	John F. Bigler.
Indiana	Indiana Normal School of Pennsylvania	James E. Ament.
Kutztown	Keystone State Normal School	A. C. Rothermel.
Lockhaven	Central State Normal School	J. R. Flickinger.
Mansfield	Mansfield State Normal School	Andrew T. Smith.
Millersville	First Pennsylvania State Normal School	E. Oram Lyte.

V.—Principals of Normal Schools—Continued.

1.—*Public normal schools*—Continued.

Location.	Name of institution.	Principal.
PENNSYLVANIA—cont'd.		
Philadelphia	Philadelphia Normal School for Girls	J. M. Willard.
Pittsburg	Pittsburg High School, Normal Department	Jane Ralston.
Shippensburg	Cumberland Valley State Normal School	Samuel A. Martin.
Slippery Rock	Slippery Rock State Normal School	Albert E. Maltby.
Westchester	State Normal School	George M. Philips.
RHODE ISLAND.		
Providence	Rhode Island State Normal School	Charles S. Chapin.
SOUTH CAROLINA.		
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	Thos. E. Miller.
Rockhill	Winthrop Normal College	D. B. Johnson.
SOUTH DAKOTA.		
Aberdeen	Northern Normal and Industrial School	Geo. W. Nash.
Madison	State Normal School	J. W. Heston.
Spearfish	do	F. L. Cook.
Springfield	do	J. S. Frazee.
TENNESSEE.		
Nashville	Peabody Normal School	James D. Porter.
TEXAS.		
Denton	North Texas Normal School	W. H. Bruce.
Detroit	Detroit Normal School	W. S. Woodson.
Huntsville	Sam Houston Normal Institute	H. C. Pritchett.
Prairie View	Prairie View State Normal and Industrial College (colored).	Ed. L. Blackshear.
UTAH.		
Cedar City	Southern Branch of the State Normal School	G. W. Decker.
VERMONT.		
Castleton	State Normal School	Philip R. Leavenworth.
Johnson	do	Edward D. Collins.
Randolph Center	do	Charles H. Morrill.
VIRGINIA.		
Farmville	State Female Normal School	J. L. Jarman.
Hampton	Hampton Normal and Agricultural Institute	H. B. Frissell.
Petersburg	Virginia Normal and Industrial Institute (colored).	J. H. Johnston.
WASHINGTON.		
Bellingham	State Normal School	Edward T. Mathes.
Cheney	do	Harry M. Shafer.
Ellensburg	do	W. E. Wilson.
WEST VIRGINIA.		
Athens	State Normal School	C. L. Bemis.
Fairmount	do	U. S. Fleming.
Glenville	do	John C. Shaw.
Huntington	Marshall College, State Normal School	Lawrence J. Corbly.
Institute	West Virginia Colored Institute	J. McH. Jones.
Shepherdstown	Shepherd College, State Normal School	J. G. Knutti.
West Liberty	West Liberty State Normal School	Lorain Fortney.
WISCONSIN.		
Ladysmith	Rusk County Normal School	R. H. Burns.
Manitowoc	Manitowoc County Teachers Training School	Fred Christiansen.
Menomonie	Dunn County Teachers Training School	G. L. Bowman.
Milwaukee	State Normal School	Charles McKenney.
Oshkosh	do	John A. H. Keith.
Platteville	do	J. W. Livingston.
River Falls	River Falls State Normal School	W. J. Brier.
Stevens Point	State Normal School	John F. Sims.
Superior	Superior State Normal School	V. E. McCaskill.
Wausau	Marathon County Training School	O. E. Wells.
Whitewater	State Normal School	Albert Salisbury.

V.—Principals of Normal Schools—Continued.

