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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

REPORT

OF THE

COMMISSIONER OF EDUCATION

FOR

THE YEAR ENDED JUNE 30, 1915

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VOLUME I

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THE UNITED STATES
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REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 15, 1915.

SIR: I have the honor to transmit herewith the manuscript for Volume I of the report of the Commissioner of Education for the fiscal year ended June 30, 1915. It has been found wholly impossible to complete the preparation of the material for Volume II by October 15, 1915, the time when, according to law (38 Stat. L., 886), it shall be submitted for publication.

Inasmuch as it will never be possible to have the material of Volume II of this report ready for the printer before December 31, nor to prepare the material for Volume I with the necessary care and fullness of information much before that time, I respectfully recommend that the act referred to be so amended as to extend to that date the time within which the manuscript of this report may be transmitted to the Public Printer for publication. I also recommend that Congress be asked to pass a special act authorizing the printing of Volume II of the present report at such time as it can be prepared, not later than February 15, 1916.

The following statement will, I believe, show the need for this extension of time:

For Volume II of this report original statistical information must be gathered from and with the cooperation of more than 20,000 different agencies. The information includes comprehensive statistical accounts of more than 300,000 schools of all grades and kinds, public and private, rural and urban, in all parts of the United States and its possessions, with an enrollment of more than 22,000,000 children and youth and an annual income and expenditure of more than three-quarters of a billion of dollars. State and city systems of schools are reported by State and city officials in totals and not by individual schools, as are also systems of denominational and parochial schools. High schools, normal schools, colleges and universities, professional and technical schools, and many other institutions are reported separately by their respective officers. No officer, either of an individual school or of a school system, can furnish the information required by this office until the data necessary for the complete report of that school or system have been received, tabulated, and totaled. Officers

of many schools and colleges do not try to make up their reports until after the close of the summer vacation. The work of compiling statistics for systems of schools can not be begun until after reports from the constituent parts of the system have been received. Too often is it the case that the clerical force in the office of the superintendent of schools or of the board of education is not sufficient to enable the office to do its statistical work promptly. Education offices are almost always more deficient in clerical help than other public offices. In some cases the fiscal year ends with the middle or last of July or August, instead of with the last of June. This, of course, necessitates a corresponding delay in beginning the compilation of statistics. This bureau must depend for its information wholly upon the good will of officers of school systems and individual schools and other institutions and agencies of education. There is, I believe, nowhere any National or State law or any city ordinance or charter provision requiring any person to respond to the request of this bureau for information. The bureau has no money with which to pay for the labor required in putting the information for which it asks into the required form, which, because of lack of uniformity in methods of bookkeeping and accounting, is very often not the form required for the use of the State, city, or institution reporting. It has no statistical agent who can be sent to procure information when it is delayed or withheld. No penalty can be imposed either for delay or failure. I believe no similar task is required of any other bureau, department, or agent of the Federal Government. The delay of even a small per cent of the 20,000 unpaid voluntary correspondents of the bureau in filling out and returning the blanks and schedules on which the information is gathered for Volume II of this report causes a corresponding delay in the completion of this work by the statistical division of the bureau. After the blanks on which the material for this volume have been returned to this office they must be inspected, compared, corrected, compiled, and interpreted. Many of them must be returned for the insertion of items omitted or for the correction of items that have evidently been misunderstood or reported inaccurately. Much of the matter in Volume I of the report can not be completed until summaries of statistics for Volume II have been made. I feel sure that a careful consideration of these facts will convince Congress of the advisability of the amendment and of the special act recommended. I believe the Commissioner of Education has never been able to submit his report in form ready for the printer earlier than December 31, nor has it, I believe, ever been ready by this time except when special assistance was given this office by a detail of clerks from other bureaus of the Department of the Interior.

For many years the report of the Commissioner of Education has been submitted in two parts and published in two volumes. For the last three years the first volume of the report has included a more or less comprehensive interpretative survey of the progress of education in all its phases, both in this country and abroad. The disconnected general studies which made up the body of this volume of the report in earlier years have been omitted, and the results of similar studies are now published separately as numbers of the bulletin of the bureau, about 50 a year, each number for distribution among such teachers and school officers as are especially interested in the subject treated. The purpose has been to bring together in the chapters of this first volume such an account of the growth of institutions of learning and of school systems, of the working of all the more important agencies of education, and of the development of educational ideals and the progress of educational thought as will enable the reader to gain a knowledge of all that has been most worth while in the educational life of the world within the year for which the report is made, and to understand something, at least, of the trend of educational theory and practice. The difficulty of doing this thoroughly and well is fully understood, but it is believed that the ideal is approached each year more nearly than the year before. The importance of having this done well will be more fully appreciated when it is remembered that this is the only attempt at such an annual survey of educational progress made anywhere in the world. No other Government and no private agency publishes any similar volume. This is the one authoritative document, in so far as it is authoritative, on this subject for students of education in this and all other countries. Therefore, the greater the importance of its being well done. The second volume is a statistical report for the last preceding fiscal year of enrollment and attendance of pupils, of teachers, of salaries, of incomes and expenditures, of values of school properties, including buildings and equipment, and other items of interest about schools and other agencies of education in the United States and its possessions. This is the only place in which such facts in regard to education are collected. It is, therefore, the source from which information is drawn for all other publications in which any such statistics are included, and upon which many thousands of executive officers and students of education in this country rely for all the data for their comparative studies. To the extent that the statistics in this volume are incomplete or inaccurate must all the studies based on them be defective. The importance of this is enhanced by the fact that a large part of the educational legislation of the country, and especially of legislation in regard to tax levies and appropriations for education, is based on or affected by deductions drawn from such

studies. Policies of administration are frequently determined in the same way.

While this report should be made as soon as possible after the close of the year for which it is made, it is still more important that sufficient time should be allowed that it may be as full and reliable as possible.

A study of the chapters of the portion of the report submitted herewith and of certain other chapters which were not ready in time to be included in this report shows that within the year there has been in this country an increase in tendency toward democracy in education, toward giving to every child of whatever condition a full and equal opportunity with all other children for that degree and kind of education, that quantity and quality of education, which will develop in the fullest measure its manhood or womanhood, its human qualities, prepare it for the duties and responsibilities of democratic citizenship, for participation in civic and social life, and for making an honest living, contributing its part to the commonwealth, and serving humanity by some useful occupation, followed intelligently and skillfully with good will and strong purpose. In a larger degree than ever before are we beginning to understand that, next to the right to live, this is the most important right of every child. If democracy has any valuable and ultimate meaning it is equality of opportunity. But there can be no equality of opportunity without equality of opportunity in education. If to any child this is denied and it is permitted to grow to manhood or womanhood without that education which prepares it for good living, for the duties and responsibilities of citizenship, and for making an honest living by some intelligent, useful occupation, then there is nothing which individual or society can do, nothing which man or God can do, to make good the loss. More than ever before are we beginning to understand that material progress, social purity, civic righteousness, political stability and strength, and the possibilities of culture and the attainment of higher ideals, all depend on the right education of all the people. If any man or woman follows his or her trade or profession with less intelligence and skill than he or she might, the total amount of wealth produced is less than it might be. If any lack knowledge of fundamental principles of government and institutional life necessary for intelligent citizenship in our democracy, the civic and political life of city, State, and Nation is affected thereby. If the health, the culture, or the moral education of any has been neglected, all society and each of its members must suffer as a result. If any, through wrong education or the inculcation of false ideals, work at occupations for which they are not fitted or in which they may not serve themselves and society as well as they might in other ways, their own lives and the lives of us all are less full and satisfactory than

they might otherwise be. We are all bound up in the sheaf of life together, and our interests from the lowest to the highest and from the highest to the lowest are inextricably interwoven. Therefore the liberal use of public funds for the support of schools and other agencies of education is more and more clearly recognized as good business, and careful thinking and planning for the fullest and best education of all the children of all the people as the highest duty of citizenship.

The growth of this tendency toward equality of education within the year is shown by the larger interests in the care of the life and health of young children and a better type of home education; in the reviving of interest in the kindergarten, especially for children for whom good home education is lacking; in increased appropriations for longer terms and better salaries for teachers, particularly in rural communities where school terms have been short and salaries of teachers have been small; in the enactment of school attendance laws in some of the States which have not until now had such laws; in the adoption of the larger unit of administration of rural schools in several States; in the raising of standards of required preparation for teachers in some States and in the extension of the means of preparing teachers in normal schools, in departments of education in colleges, and especially in teacher-training classes in high schools; in the increased attendance in high schools; and in the differentiation of work and the adjustment of courses of study in schools of all grades to meet the needs of children of varying ability and the vocational life of the communities. Some progress has been made within the year in the reorganization of the 12 years of elementary and high schools on the basis of two equal periods of 6 years each. There is a better understanding of what college standards should be, and colleges are trying more and more to adjust themselves to these standards. This is made easier by the constant improvement of the public and private high schools and especially of the public high schools. The elevation of the standards of professional schools is due largely to the demand for higher standards in professional life. This has been accelerated by several surveys of professional schools made by some of the great educational foundations. The demand for intelligent and comprehensive surveys of the equipment, administration, and work of individual colleges and schools and of State, county, and city systems of schools continues. The purpose of these surveys is not to find fault, but to make an intelligent accounting of the schools and their results to the people who support them and are served by them, and if possible to discover means of improving them and making them render a fuller measure of service. Within the year several very valuable surveys of this kind have been made, and more are now

under way. The reports of these surveys already constitute a unique and valuable body of educational literature. The extension of our foreign commerce and particularly our closer commercial relations with Central and South American countries has brought a revival of interest in commercial education and in the study of the Spanish language. The great war in Europe and the events connected therewith have called attention to the need of preparation for defense against possible hostile invasion and created a new interest in military education.

This war has affected materially the schools in the countries directly engaged in it and in a smaller degree the schools of other European countries. The attendance at universities, colleges, and technical schools has been much smaller than in former years. Funds formerly available for education are now turned in other directions. Yet it is encouraging to note that in some of the countries at least the appropriations for public education are little, if any, less than for the years immediately preceding the beginning of the war. This shows the value which these countries attach to public education as an element of national strength.

Within the year the work of this bureau has increased largely. Three new divisions have been added and some others strengthened. Because of the general interest in the organization of the bureau and the work which it understakes to do, I am including in this introduction the paragraphs from the annual statement of the Commissioner of Education to the Secretary of the Interior which relate especially to this subject. The work of the bureau as a whole and of the several divisions for the year is set forth in detail in the body of the statement referred to, which can be had upon application to the bureau.

FUNCTIONS AND ORGANIZATION OF THE BUREAU.

The bureau has no administrative functions except those connected with the expenditure of the funds appropriated by the Federal Government for the maintenance of colleges of agriculture and mechanic arts in the several States and in Hawaii and Porto Rico, and those connected with the education, support, and medical relief of natives of Alaska. To the extent that funds appropriated for its use will permit, it performs higher and more important functions than could be performed by any administrative Federal education office. Definitely it attempts to do the following things:

(1) To serve as a clearing house for accurate and comprehensive information in respect to all educational agencies and all forms of education in the United States and all foreign countries, and to disseminate this information among school officers, teachers, students of education, and all others directly interested in any form of educational activity. To this end it publishes an annual report in two volumes, the first containing an interpretative survey of the progress of education within the year in the United States and all other countries, the second containing statistics of education in the United States; studies specific problems of education, school legislation, State and city school systems, colleges and universities, libraries, and all other agencies of education

in the United States and elsewhere, and publishes the results in printed bulletins, multigraphed letters, and letters to school journals and the public press; carries on an extensive correspondence with school officers, teachers, and others, and sends its experts to speak at meetings of National, State and local associations.

(2) To serve as a clearing house for the best opinions on school organization and administration, courses of study, methods of teaching, and many other matters connected with popular education. For each of these subjects there are a few men and women in the United States and elsewhere whose opinions, because of their greater knowledge of the subject, are most valuable. This bureau tries to find for each subject who these persons are and to make lists of expert advisers whom it may consult and to whom it may refer others. It also undertakes, after correspondence and personal conference with these experts, to formulate the consensus of expert opinion. In carrying on this part of its work the bureau's experts attend and participate in congresses and conferences of educators. The commissioner also calls special conferences at the office of the bureau in Washington and elsewhere. Last year he called nine of these conferences—eight national and one sectional.

(3) To advise legislatures, school officers, teachers, and others engaged in promoting and directing education. Its experts, upon request, address legislatures, meet with legislative committees and commissions, with State, county, and city school boards, with boards of trustees and faculties of normal schools, colleges, and universities, with library commissions, and with other similar bodies. It makes or directs surveys of State, county, and city school systems, and of individual schools or groups of schools, and reports its findings, together with constructive suggestions, to the proper officials. Within the year it has been engaged in nine such surveys, most of which are not yet completed, and has promised to make other similar surveys within the present fiscal year. In response to thousands of letters asking advice on specific subjects, the bureau makes hundreds of studies in its library and elsewhere and gives the results of these studies in individual and circular letters.

(4) To promote on its own initiative and to assist education officers and the people of the several States and local communities in promoting what it believes to be necessary and desirable tendencies in education and in the organization of educational agencies, to the end that there may be full and equal opportunity of education for all. Within the year definite work has been done for the lengthening of school terms in rural communities; for the better preparation of teachers for rural schools; for more adequate salaries for teachers in schools of all kinds and grades; for better attendance laws in some States and for the better enforcement of attendance laws in all States; for readjusting courses of study in rural schools; for working out a better method of teaching children to read than is now in common use and in promulgating this method; in working out plans for teaching English in rural schools; in promoting education in agriculture, trades, and industries, and for home making; in the establishment of kindergartens; in the consolidation of rural schools and in making homes for teachers and school farms parts of the equipment of rural schools; in making sentiment for the promotion of teachers in graded schools from grade to grade with the children, so as to make possible a larger degree of continuity in the school work of the children; in the promotion of school and home gardening in cities, towns, suburban communities, and manufacturing villages; toward reorganization of the 12 years of elementary and secondary schooling into 6 years of elementary and 6 years of high school—the so-called six-and-six plan—instead of the present plan of 8 years of elementary school and 4 years of high school; toward more flexible courses in the high schools and their more perfect adaptation

to all classes of children; toward helping parents in the early education of their children in the home and in bringing the school and the home closer together; in encouraging boys and girls to continue their education through systematic reading after leaving school; toward the establishment of county libraries, the opening of city libraries to country people, and the establishment of school libraries; for better schoolhouses and the care of the health of school children. This work is done through printed bulletins, multigraphed and press letters, correspondence, consultation with teachers and education officers, and addresses at meetings of associations, commercial bodies, and women's clubs, and mass meetings of citizens.

(5) To determine standards of measurement in education and to conduct and direct experiments in education, to the end that we may finally have a larger body of definite scientific knowledge about education and educational processes and methods. In the first of these the bureau had the assistance during the year of a group of 15 special collaborators working under the direction of Dr. George D. Strayer, of Teachers College, Columbia University. In the second it has been able to do very little, and it can not do much until there are special appropriations for experiments in education under scientific control.

The bureau is now organized under the following divisions: Office of the chief clerk, the Alaska division, mails and files, library, statistical, editorial, higher education, school administration, industrial education and education for home making, agricultural education, rural schools, civic education, education of immigrants, education of negroes, school and home gardening, kindergarten, school sanitation and hygiene, and home education. The division of industrial education and education for home making, with three specialists; the division of school and home gardening, with two specialists and one assistant specialist; and the division of agricultural education, with one specialist, have been created within the year. The division of rural schools has lost one specialist and has gained two assistant specialists. The division of school administration has increased by the addition of one specialist. These additions and some others were made possible by an additional appropriation amounting to $30,600, which became available at the beginning of the fiscal year.

The Alaska division has offices in Washington, Seattle, and Nome. The kindergarten division has offices in Washington and New York. The home education division has offices in Washington and Philadelphia. The division of school sanitation and hygiene has offices in Washington and Nashville, Tenn. All other divisions have offices only in Washington. There are substations under designated directors at Columbia University, University of Chicago, George Peabody College for Teachers, and Leland Stanford Junior University.

All of which is respectfully submitted.

P. P. Claxton,
Commissioner.

The Secretary of the Interior.

CHAPTER I.

EDUCATIONAL LEGISLATION IN 1915.[1]

By WILLIAM R. HOOD.

Division of School Administration.

CONTENTS.—Administrative control—The county unit—Code commissions—Taxation—Consolidation of districts—High schools—Compulsory attendance—Health provisions—The school term—The training of teachers—Teachers' certificates—Teachers' salaries—Teachers' pensions—Higher education—Libraries—Manual and industrial training—Kindergartens—Textbooks—The employment of children.

The legislatures of 43 States were in session in 1915—all except those of Kentucky, Louisiana, Maryland, Mississippi, and Virginia, which meet in even-numbered years. While a large mass of educational legislation was enacted, the year was not especially conspicuous for departures from the usual course. The year was, however, notable for numerous constructive measures. Some of the more important subjects with which lawmakers concerned themselves were administrative control, health provisions, high schools, teacher training, higher education, public-school support, compulsory attendance, the school term, libraries, and the curriculum in general. Legislation only less vital to the public-school system was enacted on such subjects as child labor, social centers, mothers' pensions, playgrounds, and the like. "Movements" for the consolidation of rural schools, vocational training, kindergartens, free textbooks, and the retirement of superannuated teachers went on apace. No entire new school code was enacted.

ADMINISTRATIVE CONTROL.

Changes in administrative control were made chiefly in connection with State boards of education and county boards or officers. In State school administration the trend is toward centralizing control in a board or body of persons exercising large powers and wide discretion. It is also worthy of notice that ex officio boards are giving place to a different type: The older State board, composed of governor, superintendent of public instruction, and attorney general,

[1] Based on volumes of official session laws from 26 States; on summaries or other information from the remaining 17.

for example, is disappearing, and a body composed of appointive or elective members without regard to the holding of other State offices or educational positions is growing in popularity with legislators.

Laws making more or less important changes affecting State boards were enacted in six States. The Vermont act of 1915 increased the powers and duties of the State board of education. As was formerly the case, the board is entirely appointive, the governor being authorized to designate its members. The board is to appoint a commissioner of education, approve the appointment of as many State supervisors as it may deem necessary, appoint superintendents of towns forming unions for the purpose of supervision, and have general control of the public-school system, including the certification of teachers and the adoption of a course of study. The commissioner of education, who may be appointed for an indefinite period, displaces the "superintendent of education," who was formerly appointed by the State board for a term of three years.

Under the 1915 act of Tennessee the governor and superintendent of public instruction were dropped from the membership of the State board of education and all members were made appointive. The old law provided for a membership of eight, composed of the governor and superintendent, ex officio, and six members appointed by the governor. The new law provides for the appointment of nine members for terms of six years. Terms are made to overlap, three members being appointed every two years. The constitution recognizes three "grand divisions" of the State—East Tennessee, Middle Tennessee, and West Tennessee; three members of the board of education must now be chosen from each of these grand divisions. Members serve without pay, but are allowed necessary expenses when attending meetings or otherwise discharging their official duties. In addition to other powers conferred by law, the board is directed to appoint a superintendent of public instruction to assume the duties of the office at the expiration of the term of the present incumbent. His salary and tenure are to be fixed by the board.

The State board of education created by the Legislature of Wisconsin consists of the governor, secretary of State, superintendent of public instruction, one member appointed by the regents of the university, and one appointed by the regents of the State normal schools. To this board is given the exclusive management of all financial affairs of the educational activities of the State.

North Dakota's act of 1915 created a board of regents of State educational institutions. It is composed of five members appointed by the governor with the consent of the senate. The term of members is to be six years, and the compensation $7 per day each, including traveling expenses. This board succeeds to all the powers and

duties of the normal school board and the boards of trustees of other State educational institutions.

In Utah the State board of education, which formerly consisted of the State superintendent, the presidents of the university and the agricultural college and two appointive members, was increased to nine in number; there are six appointive members under the new act. The terms of members of the New Mexico board were increased and their per diem was raised from $2.50 to $5 each.

THE COUNTY UNIT.

The system of public school administration and support in most States is imperfect, and is often unjust to some communities. This statement is probably more true of support than of administration. For example: In 1913–14 two contiguous districts in Pennsylvania levied for school purposes 5 mills and 12 mills, respectively. In North Carolina a special tax district in a rural community was formed a few years ago in such a way that one of its boundaries ran parallel with and included a railroad for about 3 miles, thus taking away from the district on the other side of the railroad the possibility of taxing any part of the only corporation in either of the two communities. One of the less wealthy counties in Alabama derives about 65 per cent of its revenues from corporations, and as a matter of course these corporations are not evenly distributed throughout the county. If public schools in that county were supported chiefly by district taxation it is clear that the schools of some districts would fare much better than those of others. To correct the conditions which these examples illustrate, and which are by no means confined to the States mentioned, many experts advocate a unit of administration and support larger than the school district. They argue that a larger unit, as for example the county, will effect a more nearly equal distribution of both the burdens and the opportunities of public education. Hence the "county unit" was proposed for about 10 States at recent sessions of their legislatures, and the proposal met with favor in several cases.

What appears to be the most sweeping law of this character enacted in 1915 was that of Alabama. In that State the county board of education was formerly composed of the county superintendent, ex officio, and four members elected by the chairmen of the several district boards. Its powers were limited to the general supervision of public schools outside of independent districts and to service in an advisory capacity to the county superintendent, but it was authorized to overrule the actions of district boards. The act of 1915 created a board of five members to be elected by the qualified electors of the county.

The chief powers conferred upon this board are (1) to elect a county superintendent of education and fix his salary; (2) to elect a county treasurer of public-school funds; (3) to fill vacancies in its own membership for unexpired terms; (4) to select assistant superintendents, supervisors, and necessary office force; (5) to select teachers upon nomination of the county superintendent and fix their salaries; (6) to erect, repair, and furnish schoolhouses, and determine all incidental expenses; (7) to fix the boundaries of school districts and locate schools; (8) to consolidate schools and provide for the transportation of pupils; (9) to arrange for the transfer of pupils when advisable; (10) to control public school funds; (11) to appoint in each district one or more, but not exceeding three, persons whose duty shall be to care for school property, look after the general interests of the school, and report to the county superintendent; (12) to enforce the compulsory-attendance law. From the duties enumerated here it will be seen that the county board as created by the legislature of 1915 will have full control of the public schools; the district board as it formerly existed is practically eliminated. Its authority over school property, the selection of a teacher and the conduct of the business of the district generally is taken away and centralized in the county board. Incorporated cities and towns are exempt from the provisions of the act, but another enactment providing for the administration of schools in municipalities of from 2,000 to 6,000 population places towns of less than 2,000 under the control of county boards of education.

The Texas act of 1915 makes fewer radical changes than the Alabama law. Under an act of 1911 a board of county school trustees had to do mainly with high schools and graded schools in rural communities. The immediate control of these schools, however, remained vested in the district trustees. The county trustees were authorized to classify high and elementary schools and to arrange school districts, the chief purpose of the law being to provide high-school facilities, at least through the tenth grade, for rural communities. The act of 1915 extends the control of the board to the "public free schools" of the county, but independent districts having 150 or more children of school age are not affected. The law is one of that kind which is susceptible to more than one construction, but it is fairly clear that district boards will remain intact and that a measure of control of the common schools and the selection of the teaching staff for such schools will still be in the hands of the district board. The consolidation of two or more districts may be effected by petition of a majority of the qualified voters in each district concerned in the transaction. The county board acting in conjunction with the county superintendent is to apportion school funds, except to independent districts having a school population of 150 or more.

The "county-unit" system of administration for rural communities has strong points in its favor, but one who studies the subject should differentiate public school support from public school control. The cases already alluded to in Pennsylvania, North Carolina, and Alabama, which might be multiplied many times if all American systems of school support were subjected to close scrutiny, show the need of a more equitable distribution of the burden of support, but, from the standpoint of administration, they do not prove that the local district should be practically abolished. Some of the arguments against the complete submergence of the district are (1) that it breaks up the proper balance which should obtain among the civil units composing the State, namely, the State, the county, and the local district; (2) that it results from the confusion of public school support with public school control; (3) that it will tend to stifle local initiative and enterprise; (4) that in a larger unit opportunity is offered for rivalry among constituent communities and for favoritism to those communities in which members of the governing board are most interested; (5) that the interest and influence of dozens of men and women in each county, who might under the district system be vitally connected with the public schools as school-board members, are lost or dissipated by reason of the cutting off of such persons from direct connection with the schools. It would seem that any plan contemplating a larger unit than the district should be so devised as to leave to the district a measure of local autonomy. The control of the school plant and authority to employ a more efficient teaching force or to extend the term beyond that provided by State and county funds could be vested in the district, and at the same time a good county system could be maintained.

Other States which enacted laws affecting county organization generally adopted some modified form of the "county unit" or revised their statutes in minor particulars. Utah, however, extended the provisions of its law creating county school districts to all counties and made the act mandatory, except that in counties having 5,000 school population or more, which were already divided into two or more high-school districts, these high-school districts were constituted county school districts. Formerly any county having a school population of 2,000 or more was authorized to form a "county school district of the first class."

Under the 1915 act of Nebraska any county of less than 7,000 population was authorized to organize a county school district; the adoption of the provisions of the act was left to local option. Tennessee extended to county boards of education and to county high-school boards the right of eminent domain for the purpose of acquiring land for school sites. In North Carolina the compensation per

diem of members of the county board was increased from $2 to $3 each.

Three States—Ohio, Wisconsin, and Oregon—receded somewhat from positions formerly taken with respect to county administration or supervision. The 1915 act of Ohio amended the code sections which created the county board of education by giving the qualified electors a voice in the formation of districts and the location of schools. Under the older law the county board was authorized, with the mutual consent of district boards interested, to transfer the whole or a part of a district not exempt from the provisions of the act to another such district. Now such a transfer can be made only after due notice is given, and can not be made at all if a majority of the qualified electors of the district file a written remonstrance. In arranging schools in districts subject to the provisions of the act, the county board may likewise be stopped by written remonstrance of a majority of the electors.

Chapter 751 of the Wisconsin acts of 1913 created a county board of education of five members to be elected by the qualified voters and conferred upon it power to appoint one or more assistant county superintendents, a clerk, and a board of examiners for common-school diplomas; to form, alter, or consolidate school districts; and to fix the salaries of the county superintendent, assistant, and clerk. Chapter 531 of the acts of 1915 repealed this enactment and provided for each "county superintendent district" a committee on common schools to consist of three persons chosen by the county board of supervisors. This committee is authorized to hear and determine appeals from the action of town boards, village boards of trustees, or city councils in the matter of creating, dissolving, or consolidating school districts, but no consolidation may be effected if a majority of those voting at an election oppose it. The committee is directed to appoint, on nomination of the county superintendent, at least one supervising teacher to assist the superintendent in the supervision of schools. In a county superintendent district having more than 125 schools the committee may appoint an additional supervising teacher. The county superintendent is authorized to employ examiners for common-school diplomas. Neither the act of 1913 nor that of 1915 applied to cities having independent systems of schools.

By an act of the Oregon Legislature of 1911 (ch. 79) there was created in every county having more than 60 schools a "county educational board," whose duty it was to divide the county into supervisory districts comprising not fewer than 20 nor more than 60 school districts each and to employ a supervisor for each district so formed, except for one which was to be under the county superintendent. School districts which provided for supervision within themselves were exempted. The act of 1915 amends this law by

directing the county educational board, on petition of a majority of the district directors of any county, to dismiss supervisors employed by them. The county superintendent is directed thereafter to dissolve the educational board.

CODE COMMISSIONS.

The recognition of the need of occasionally codifying all general State laws and bringing them together in a form having legislative sanction is universal, but the prevalent method of making codes and then adding numerous amendments at each session of the legislature through a period of years is hardly satisfactory for the purposes of the school administrator. Pamphlet "school laws," published by State superintendents, who, of course, have no authority to amend them, are often found to contain inconsistencies and sometimes contradictions. The urgent need of enacting in most States complete "school codes" as single statutes is increasingly apparent, for where a single statute is made to cover the whole field of public education and is enacted with due deliberation it can be made comprehensive, clear-cut, and free from inconsistencies. From time to time one State or another has created a school-code commission and has directed it to make a survey of educational conditions and report to the governor or to the next legislature. The case of Pennsylvania's commission and resultant school code of 1911 is now well known. In 1913 three States created commissions to investigate school conditions and report their findings. In 1915 three others followed their example.

The State of Washington has an excellent school system and a commendable body of school laws, but it appears not yet satisfied with its achievements. The legislature of 1915 created a commission to make an educational survey of the State and to report, with recommendations, on or before April 30, 1916. Higher institutions, as well as all public-school activities, are to come within the scope of the investigation. The commission is composed of six members—three from the State senate and three from the house of representatives, who are named in the act.

The commission provided for in the Utah act differs from the Washington commission in that it is to be composed of the State superintendent of public instruction, the attorney general, and three members appointed by the governor. This commission is to investigate educational conditions and to report, with recommendations, including an educational bill, on or before September 1, 1916. The Wyoming act provides for a code commission to be composed of the State superintendent and four other members appointed by the governor. It is directed to report a school code to the governor and the next session of the legislature.

TAXATION.

Two distinct tendencies are noticeable in the 1915 enactments regarding taxation for school purposes: (1) An increase of the maximum number of mills on the dollar that may be levied, and (2) an inclination to make the larger units, State and county, bear more of the burden. Minnesota increased from 9 to 10¼ mills the total levy that may be made for schools in cities of 50,000 population or more. In cities of 20,000 to 50,000 the maximum was raised from 11 to 13 mills; it was raised from 9 to 15 mills in cities of 10,000 to 20,000. West Virginia increased the maximum rates of district school levies for building and general maintenance funds from 12½ cents and 25 cents on the $100 to 15 and 30 cents respectively. In Iowa the largest amount that might be levied in consolidated districts under the old law was $32 per child of school age. The 1915 act increased this amount to $50 per child. Where an approved high-school course is maintained, $60 may now be levied. A school district in Kansas was formerly permitted to levy as much as 3½ mills; now 4½ mills may be levied, and a city of the third class maintaining an accredited high school may levy 6. North Dakota also raised its maximum rates of district taxes. South Dakota, Idaho, Montana, Utah, Nevada, and Oregon made less noteworthy changes in their tax laws. In some of these States, as Idaho and Utah, reductions of maximum rates were made, but the new schedules would appear to be sufficient to produce ample funds.

Four States—Alabama, Texas, New Mexico, and North Dakota—enacted laws looking toward the raising of more school funds by counties. In the opinion of many school men this indicates a wholesome tendency. As has already been indicated in this chapter, there are valid arguments for a plan under which more school revenue may be derived from State and county sources. Such a plan would distribute more equitably the burdens of public school support; it is at least as much the business of the State and the county as it is of the district to provide public education. But they are not, as such, contributing equal parts with the district. Of the $507,227,455 received for public school purposes in the school year 1912–13, only $78,375,830, or 15.5 per cent, was received from State tax and appropriations. If the States, as such, had contributed twice as much, their contributions would have been more in proportion to their responsibility.

The amendment to the constitution which was proposed by the recent session of the Alabama Legislature looks toward an equal distribution of school burdens among the three civil units—State, county, and district. This amendment, if ratified by the voters of the State, will authorize a county school tax of not exceeding 30 cents

on the $100 in addition to that now permitted. A district tax of not exceeding 30 cents on the $100 is also provided for, but no district may levy a tax until the county tax reaches 30 cents. A State tax of 30 cents and a county rate of 10 cents are now provided. It will be seen that when a county once votes the full 30 cents allowed under the amendment, any district therein may thereafter vote 30 cents and may thus have available a 90-cent school revenue—one-third from the State, one-third from the county, and one-third from within its own limits.

The Legislature of Texas also proposed a constitutional amendment. This proposal includes a new county tax of not exceeding 50 cents on the $100, which may be voted by the qualified electors. The maximum district tax is increased from 50 cents to $1 on the $100. The State tax of not exceeding 20 cents remains the same. There appeared to be no necessity for raising this rate, since the income from permanent school funds and school lands amounts to approximately $2,500,000 a year and is constantly increasing.

In New Mexico the old law provided for a maximum county tax of 3 mills on the dollar and a district tax of not exceeding 15 mills. The 1915 act provides for a county tax of not exceeding 18 mills for all schools, municipal and rural. This act also directs that the State current school fund be apportioned to counties on the basis of the school census. Formerly one-half of this fund was set aside to aid weak districts.

The North Dakota act of 1915 provided for a county tax of 1 mill on the dollar. If voted by a majority of those voting at an election, the county commissioners will be required to levy the 1-mill tax.

CONSOLIDATION OF DISTRICTS.

The consolidation of rural districts for the purpose of providing graded or semigraded schools received attention from a number of legislatures in 1915. Some of the more important enactments were those of Minnesota, Wisconsin, Ohio, West Virginia, Rhode Island, Delaware, Idaho, Oklahoma, and Nevada. This subject has already been mentioned in this chapter under the head of the "county unit."

The Minnesota act reduces from 12 to 10 the minimum number of sections of land which may compose a consolidated district if it contains an incorporated village and has property valuation of between $200,000 and $1,000,000. The majority of the votes cast in the proposed district determines the matter of consolidation, but a rural district may be annexed to an incorporated village containing a State high, graded, or semigraded school by a majority vote of the district and the approval of the village board. Consolidated districts are classified as class A when they maintain school at least

eight months, with four or more departments. Class B must maintain two or more departments. An approved consolidated school must have an industrial department, library, and suitable equipment. The State superintendent of education is authorized to prescribe the qualifications of the principal and assistants. State aid is provided as follows: Class A districts, $500; class B, $250; an amount necessary to pay for the transportation of pupils. The State may also aid in erecting a building, but amount allowed can not exceed $2,000, or 25 per cent of the cost.

The Ohio consolidation act of 1915 is probably unique. It authorizes districts furnishing free transportation to public-school pupils to provide "depots" from which to gather children and take them to school. The depots are required to be so constructed as to be comfortable, and they must not be more than 1½ miles from the home of any child for whom transportation is provided.

The new Rhode Island act empowers the town school committee, with the approval of the State commissioner of public schools, to unite any school with another. The older act authorized the union with another school of any school not having an average "number belonging" of 12. The committee, which was formerly *permitted*, is now *required*, to provide transportation for pupils "who reside so far from from any public school as to make their regular attendance impracticable."

In Delaware the powers of the county school committee relative to the alteration of school districts were by the act of 1915 transferred to the State board of education.

Chapter 371 of the Wisconsin acts adds a new section to the code and repeals or amends other sections. It provides that if two or more districts are consolidated by vote of the qualified electors and an approved school building is provided, State aid in erecting such building may be granted to the extent of $1,000. It also provides that the electors in consolidated rural districts must arrange for the transportation of all children residing more than 2 miles from the schoolhouse.

In West Virginia school boards were given larger powers in consolidating schools, building graded schools, and transporting pupils. The Legislature of Idaho provided that, on petition of a majority of the heads of families residing in a school district, the county commissioners must call an election to determine the question of annexing the district to an independent district. A majority vote in each district concerned is necessary to effect the annexation. The act of Oklahoma permits independent districts having an area, population, and assessed valuation equal to that required of consolidated districts to provide transportation of pupils. The same act also permits the transportation of all pupils under 10 years of age in consolidated

districts. The new Nevada law authorizes the county commissioners to consolidate districts on petition of a majority of the voters in each district affected. Another act of that State authorizes the formation of not exceeding six districts into an "industrial school union" for the purpose of providing manual training and the domestic arts. Iowa, Missouri, Nebraska, North Dakota, South Dakota, Washington, and a few other States enacted more or less important laws relating to the consolidation of districts.

HIGH SCHOOLS.

So many laws of 1915 had to do with secondary education that only a few of the more important enactments can be mentioned here.

A Kansas act provides that the legal electors in territory comprising not less than 16 square miles may form a rural high-school district. An incorporated city or town may under this act be included in the district by a majority vote of both the rural community and the city or town. The older act did not apply to counties having a population of less than 10,000. Another act of this State authorizes the establishment of county high schools in counties having 2,000 population or more; the older law required 6,000 or more. Nebraska provided for the consolidation, or union, of districts for high-school purposes and increased by $15,000 annually the appropriation for agriculture in secondary schools. In counties of Montana which do not maintain county high schools, a tax of 3 mills may, under the 1915 law, be levied for the maintenance of accredited district schools of secondary grade, and all eligible pupils of the county may attend. Similarly a tax of 10 cents on the $100 was provided for in Nevada, and counties having county high schools were authorized to establish branches of such schools. A 1915 act of California equalizes high-school taxation by making all property in a county in which a high school is established contribute a reasonable share of support; the act reduces the tax in high-school districts and raises it in territory outside of such districts, where only tax to pay tuition has hitherto been levied. The Wyoming Legislature authorized an additional tax of 2 mills for secondary school purposes in districts maintaining a four-year course. In North Carolina the minimum amount of State aid was reduced from $250 to $200 for each approved rural high school, and the maximum amount was increased from $500 to $600. Since State aid in that State is conditioned on the amount raised by the local community, this act will have the effect of encouraging the establishment of more high schools.

Another form of legislation in 1915 was the provision in some States for the payment of tuition fees of high-school pupils not residing in high-school districts or in counties maintaining high schools.

The Oregon act provides for a county tax to pay such fees. In Illinois the county superintendent is now directed to set aside the amount necessary for this purpose before distributing the State fund to the districts of his county. The 1915 act of Idaho provides that any district not maintaining a full four-year course shall pay the tuition of a resident pupil who has completed the course given in the district and who desires to attend high school elsewhere. The Legislature of West Virginia enacted a similar law. In Kansas provision was made for submitting to the qualified electors the question of levying a county tax for paying high-school tuition fees.

The junior high-school movement received notable impetus in 1915. In California "intermediate schools," more generally known in other parts of the country as junior high schools, were legalized. Small communities and union high-school districts may now establish such schools. Elementary school districts are authorized to pay the tuition fees of resident seventh and eighth grade pupils who attend intermediate schools in other districts. The Oklahoma act provides for the formation of union graded districts for the purpose of maintaining schools offering grades above the sixth and grants State aid for building purposes. The Michigan act defines a high school as a graded school of 12 grades with at least three teachers devoting their entire time to grades above the sixth. The older law required at least two teachers for grades above the eighth. A graded school district having one teacher for the eighth, ninth, and tenth grades is not now required to pay high-school tuition fees elsewhere for high-school work of the ninth and tenth grades.

COMPULSORY ATTENDANCE.

The year 1915 was a notable year for the cause of compulsory school attendance. Four States—South Carolina, Florida, Alabama, and Texas—which did not have laws on the subject, enacted laws at the last sessions of their legislatures. This new extension of the compulsory attendance area carries required attendance at school into the section where it has hitherto met the most stubborn resistance; the area now practically includes the entire United States, Georgia[1] and Mississippi alone remaining without laws on the subject.

The 1915 act of South Carolina is a local option law. Upon petition of a majority of the qualified electors of a district or "aggregation of districts," the county board of education is required to declare the law in effect in such district or districts, or, on petition of one-fourth of the electors, an election must be held to determine the matter. All children between the ages of 8 and 14 who are physically able and who reside within 2½ miles of school are required to attend

[1] The legislature of Georgia convened in extra session in Nov., 1915, but at the time this chapter was written no attendance law had been enacted.

for the full term, or at least for four months. Children between the ages of 14 and 16 are required to attend unless lawfully employed or if they can not read and write simple English sentences.

The act of Florida, like that of South Carolina, is put into effect in a county or district by vote of the people. When the provisions of the act are adopted by vote of the qualified electors of a county or district, children between 8 and 14 residing therein are required to attend school at least 80 days, but a three-fifths' vote of the electors is necessary to adopt the provisions of the act. In both South Carolina and Florida attendance at approved private or parochial schools is accepted. Other exemptions usually found in attendance laws are made.

The new acts of Alabama and Texas are mandatory for counties and districts and are State wide in their application. Supt. W. F. Feagin, of Alabama, thus summarizes the act of that State:

> This bill, which does not become effective until October 1, 1917, provides for compulsory education of a mild type. The attendance period is 80 days in length, though the county board of education has the authority to decrease it to 60 days for any particular school. The compulsory period begins at the opening of the school in the fall, unless the county board of education decides upon some other date, and the compulsory ages are from 8 to 15 years, inclusive. Certain children are excepted, namely, those who have finished the seven elementary grades; those living 2½ miles or more from the nearest school, unless transportation is provided; those physically or mentally incapacitated; those unable to attend school on account of poverty; those attending private and parochial schools. Attendance officers are provided to investigate cases of nonattendance referred to them by the teachers, or by the superintendent, or by the board. Children who become habitual truants may be committed to State institutions for juvenile offenders, and parents and other parties violating this law may be fined or imprisoned.

In Texas children between 8 and 14 years old will be required to attend 60 days in 1916–17, 80 days in 1917–18, and 100 days in each year thereafter. Exemptions are, (1) children attending private schools or receiving approved private instruction; (2) those procuring physicians' certificates to the effect that their attendance at school is inadvisable; (3) deaf, blind, and feeble-minded children when adequate provision is not made for their education by the district; (4) those living 2½ miles or more from school, unless transportation is provided; (5) those whose services are needed for the support of the family, if they are over 12 years of age and have completed the work of the fourth grade.

More or less important changes were made in the laws of several States already having attendance requirements. California provided for assistant attendance officers to be employed on the basis of the number of pupils in average attendance. Massachusetts now requires the superintendent or other person in charge of a public or private

school to issue "tranfer cards" for pupils changing their residence. Connecticut provided for additional attendance officers. In North Carolina the duty of taking the school census was transferred from the attendance officer to the school committee. Another act of that State's legislature authorized the county board of education, or the school board in any city or town of over 2,000 population, to extend the compulsory attendance period from the age of 12 years to the age of 13 or 14 years. South Dakota raised the maximum age from 14 to 16 years. In that State after the first 6 grades are completed the school board may reduce the time required to 16 continuous weeks until the 8 grades are completed or until the age of 16 is reached.