2.—*Private normal schools.*

Location.	Name of institution.	Principal.
ALABAMA.		
Cullman	Normal Department, Polytechnic College and Ladies' Institute.	S. A. Fetter.
Mobile	Emerson Normal Institute	Rev. A. T. Burnell.
Snow Hill	Snow Hill Normal and Industrial Institute	W. J. Edwards.
Tuskegee	Tuskegee Normal and Industrial Institute	B. T. Washington.
ARKANSAS.		
Pea Ridge	Pea Ridge Masonic College	S. C. Parish.
COLORADO.		
Denver	Denver Normal and Preparatory School	R. A. Le Doux.
DISTRICT OF COLUMBIA.		
Washington	Kindergarten Normal Training School	Miss Susan P. Pollock.
FLORIDA.		
Jasper	Jasper Normal Institute	Geo. M. Lynch.
Orange Park	Orange Park Normal and Manual Training School.	Mrs. L. St. J. Hitchcock.
GEORGIA.		
Macon	Ballard Normal School	George C. Burrage.
Social Circle	Negro Normal and Industrial School	James A. Love.
Thomasville	Allen Normal and Industrial School	Abbie B. Howland.
ILLINOIS.		
Addison	German Evangelical Lutheran Teachers' Seminary	E. A. W. Krauss.
Dixon	Dixon College and Normal School	W. H. Williamson.
Hoopeston	Greer College	E. L. Bailey.
Oregon	Wells School for Teachers	H. W. Sullivan.
Rushville	Rushville Normal and Business College	Maxwell Kennedy.
INDIANA.		
Danville	Central Normal College	A. J. Kinnaman.
Indianapolis	Teachers' College of Indianapolis	Eliza A. Blaker.
Rochester	Rochester Normal University	Wm. H. Banta.
Valparaiso	Valparaiso University	H. B. Brown.
IOWA.		
Bloomfield	Southern Iowa Normal School	H. C. Brown.
Denison	Denison Normal School	W. C. Van Ness.
Lemars	Lemars Normal College	Herman H. Thoren.
Perry	Perry Normal School	Helen M. Campbell.
Shenandoah	Western Normal College, Shenandoah Commercial Institute and Musical Conservatory.	J. M. Hussey.
Waukon	Waukon Business College and Normal School	W. L. Peck.
KANSAS.		
Nickerson	Nickerson College	E. B. Smith.
KENTUCKY.		
Hardinsburg	Breckinridge Normal College	Andrew Driskell.
Hazard	Hazard Baptist Institute	W. H. Sasser.
Lexington	Chandler Normal School	Fannie J. Webster.
Louisa	Kentucky Normal College	Walter M. Byington.
Middleburg	Middleburg Normal College	J. S. Lawhorn.
Morehead	Morehead Normal School	F. C. Button.
LOUISIANA.		
New Orleans	Luther College	F. J. Lankenau.
MAINE.		
Lee	Lee Normal Academy	Chas. M. Teague.
MARYLAND.		
Baltimore	Baltimore Normal School (colored)	George Harrison.
MASSACHUSETTS.		
Boston (1069 Boylston)	Froebel School, Kindergarten Normal Classes	Annie C. Rust.
Do	Garland Kindergarten Training School	Mrs. Margaret Strannard.
Do	Kindergarten Training School	Lucy Wheelock.
Do	Perry Kindergarten Normal School	Annie M. Perry.

V.—Principals of Normal Schools—Continued.

2.—*Private normal schools*—Continued.

Location.	Name of institution.	Principal.
MICHIGAN.		
Detroit	Thomas Normal Training School	Jennie L. Thomas.
Petoskey	Graves Normal Academy	M. O. Graves.
MINNESOTA.		
Madison	Normal School of the United Norwegian Lutheran Church.	O. Lokensgaard.
New Ulm	Dr. Martin Luther College	John Schaller.
MISSISSIPPI.		
Tougaloo	Normal Department, Tougaloo University	Frank G Woodworth.
MISSOURI.		
Chillicothe	Chillicothe Normal Business and Shorthand College.	Allen Moore.
Columbia	Columbia Normal School	Geo. H. Beasley.
NEBRASKA.		
Fremont	Fremont Normal School	W. H. Clemmons.
Santee	Santee Normal Training School	Alfred L. Riggs.
Wayne	Nebraska Normal College	J. M. Pile.
NORTH CAROLINA.		
Asheville	Normal and Collegiate Institute	Edward F. Childs.
Charlotte	Rowan Normal Industrial Institute	C. S. Somerville.
Enfield	Jos. K. Brick Agricultural, Industrial, and Normal School.	T. S. Inborden.
Franklinton	Albion Academy	John A. Savage.
Henderson	Henderson Normal Institute	J. A. Cotton.
Liberty	Liberty Normal College	Thos. C. Amick.
Raleigh	St. Augustine's School	Rev. A. B. Hunter.
Wilmington	Gregory Normal Institute	J. H. Arnold.
Winton	Waters Normal Institute	C. S. Brown.
OHIO.		
Ada	Ohio Northern University	L. A. Belt.
Canfield	Northeastern Ohio Normal College	C. O. Allaman.
Dayton	St. Mary's Academy	Brother Joseph Meyer.
Lebanon	National Normal University	J. Oscar Creager.
Woodville	Woodville Lutheran Normal School	K. Hemminghaus.
PENNSYLVANIA.		
Cheney	Institute for Colored Youth	Hugh M. Browne.
Muncy	Lycoming County Normal School	H. A. Spotts.
SOUTH CAROLINA.		
Charleston	Avery Normal Institute	Morrison A. Holmes.
Frogmore	Penn Normal and Industrial School	Miss Ellen Murray.
Greenwood	Brewer Normal School	Rev. J. M. Robinson.
Lancaster	Lancaster Normal and Industrial Institute	M. D. Lee.
SOUTH DAKOTA.		
Sioux Falls	Lutheran Normal School	Rev. A. Mikkelsen.
TENNESSEE.		
Dickson	Tennessee Normal School	T. B. Loggins.
Huntingdon	Southern Normal University	J. A. Baber.
Memphis	Le Moyne Normal Institute	A. J. Steele.
Morristown	Morristown Normal Academy	Judson S. Hill.
TEXAS.		
Commerce	East Texas Normal College	W. L. Mayo.
VIRGINIA.		
Keysville	Keysville Mission Industrial School	Wm. H. Hayes.
Lawrenceville	St. Paul Normal and Industrial School	Rev. James S. Russell.
WEST VIRGINIA.		
Harpers Ferry	Storer College	Henry T. McDonald.
WISCONSIN.		
Menomonie	Stout Institute	L. D. Harvey.
Milwaukee	National German-American Teachers' Seminary	Max Griebsch.
St Francis	Catholic Normal School of the Holy Family	Rev. M. J. Lochemes.

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