Wisconsin now requires minors between 14 and 16 who are working under a permit to attend an industrial continuation or commercial day school not less than 5 hours per week for 8 months or 4 hours for 10 months. Those between 16 and 17 are required to attend not less than 5 hours for 6 months or 4 hours for 10 months. Pennsylvania enacted a similar law. There, in order to be lawfully employed, minors between 14 and 16, except those employed on the farm or in domestic service, must attend a school approved by the State superintendent of public instruction for not less than 8 hours each week, but this provision is inoperative where no approved school is maintained.

HEALTH PROVISIONS.

For two decades the health of the school child has received an increasingly large amount of attention. At the time the legislatures of 1915 met, the medical inspection of public-school pupils was required, at least in certain districts, in 9 States; it was specifically permitted by law in 18 States, while in several others it was practiced under general authorizations of the law. At the same time complete legal regulation of schoolhouse construction was found in 10 States; moderate or partial regulation was found in 23; in several others some degree of regulation was provided for.

The Connecticut act of 1915 amends chapter 207 of the Public Acts of 1907 by making the medical inspection of public-school pupils mandatory in cities and towns of over 10,000 inhabitants. It was formerly permissive in all districts. The school board is charged with the employment of one or more school physicians, except that in municipalities where the board of health is maintaining "medical inspection substantially as provided for in this act, the board of health shall appoint and assign such physicians." No physical examination may be made of any female child except by a woman physician, or, after notice to parent or guardian, by a male in the presence of parent or guardian or a female nurse.

A Florida act provided for medical inspection under the supervision of the State board of health. This act does not apply to cities of over 5,000 inhabitants where inspection has already been established by the city board of health and is continued in accordance with the rules prescribed by the State board. County physicians are made school inspectors, and where there is no such physician, the county commissioners are directed to appoint a school physician. Not more than 2,500 children shall be assigned to any one inspector.

The 1915 act of Kansas permits provision for free dental inspection in all cities of 40,000 population or more.

In North Dakota a school board is now required to employ a medical inspector when petitioned by a majority of the persons having children attending the schools of the district. The older act only permitted the employment of an inspector. The new Wyoming law makes it the duty of teachers, under rules and regulations prescribed by the superintendent of public instruction, to examine each pupil for defects of eyes, ears, nose, and throat without coming into physical contact with the child. The act applies to teachers in incorporated cities and towns.

Acts amending laws providing for vaccination were passed in a few States. In Rhode Island a child may now be exempt from vaccination on furnishing a certificate from a reputable practicing physician. New York amended its law by making vaccination compulsory for admission to schools only in cities of the first and second class. Whenever smallpox exists in any other school district or in the vicinity, the State commissioner of health is directed to notify the school authorities, and it is made their duty to exclude from the schools every child not producing a vaccination certificate from a duly certified physician.

Several legislatures concerned themselves with schoolhouse construction and sanitation. A New Hampshire act directs the State board of health, on complaint of any responsible person, to inspect any schoolhouse or building used for school purposes. The board of health may either order improvements or condemn any insanitary building. Delaware now appropriates $1,750 annually for the improvement of schoolhouses for colored people. An act of the Michigan Legislature requires plans for all new buildings or additions costing more than $300 to be submitted to the State superintendent for his approval. He is also authorized to condemn or order closed any unsafe or insanitary building. West Virginia created a State board of health and authorized it to "make rules and regulations regulating the ventilation, warming, natural lighting, and excreta disposal in public halls, churches, schoolhouses, and public institutions." An act of Illinois directed the superintendent of public instruction to prepare, with the advice of the State board

of health, State architect, and State fire marshal, school building specifications, giving minimum requirements for heating, lighting, seating, ventilation, water supply, toilets, and safety against fire. The county superintendent is directed to inspect buildings and enforce compliance with the specifications prescribed by the State superintendent. The distributive school fund may be withheld from any district not complying with the State regulations. The Utah act provided for the appointment of a State architect to inspect plans and visit and inspect buildings in course of construction when the cost of the building or addition is $1,000 or more.

THE SCHOOL TERM.

Laws increasing the minimum school term were enacted in four States. In order to share in the distribution of the State school fund, towns in Maine must now maintain their schools at least 30 weeks. The shortest term formerly allowed was 26 weeks. The new act of Illinois raises from six to seven months the term required of districts of less than 1,000 population. Idaho now requires districts, other than independent districts, which have fewer than 75 children of school age, to maintain a seven-months' term. New Mexico increased the minimum from five to seven months in rural districts and provided that municipal and four-room graded schools shall run nine months.

THE TRAINING OF TEACHERS.

The movement in recent years for the improvement of rural schools is affecting materially the training of teachers; it is giving impetus to the demand for better teachers in rural communities. This demand is being met by the extension of State normal-school work and the development of normal training in high schools. Prior to January 1, 1915, 14 States had provided for teacher training as a part of their systems of secondary education. Two additional States made similar provisions in 1915, and extensions were made in some other cases.

West Virginia was one of the two States referred to above. The State board of education was directed to prescribe the course of study and rules for the government of teacher-training departments in schools of secondary grade. As many as 10 high schools maintaining these departments may each receive a special subsidy of $400 a year, but this subsidy may not be granted to any high school located in a county in which there is a State normal school or other State school offering similar courses of study for training teachers.

The Florida act of 1915 directed the State board of education to establish a training class in one high school in each county, but this class must have at least 10 students in it. The State board is directed to apportion $500 to each class, if the county board appropriates $500 to a teacher to devote his entire time to the department. A State appropriation of $25,000 was made to carry out the provisions of the act. Kansas increased its appropriation for normal training in high schools from $50,000 to $75,000 annually.

In Missouri provision was made for granting State aid to training schools for elementary teachers in cities of 75,000 population or more. These schools are required to offer two years of professional training above a four-year high-school course, and must have the approval of the State superintendent of public schools. Upon graduation, students are entitled to a certificate of qualification to teach for three years in any elementary school of the State, and 16 months of successful experience while holding this certificate entitles the holder to a professional certificate for life.

Nebraska provided for special courses in State normal schools for training rural school teachers. This act enlarges the course to include social phases of rural life. The course covers common-school subjects, rural sociology, the management and organization of rural schools and rural community life, sanitary science, manual training, household economy, agriculture, and vocal music.

New Mexico adopted a novel method of training teachers for rural schools. The 1915 law provides that the State superintendent shall appoint, annually, 50 student-teachers to study one year each in approved normal schools which prepare teachers for rural communities. Applicants must be holders of third-grade certificates and must have taught at least two months; they must be able to speak and write both English and Spanish. An annual appropriation of $15,000 is made to carry out the provisions of the act. A normal school receiving students under the act is allowed $300 for each student-teacher to pay necessary expenses.

Several other normal-school laws of more or less importance were enacted. In California the functions of the joint board of normal-school trustees were transferred to the State board of education. Pennsylvania continued its policy of acquiring title to subsidized private normal schools by appropriating $100,000 for the purchase of such schools. Texas took the initial steps toward the founding of three new schools for training teachers, and Ohio provided for a commission to establish one new school. Several States, as New Jersey, Florida, and South Dakota, amended their laws relating to summer schools.

TEACHERS' CERTIFICATES.

The certification of teachers is a subject to which legislatures devote no small amount of their attention. About one-third of the States which held sessions of their legislative bodies in 1915 enacted laws relating to the qualifications of persons desiring to teach. Lack of space here precludes mention of more than the main provisions of these laws.

The State of Alabama, which had not previously authorized the acceptance of diplomas from approved higher institutions and of credentials from other States, authorized the State board of examiners to accept these evidences of qualification. California transferred to the State board of education the matter of certificating teachers of special subjects, and authorized the State board to prescribe regulations governing the issuance of such certificates by county boards. The Legislatures of Florida and Oklahoma passed bills similar to that of Alabama regarding the acceptance of diplomas from higher institutions offering accredited professional courses. Idaho provided for the certification of high-school teachers; at least two years of study above a four-year high-school course are now required of applicants to teach secondary subjects. An act of the Illinois General Assembly relates to the renewal certificates and authorizes the holder of a high-school certificate to teach also in the seventh and eighth grades. Kansas amended its law in various particulars, the main provisions looking toward the requirement that elementary teachers be at least graduates of four-year high schools and that high-school teachers be college graduates. The act of Maine gives the State superintendent discretion in determining what is equivalent to a standard secondary school course in accrediting the credentials of teachers.

A new requirement was added to the qualifications prescribed in Michigan. Hereafter no certificate may be granted in that State to any person over 21 years old who is not a citizen of the United States. The 1915 acts of Michigan also provide for the issuance of certificates to teachers of special subjects and require professional training of applicants who have not had experience in teaching. Missouri and New Mexico amended their certificate laws in less important particulars. The main provisions of North Carolina's new law on the subject relate to the renewal of certificates and accrediting academies and professional work in approved higher institutions. The act of Washington authorizes the State board of education to prepare a list of accredited colleges and normal schools, both within and outside the State, to whose graduates certificates might be issued without examination except in the State Manual. West Virginia revised its law generally and provided for seven different grades, or classes, of certificates.

TEACHERS' SALARIES.

The amount of compensation which a teacher may receive is generally left for local school authorities to fix by contract, but some States fix by law the minimum salary that may be paid. In 1914 there were 13 such States. No law of very great importance was enacted on the subject in 1915, but several noteworthy enactments were put upon the statute books.

The act of Wisconsin provides that any rural school teacher who is retained in the same school after the first year shall receive from State funds $2 per month in addition to the salary paid by the district; if retained after the second year, $4 per month; if retained after the third year, $8 per month for that and each succeeding year. Successful rural school teachers who are graduates of a rural-school course of normal training equivalent to two years above the high school are entitled to State aid of $10 per month for the first year and to $15 per month for each succeeding year in which the school is successfully taught.

In Ohio a teacher must have had at least one year of professional training in order to be entitled to the benefit of the law prescribing a minimum salary of $45 per month. Under the old law the amount of professional training required was only six weeks. The 1915 act of Oregon requires school boards to pay women teachers equal salaries with men's where the same or like service is rendered, but consideration may be given to successful experience. Utah, under its act of 1915, requires a district to levy a tax of 10 mills on the dollar before it may receive State aid to maintain its school 28 weeks and pay its teacher $525 per annum. Under the older law 5 mills was the requirement. The single general educational bill which became a law at the regular session of the Georgia Legislature of 1915 related to teachers' salaries. It provides for the prompt payment of salaries as they become due.

TEACHERS' PENSIONS.

Though slow to adopt a general policy of civil pensions, the United States is now practically committed to a program of aid for superannuated teachers. In 1914 there were 14 States which had teachers' pension laws applying to their entire areas, and 12 others had enacted statutes which applied to certain cities or school districts. The legislatures of 1915 added to this list 3 States which had previously had no enactments on the subject, and made Statewide the application of the laws of 4 others. The 3 additions to the list were New Hampshire, Montana, and Nevada. The 4 States which extended the application of their laws were Illinois, Indiana, Michigan, and Minnesota. Less important amendments were made

to the plans in operation in Massachusetts, New Jersey, Pennsylvania, and North Dakota. The similarity of pension laws renders it unnecessary to attempt here an extended description of each act of 1915. The main principle running through all acts of this kind is that aged or incapacitated teachers who have taught a reasonable length of time may be retired on an annuity which is paid from a fund created by their own contributions, appropriations of public moneys, or both. A noticeable feature of teachers' pension laws is the tendency toward the increase of contributions from public moneys to retirement funds. The Illinois law enacted in 1915 will suffice to show the trend in pension enactments.

In Illinois the State board of trustees of the retirement fund consists of the superintendent of public instruction, the State treasurer, and three members elected by the contributing teachers. The State treasurer is ex officio treasurer of the fund. Teachers already employed may or may not elect before September 1, 1920, to become members of the association. Those entering the service for the first time are deemed to accept the terms of the act. Members are divided into three classes: (1) Those having taught 10 years or less; (2) those having taught 10 to 15 years; (3) over 15 years. Assessments upon salaries are as follows: First class, $1 per month for first five months each year; second class, $2 per month for first five months each year; third class, $6 per month for first five months through a period of 10 years in this class. It is provided that assessments shall be withheld from salaries by the governing boards of school districts. An amount sufficient to meet all demands is appropriated from the common-school fund. This amount, until otherwise provided by law, must be equal to a tax of one-tenth of 1 mill on all taxable property of the State, except property in districts to which the act does not apply. Gifts and bequests may be accepted. Before being retired a teacher must have contributed the full amount of $400 or make up the deficiency. After 15 years of service, a teacher may be retired for disability, but the full $400 must have been contributed or the deficiency made up. Each teacher retiring is entitled to $16 annually for each year taught, but not to exceed $400. No person under 50 years of age may be retired, except for disability. Any teacher ceasing to teach before becoming a member of the third class is entitled to the return of one-half of the amount contributed by him or her. The word "teacher" is defined in the act to include a teacher, teacher-secretary, principal, supervising principal, supervisor, assistant superintendent, or superintendent. Cities of over 65,000 population which have retirement systems of their own are exempt from the provisions of the act.

HIGHER EDUCATION.

The Legislature of North Dakota enacted what were probably the most notable acts of 1915 relating to higher education. In that State important changes were made in both the support and the control of higher institutions. Chapter 148 of the act of 1913, which provided a tax of 1⅛ mills on the dollar for the support of State educational institutions, was repealed; and, in lieu of this tax, provision was made for a levy sufficient to raise the lump sum of $347,880 annually. A stipulated part of this sum is to be apportioned to each institution. Another act of that State created a board of regents to have control of State educational institutions. This board is appointed by the governor with the consent of the Senate. The term of members will be six years; two or one as the case requires will retire every two years. The compensation of each member is fixed at $7 per day and traveling expenses. The regents succeed to the powers and duties of the normal school board and the boards of trustees of other institutions. The act applies to State institutions of higher grade.

The last Legislature of Texas proposed an amendment to the constitution which, if ratified, will separate the State university and the agricultural and mechanical college. Under the present constitution the agricultural and mechanical college is a branch of the university.

The 1915 act of Massachusetts established a department of university extension, to be under the control of the State board of education. The State board is directed to appoint a head of this department and the necessary assistants. The department is authorized to cooperate with existing institutions of learning in the establishment and conduct of extension and correspondence courses. Agents, lecturers, and instructors may be employed. An annual appropriation of $25,000 is made for the support of the work.

In Nevada the various public-service departments of the university were consolidated and became the "public-service division." The legislature of that State also authorized the establishment of emeritus professorships, and created at Tonopah, under the control of the regents of the university, a State school of mines. A 1915 act of Wisconsin defines the several departments of the university, as, for example, the "college of letters," etc. The Tennessee Polytechnic Institute was established at Cookeville in that State, but the proviso was added that the town must contribute as much as $75,000 in cash or the equivalent. Colorado provided for the levy of an additional tax of five and one-half hundredths of 1 mill on the dollar for the support of the State university.

LIBRARIES.

The trend of legislation on this subject in 1915 was generally toward the extension of library facilities. The legislatures of several States enacted laws of this character. In Maine a State appropriation of $1,000 was made for traveling collections of books for circulation among high schools in cities and towns having no public libraries. Connecticut increased from $3,200 to $4,000 the amount which the State public library committee may expend. A West Virginia act, known as the "library law," authorizes any city, town, or school district to hold an election to decide for or against the establishment of a public library or reading room. The Legislature of Texas provided for the establishment at county seats of county libraries with circulating departments and authorized a tax of not exceeding 6 mills to support them, but a two-thirds vote of the qualified electors of any county is necessary to make the provisions of this act applicable to the county. Arizona provided for a State library with a law and legislative reference bureau. Under a 1915 act of California, not exceeding 80 cents for each pupil in attendance in a city or city-and-county school system shall be set aside as a library fund. The same State extended the privileges of county libraries to the high schools of the county by providing for branches. In Washington the common council in an incorporated town may now establish a library. Wyoming raised from one-fourth mill to one-half mill the maximum county library tax.[1]

MANUAL AND INDUSTRIAL TRAINING.

The movement for giving, in the public-school system, a place for training workers in the industries was not neglected by the legislatures of 1915.

In Connecticut the State board of education was authorized to establish public day, continuation, part-time, and evening industrial schools in addition to those already established. Under this act no child under 14 years of age may be admitted except in vacation time. The State board is also authorized to arrange with manufacturing and mechanical establishments to permit pupils to practice their prospective trades, arts, or crafts. Any school district may now establish an industrial school by vote of the people. The State board is charged with the duty of approving schools for the purpose of granting State aid.

Massachusetts provided for the establishment of an independent industrial school in Hampshire County, and authorized any city or town to organize day and evening classes in household and other

[1] See also Ch. XXI, Library Activities.

practical arts for women. Formerly only evening classes of this character were authorized.

Pennsylvania, which already had an industrial-education law, created a bureau of vocational training in the State department of education. An annual appropriation of $325,000 was made for vocational training.

The Minnesota act provided that any approved high school, graded school, or consolidated rural school may be designated by the State board of education to give instruction in industrial subjects, such as agriculture, home economics, manual training, and commercial pursuits. For the purpose of giving industrial training, a school district may become "associated" with a high, graded, or consolidated rural school by vote of the qualified electors of the district and the approval of the board of the school with which association is sought. State aid is provided. Nebraska also made provision for industrial training and granted State aid.

A Wisconsin act defined an "apprentice' as a minor under 16 years of age who enters the employ of another and receives for his services, in whole or in part, instruction in any trade, craft, or business. Another act of the same State permits an employed person over 14 years old to attend an industrial school in the district where employed and requires the district of his residence to pay his tuition fees. California authorized districts which maintain schools for eight months or more to establish vocation schools. The Oregon Legislature repealed the act of 1913 which permitted districts having a population of 20,000 or more to establish and maintain trade schools for girls.

Florida authorized county boards of education and trustees of special tax districts to establish departments of home economics in their schools.

As regards agriculture, the enactments of 1915 extended agricultural instruction in the public schools, established a few additional schools of agriculture, and accepted the provisions of the "Smith-Lever Act." The acts of a few States may be mentioned here. That of Rhode Island provided for the division of the State into three agricultural districts in which may be organized farm bureaus for the purpose of cooperating with the United States Department of Agriculture and the State in extension work. Ohio placed agricultural instruction in county districts, under the supervision of the county superintendent. The older law providing for the division of the State into four agricultural districts and for the appointment of four State supervisors of agricultural instruction was repealed. Iowa authorized cities of 20,000 population or more to acquire land outside of the city limits for a school garden and farm. Arkansas

made for the biennium the liberal appropriation of $47,260 for agricultural and home-economics extension work in cooperation with the Federal Government.

KINDERGARTENS.

Decided impetus has been given to the kindergarten propaganda in recent years. The establishment and maintenance of kindergartens is now either required by law under certain conditions, specifically permitted by law, or permitted under general authorizations in all States except one. Several States passed acts in 1915 affecting this form of school activity.

The act of California authorized a district board, after maintaining kindergartens for one year, to establish others, and provided that a district tax of not exceeding 10 cents on the $100 may be levied for support. Connecticut raised to 4 years the minimum age of children that may attend; it was formerly 3 years. In Illinois the board of directors of a district having less than 1,000 population is no longer required to secure authority by vote of the people to establish kindergartens. Nevada authorized the school trustees of any district to establish kindergartens, on petition of the parents or guardians of 25 children between the ages of 4 and 6 years, and provided for a district tax of not exceeding 25 cents on the $100. North Carolina provided for a district tax of not exceeding 15 cents on the $100, if voted by the people, but this act appears to be inoperative by reason of not having been read three times on three different days in each branch of the legislature. The North Dakota law, which was formerly permissive, is now mandatory in districts where a majority of the legal voters petition for the establishment of a kindergarten; in cities of over 5,000 population only one-fifth of the legal voters is sufficient.

TEXTBOOKS.

No very conspicuous progress was made in school-book legislation in 1915. Texas provided for free textbooks and Oregon repealed its act of 1913. The new act of Texas provides that, on petition of 10 per cent of the qualified tax-paying voters of a district, an election shall be held to determine the question of levying a special tax for the purpose of furnishing free textbooks to all pupils of school age. The 1915 act of Oregon repealed a law similar to that enacted by Texas.

Uniform textbooks is a subject which constantly receives attention from legislators. The North Dakota act of 1915 provides for uniformity within districts. Adoptions are to be made by district boards from lists approved by the State superintendent. Books must be sold to pupils at not exceeding 15 per cent above the net price. It

is also provided that when a family removes from a district not furnishing free textbooks, the school board may purchase books belonging to the children of such family. The board is authorized to furnish free textbooks and is required to furnish them free when directed by vote of the qualified electors. The Kansas act authorizes the State school book commission to adopt textbooks for high schools. The Texas act of 1915 is unique. It provides that all books adopted by the State textbook board shall be "printed, bound, completed, and finished within the State of Texas." This act, however, will not be operative where publishers present satisfactory proof that they can contract for editions at a substantially lower price outside of the State.

THE EMPLOYMENT OF CHILDREN.

The 1915 act of Maine followed the usual provisions of the more progressive type of child-labor legislation. Its main provision is that no child under 14 years of age may be employed in a manufacturing or mechanical establishment, nor in any service for hire while the public schools are in session. Employment of minors between 14 and 16 years old is restricted to those to whom employment certificates are issued by the school superintendent. This certificate must show that the child is over 14 years old and that he or she can read and write simple English sentences and do arithmetical problems through division. A health certificate may also be required by the superintendent or the factory inspector. Permits to work in vacation time may be issued upon the same conditions as employment certificates, but no educational qualification is required for this permit. New Hampshire also provided for the issuance of permits to work in vacation time. An act of the legislature of Rhode Island regulated the employment of minors in street occupations. Connecticut raised from 12 to 16 the age at which children may be employed for exhibition purposes.

The Legislature of Pennsylvania enacted a rigid child-labor law. The main propositions are: No child under 14 years of age shall be employed in any establishment or occupation, except on the farm or in domestic service. Minors between 14 and 16 who are employed must attend not less than eight hours each week a school approved by the State superintendent of public instruction; but this provision is not effective where no such school is maintained. Minors between 14 and 16 shall not be employed more than 9 hours a day, or 51 hours in a week, hours in school included. No minor under 16 may be employed in a dangerous occupation; no person under 18 may be employed in the more hazardous occupations or in any position injurious to health or morals; no person under 21 years old shall be employed where intoxicating liquors are sold. The industrial board of the depart-

ment of labor and industries is authorized to determine what constitute dangerous or injurious occupations. The school record required for the employment certificates of minors over 14 years old must show that the minor has completed work equivalent to the first six grades. A physician's certificate showing physical fitness is required for children employed between the ages of 14 and 16. The school record is not required for permits to work in vacation time. The person issuing an employment certificate must send it to the prospective employer of the minor, and the employer must acknowledge receipt. The State board of education when notified by the State superintendent that this act is not enforced in any school district is directed to appoint an attendance officer for such district. The compensation of this officer is to be deducted from the State funds to be apportioned to the district. Upon notice to an employer that a minor is not lawfully employed, the employer is required to furnish proof of lawful employment or dismiss the minor from his service. This provision, it will be seen, puts the burden of proof on the employer.

The Michigan act added "office or restaurant" to occupations in which boys under 18 and females may not be employed longer than an average of 9 hours a day or 54 hours a week. That State now prohibits the employment of a child under 15 in any factory, workshop, store, laundry, office, hotel, mine, bowling alley, billiard room or pool room conducted for profit. Formerly the age limit fixed in this provision was 14 years. The schooling certificate issued to any minor between 15 and 16 years of age must show that the work of the sixth grade has been completed. The older law required only the work of the fourth grade. Texas regulated the employment of women and girls. Utah now prohibits the employment of children under 14 in places where tobacco is sold.

The Legislature of Wyoming, which had hitherto provided meager regulation of child labor, extended the provisions of its law on the subject. Now no minor under 18 years old shall be employed where intoxicating liquors are sold or otherwise handled, and no child under 14 may deliver messages to such a place. No child under 16 shall be employed in an occupation which is injurious to health or morals. No child under 14 shall be employed in a mine or other hazardous occupation, nor shall any such child work at any gainful occupation, except on a farm or in domestic service, for more than 9 hours a day or 56 hours a week.

CHAPTER II.

EDUCATION IN THE LARGER CITIES.

By James H. Van Sickle,

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Contents.—The Gary duplicate plan in New York City—Readjustments in grades above the sixth—Standards of achievement—Vocational education—Atypical children—Health of school children—Schools as social centers.

Among the enterprises in large school systems that have received recent emphasis in the public press and to some extent in reports of superintendents the so-called Gary duplicate plan easily holds first place. The ever-increasing school enrollment, with its accompanying demand for more buildings and the higher ideal of what constitutes a suitable school building, has greatly increased expenditures for school purposes. When a scheme is proposed by which existing buildings may accommodate two sets of pupils, it is no wonder that wide interest is aroused. Any plan that will lessen the expense of housing school children makes a strong appeal to boards of estimate, school boards, and the press. School boards are not willing, however, to be hurried into adopting, for exclusive use in a situation quite different from that in which it originated, a plan so radically different from the customary one without carefully testing its applicability.

THE GARY DUPLICATE PLAN IN NEW YORK CITY.

The most notable instance of public interest in the Gary plan is found in New York City, where it is hailed by its advocates as a complete and satisfactory solution of the part-time problem which the city has been unsuccessfully grappling with for many years. Accordingly, Supt. Wirt, of Gary, Ind., was engaged under a part-time contract at a liberal salary to direct the installation of his plan in several New York schools in congested sections of the city. Now, after less than a year of trial, those who control the finances urge the adoption of the plan for the whole city. Of the 12 or 14 schools in which the Gary idea is being tried, only 2 are working it out in any complete way—No. 45 in the Bronx and No. 89 in Brooklyn. In

these two schools facilities are yet lacking for an absolutely fair trial. In the other schools a modification of the Gary plan, limited to the upper grades, is in operation.

Obviously the plan has not yet had time or opportunity to demonstrate its applicability to the New York situation. The board of superintendents and the school board are opposed to sweeping action at this time. They regard the duplicate plan as yet on trial and believe immediate action would be ill advised.

It is not generally claimed for the duplicate plan that it is less expensive than the customary plan, except in the matter of buildings. This, however, is a large item, and if proof is forthcoming that the plan is at least equal in educational value to the single-class plan its wide extension may be expected. It is advocated largely, but not exclusively, on the ground of lower cost. There are those, however, whose approval is based upon the claim that by means of a longer school day it affords to the children wider opportunities for work, study, and play; that it distributes the burden of teaching more evenly over the entire teaching staff; and that it affords prevocational training to all children in all of the grades instead of confining such work to a small group of children in the seventh and eighth grades.

The Gary system has commended itself to students of education for various reasons. It promises:

1. An enriched school life for every pupil.
2. A coordination of all existing child-welfare agencies and a fuller utilization of all facilities in present public and private recreational and educational institutions.
3. A solution of the part-time problem.
4. A double school plan by which each school seat serves two children.
5. A wider use of the school plant.
6. An increase in the school day through a coordination of work, study, and play activities.
7. A program that would invest the child's nonacademic time to greater profit and pleasure.
8. A socialized education in harmony with progressive thought of the day.

On the other hand, those who oppose the immediate and wholesale adoption of the duplicate plan for the elimination of part-time express doubt as to certain novel features of school administration which it embodies, such as departmental teaching for all children from the first year through the eighth, instruction of groups of children by pupils instead of teachers, the grouping together of younger and older pupils for auditorium, laboratory, and workshop exercises, the substitution of an auditorium period for classroom instruction, the omission of formal physical training, supervised play with only four teachers for 12 classes, the deferring of scholastic work for first-year children until late in the afternoon. They urge

that sufficient time has not elapsed to test the worth of the schemes and that prudence should suggest awaiting the outcome of experiments in the schools already selected before committing the entire city to the new plan.

With regard to the extensive departmental teaching to which objection is urged, Mr. Wirt replies that it is not essential to the plan. It is part of the experiment in School No. 45, but not in No. 89. He points out that the time for auditorium work is secured, not by taking time from regular instruction, but by lengthening the school day. Mr. Wirt's reply to the criticism that the plan does not provide sufficient supervision for the playground is that there is nothing in his plan to prevent the use of more teachers on the playground if it is so desired, but that four specially trained teachers are, in his opinion, sufficient to care for 12 classes during this period. Play is itself educational, he believes, when it is given under conditions that develop initiative and responsibility and create natural situations in which under wise supervision older children can exercise their instictive desire for leadership. Too much supervision of play by teachers would tend to limit the possibilities for the development of such qualities through carrying over to the playground the rigidity of the classroom.

A further criticism is that outside instruction in the home or in the church is permitted, but that no means is provided for seeing that such instruction is the equivalent of regular schooling.

To this criticism the reply is made that it would be very unfortunate if the school undertook to insure that such instruction should be the equivalent of regular schooling, for in that case the school would be supervising religious instruction, which the law expressly prohibits. The program simply provides that the child can be excused during the day to take private lessons at home or attend religious instruction, if the parent so desires. These periods are never taken from the academic work, and therefore do not detract from the regular work of the school. As in the case of play and auditorium, it is simply time which, in the traditional school, the child would spend upon the street. What is taught in these outside classes and how it is taught is not and should not be the concern of the school.

The attitude of those who view the school chiefly from the angle of costs is illustrated in the following program announced by the controller:

1. The total elimination of any increase in the budget of the board of education for 1916. This means a saving of about $4,000,000.

2. The total elimination of part time and overcrowding in the schools. This is accompanied by intensive use of school buildings as they exist. New construction will be limited almost exclusively to new districts or where present buildings are in bad condition.

3. The extension of the school year from 40 to 44 weeks.
4. The lengthening of the school day from 5 to 6 hours.
5. The total elimination of extra pay for services in vacation schools and other forms of extra pay for persons employed on annual salaries .
6. A reduction of 10 per cent in the number of teachers' positions. This is made possible by lengthening the school day and the school year.
7. A change in the system of promoting teachers whereby merit alone shall control. This means the eradication of the system of paying teachers more for service in seventh and eighth grades and the substitution of a plan whereby each teacher shall teach the classes for which she is best fitted.
8. The reduction of the common-school course to seven years.

The controller thinks the reduction of the course from 8 to 7 years could be brought about if the year's term were increased to 44 weeks instead of 40, and that the extension of the school day might make it possible for children to complete the course in even less time.

The attitude of those who regard the schools first from the point of view of their purpose is voiced by the president of the board of education as follows:

It is but natural that the controller, from his official position should consider school problems primarily from a standpoint of finances rather than of education best for the children. The members of the board of education, however, decide all proposals, first, upon the basis of what is the best for children and, secondly, upon the basis of less expense to the people.

Even in communities where the part-time problem is either less acute or else nonexistent, and where the expenditures for schools have not become so burdensome as in New York, there will be decided interest in the Gary duplicate plan. This gigantic experiment in education, now in full operation in one of the smaller cities and in partial operation in the largest American municipality, is unquestionably of vast importance, yet the changes required in installing the system in existing schools are so radical and so expensive that school authorities will be disposed to await the result of an adequate trial in New York City before departing from the present policy which reserves a seat for every child.

Several brief reports have been made upon the plan as found in operation in the Gary (Ind.) schools. Another, more extended and more thorough, is projected under the auspices of the General Education Board, with Dr. Elwood P. Cubberly in charge. A thoroughly scientific study of the duplicate plan, such as may be expected from Dr. Cubberly, will be awaited with keen interest by boards of education, by superintendents of schools, and by the public in general.

READJUSTMENTS IN GRADES ABOVE THE SIXTH.

The advisability of introducing differentiated courses open to choice two years before a pupil is ready for the high school is less under discussion now than last year. The rapid spread of the idea,

together with the wide acceptance which it has met, is in strong contrast to the ordinary progress of a new movement in school organization and management. Ordinarily it takes years of time to incorporate in practice so radical a departure from traditional procedure. The discussion now relates rather to ways and means of introducing the courses than to the merits of the plan.

During the past two years nine elementary schools in Boston have been reorganized on the intermediate plan. In other words, the work of the seventh and eighth grades in these schools has been reorganized to allow some choice of studies with opportunity for capable pupils to begin work carrying high-school credit. It is now recommended that the ninth grade be included and that a junior high school be established to provide for pupils of the seventh, eighth, and ninth grades, thus relieving the high school of its present first-year work.

In many cities having crowded high schools the problem before the school authorities is whether to add to existing high-school accommodations or to relieve both grade and high school pressure by erecting separate school for grades 7, 8, and 9. It is argued that this plan is not only better educationally, but less expensive than the one so long customary. In several recent surveys this plan has been advocated as a solution to difficulties otherwise well-nigh insurmountable. Even in a city or a section of a city where new buildings are not imperatively needed the educational merits of the plan seem sufficient to suggest reorganization of the upper-grade work.

In the city of Buffalo, N. Y., the differentiated courses have been introduced in a section which, while densely populated, was already adequately supplied with school buildings. The plan adopted is suggestive of what may easily be done for similar areas elsewhere. In Buffalo it is called the "group plan of organization of prevocational instruction." Four adjoining school districts, Nos. 12, 37, 41, and 47, have been formed in a group, as follows: No. 12 continues the traditional courses. No. 37 offers a prevocational course for seventh, eighth, and ninth grade pupils along commercial lines. No. 41 offers a household-arts course for these grades. No. 47 provides an industrial-arts course for the same grades. The first six grades in all of these schools continue as formerly. Upon completion of six grades pupils who live in any one of these four districts are given the opportunity of choosing the type of course they wish to follow. A boy may choose between the traditional, commercial, and industrial-arts courses. A girl may choose between the traditional, commercial, and household-arts courses. There are about 150 pupils in the traditional course, 200 in the commercial course, 125 in the industrial-arts course, and 125 in the household-arts course. These courses are conducted on the plan of half-time

shopwork and half-time book work. The present is the second year of this work and the people in the districts affected continue to give substantial support. No extensions of the plan have been made this year, but future extensions are contemplated. This plan is feasible where the schools are near enough and where a sufficient number of pupils in one course are available to use one building economically.

Before reorganizing the work in the four Buffalo schools a circular of explanation was sent to the parents of all children enrolled in them above the fifth grade, and the parent was asked to sign a card after indicating upon it his choice among the courses listed upon it. The following paragraphs from the circular made it clear to the parents that not all children could continue at the home school even if they chose the old line course.

> We can not have all four courses in each school building. Each school will do a special part of the work, all of which is equally important.
>
> It is planned to divide the work as shown below, but it may be necessary to make changes according to the demands:
>
> Boys' industrial work at School No. 47, Hickory, near Sycamore.
>
> Girls' industrial work at School No. 41, Jefferson, near Sycamore.
>
> Boys' and girls' commercial course at School No. 37, Carlton and Peach.
>
> Preacademic (old line) course at School No. 12, Spruce, near Broadway, and in the other schools, if there is enough demand for them.
>
> These buildings are so near each other that pupils in any one of the districts will have but a short distance to travel to reach any one of the centers.

The junior high school plan as worked out in Rochester, N. Y., illustrates still another way of handling the problem. In a congested section of the city there were seven elementary schools, all overcrowded. Additional room had to be provided. Plans had already been drawn for additions to two buildings only, when the board of education took under consideration the erection of a central building in which might be gathered the pupils of the seventh and eighth grades of the surrounding schools, thereby giving the needed room and leaving these schools easily accessible for the younger pupils of the first six grades. The cost of these two additions alone would exceed $100,000, and it was estimated that the cost of all the additions required would fully equal, if it would not exceed, the cost of a central building. Six of these seven schools were, roughly speaking, in the circumference of a circle, while the seventh was approximately in the center of that circle. No one of these surrounding schools was scarcely more than one-half mile from the central grammar school building, thus making the maximum distance to the central building not excessive for seventh and eight grade pupils.

There was also another building problem which seemed to favor this central building plan. The East High School, which serves this particular community, was also overcrowded. If, then, the seventh

and eighth grade pupils could continue their ninth year or first year high-school work in this central building, some measure of relief would be afforded to the East High School. These conditions, therefore, pointed to the wisdom of the six-three-three plan of organization for this community.

A grammar school central to this congested section was a comparatively new building, having been first occupied in 1908. It was, furthermore, the largest grammar school in the city. It had a large assembly hall, a gymnasium, shower baths, and a swimming pool, a library, and other facilities which seemed to adapt it admirably for junior high-school purposes. It was lacking, however, in adequate shop room. It was decided, therefore, to add to the building the necessary shops and use this plant for the first junior high school. A new elementary school building was erected for the kindergarten and first six grades of this grammar school.

The lines of work in this junior high school are the academic, the commercial, the household arts, and the industrial arts. At the present time no differentiation in courses is made until the beginning of the seventh A, or latter half of the seventh grade. This allows one-half year in which to study the needs, ability, and interests of each pupil. No pupil is assigned to any one of these courses until the home has been consulted, the entire record of the pupil in the elementary school studied, and the judgment of the present teacher secured. Even in the seventh A grade the differentiation lies in subject content rather than in subjects. All pupils, for example, continue arithmetic, the application, however, in each course being adapted to the nature of the work in that course. The boy in the industrial arts course finds practical application of his arithmetic along trade lines, while the pupil in the commercial course finds special application along business lines. This is illustrative of the general principle of differentiation throughout the seventh A work, so far as the book subjects are concerned. At this time also the pupils of the household arts and industrial arts courses begin to spend one-third of their time in shop or manual work and the remaining two-thirds in book work.

At the beginning of the eighth grade or second year of junior high school work a sharper differentiation takes place. Here the study of foreign language and general mathematics, including arithmetic, concrete geometry, and elementary principles in algebra, is begun by the pupils in the academic course. All the pupils here expect to go on into the general and college preparatory courses of the upper high school. The foreign language, Latin, for example, and the English grammar and composition, are taught by the same teacher, while the literature of the English work is taught by the teacher

of history and civics. Elementary science, drawing, music, penmanship, and physical education, together with three hours each week of household arts for girls and shopwork for boys, make up the remaining schedule for the pupils of the academic course. This shopwork for the boys of the academic course is taken in the regular shops, and is given by the regular teacher of shopwork. Thus the manual training is linked with practical problems and is removed from the general and disciplinary field. The same principle applies to the girls of this course in the household arts work.

In like manner no specialized work of secondary grade is attempted in the other courses until the ninth year, or regular first year high school period is reached. In the industrial arts course, the following types of shopwork are given: Machine, gas engine, printing, plumbing, cabinetmaking, and wood finishing. From the time the boy begins his work in this course at the beginning of the seventh A until he reaches the first year regular high school period, his time is spent, not in any one shop, but in all the shops, giving thereby a certain number of weeks to each. If at the end of this time, therefore, he must go directly into the trades, he will have had some insight into the field of each, and some hand training, consistent with his maturity, that will be of service to him. On the other hand, if he is to continue his school work in the trades, he can with reasonable intelligence select his specialized trade. In other words, the work up to this point is prevocational rather than vocational.

The school day begins at 8.30 and closes at 4.15, with one and one-fourth hours for noon intermission. This makes the school day six and one-half hours in length. The day is divided into four periods of one hour and thirty minutes each for actual instruction. During this time the entire school work of the pupil for the day is to be done. This gives a school day and a school period of sufficient length to provide for both the preparation and the recitation of lessons.

STANDARDS OF ACHIEVEMENT.

One of the important duties of the school superintendent has always been the testing of his schools by some type of examination. At times this duty has been delegated to the principal of each individual school or the teacher of each room. Undoubtedly much good has been accomplished by this procedure, blindly as it has been carried out in most instances. The stimulating and constructive effects have varied with the vision of the superintendent. Only too frequently high nervous tension has been the greatest apparent effect upon teachers and pupils, other results remaining buried in the superintendent's office.

The development of standard scales, tests, and scores promises to place this important school function on a more rational basis, not only giving the superintendent the information he needs in much more reliable form, but giving motive to the work of both teachers and pupils by recognizing accomplishment in a substantial manner and by replacing archaic demands for perfection by standards growing out of the actual accomplishments of pupils of the same ages, grades, and mental abilities.

City superintendents are making use of standard tests and scores in many ways. Often the tests are used first in a school survey; curiosity or pride is aroused as to whether progress is made during the ensuing year, so the tests are repeated; and satisfaction with the comparative results shown by the returns leads to the continued use of the tests. Again, the influence of a university may stimulate neighboring superintendents to experiment with the tests, university professors and graduate students visiting the schools to do the actual work of testing. Sometimes the university seeks the schools as a laboratory, at other times the superintendent asks the cooperation of the trained workers in the university. In systems where large initiative is permitted, it is not unusual to find individual supervisors, principals, or teachers experimenting along this line, thus driving the entering wedge in introducing knowledge of reliable standards of achievement.

There is general recognition of the inadequacy of present scales, tests, and standards, the leaders in the development of those now in use being among those most in earnest for their improvement. Only by use of those now available and experimentation with those in process of development can progress come, however, and it is encouraging to see the initiative shown by some cities in this direction. Boston is working out a rational basis for judging grade work, seniors in the normal school helping by conducting the tests. Nashville is opening her schools to the professors from the teachers' college located in the city, as New York, Boston, Philadelphia, Chicago, St. Louis, Cincinnati, and other leading cities have been doing. Newton teachers have collaborated with the department of education at Harvard in developing a new scale for measuring composition work in the seventh and eighth grades.

Detroit has inaugurated a system of measuring and following up the achievements of pupils. The appointment of S. A. Courtis to take charge of this work is another recognition of the fact that the public schools need the services of those most highly trained in particular fields. Not only are the standard scales now known used in Detroit most intelligently, but the teachers have also cooperated with Mr. Courtis in preparing tentative scales in early-grade language

work, and the sensible practice has been inaugurated of excusing from drill lessons those pupils who have reached a given standard in form work. This latter practice has brought about marked economy of time. In a paper read at the Cincinnati meeting, Mr. Courtis says—

I was astonished to find, in checking up the time cost for one class of 20 pupils, that the total time set free in 12 weeks by excusing those who had reached the standard amounted to 1,460 minutes, or 13 per cent of the total time given by the class to the drill work. Other classes gave similar results.

VOCATIONAL EDUCATION.[1]

The fitting of vocational education to real community needs, the humanizing of vocational programs, and the extension of the part-time plan to high-school pupils and pupils of working age in the grades are some of the recent developments of this subject.

The Richmond survey and the surveys made in New York and Brooklyn as a preliminary step in the development of Dean Schneider's progressive plans, point to the barrenness of certain trade fields, to the paucity of training required to fit pupils to enter the positions which will be open to them. Definite data as to needs in training skilled workers were also secured, however, and the work in those cities will be more definitely helpful because of this clearer understanding of trade conditions. The industrial and tenchnical conference in Philadelphia also emphasized knowledge of trade opportunities as coequal in importance with trade education.

Training in the three R's for pupils taking vocational courses will always find strong motivation in the projects with which the pupils are dealing and in the trades for which they are preparing. The first recognition of the needs in these special fields led teachers to swing entirely to lessons related to the vocational work. Experience has proved, however, that these pupils need preparation for leisure as well as for labor, and the courses are becoming adapted to meet both needs. Where classes are relatively backward in getting thought from the printed page, the teacher does not hesitate to present to them the literature of power through her own reading.

The meeting of the Department of Superintendence of the National Education Association, held in Cincinnati in February, brought to the attention of the visiting association the many ways in which that city is developing in vocational education. The following statements are from a bulletin prepared for distribution at that time:

THE MANUAL-TRAINING COURSE.

Those boys who elect the manual-training course in the high school devote one and one-half hours per day for four years to shop work and mechanical drawing. * * * The purpose of the course is one of general training, but to those

[1] For further discussion of progress in vocational education see Ch. IX.

who later take up some particular line of manual work it proves vocational. The University of Cincinnati recognizes the four years' work in manual training as 4 units of the 16 required for entrance. * * *

BOYS' TECHNICAL COOPERATIVE COURSE.

It is presumed the boys who enroll in the technical cooperative course expect to learn some trade. Because of this the whole course is arranged to meet their needs without reference to college entrance requirements. Graduates from this course are, however, admitted to the cooperative engineering course of the University of Cincinnati. The academic work of this course differs from both the general and manual training courses, no language other than English being studied for the first two years. The shop work differs little from that of the manual-training course, except that it is taken in two years instead of four, three hours per day being devoted to this branch alone. After two years these boys are introduced to a number of skilled trades and are better able intelligently to select their life work than the boys who have not had this training. They are now taken in charge by the coordinator, who finds places for them in commercial shops according to the line of work they choose to follow. In September they are arranged in pairs and spend alternate weeks in commercial shops and school.

THE DOMESTIC-SCIENCE COURSE.

The purpose of this course is to provide one form of general training and a foundation for higher training in home economics. The University of Cincinnati credits this course, giving four units for the four years' work.

GIRLS' TECHNICAL COOPERATIVE COURSE.

This course was planned for the girl who expects to earn her living on leaving high school and who wants definite help in finding her field of work.

Cooking and sewing are given for four years. From this beginning the sewing takes on the trade phase. The girl does not sew for herself, but on orders for others. The fact that a garment is made for the trade, up to trade standards, creates the right attitude toward the work.

At the beginning of the third year the girl elects to take trade work in either dressmaking or millinery and the cooperative program is put into operation. The girls spend one week in trade shop or establishment and one week in school. Two girls form a team and occupy one position in alternate weeks.

PREVOCATIONAL EDUCATION.

In 11 schools of the city special adaptation has been made of the manual training and domestic science work in order to meet more completely the various needs of the community. The time allowance of these subjects is increased in some cases to five hours, or one-fifth of the school week, and in all cases is extended beyond the hour or hour and a half regularly devoted to the subjects in elementary schools.

The work is extended also to grades below the sixth, in some cases reaching even as low as the second. The aim is to take care of pupils 12 years of age and over.

The character of the work varies with the school. The general purpose, however, is to find the problems for the industrial work in the daily life of the school and the home. For girls this takes the form of real home problems in sewing, cooking, and the household arts. For boys the industrial work uses wood, metal, and other materials for the making of whatever may appeal to the boy's interest and be of use in the school or home.

SALESMANSHIP.

The school was opened in May, 1911, with an enrollment of 200; each pupil attended one-half day a week without loss of pay. A graduate of the Boston school of salesmanship was appointed teacher of the class. The course included the study of textiles, salesmanship, color and design as applied to the work, business arithmetic, English, civics, hygiene, and economics.

SALESMANSHIP IN MERCANTILE ESTABLISHMENTS.

As this movement represents something of a departure in public education whereby teachers employed by the board of education offer instruction to the employees in private establishments, it may be well to state the basis upon which it rests.

The controlling motive is to be the educational and social improvement of the employees themselves, which shall result in improved service for the public. Upon these grounds the plan can be justified as a measure of public education, even though one of the direct results is an improved service for the employers. More satisfactory and valuable service for the employer follows, as a matter of course, from increased intelligence and skill on the part of the employees and from improved service to the public.

With this position clearly understood and accepted, we have no hesitation in sending teachers into commercial and industrial establishments to perform their work under conditions most favorable for teaching the theory that is to be wrought out into practice under real commercial and industrial conditions.

SALESMANSHIP IN THE HIGH SCHOOL.

In September, 1914, salesmanship was introduced into Woodward High School as an elective in all grades. Ninety students are enrolled. In the commercial department it is planned to have a three-year course, beginning in the second year and extending through the fourth. Students are to work part time in the various department stores. A few high-school students are already working part time in the stores.

MESSENGER SERVICE.

In October, 1914, the superintendent of schools authorized the establishing of an elementary cooperative course for messengers, whereby boys would be permitted to attend school for half time, both the work and the study to be under the general direction of school officials cooperating with the officials of the messenger service. Only boys over 15 years of age are permitted to enter the service, the aim being to give to those boys permitted by law to leave school a chance to become wage earners and at the same time to receive extended school training.

Conferences with the superintendents of the messenger companies followed, with the result that officials of the Western Union not only promised cooperation but offered to provide, at the expense of the company, the equipment necessary for teaching telegraphy and the services of an expert teacher, in order that boys electing to take a course in telegraphy might have full opportunity to master its technicalities. The boys who have entered the service meet alternate weeks for class instruction at the Guilford Continuation School.

VOLUNTARY ATTENDANCE IN HOME ECONOMICS.

Classes are formed in any school district where 20 or more women make application for a definite line of instruction. They meet once a week in a two-hour session. The enthusiasm and interest in this work is shown in the enrollment, which has reached 2,000.

Specific training is given in one branch and a general course in home economics, including lectures and discussions on topics relating to household problems.

The aim in all work is to strengthen the bond between the home and the school and to awaken a spirit of community interest and helpfulness.

VOLUNTARY CONTINUATION SCHOOLS FOR APPRENTICES.

The continuation school for machine-shop and pattern-maker apprentices was organized about seven years ago, after an agreement had been entered into by a number of employers and the board of education, whereby apprentices were to be sent to school one-half day per week without loss of pay, the board of education agreeing to maintain the school, while the employers sent their boys and paid their wages. This school is in session throughout the year. The principal and his assistant spend Monday morning and Saturday morning visiting shops in which the boys are employed. The methods of teaching are unique, and most of the instruction is individual.

Another field in which outside agencies are developing work closely related to that of the schools is in the introduction of visiting housekeepers. In New York and Cleveland the social workers of the United Charities have found fine opportunities for this service, and the tenement-house inspectors in our large cities have also been able to do much. If the home is considered as the real laboratory connected with domestic science and domestic art courses, as the shop is in connection with trade courses, some visiting relationship may become both possible and advisable.

BETTER OPPORTUNITIES FOR GRADE PUPILS.

Boston and Cincinnati are both dealing with the problem of closer adjustment between the kindergarten and primary grades. The object is not so much to save time for the pupils as to so integrate the work that the pupils will learn certain habits in the kindergarten which will be of value in primary work and will use in the primary grades more of the knowledge and skill attained in the kindergarten.[1]

Summer schools for elementary pupils continue to grow in favor. Newark, N. J., registered 10,000, and Jersey City over 8,000 during the last summer. Nashville gave credit this fall to those pupils who attended the demonstration school conducted at George Peabody College for Teachers last summer. Cincinnati, Ohio, and Decatur, Ill., are among the cities which are attempting this work on a small scale.

[1] See also Ch. XV; and Educ. Bull., 1915, No. 24.

ATYPICAL CHILDREN.

The public is becoming interested in the supernormal child; the press is eager for information regarding this type of child; and the school is rapidly becoming aware that it has neglected this problem. Rapid advancement classes are held for these children in certain cities, in others extra work is given them in regular classes. But as yet few cities have had the courage to attempt to develop a program exactly fitted to their needs, nor have the psychological clinics said much regarding tests to discover the supernormal.

Wherever psychological laboratories have been established in connection with the public schools they have found it impossible to keep pace with the surprisingly large demand for examination of subnormal cases. These naturally attract most attention because an undue proportion of the teacher's time is consumed in the vain effort to have them master the traditional course of study, a course which is little suited to their needs. Ways and means are being sought to relieve the regular classrooms of these misfits. It is not an easy problem nor one to be solved without increased expenditures; for it means small classes, varied equipment, and materials which cost more per capita than books. All this benefits the supernormal child at least indirectly for it enables him to secure more attention in proportion as the regular teacher is released from the impossible task of keeping subnormal children up to grade. After the more obvious task of dealing with the subnormal has been accomplished the still more valuable service to the State of devising a suitable program for the supernormal will doubtless receive increased attention.

Among the plans for subnormal pupils the system of centers, begun in Boston in 1912, has been well developed in Newark, N. J. There are a few individual classes for defectives in out-lying schools, but most pupils of this type are cared for in a series of schools used by them alone. Classification is by mental age; each building has shops, gymnasium, and playground all sensibly equipped; work in the usual school subjects is limited to those who can profit by it. One of these schools has a large kitchen with both kitchen and laundry appliances. Each class, except the youngest, spends one period a day in scrubbing, laundering, cooking, or dishwashing. Careful training is given in these home activities. Each child is at liberty to bring his lunch from home or to buy the lunch prepared in the kitchen. He is given hot soup if he brings a cold lunch. White tablecloths and napkins are used, and the lunch tables are carefully set and served. The children are very happy in the work. Parents report that they are more contented at home because they can take part in the home activities. There is a trade aspect also to the work,

for these pupils may become unskilled laborers in small laundries, bakeries, and restaurants.

St. Louis has opened a psychological clinic at the College for Teachers under the direction of Dr. J. E. W. Wallin. Detroit has employed an educational clinicist on part time. It is now possible to engage a trained clinicist for brief periods, so that the best service is at the call of the smallest city.

HEALTH OF SCHOOL CHILDREN.[1]

More and more is the health of school children considered as part of the business of the school. In no other department does the school administrator find it so easily possible to affiliate with the professions on one hand and the general public on the other. The public is accustomed to the school physician and is rapidly becoming used to the school dentist. The school nurse has become established as a necessary part of the administrative system. Both the practical and the theoretical sides of this subject have received marked attention during the past year.

The school lunch problem came acutely to the front in New York because of the unusual suffering caused by unemployment, and the school lunch service was extended to meet these conditions. Other cities felt the same pressure and responded accordingly; but there seems to be growth also because of a realization that when the school's requirements make it difficult for pupils to reach home easily for a warm lunch, it is the business of the school to face the lunch problem. The cold lunch eaten in a corner is not conducive either to health or to good social relations. This is a business proposition. Our business houses and factories are finding it to their interests to furnish luncheon opportunities to their employees, and New York has recently opened a lunchroom managed by civic authorities for the accommodation of civic employees.

In many cities attention is still centered on the problem of equipment and administration. Those cities which have settled the administrative problems of the school lunch are busy with the scientific and educational phases. Philadelphia's studies of cost and value in calories have been followed by attempts to work out a balanced ration. One New York school requires 1 cent to be spent for a proteid, 1 cent for bread; the rest of the lunch is a matter of choice. Other schools suggest several menus, each being a balanced ration. Cost, balance, and calorie value are the three factors in which the public needs education.

The experiments on ventilation carried on by the New York State commission on ventilation are being watched with interest by school men. The College of the City of New York furnished rooms so

[1] See also Ch. XVII.

equipped that heat, motion, humidity, and freshness could each be separately controlled. College students volunteered to do mental work under varying conditions of ventilation, a small sum being paid them for their services. Results showed vaso-motor efficiency as studied by the Crampton method to be 50 per cent greater at 68° than at 86°. There was no change in mental efficiency with high temperature, nor with stagnant versus fresh air, though the stagnant air diminished the appetite. The presence of carbon-dioxide in much larger amounts than has been thought safe, had no deleterious effects. These experiments will be continued. Conditions in certain New York schoolrooms will be changed in accordance with the knowledge thus gained, and we shall eventually have a scientific basis for our ventilating systems.

New York's board of health is experimenting with sunning and scrubbing as a substitute for fumigating both in homes and in public buildings, basing this practice upon the experimental work in destruction of germs carried on in Rhode Island. Comparison of results in the checking of contagious diseases in the districts in which the new methods are used with those where fumigation is continued, will be of interest to all school men.

The aggressive work of State and city dental associations is bearing much fruit. Preservation of the first teeth is receiving more attention. Dr. Osler states that the loss to the Nation from the neglect of children's teeth is as great as the loss from alcohol. No city as yet reports as comprehensive a program as that of Bridgeport, Conn., though a recent court decision in Ohio that the cleaning of teeth is a hygienic not a professional operation makes such a program feasible in that State. Meantime motion pictures, popular lectures, and the distribution of literature are awakening the parents. An "oral hygiene week" is used to focus attention upon this important matter. Dental clinics are opening in many cities.

Though the following statement of what the American school should be is far from realization in any city, nevertheless it sets up a fitting twentieth-century goal toward which the best schools are tending. It is from the Pittsburgh souvenir of the Pennsylvania State educational association:

SCHOOLS WITH A PERFECT SCORE.

A PITTSBURGH IDEAL.

The schools of the people should give to the children:

Ample provision for exercise and joyous play.

Buildings simple, but stately; thoughtfully planned, skillfully built, generously equipped.

A course of study offering training for service and appreciation; presenting in the order of their importance those things which contribute to a strong, healthy body, an alert, sure mind, a fine, steadfast spirit.

Those things in art or craft which develop to the full the latent ability of each one to serve his fellows with dexterous hand, a lofty mind, and a glad heart, rich in response to the beautiful and noble in life.

Teachers who love children with a parent's love and books with a scholar's fondness; who find beauty and joy in service; are large of vision, learners always.

A training which leads from learning and doing on to wisdom, to high ideals, to service as a sacred trust, to worthy citizenship, to character.

And, having given these things to the children, the schools of the people should also give to all citizens an exalted, neighborly life more abundant, making the big red schoolhouse a radiating center for the final good of all Americans and then for the world.

INCREASED COOPERATION OF CIVIC AUTHORITIES AND INSTITUTIONS.

No better means has been discovered for training children in citizenship than the bringing about of situations in which children feel themselves to be integral parts of civic life. The sporadic campaign undertaken for improving civic conditions is increasingly likely to include the school children as workers with other civic forces. Clean-up day and fire-prevention day enlist the support of the schools. Fly campaigns are waged unceasingly. The Brooklyn Rapid Transit Co. is cooperating with the schools in a "safety first" campaign, hoping to train pupils to be more careful in crossing streets and in alighting from street cars.

Police women have been appointed in 25 cities; among these Chicago has 20, Los Angeles 5, Baltimore 5, Seattle 5, Pittsburgh 4, San Francisco and St. Paul 3 each, Minneapolis, Topeka, and Kansas City 2 each. While not primarily connected with the schools, they supplement the work of attendance officers in many ways, being especially helpful in looking after older girls.

The Metropolitan Museum of Art and the American Museum of Natural History are both extending their work in connection with the public schools of New York City. Teachers are instructed how to explain exhibits to their classes; lectures are given in certain schools; slides are loaned; and the natural history museum is opening a branch exhibition museum in Washington Irving High School. In Providence, R. I., the Park Museum has arranged for some member of its staff to speak at each of the 17 grammar school three times a year. This cooperation of museum authorities promises the same type of valuable help which our libraries have been giving so generously for many years. The libraries are continuing to inaugurate new methods of helpfulness.[1]

Emphasis upon training in thrift is bringing the banks of many cities into close touch with the schools. In most cities the teachers conduct the necessary business; in others a social worker or a bank official visits the school. In Little Rock, Ark., six banks have united

[1] See also Ch. XXII.

to pay the salary of a manager for the school savings association, each child choosing the bank in which he will make a deposit. The growing practice of employing women in banks may be another step in helping children to realize that a bank is less official than it looks.

This is a field in which the cooperation of outside agencies should be encouraged. That the teaching of thrift is of great importance no one will deny. It does not follow, however, that the actual bookkeeping that is necessary in taking account of children's savings should be assumed by the teachers in our public schools. It is sufficient for them to provide opportunities for the children to resort to the desk of the bank representative or philanthropic worker in the school office or hallway and by word and example encourage children to form the habit of saving. The detailed work involved in accounting penny savings is an unprofitable use of the energy and time of a teacher or school principal. It is easy to secure outside interest and cooperation in this enterprise, for it appeals strongly to organizations that are in an excellent position to assume charge of the details.

SCHOOLS AS SOCIAL CENTERS.

The passage of legislation enabling Washington, D. C., to use its school buildings as social centers promises valuable opportunities to the residents of the Nation's capital city. There will be no lack of inspiring leaders in such a city. St. Louis has won a three-year fight for legislation to allow her to open her schools for social centers. Plans for individual neighborhoods will be developed largely by each, but a supervisor will probably be appointed to help with the organization. Boston expends about $30,000 annually in social-center work.

In the auditorium of its new High School of Commerce, Springfield, Mass., is providing motion-picture entertainments each Friday afternoon and evening. Three audiences of 1,000 to 1,600 persons have been accommodated at each performance thus far. At 2.30 p. m., a high-school audience is admitted; at 4 p. m., a grammar-school audience, and at 8 p. m., an adult audience, the last at a nominal charge of 5 cents for each person to pay operating expenses. Among the films in the year's program are several based on literature used in the grades and high school.

The rental of the films is a charge upon the budget of the school. One of the science teachers has qualified as an operator and the principal of the school has general charge. The 5 cents admission fee collected at the evening performance for adults pays for this service and all incidental expenses. The motion-picture machine is the property of the school.

ORGANIZATION OF THE ASSOCIATION OF URBAN UNIVERSITIES.

The development of State universities has been recognized as a fine forward sweep of democratic education, but the municipal university is now making a strong appeal for support on the ground that it is still more democratic. It offers higher education to the youth of the city, who can live at home more economically than away. By cooperation with city departments it offers these the services of expert professors and earnest students; while the testing of theories in the light of actual conditions forces the theorist to improve his theories, and research is stimulated. It is still further claimed that by initiating the future citizen into the mysteries of the conduct of civic affairs by actual constructive work, it may inaugurate the higher municipal consciousness so greatly needed.

The organization of the Association of Urban Universities at Washington last winter emphasizes the growing importance of this problem. State legislation has been analyzed so that any city can easily find what statutory changes need to be made in order to permit taxation for a municipal university. Ohio still leads in numbers, universities at Toledo and Akron having been opened in addition to that at Cincinnati, the pioneer as a real municipal university. The way is being paved for such a university in Detroit, a city eminently fitted to support such an institution.

RIGHTS AND DUTIES OF TEACHERS.

Among the encouraging phases of educational growth is the increasing tendency among grade teachers to seek a larger responsibility professionally, to become a more intelligent part of the administrative school unit. The progressive superintendent welcomes this added cooperation, endeavoring to make it directly serviceable to the school system. The selection of textbooks, the organization of courses of study, the development of new lines of work, and the arousing of public sentiment in favor of increased taxation for school purposes, are matters in which teachers have rendered inestimable service to many communities. By careful study of salaries and living condition, certain groups have brought about more equable adjustment of salaries. Other groups are making studies of the health of teachers which promise to be exceedingly valuable.

Illinois has a plan of affiliation between the State and sectional teachers' organizations whereby teachers can work together for needed legislation. The extension of woman's suffrage has brought added power to teachers in many States.

It can not arouse surprise that so new a force, working within an institution somewhat conservative in many of its procedures, causes questions to be asked as to the rights and wrongs of customary lines

of action. Nor is it strange that different cities see these questions from varying angles.

New York has been greatly agitated during the past year by the question of the teacher-mother. The decision of Commissioner Finley that the attitude of the board of education was opposed to public policy operated to change the board's rules and to reinstate a number of teacher-mothers. The commissioner, however, ruled against the reinstatement of two teachers, one of whom had considered herself justified in practicing deception, while the other had printed an undignified criticism of the board in the public press.

Chicago has recently ruled against teachers becoming federated with labor unions, a subject which has been a bone of contention in Cleveland also.

Final adjudication of these relationships as they come to the front will rest in our courts and in those charged with authority; no question being settled, if we maintain our traditions, until it has been determined on the basis of what is for the best welfare of the children in the schools.

CHAPTER III.

EDUCATION IN THE SMALLER CITIES.

By W. S. Deffenbaugh,

Chief of Division of School Administration, Bureau of Education.

Contents.—The school board—The schools and the municipality—Business management—The full-time secretary—School reports—The superintendent—Teachers—Course of study and organization—Growth of high schools—Kindergartens—Cooperating with the community—School credit for home work—Home and school gardens—Cooperative courses—Wider use of the school plant—Retardation—School savings banks—Miscellaneous items.

During the past year or two the most important steps taken by many schools in the smaller cities have been the reorganization of the course of study, especially in the seventh and eighth grades, the introduction of some form of industrial work and domestic science, and a better cooperation between the school and the community. The greatest growth has undoubtedly been in the high schools—in enrollment, in improved courses, and in better buildings and equipment.

THE SCHOOL BOARD.

Few changes have been made during the past year by general legislative enactment or by special charter provision in the manner of electing school board members, in the length of term, in the number of members, or in the relation of the school board to the city council.

Recent charter changes at Waycross, Ga., provide that the mayor of the city shall become a member of the board of education and a member of the finance committee. The declared object of the change is to bring about a closer relation between the city council and the school board. At Americus, Ga., the charter has been amended with the provision that the members of the board be elected by the city council as formerly, but that they be nominated by the board of education, the idea being that the board of education knows best what members take an interest in the schools. The school board at Henderson, N. C., which has formerly been self-perpetuating, is now elected by popular vote. The schools at Nyack, N. Y., by special act of the legislature, shift from a special charter administration to the

general education law. The schools at Jacksonville, Ill., also change from special charter to the general law.

THE SCHOOLS AND THE MUNICIPALITY.

One of the most radical changes in the management of a school system in a small city has been at Asheville, N. C. An act amending the charter of that city provides that the schools be placed directly in charge of the board of commissioners, which is composed of three members—the commissioner of public works, commissioner of public safety, and the mayor, who is the commissioner of public accounts and finances.

Since this movement of placing the schools under the direct control of the city commission is so recent, the new charter provisions relating to the schools of Asheville are given herewith in full:

PUBLIC SCHOOLS.

The board of commissioners shall be charged with the duty of maintaining an adequate and sufficient system of public schools in the city of Asheville, and shall construct and maintain proper buildings, and to that end the public-school buildings and all other property now used or which may be hereafter acquired within the city of Asheville for school purposes shall be under their control and subject to the disposition of the said board of commissioners; and the said board shall have the power and authority to condemn lands and to do and perform any and all other acts, to acquire and control school property, as is given or may be conferred by law upon said board with reference to acquiring lands for streets or any other public purposes, and may control school property and grounds in like manner as they are empowered to control streets; and the said board of commissioners shall also have such power with regard to the public schools of Asheville as is now conferred by law upon the board of county commissioners of Buncombe County and the board of education of Buncombe County with regard to the public schools of the county; and the said board of commissioners of Asheville shall have charge of the collection of taxes to maintain the schools and construct school buildings and the handling and disbursement of all moneys used for school purposes; and it shall be the duty of said board of commissioners of the city of Asheville to appropriate from the funds of the city, in addition to the special school funds, such amounts as may be necessary to discharge their duties of maintaining an adequate and sufficient system of public schools.

The board of commissioners are charged with the duty of electing biennially a competent, skilled, and expert man as superintendent of the public schools of the city of Asheville, and also such other teachers and employees for the conduct of such schools as may be necessary for such time as they may indicate: *Provided*, All teachers and other employees in said schools shall be selected from a list submitted to the board by the superintendent; and if the board is unable or refuses to select from the list so furnished it shall call on the superintendent from time to time for other lists, which it shall be his duty to furnish.

It shall be the duty of the superintendent in making his recommendations and the board in electing persons to serve the public schools' interests to consider ability, education, character, and efficiency for the performance of the

duties for which such person or persons' names are being considered and allow these qualities to control in making such selection.

Only persons who are bona file residents of the city shall be entitled as pupils to the benefits of the public schools thereof: *Provided, however,* if there be facilities after providing for the education of all residents, nonresidents of the city may be admitted by the board of commissioners to the public schools of Asheville upon the payment of such charges as the board may determine, by order spread upon its minutes, is just.

It shall be the duty of the superintendent of schools of Asheville to devote his time and attention exclusively to them during the school year, except when leave of absence is granted by the board of commissioners for short periods for good cause. He shall have immediate and direct control over all teachers and janitors of the school buildings, and other persons in charge thereof, and shall be responsible for their efficiency, and he shall have power to discharge any teacher or other employee connected with the schools, for any cause satisfactory to himself, and to maintain discipline and order, and establish rules and regulations for the government of the schools, and from his rulings, with respect to these matters, there shall be right of appeal to the board of commissioners. He shall report to board of commissioners, within 24 hours after any employee is discharged, the fact of such discharge; and if the superintendent is requested by any member of the board of commissioners to state his reasons for discharging any employee, he shall, within 48 hours after such request is made, make to the board of commissioners, in writing, a full report of his action, and of all reasons influencing him to discharge such employee.

The superintendent of public schools of Asheville shall be subject to be removed from his office by the board of commissioners for inefficiency, or other cause satisfactory to the said board, and from that action by the board there shall be no appeal or review.

The argument generally advanced in favor of placing the schools under the city commission is that all the affairs of a city should be managed as a business corporation by one board; that under this plan the departments of the city work together harmoniously; that where the schools are under the board of commissioners the health department, the police department, and the finance department will cooperate more heartily and promptly with the schools than they do in cities where the schools are considered a distinct department, separate and apart from the city government. How this theory works out in practice will be awaited with equal interest by those who claim that the schools should not have a separate management apart from municipal affairs, and by those who claim that the school department is large enough and important enough to have a management of its own by a board independent of the city commissioners or the city council.

Though there has been but little legislation within the last year or two regarding city schools, the opinion has been expressed on several occasions that there "is still much for State legislatures to do before all the cities of the country have good schools." An instance is cited in the *American School* for March, 1915, of a council

in a small city killing a needed bond issue for school purposes and a few evenings later floating a bond issue to purchase some equipment for the city. The editor, commenting upon the action of the city council, says:

> The board of education, not the city council, knows whether more schoolhouses and grounds are required; it is the board of education which should have the right to say when the people shall be asked to vote on bond issues or purchases for school purposes. All over the country where city councils have the power to revise school budgets or to grant or withhold school-building appropriations or to decide whether school-bond issues shall be submitted to the people they are buying apparatus and doing paving and raising the wages of city officials with money that belongs to the children.

In the State of New York an attempt was made at the last session of the legislature to secure what was considered needed school legislation. There was offered for the first time in the history of the State a bill to reorganize the school system of all the State. Under the plan proposed all provisions of law relating to the schools of cities now carried on the charters of cities were repealed. It was the intention of the framers of the bill to bring together all the statutes relating to the schools of cities into one general act and to remove school provisions from the charters, so that the continual modification of the charters of cities by the legislature would not involve the schools. There was much opposition to this from the municipal officers, but it is reported that considerable progress was made. Although the bill was defeated, a similar bill will be introduced in the next legislature.

Dr. Thomas E. Finegan, assistant commissioner of education of the State of New York, writing in regard to the lack of a general plan of organization in the management of city schools and of the various special acts of the legislature, says:[1]

> The school systems of the cities of this State have never been organized upon a general plan having special reference to policies which the students of school administration are generally agreed will produce the best educational results. In fact, the school systems in the cities of this State have not been organized upon a general plan of any character. The schools in the cities have very generally been organized in accordance with the ideas of the municipal officers of each city. The cases are rare in which the men charged with the responsibility of the management of the school systems of a city have been consulted as to the basis of the legal structure of such system. This procedure in such matters has resulted in a general policy of associating the laws governing a city school system with the statutes regulating the municipal functions instead of associating such laws with the general statutes on public education. In 35 cities of the State the laws regulating the local management of the schools are incorporated in the charters of such cities. In 12 other cities the laws governing the local direction of the schools have been enacted as special statutes. The antiquated provisions enacted into the consolidated school act, now the education law, over a quarter of a century ago, together with cer-

[1] University of the State of New York, Bulletin No. 577, p. 59.

tain special laws, regulate the local control of the schools in the five other cities of the State. * * *

These laws in many cities give to the municipal authorities greater power in the management of the schools than is given to the legally designated school officers. In such cases the schools are regarded by the municipal authorities as mere municipal bureaus and looked upon as furnishing the same legitimate patronage to sustain the political end of the city government as the street department, the fire department, the police department, and other purely city departments. The cities whose schools are managed by their regularly chosen school officers with freedom and independence have the best and most flourishing schools. The cities whose schools are submerged into the municipal government and whose school policies are dominated from the city hall have the poorest schools. The propositions to revise city charters, which are constantly presented to the legislature, create a feeling of unrest and uncertainty in educational matters which is detrimental to the schools in those cities in which the laws regulating the schools are a part of the city charters. The schools in about one-half of the cities of the State have suffered from this action within the last three years. The special laws which control the schools in other cities are in many instances inadequate to the proper management of a modern city school system. It should be unnecessary for a city of the second class to come to the legislature to obtain authority to erect a technical high school, or for a city of the third class to be compelled to obtain permission from the legislature to permit its citizens to vote upon a proposition to appropriate $24,000 for the erection of an elementary school system, as has recently been the case. These are questions which each city should have the power to determine. The laws governing their schools should confer that power.

BUSINESS MANAGEMENT.

As an example of what boards in the smaller cities are beginning to do to manage the business affairs of the schools efficiently, the following account of a plan inaugurated by the school board of Alpena, Mich., in September, 1914, is given:

During the summer before installing the new system the superintendent took a complete inventory of every dollar's worth of property owned by the schools. The assets were inventoried as follows: Real estate, buildings, furniture, equipment, fuel, supplies, unexpired insurance. Inventory sheets covering everything of value in each building are kept on file in the superintendent's office, duplicates of the same being in the hands of the principals of the several buildings. New furniture and equipment added during the year increase the fixed investment and are noted on the inventory sheets. A general ledger account is kept for each of the accounts noted above.

All purchases are now made from the superintendent's office, purchase orders of which duplicates are kept, being issued for each purchase made. The duplicates are checked when the goods are received and are then transferred to a binder designed for filled purchase orders. Bills for the same presented before the 5th of the month are approved by the finance committee of the board of education, ordered paid by the board of education at its regular meeting, and paid by voucher check drawn on the treasurer, signed by the president and secretary of the board, and issued from the superintendent's office. This obviates the necessity of receipts for the payment of bills. Teachers' salaries are paid at the bank from a monthly pay roll, one warrant covering all.

Supply requisitions are sent to the office twice each month by ward principals for school and janitors' supplies. These are filled, priced, and charged to the school at the end of the month, the stock rooms being credited with the amount taken from them.

The cash book keeps an account of all school receipts, such as primary funds, interest, tax appropriations, nonresident tuition fees, etc. It also records all warrants issued and the distribution of the same to the various departments. It is self-balancing. The expense ledger is a record for the month and year to date of the expense in salaries, supplies, fuel, insurance, repairs, etc., by schools and departments. The ledger and journal are simply double-entry records of the daily transactions. The monthly statement, including a balance sheet, is a recapitulation of the month's business, a statement of the average attendance by schools and departments, and a comparison of the total expense and per capita cost of education by school and department for the present and corresponding month of the preceding year, and for the present and preceding years to date. It is always accessible to the patrons of the schools and is easily understood by the uninitiated.

THE FULL-TIME SECRETARY.

Some boards in cities of more than 10,000 population have found it profitable to employ a secretary to give all his time to clerical work. The duties of such an officer consist not merely in recording transactions, but in acting as business agent under the direction of the superintendent. Where this plan is in operation it is possible to hold one person, instead of a half dozen committees, responsible for carrying out the orders of the board relating to business matters.

In some cities the superintendent's clerk is profitably made the secretary of the board.

One superintendent in a city of about 12,000 population, who has recently had his clerk made secretary of the school board, says:

> The superintendent becomes the executive head of the school system in the full sense of the word both in respect to professional and business matters. In fact he really becomes a sort of general manager with a threefold function—supervisor of instruction, inspector, and business manager. Under proper conditions this in no wise interferes with the prerogatives of the school board, but it does eliminate the assumed prerogatives of individual members of the board. The superintendent must get his authority from the board as a whole or from committees to whom definite duties are assigned.
>
> Instead of our secretary being a school-board member, whose private duties make it necessary for him to consider his secretaryship a side issue, we employ a man who gives all of his attention to our business. As a consequence the business phase of the administration of the schools is "up to the minute," and professional matters are not sidetracked on account of the slowness of the business department.

SCHOOL REPORTS.

Superintendents are beginning to make careful investigations of school conditions and to report the facts with interpretations to the school boards and to the public. Some of the reports now contain

fiscal statistics properly classified, with per capita costs worked out for each item of expenditure for elementary and high schools, and in a few instances per capita cost for each building. Several reports contain tables showing the per capita cost of each subject taught in the high school. In one report at least the cost of fuel is reduced to a unit basis of 1,000 cubic feet. Most reports for 1914 contain tables showing enrollment by ages and grades. Some few introduce tables showing to what extent retardation has been reduced. Other statistical tables showing present conditions as compared with conditions a few years ago are included in a few reports.

Though only a few reports contain tables showing progress from year to year or from period to period, there is every indication of a tendency to make a greater use of comparative statistics.

Several of the reports practically amount to school surveys made by superintendents and their assistants. It is realized that a superintendent should continually "survey" his schools and embody the significant facts in his annual reports. Dansville, N. Y., affords an excellent example of this.[1] Another investigation of note was that made under the direction of the superintendent of schools at Mankato, Minn. In September, 1914, the superintendent appointed a committee consisting of the high-school principal, the principal of five grade schools, and five teachers for the purpose of making a study of the matter of vocational guidance in relation to the schools of Mankato.

The committee adopted the following aims and program for its work:

AIMS.

1. To find out whether or not Mankato has a problem of children leaving school without guidance and without proper training to insure their earning an income sufficient for an efficient standard of living.

2. To gather statistics which would enable us to compare from local conditions the advantages toward occupational life of a high-school course with leaving school before entering the high school.

3. To find out why children do leave school before entering the high school.

4. To find out what occupational opportunities exist in Mankato and what employers demand in regard to the training of the pupils.

5. To find out if the school is meeting this demand.

6. To gather a fund of information along vocational lines that will be useful in the work of vocational counseling.

PROGRAM OF WORK.

1. A survey of the causes for children leaving school after having reached the age of 16 or finishing the eighth grade and before entering the high school.

2. The causes for pupils in the high school leaving school before finishing their course.

[1] See chapter on School surveys (Ch. XVIII).

3. A survey of the vocational career of those who have left the schools before finishing and after graduation from high school.

4. A survey of the vocational opportunities in Mankato.

5. A careful consideration of the facts secured and a report, with recommendations, to the board of education.

For lack of space a summary of conclusions can not be presented in the chapter, but the following tables are presented because of their significance:

Occupations at Starting Work.

Those who left school before entering high school, per cent entering each occupation:

	Per cent.
Delivery boy	16
Elevator boy	2.5
Candy factory	2.5
Farming and gardens	5
Apprentices	6
House and domestic	6
Tub factory	5
Waitress	5
Clerks	10
Foundry, machine shop	1.25
Overall and shirt factory	2.5
At the Free Press	1.25
Offices and banks	3.75
Railroad work	1.25
At 5-cent and 10-cent stores	5
Help at home (girls)	12
Knitting mills	1.25
Miscellaneous	6.25

Those who left during their high-school course:

	Per cent.
Stay at home	20
Clerking	20
Farming	17
Apprentices in trades	13
Office work	8
Laborers	8
Miscellaneous	4

Those Who Finished High School.

(Out of school 3 or more years; 437 persons listed.)

	Per cent.
Those in colleges, normal, professional courses, or whose occupation required such preparation	58
Engaged in commercial and business pursuits	17
Home makers (married or helping at home)	19
Miscellaneous	6

Occupations—listed in order of number engaged:

Teaching.
Married (home makers).
Colleges.
Mercantile pursuits.
Normal schools.
Lawyers.
Dentists.
Doctors.
Banks and offices.
Staying at home.
Engineers and architects.
Farmers.
Salesmen.
Musicians.
Stenographers and bookkeepers.
Business colleges.
Railroad work.
Librarian.
Physical directors.
Art students and workers.
Laundrymen.
Army.
Private secretary.
Nurse.
Linotype operator.
Land and real estate business.

The wages received by the people investigated in the groups who left school before entering high school and those who left during their high-school course are here given:

Approximate wages earned at present by all earning.

Weekly wage.	Below high school.	High school.
	Per cent.	*Per cent.*
$4 to $6	38	0
$6 to $8	22	10
$8 to $10	22	30
$10 to $12	13	35
$12 to $15 and above	5	25

THE SUPERINTENDENT.

School boards in the smaller cities are gradually granting superintendents more power in the selection and promotion of teachers, and in the selection of textbooks. Some of the rules recently adopted by school boards define rather definitely the powers and duties of the superintendent and indicate the general tendency to enlarge his duties and make him responsible for the efficient management of the system of schools under his charge. It is now recognized by many school boards that the superintendent must be the head of the system and that any meddling on the part of the board or of individual members of the board in matters that belong to a paid expert is to be condemned.[1]

Salaries of superintendents in the smaller cities are steadily advancing. It is now possible for a superintendent in a city of from 10,000 to 25,000 population to have an income of about $2,400 a year. In some of the more progressive of the smaller cities the salary of the superintendent is now $3,000 or $4,000 a year. During the past year the salaries of a number of superintendents were increased $500 a year, and in some cities the increase was as much as $700 or $800 a year.

School boards are beginning to realize that if a school system is to make progress steadily there must not be a change of superintendents every year or two, and that it is usually better to advance the salary of the superintendent who is producing good results than it is to take chances on securing another superintendent who may prove equally efficient. It may also be noted that there is at the present time less use made of superintendency positions as stepping stones to other professions. A few years ago it was not unusual to find a superintendent in the smaller cities preparing for another line of work. Superintendents in these cities are beginning to discuss their own problems rather than the problems of the larger cities. One of the

[1] For copies of rules and regulations adopted by progressive cities, see Bulletin, 1915, No. 44, "School Administration in the Smaller Cities."

largest round-tables at the Department of Superintendence of the National Educational Association is that for superintendents of schools in cities of less than 25,000 population. A program was first arranged for such superintendents for the department meeting in 1914. In 1915 President Henry Snyder formulated a program of unusual interest. This round-table proved so popular and helpful that it was unanimously voted by those in attendance to ask the president of the department to arrange, if possible without interfering with the general program, two sessions at the department meeting in 1916.

Some of the State educational associations have provided round-table programs for city superintendents, but several of the associations existing in States where there are a number of city superintendents fail to provide such programs. If special programs for rural school supervisors prove beneficial to these officials, programs relating especially to city school problems would, no doubt, prove helpful to city superintendents.

In a few of the States city superintendents held special conferences for the study of their problems. In New Jersey, for example, there were held during the year 1914–15 three such conferences of two days each for superintendents in the smaller cities. Among the topics discussed were: Methods of helping inexperienced teachers, profitable district and grade meetings, efficiency of supervision as measured by results, and efficiency of supervision as measured by instruction. In addition to these conferences the State superintendent of public instruction arranged for a special conference week of superintendents and principals during the summer.

TEACHERS.

Reports continue to indicate that school boards in the smaller cities are gradually raising the standard for beginning teachers. Many boards will not now employ high-school graduates unless they have had two years of professional preparation in addition to a four-year high-school course.

Salary schedules are also being changed or modified, so that teachers who attend summer training schools or in some way make further preparation are rewarded with an increase of salary. Salary schedules that promote teachers upon experience alone are still common, but the tendency is to promote teachers largely upon merit and additional preparation. The following rules regarding the promotion of teachers are typical of many received at this bureau:[1]

[1] Other interesting promotion plans for smaller cities are those of Ann Arbor, Mich., Newton, Kans., and Waynesburg, Pa.

ALPENA, MICH.

For grade teachers the minimum salary of a normal or college graduate without experience will be $500; with experience the salary will be $550. For all others the salary will be $450 without experience and $475 with experience. Annual increases of $25 will be given until the maximum of $600 is reached.

Teachers who attain the maximum salary may, after a four-year period, receive $650 provided they have fulfilled all the conditions; after a second four-year period such teachers may receive $700.

Regular teachers in the grades who have taught 10 years or more will receive the maximum salary beginning with 1915–16.

Teachers who have taught 10 years or more in graded schools may receive the maximum salary beginning 1915–16, with the privilege of having the first four-year period shortened to a two-year period. Teachers who have taught five years or more and who have complied with the conditions (*a*) or (*c*), namely, attend one of the State normal schools or some reputable college or university for two summer sessions, or spend two months in extensive travel and make such reports as may be required by the superintendent of schools, may receive the maximum salary.

All other teachers in the grades shall be paid salaries for the year 1915–16 as follows: Those receiving $440 will receive $475; those whose salary is $470 will receive $500; those who receive $540 will be paid $575; those whose salary is now $570 will receive $600.

Six plans are provided under which the teachers may be promoted and receive increases. They are: Plan I—*a, d, f, g;* Plan II—*a, e, f, g;* Plan III—*b, d, f, g;* Plan IV—*b, e, f, g;* Plan V—*c, d, f, g;* Plan VI—*c, e, f, g.* The conditions which the teacher must observe are as follows:

(*a*) Attend one of the State normal schools or some reputable college or university for two summer sessions.

(*b*) Carry on systematic study of some definite line of work assigned by the committee on examinations, and pass satisfactory examinations in this work. This work is to be equivalent to that of the two summer terms at one of the State normal schools.

(*c*) Spend two months in extensive travel and make such reports as may be required by the superintendent of schools.

(*d*) Attend the State teachers' association two years, and make reports as may be required by the superintendent of schools.

(*e*) Spend four days (not more than two in any one system, and not more than two during any one school year) visiting schools in other systems as designated by the superintendent and make such reports as he may require.

(*f*) Subscribe for two educational publications, one of which shall be devoted to some other grade or subject than the one taught by the teacher, and make such reports as may be required by the superintendent.

(*g*) Attend teachers' meetings regularly, and prepare the work thoroughly.

A teacher desiring to apply for an increase beyond the maximum shall notify the superintendent in writing at the beginning of the year of the intention to take advantage of one of these plans, and state which plan has been selected. The committee on examination will determine when a teacher has complied with any of the above conditions.

In many of the smaller cities teachers' salaries are so low that it is impossible to obtain normal or college graduates, or if they are obtained and prove successful they remain for only a year or two. In many of the high schools in the small towns and cities near

larger cities that offer more salary the teaching corps changes entirely within a few years. In one city of 12,000 population, located within 40 miles of a large city, 12 of the 15 high-school teachers have found better positions in the large city or in its suburbs within the past three years. Practically all the small cities within a radius of 40 or 50 miles of this large city are continually losing their best teachers to the large city because it can offer better salaries. The following table showing salaries paid teachers in different groups of cities explains, in part at least, why teachers are constantly migrating to the larger cities:

Comparison of teachers' salaries in different groups of cities.

	Minimum.	Maximum.	Average.
In cities having more than 250,000 population:			
High-school teachers	$450	$3,150	$1,746
Elementary teachers	203	2,400	1,018
In cities having 100,000 and fewer than 250,000 population:			
High-school teachers	480	2,400	1,216
Elementary teachers	195	1,960	791
In cities having 50,000 and fewer than 100,000 population:			
High-school teachers	180	2,000	1,069
Elementary teachers	270	1,500	688
In cities having 25,000 and fewer than 50,000 population:			
High-school teachers	400	3,400	1,009
Elementary teachers	200	1,710	641
In cities having 10,000 and fewer than 25,000 population:			
High-school teachers	100	2,250	897
Elementary teachers	38	1,500	602
In cities having 5,000 and fewer than 10,000 population:			
High-school teachers	100	1,800	795
Elementary teachers	104	1,350	533

One of the subjects engaging the attention of superintendents is the improvement of teachers in service. Among the plans worked out are increased salary for attending college or university summer schools, general teachers' meetings, grade meetings, special demonstration classes.

At the general teachers' meetings topics bearing upon general classroom management and teaching are discussed by the superintendent and the teachers, by a superintendent from a near-by city or by a professor of education from some college or university. This plan is a great improvement over the old plan of holding teachers' meetings where questions of interest to only one or two teachers were discussed.

The grade meeting now has a place in all progressive-school systems. At these meetings problems peculiar to the particular grade are discussed. Often a teacher presents the result of some study she has made in regard to the teaching of a subject in the grade. In connection with the grade meetings demonstration lessons are sometimes given. For example, a teacher who has made a marked success in teaching arithmetic presents a lesson to her pupils while the other teachers make notes and afterwards discuss the method used.

Another kind of meeting helpful to teachers is conducted by the principal of the building at which problems relating to general discipline are discussed. Often the teachers of the building organize into a reading circle under the direction of the principal and read and discuss during the term two or three books on education.

Many of the smaller cities, in States where a city may hold a teachers' institute apart from the county institute, have taken advantage of this provision. A superintendent in a city of about 15,000 population reports that he began holding his own institutes because the county institute was a large mass meeting of 500 teachers where it was impossible for a teacher to derive anything of value from the lectures, most of which were of a popular nature. Since organizing his own institute he has divided the work into departments, primary, intermediate, grammar, and high school. A special instructor is employed for each of these for the morning sessions. At the afternoon sessions some one lectures upon a general topic. The superintendent reports that this plan is vastly better than that of meeting with the county institute where instructors too often deal in glittering generalities and the impractical.

The use of standard tests, it is uniformly reported, has had a most salutary effect. Many teachers are spurred on to greater efforts when the score made by their pupils in arithmetic, for example, is much below the median for the school. They begin to question their own methods of teaching. Devices for grading teachers on certain points, it is also reported, have been a means for holding the teachers up to a higher standard. A few of the score cards used by superintendents were included in chapter 4, volume 1, of the Report of the Commissioner of Education for 1914. It is not claimed that these tests are perfect, yet they are better than the happy-go-lucky methods of former days for estimating a teacher's worth.

COURSE OF STUDY AND ORGANIZATION.

ELEMENTARY COURSE OF STUDY.

Much effort has been spent in simplifying the courses of study. In arithmetic, for example, there is an attempt to eliminate obsolete subject matter. In language study stress is placed upon speaking and writing with clearness rather than upon the mere mechanics of composition. Hygienic living is emphasized and not the memorizing of anatomical terms, while courses in geography dwell upon the fact that the study of the earth is not a study of the location of capes, etc., but a study of the work of the world. In brief, courses of study show much improvement in the arrangement and in the selection of material, though many schools in the small towns and cities still adhere to old-time courses, teaching subject matter that never had and never will have any direct bearing on life, especially on child life.

REORGANIZATION.

Many smaller cities are experimenting with the administrative reorganization of the lower elementary grades.

At Beaver, Pa., the superintendent has worked out a scheme of departmental work for the elementary grades differing from the usual plan of organization in the elementary school. Grades 1 and 2 constitute one department; grades 3, 4, and 5 a second department; and grades 6, 7, and 8 a third department. In each building there are three teachers for grades 1 and 2, thus making it possible to maintain a separate room for the children in the first half of grade 1. The average registration in each room is 32. The superintendent says that this experiment has more than met expectations in point of efficiency, economy, and the attention given to the individual pupil.

As Neosho, Mo., the schools have been reorganized so that each subject or group of subjects is taught by a special teacher. The superintendent says that the plan is solving the problem of supervisors for the special subjects. One teacher, for instance, teaches all the drawing, another has charge of the playground work, and some construction work for the lower grades. Another teaches all the writing and drawing.

The greatest interest in the reorganization of the schools has centered on the seventh and eighth grades. For some time the fact has been apparent that pupils lose time in passing through these two grades; that the work of the elementary school has been unnecessarily dragged out over two extra years; and that a child can come into possession of the school arts in six years.

It is felt more and more that in many schools the seventh and eighth grade work repeats very largely that of the fifth and sixth grades. In the fifth grade a pupil studies common and decimal fractions and in the seventh grade he studies these same subjects; in the sixth grade he studies percentage and interest; and again in the eighth grade. In the fifth grade he studies the geography of the United States from a small textbook, and again in the seventh grade, but from a larger textbook. By the time a pupil reaches the seventh grade he has gone over most of the subjects offered in the elementary course. The last two years simply repeat, and the methods employed are practically the same drill methods of the fifth and sixth grades. For this reason it is claimed that pupils in the grammar grades are to a great extent merely marking time. Other arguments for a reorganization in the seventh and eighth grades are sufficiently familar.

SIX-YEAR HIGH SCHOOL.

Many superintendents have been reorganizing their schools on what is popularly known as the six-and-six plan—six years in the elementary grades and six years in the high school, the high-school

course being divided into two administrative units, a junior and a senior high school of three years each. In some schools the junior high school consist of only two grades, the seventh and eighth.

Reports indicate that the movement to reorganize on a six-and-six plan is in full swing, and that it is not confined to any one section of the country, though possibly making greater progress in certain sections. Reports also indicate that many more superintendents would establish junior and senior high schools were it possible to do so. Often it is impossible to centralize the upper grammar grades in one building or to have them in the high-school building. In the small cities there are usually only one seventh and eighth grade in a building, so to work out the junior high-school idea as it should be is rather difficult without a central building. Many superintendents are looking ahead and laying plans for new buildings, so that the six-year high-school idea may be worked out completely.

A school organized on the departmental plan is not entitled to be called a junior high school. This is one step, but not the vital one. A six-year high school, if it means anything, means a complete reorganization as to aims and method.

In chapter 6, volume 1, of the Commissioner's Report for 1914 the junior high school was discussed at length, and some courses of study were included. None of these showed what changes had been made in the elementary schools.

A reorganization of the upper six grades should also mean a reorganization in the lower six grades. The aims of each should be more clearly defined than at present. The work now done in the lower grades should not be made more difficult, as some opponents to the six-year high school claim will be the result.

The superintendent of schools at Lewiston, Idaho, has effected a complete reorganization from the first grade up, so that the aims of the elementary school and the high school may be fully realized. He says:

> The elementary course of stdy is undifferentiated, and emphasizes the idea that here is preeminently the place in which the fundamental facts, habits, drills, and attitudes should be fixed as working tools and the child's impulses and instincts be developed as working interests. Physical training, organized playground work, art, music, elementary manual arts, ethics, dramatization of reading work, are strongly stressed in the elementary grades. A grade circulating library has recently been provided in the way of 200 sets of "classics" (40 classics to the set), each set of classics encased in a strong cardboard box and given out on requisition. The reading matter in these "literary wholes" covers a wide range of interest for each grade, and the teachers have found it wise to devote at least one-half of all reading time to this line of work. Stereoscopes, views, and other illustrative material is sent out on the same plan.
>
> The first half of the elementary course is known as the primary school and the second half as the intermediate school. In order that the teacher's personality and responsibility be made more effective, teachers in the primary school

are promoted with the pupils, making it possible for a teacher to direct a class three years. This is also true of the intermediate school. The position of elementary-grade supervisor has been created during the past year, relieving grade principals from classroom supervision, and the plan has proved a most successful one in coordinating and unifying the grade work. All promotions are made semiannually, based entirely on the judgment of the teacher (approved by the supervisor and superintendent). No final examinations are given for promotion. The last week of each semester is spent in unifying and classifying the work gone over.

The Lewiston High School is organized on the basis of six years' work and is divided into two administrative units of three years each—a junior and a senior high school, each with its own principal and assembly. The new high-school building of 36 rooms, exclusive of assembly rooms, is divided into two sections, with a combination gymnasium and auditorium between them. One wing is occupied by the junior high school and the other by the senior high school. This facilitates exchange of work between the junior and senior high school. All high-school work is closely organized by departments. The heads of departments constitute a school council. The school day consists of six 60-minute periods, preceded each morning by a 20-minute general assembly in each high school. Each Wednesday the entire high school meets for a joint assembly.

Four units of credit constitute a regular high school year's assignment, hence 24 units are required for graduation. Of the 24 units 3 may be earned in subsidiary work, and classes are now organized in band, orchestra, violin, piano, chorus, glee club, dramatics, debating, wireless telegraphy, photography, art work, and several other lines of activity. In order to receive credit, classes must meet regularly once a week and be in charge of high-school teachers or some teacher regularly authorized for this work. One-fourth credit a year is given for successful work in any line of work deemed worthy of educational credit. All promotions are made by units of credit earned, based on the average of the term's work. No final examinations are given to determine promotions. Good students, in regular attendance, by doing outside work will be able to graduate in five years.

The junior high school is the crux of the entire reorganization movement. Here is the place for the wisest, ablest teachers available, who will exercise unusual care and sympathy in introducing pupils to departmental teaching and work of a prevocational nature in which the pupil has an opportunity to try his powers, to test himself, to find himself, as it were. It is confidently expected that the junior high school will greatly transcend the work heretofore done by the grammar school. The junior high school does away with the sharp distinction which has hitherto existed between the eighth and ninth grades and permits an earlier introduction of many subjects which have hitherto been reserved for the high school—a reservation which is extremely unwise. The Lewiston High School experienced an increase of more than 20 per cent in attendance this year over that of the previous year, having in regular attendance at the present time 465 students. The Lewiston High School makes the same requirements for teachers in the junior high school that it does in the senior high school.

In the first year of junior high school the following subjects are required: Arithmetic, English (reading, grammar, and spelling), history-geography, together with drills in music, penmanship, and physical culture. Electives are Spanish, German, and Latin, sewing and cooking, shop work, fine and industrial arts. The second junior year requires mathematics (arithmetic and algebra), English, history, and citizenship (one-half) year, elementary science,

labratory work (one-half) year. Electives are a continuation of the work offered in the first junior year. The third junior year has only one required subject, and that is English, and from this on all work is elective except English. All work, however, must be elected by majors and minors. Five years' regular high-school work is offered in Spanish, German, and Latin, and six years' work in shop work, which includes forging and actual construction work. Six years' high-school work is offered in home economics. The senior high-school industrial work for both boys and girls is made strongly vocational. Agriculture was introduced this year, and we are now offering two years' work. Forty-five boys are taking this work.

Not only are individual cities working out programs for junior high schools, but State departments have turned their attention to the matter. Some years ago the schools of New York State were reorganized with six years in the elementary grades, the seventh and eighth grades being designated as the intermediate school and the ninth to twelfth grades as the high school. Prof. C. D. Koch, inspector of high schools in Pennsylvania, offers for the first time a program of studies for a junior high school. This outline is exceedingly suggestive and will no doubt be of interest to superintendents in the smaller cities where such schools are located or where there is prospect of organizing. The program is as follows:

Program of studies for a junior high school, as outlined by Prof. C. D. Koch.

[Figures indicate hours per week.]

Studies.	Seventh year.	Eighth year.	Ninth year.	Total number of hours.
English	Literature, language, spelling... 5	Literature, grammar, spelling..... 5	Literature, composition, oral and written..... 5	540
Mathematics	Arithmetic..... 4	Arithmetic..... 4	Algebra..... 4	432
Science and geography	Geography..... 3	Geography or agriculture..... 3	General science or physical geography..... 3	432
	Hygiene and physical training..... 1	Hygiene and physical training..... 1	Physical training... 1	
Social studies	American history, including current events..... 3	American history, including current events..... 3	Community civics and survey of vocations..... 3	324
Foreign languages	French, German, Spanish, Latin... 4	French, German, Spanish, Latin... 4	French, German, Spanish, Latin... 4	432
Commercial subjects	Business forms and penmanship..... 4	Bookkeeping, stenography..... 4	Bookkeeping, stenography 4	432
Industrial arts	Drawing..... 1	Drawing..... 1	Drawing..... 1	108
	Sewing (girls)..... 2	Cooking (girls)..... 2	Homemaking (girls) 2	216
	Shop (boys)..... 2	Shop (boys)..... 2	Shop (boys)..... 2	216
Music	Vocal..... 1	Vocal..... 1	Vocal..... 1	108
Minimum number of hours assigned per week	24	24	24	.....

Elective in each year: One foreign language or commercial subjects.

In discussing this program, Dr. Koch declares:

A minimum amount of time expressed in 60-minute hours per week is assigned to each of the school studies. This is not to be taken to mean that the recitation periods must be an hour long. The time prescribed means that at least this much time should be given weekly to the studies herein outlined. It is a minimum requirement. The five hours assigned to English includes some time for reading, language, and spelling. About half of this time should be devoted to reading.

This distribution gives four hours to arithmetic, four hours to geography and hygiene, three hours to history, four hours to the study of a foreign language (optional), three hours to the manual arts, and one hour to vocal music. With a foreign language or commercial subjects this gives a total of 24 hours of required work. A five-hour school day will allow one hour of unassigned time. This may be used at the discretion of the teacher on the studies needing more than the allotted time. A longer school day will give more time to be used in this way.

The time allotment has no thought of fixing the method of handling the recitations. This is left to the judgment of the principal and teachers. Part of the time may be used by the pupils in preparing work for the recitation or the whole hour may be given to study and recitation under the supervision of the teacher. The chief point is to see that all the pupils give to the studies the full amount of time assigned to them.

The teacher of arithmetic should see that each pupil of the class actually works at arithmetic one full hour for each of four days in a week or 48 minutes for each of five days. With this plan consistently and persistently followed, teachers may be assured that the character of the work in this subject will be much improved.

GROWTH OF HIGH SCHOOLS.

Even in schools where junior and senior high schools have not yet been organized important changes in the course of study have taken place. One result of the better adaptation of high-school courses to the needs of the children has been the large increase in high-school enrollment.

The following tables will show the increased enrollment in the high school as compared with the grades for the two years 1911 and 1914:

Increase in grade and high school enrollment from 1910–11 to 1913–14 in certain cities from 10,000 to 25,000 population.

	Enrollment in 1910–11.		Enrollment in 1913–14.		Per cent of increase, 1910–11 to 1913–14.	
	Grades.	High school.	Grades.	High school.	Grades.	High school.
Selma, Ala.	1,183	120	1,470	212	24.26	76.66
Riverside, Cal.	2,513	486	2,767	676	10.11	39.09
Trinidad, Colo.	1,939	221	2,040	289	5.21	30.76
Middletown, Conn.	1,300	453	1,389	623	6.84	37.52
Athens, Ga.	2,125	162	2,649	254	24.65	56.79
Boise, Idaho	3,322	625	3,264	989	−2.04	58.24
Freeport, Ill.	2,731	450	2,473	567	−9.44	26.00
Richmond, Ind.	3,110	567	3,599	685	15.72	20.79
Marshalltown, Iowa.	1,844	350	2,249	539	21.96	54.00
Ottumwa, Iowa.	3,590	400	4,284	621	19.33	55.25
Fort Scott, Kans.	1,839	258	1,936	431	5.27	67.05
Henderson, Ky.	2,200	160	2,235	213	1.59	33.12
Auburn, Me.	1,891	364	1,738	376	−8.09	3.29
Beverly, Mass.	2,864	682	3,232	861	12.85	26.24
Port Huron, Mich.	2,696	382	2,864	421	6.23	10.21
Mankato, Minn.	1,117	300	1,232	417	10.29	39.00
Meridian, Miss.	3,752	298	4,909	451	30.84	50.34
Hannibal, Mo.	2,655	291	2,950	370	11.11	27.14
Great Falls, Mont.	2,763	422	3,041	515	10.06	22.03
Grand Island, Nebr.	1,918	273	2,258	309	16.51	13.55
Portsmouth, N. H.	1,435	304	1,672	403	15.07	32.50
Asbury Park, N. J.	2,161	177	2,465	323	14.06	82.48
Plainfield, N. J.	3,184	440	3,480	643	9.26	46.13
Cortland, N. J.	1,347	303	1,416	324	5.12	6.93
Durham, N. C.	2,966	403	2,983	551	.57	36.72
Fargo, N. Dak.	2,048	318	2,325	455	13.52	43.08
Alliance, Ohio	2,156	333	2,654	490	23.09	47.14
Chickasha, Okla.	2,276	156	2,400	219	5.44	40.38
Salem, Oreg.	2,219	421	2,538	752	14.37	78.62
Wilkinsburg, Pa.	2,677	400	2,690	560	.48	40.00
Central Falls, R. I.	1,907	126	1,908	148	00	17.46
Spartanburg, S. C.	3,201	202	3,911	219	22.17	8.41
Aberdeen, S. Dak.	1,793	344	1,575	446	−12.15	29.65
Beaumont, Tex.	3,471	409	3,837	606	10.54	48.16
Barre, Vt.	2,609	237	2,263	365	−13.26	54.00
Newport News, Va.	2,825	227	3,441	326	21.80	43.61
Charleston, W. Va.	4,532	389	5,272	486	16.32	25.93
Appleton, Wis.	2,396	372	2,404	407	4.22	9.40
Total.	92,565	12,825	101,813	17,561	9.98	36.84

Increase in grade and high school enrollment from 1910–11 to 1913–14 in certain cities from 5,000 to 10,000 population.

	Enrollment in 1910–11.		Enrollment in 1913–14.		Per cent of increase 1910–11 to 1913–14.	
	Grades.	High school.	Grades.	High school.	Grades.	High school.
New Decatur, Ala.	944	71	1,139	102	20.65	43.66
Bisbee, Ariz.	1,774	108	2,385	157	34.44	45.37
Helena, Ark.	1,151	149	1,356	191	17.81	28.12
Alhambra, Cal.	740	182	1,371	334	85.27	83.51
Canon City, Colo.	838	167	854	191	1.90	14.37
East Hartford, Conn.	1,707	154	1,959	232	14.76	50.65
Fitzgerald, Ga.	1,160	98	1,391	140	19.91	42.85
Lewiston, Idaho	867	185	1,100	249	26.87	34.59
Granite City, Ill.	1,439	143	1,941	170	34.88	18.88
Crawfordsville, Ind.	1,418	306	1,666	406	17.48	32.67
Grinnell, Iowa	919	317	1,037	376	12.83	18.61
Newton, Kans.	1,238	227	1,240	330	.....	45.37
Ashland, Ky.	1,636	137	1,711	171	4.58	24.81
Gardner, Me.	1,025	153	945	210	− 7.80	37.25
Concord, Mass.	944	280	834	411	− 11.65	46.78
Houghton, Mich.	1,458	252	1,815	273	24.41	8.33
Albert Lea, Minn.	1,250	200	1,300	277	4.00	38.50
Greenville, Miss.	1,672	207	1,803	254	7.83	22.70
Columbia, Mo.	1,503	365	1,617	457	7.58	25.20
Hastings, Nebr.	1,813	399	1,832	437	1.04	9.52
Rochester, N. H.	1,096	199	1,222	276	11.49	38.69
South Orange, N. J.	1,124	170	1,333	244	18.59	43.52
Roswell, N. Mex.	1,500	300	1,336	397	− 10.93	32.33
Tonawanda, N. Y.	1,320	241	1,331	258	.....	7.05
Concord, N. C.	1,550	87	1,754	140	13.16	60.92
Bismarck, N. Dak.	568	135	794	200	39.78	48.14
Van Wert, Ohio	1,240	282	1,164	342	− 6.12	21.26
Ardmore, Okla.	2,147	213	2,031	247	− 5.40	15.96
Astoria, Oreg.	1,310	240	1,461	266	11.52	10.83
Mount Pleasant, Pa.	923	118	1,073	185	16.25	56.77
Bristol, R. I.	1,307	127	1,561	168	19.43	32.23
Sumter, S. C.	607	171	1,673	379	175.61	121.63
Mitchell, S. Dak.	989	243	979	332	− 1.01	36.62
Bristol, Tenn.	1,236	159	1,272	224	2.10	40.88
Gainesville, Tex.	1,322	247	1,335	275	.....	11.33
Montpelier, Vt.	915	185	887	198	− 3.05	7.02
Bristol, Va.	1,000	131	1,147	154	14.70	17.55
Olympia, Wash.	1,237	279	1,254	347	1.37	24.37
Elkins, W. Va.	1,132	88	1,226	195	8.30	121.59
Grand Rapids, Wis.	1,149	263	1,225	309	6.61	17.48
Laramie, Wyo.	776	122	949	175	22.29	43.44
Total	49,944	8,100	56,303	10,679	12.73	31.83

KINDERGARTENS.

One phase of school work that has received but little attention in the smaller cities is the kindergarten. Many school boards have not established kindergartens because of a lack of funds, others have not yet been convinced of the need for kindergartens. In many cities the high school and the grades have grown so rapidly in enrollment that the problem of housing the kindergarten has been a serious one. In one city, for example, a kindergarten was maintained for several years by a women's club, the school board providing the use of a room in the school building. Increased enrollment in the grades finally necessitated the use of the room, and the kindergarten had to be abandoned.

The lack of kindergartens in the smaller cities is due mainly to the fact, however, that public sentiment has not been sufficiently aroused

to the value of kindergarten training. Nevertheless, considerable kindergarten progress has been made within the past year in the smaller cities. During the term 93 cities in the North Central States have established kindergartens, Michigan leading this group with 22 cities and 44 new kindergartens. Notable progress has also been made in New York, New Jersey, Wisconsin, and California.

The following table, compiled from statistics collected by the Kindergarten Division of the Bureau of Education, shows the progress made by cities of 25,000 population and less in the several States:

Statistics of public school kindergartens in cities of less than 25,000 population for the year 1914–15.

States.	Total number of cities in which new kindergartens have been established.	Total number of new kindergartens.	Total number of new children enrolled.
Arizona	3	10	483
Arkansas	0	0	0
California	23	32	1,230
Colorado	1	1	28
Connecticut	3	8	324
Delaware	0	0	0
Florida	2	3	74
Georgia	0	0	0
Idaho	0	0	0
Illinois	3	8	328
Indiana	6	31	1,415
Iowa	17	38	939
Kansas	8	12	316
Kentucky	1	1	50
Louisiana	1	2	40
Maine	0	0	0
Maryland	0	0	0
Massachusetts	0	0	0
Michigan	22	26	595
Minnesota	7	9	244
Mississippi	3	4	164
Missouri	1	2	60
Montana	0	0	0
Nebraska	9	11	320
Nevada	0	0	0
New Hampshire	1	1	50
New Jersey	20	44	1,104
New Mexico	3	4	106
New York	15	26	568
North Carolina	0	0	0
North Dakota	0	0	0
Ohio	4	5	147
Oklahoma	0	0	0
Oregon	0	0	0
Pennsylvania	3	3	152
Rhode Island	0	0	0
South Carolina	2	2	62
South Dakota	1	2	110
Tennessee	1	2	70
Texas	1	2	30
Utah	2	2	21
Vermont	3	3	48
Virginia	0	0	0
Washington	1	1	30
West Virginia	1	1	20
Wisconsin	16	27	348
Wyoming	2	2	70
Total	186	325	9,546

COOPERATING WITH THE COMMUNITY.

The attempt to bring the school into closer touch with the home and the community is meeting with marked success in many of the smaller cities, though only a beginning has been made in the use of community resources as an aid to the schools. Cooperation between school and home has been found necessary from the fact that the schools have been getting out of touch with real life and that children have been taught too much under artificial school conditions and not enough under real life situations. Then again it has been recognized that the schools of a community can not make progress unless parents heartily cooperate with school officials in the attempt to make the schools meet new conditions.

Parent-teacher organizations have proved helpful in bringing home and school into closer relations. The following accounts may be taken as examples of the value of having parents and teachers meet together.

Holland, Mich.—The meeting of the parent-teacher association is held once a month in each building. Matters pertaining to the welfare of children, their health, care of their teeth, their conduct out of school and in school, and their home life are discussed. Physicians, dentists, juvenile judges, and others who are authorities on various subjects are secured to speak at these meetings. The entertainment feature is quite strongly emphasized, the programs consisting of music, exercises by the children, and stereopticon travel talks. A nursery is provided in the building at the time of each meeting so that mothers may bring their children and have them well cared for while they are attending the exercises. Committees from each club visit the sick, take flowers to the sick or to homes where there has been a death, and send cards of congratulation to families where there have been recent births. Visiting committees see to it that those who most need the meetings have personal invitations.

Mount Pleasant, Pa.—A large per cent of the population of Mount Pleasant is foreign born. A parent-teacher association has been organized principally to make school friends of these people. Our programs are shaped to this end. In the first place, we are careful to hold the meetings in the evening, when the fathers can attend. Invitations, signed by the teacher, are sent to each home, These are followed up by the attendance officer, who makes the meeting the object of a house-to-house canvass among the foreigners and negroes for about a week before the meeting.

The program is made up of adults and children, divided about equally in the number of parts taken. At least one adult from the foreign parents is given a place. Then possibly a minister, a teacher or two, or a good business man makes a short address on vital topics affecting the best operation of the schools—regularity of attendance, cooperation of parents with teachers, selection of books for home libraries, the kind of toys to give children, sanitation, food, etc. The teachers are careful to select at least one-half the children from foreign homes for the program.

Following the formal program, which lasts about an hour, light refreshments are served by girls from the upper classes at the expense of the school district. While refreshments are being served the teachers move about among the parents, calling them by name (learned from the attendance officer), reporting

and making friendly inquiry about the children. On tables in the halls are placed written work, drawings, kindergarten material made up, etc., for the inspection of the parents.

The immediate result is a rare good time for these people. The practical results noticeable are: Better attendance and more orderly conduct on the part of their children.

SCHOOL CREDIT FOR HOME WORK.

The movement to give school credit for definte home work is still progressing. A number of high schools now allow one or more units for work done at home, in the store or the shop, under the supervision of the school authorities. The giving of credit for any kind of work that a parent certifies his child has done is not generally considered advisable, though some schools report good results where this plan has been tried. The giving of school credit for some definite home project properly standardized and supervised is recognized as a great aid in bringing the work of the home and the school closer together and of offering an opportunity to pupils to work on some industrial or agricultural project under real conditions. The great problem that superintendents are compelled to solve in this connection is the proper supervision of the work with the funds in hand or securing such supervision without adding any great amount to the annual budget.

Space does not permit presentation of the many different plans of providing for school credit for home work, but the following is cited to show what one of the smaller cities is doing to bring about a closer relation between the school and the industries of the home and the community.

NEWTON, KANS.

First. Sixteen units are required for graduation, at least 15 of which shall be regular credits. One credit may be granted for systematic and definite home credit work as outlined below.

Second. Seventeen units are required for graduation "with credit," two of which may be for home or continuation work; provided, however, that graduation "with credit" will be granted any student who completes but 16 "regular credits" with an average standing of 85 or above.

Third. Eighteen or more units are required for graduation "with honors," three of which may be for home or continuation work; provided, however, that graduation "with honor" will be granted any student who completes but 16 "regular credits" with an average standing of 90 or above.

Credit, as indicated above, will be given for the following outside work when properly certified to:

Regular weekly music lessons, instrumental or voice, under an accredited instructor, one-fourth unit per year for not to exceed four years.

Active membership in any high-school or approved city musical organization, one-fourth unit per year, for not to exceed four years.

Active membership in high-school literary work, consisting of rhetoricals, debate, public speaking, expressive reading, and dramatics: provided, however,

that an extra one-fourth unit's credit will be given in English for the working out, taking part in, and filing with the superintendent a typewritten copy of the speech in any inter-school debate.

Steady work on the farm, in the home, in the store, bank, shop, factory, office, etc., 14 units for three months.

Judging with degree of accuracy different types of horses, cattle, hogs, and chickens, one-fourth unit.

China painting, oil painting, art needlework, or other handicraft, or other home-decoration work with satisfactory exhibit, one-fourth to one unit's credit.

Definite Bible study, one-fourth for each year, provided the applicant for such credit submit a certificate of at least 90 per cent of attendance and take an examination, given or authorized by the school, or submit such other evidence as the school may require.

The superintendent of schools at Chippewa Falls, Wis., reports that he has brought the schools and the home into closer relation by having the pupils write a report each week of everything they have done that pertains to domestic economy, the parents being required to indorse the report. Particular stress is laid upon such points as the ventilation and care of rooms; the preparation of entire meals; and the making of purchasing lists. A statement of results is required and a discussion of these is made during class periods to enable the pupils to understand and correct their mistakes. From 1 to 10 per cent credit, depending upon the amount of work done, is added to the monthly standing. This system is used from the seventh to the twelfth grades, inclusive.

HOME AND SCHOOL GARDENS.

The home and school garden movement has also made considerable progress in the smaller cities during the past year. Especially in the South and the West there is abundant opportunity for the school to cooperate with the home in the cultivation of gardens, the school furnishing the necessary instruction and supervision. Among the many schools that have assisted in introducing home gardening may be mentioned those in Gadsden, Ala.; Rome, Ga.; Asheville, Charlotte, Goldsboro, Hickory, Monroe, Raleigh, and Statesville, N. C.; Bristol, Murfreesboro, Clarksville, and Park City, Tenn.; Darlington, Rockville, and Sumter, S. C.; Alexandria and Bristol, Va.; Charleston, Huntington, and Chester, W. Va.; Lexington and Frankfort, Ky.; Hot Springs, Ark.; Milton, Mass.; New Rochelle, Tarrytown, and Dobbs Ferry, N. Y.

COOPERATIVE COURSES.

No definite data have been collected showing to what extent cooperative industrial courses such as those at Fitchburg, Mass., and York, Pa., have been introduced into the schools of cities of less than 25,000 population, but several cities report such courses. At Westbrook, Me., for example, the city cooperates with the paper mills,

silk mills, and machine shops in maintaining a full-time cooperative school. The course of study meets the requirements of college entrance and at the same time contains two options, paper making and textile work. Instruction in the process of paper making and textiles, study of machines, and other mechanical details is given. Students spend one-half day each week in the mills. This work is supplemented with analytic chemistry, mathematics, history, and physics as applied to these industries. Upon graduation students are taken into the mills if they so elect, or they may enter the University of Maine.

An interesting experiment in cooperation has been made at Montclair, N. J. The superintendent became convinced that cooking in microscopic quantities did not afford the girls an opportunity to work under home conditions. He has attempted to solve the problem in the following way:[1]

> On the day when bread making is scheduled the members of the class are privileged to take orders from the home for a certain number of loaves, to be furnished at the cost of material. The girls thus cook in sufficient quantity to duplicate home conditions. At the same time the work is done at no cost to the department, and best of all there is no waste of good material. Incidentally, the school receives two by-products which are of no inconsiderable value. In the first place, the home is very much interested in the girls' work and the plan tends to establish a very cordial relationship between the school and the home. In the second place, the department is stimulated to do its best.

That the above plan provides real conditions for the domestic-science class is evident from the following facts: Last year one of the school kitchens turned out, in a single day, 120 dozen cookies; 60 dozen doughnuts was another result of the plan. Canning on a practical basis receives considerable attention, 28 quarts of tomatoes and 2 gallons of chopped pickles being representative undertakings. Another phase of the practical work is the cooking and serving of complete meals in the school dining room.

The extension of school work so as to bring the older persons in the home to school is another item of progress that may be noted. At Athens, Ga., for example, there is organized each year a class for cooks actively engaged in service. This class meets twice a week for six or eight weeks. In addition to the instruction furnished by the domestic science department, the services of expert cooks in the city are secured. This course proved so popular that the school board decided to make it a permanent feature of the school system.[2] One hundred and fifty-two were enrolled during the last term.

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[1] The *School News*, March, 1915, p. 7.

[2] See also Ch. XII, Home economics.

WIDER USE OF THE SCHOOL PLANT.[1]

The smaller cities are making great strides in their attempts to educate the whole community by opening the school buildings in the evenings for educational classes and for social and recreational purposes. School buildings are now used as community centers more than they were a year or two ago.

Wisconsin continues to offer interesting instances of this development. In several places in the State steps have already been taken toward employing the school principal as civic and social secretary.[2] The school board of Osseo, Wis., has voted to engage the principal of the schools of that town as civic secretary. The school board at Sauk City, Wis., has reengaged the principal of schools with the specific understanding that he is to act as civic secretary, the servant of the adults and older youth, not as a matter of unauthorized and extra effort, but as a definite part of the service for which he is hired by the community.

Neilsville,[3] Wis., is another city which has inaugurated a civic secretary and organized a community association to cooperate with him. Nine public school principals in Wisconsin have been made village or town clerks, but Neilsville is said to be the first place where the board of education has added to its staff a civic secretary whose full time will be shared by the city in promoting its business, recreational, and municipal work. The inauguration of the civic secretary in Neilsville was the occasion of a great mass meeting. Congratulatory messages were read from many prominent people in the United States, among them Miss Margaret Wilson, who expressed her appreciation of the unique action the people of Neilsville were taking, referring to it as an appointment of unusual importance and significance.

The use of school buildings for community purposes can not proceed very far without a paid director. Even if school boards can not appropriate funds for such purposes, a superintendent who is trying to promote the social-center idea need not fail. Cities that can not employ a civic secretary may well imitate what is being done at Boise, Idaho, and other places which are exemplifying the get-together spirit in promoting evening meetings in the schools. At four schoolhouses in different sections of the city of Boise one entertainment a week is given, these being furnished once a fortnight by a joint committee from the three large women's clubs and in the alternating weeks by the mothers' clubs.

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[1] See Education Bulletin, 1915, No. 28: "Extension of public education," by Clarence Arthur Perry.

[2] See Education Bulletin, 1915, No. 13: "The schoolhouse as the polling place."

[3] The *Playground*, vol. 9, No. 6, p. 205.

At Plainfield, N. J., the use of the school buildings in the evenings is carried on in four different fields: 1. In cooperation with the public library a number of schools are opened once a week as library substations. 2. Two or more buildings are used for free entertainments, lectures, etc., and for evening high school and evening elementary schools. 3. The public are encouraged to use the school buildings for various social purposes, the schoolrooms being furnished to clubs or individuals quite freely at a price to cover expenses of operating. 4. Evening recreation in lines other than educational in the usual sense of the term are offered under the direction and stimulus of two paid secretaries, who devote their whole time, day and evening, to this work. The movement has been under the management of a public recreation committee, who have worked in close cooperation with the superintendent of schools. The funds for the support of the work have come from three sources: A grant from the city council, a grant from the board of education, and fees charged at the various occasions.

The utilization of school buildings for university-extension lectures may be noted in several centers. At Mannington, W. Va., for example, the superintendent of schools arranged with the State university to furnish a series of lectures to the people of Mannington, who subscribed to an expense fund. The lectures were free to the public and were well attended, not only by persons who possessed the advantages of a higher education but by those lacking such advantages. A similar course will be offered this year.

A special questionnaire was sent to the towns and cities of West Virginia by the bureau to ascertain what use the town and city boards are making of the school plant for social-center and recreational purposes. The following tabulation of the replies received no doubt represents what the average small city is doing to bring about a wider use of the school plant:

Bridgeport.—Election and general citizens' meetings.

Bluefield.—Entertainments given by the school.

Belington.—Lyceum lecture course, plays, box parties, lectures, musicals, students' socials.

Cameron.—Literary work and entertainments.

Carbondale.—Religious worship and miners' meetings.

Ceredo.—Social affairs bearing directly or indirectly upon the schools.

Charles Town.—Entertainments, glee club, civic league.

Davis.—Sunday school and community meetings in colored schools.

Chester.—Camera club, literary societies, German club.

East Bank.—Social-center meetings, literary societies, political meetings, entertainments for visiting athletic teams.

Fairmount.—Bible-study classes, use of motion-picture machine by civic and professional organizations.

Gary.—Social-center meetings, lectures, entertainments.

Grafton.—Boy-scout meetings, literary societies, German club, camp-fire meetings, parents' meetings, students' socials, church entertainments.

Huntington.—Parent teachers' meetings, Sunday school occasionally, churches granted temporary use, colored Y. W. C. A. in colored high school.

Harpers Ferry.—Dramatic club, men's club, W. C. T. U. meetings, fire-association meetings, high-school lectures and entertainments.

Keyser.—Civic club, lyceum course, general town meeting, boy scouts.

Littleton.—Social center, lectures.

Mannington.—Sunday school, church societies, lectures.

Martinsburg.—Polling place, public meetings.

Milton.—Boy scouts, socials, debates, farmers' meetings.

Morgantown.—Political meetings, Sunday school, mothers' clubs, social gatherings under auspices of teachers.

Moundsville.—Entertainments by different societies.

New Cumberland.—Odd Fellows meetings on third floor.

New Martinsville.—Lecture course, temperance meetings, political addresses, entertainments by various local clubs.

Oak Hill.—Farmers' meetings, boy scouts, camp-fire girls.

Shepherdstown.—Lectures.

Spencer.—Literary societies, socials, entertainments.

Thomas.—Patrons' meetings, school socials, basket ball, classes for women in domestic science.

Sistersville.—Farmers' meetings, political conventions.

Weston.—Athletics, church, Sunday school, entertainments, luncheons.

RETARDATION.

Though no data have been compiled showing to what extent retardation has been diminished, practically every superintendent reporting says that there is now a smaller percentage of overage children in the grades than there was several years ago. At Fort Smith, Ark., for example, the percentage of overage children has dropped from 37.2 in 1910 to 23.5 in 1914, and the percentage of underage children has risen from 3.6 in 1910 to 8.3 in 1914. The following table shows the percentage of children in each grade above and under normal age in June, 1911, at Boise, Idaho, and the percentage above and under normal age in June, 1915:

Grade.	1	2	3	4	5	6	7	8	Total.
Percentage above normal age, June, 1911	12.6	19.2	32.2	43.1	44.1	45.3	40.4	34.5	32.8
Percentage above normal age, June, 1915	6.2	6.2	7.3	13.9	18.2	17.8	23.1	31.5	18.1
Per cent under age, 1911	.....	8.4	9.0	9.0	9.3	7.7	7.6	8.1	7.8
Per cent under age, 1915	19.7	26.9	31.6	25.2	24.7	25.6	26.2	18.6	23.4

The improvement in the smaller cities is due largely to the fact that (1) superintendents are beginning to study their problems; (2) teachers are giving more attention to the individual pupil, studying his needs and recording necessary facts; (3) there is a more flexible classification, made possible by shorter promotion intervals, as a half-year period, or better still, children in some schools are promoted at

any time; (4) special classes are provided for retarded or exceptionally bright children; and (5) vacation schools of from four to eight weeks are affording an opportunity to children who have failed of promotion in one or two subjects at the close of the school year to pass on these at the beginning of the following term.

That superintendents are making a study of the subject of retardation is evident from the fact that nearly every published report now contains age and grade tables, while formerly no mention was made of age and grade. Some of the reports compare the amount of retardation of this year with the amount two or three years ago, thus showing whether any progress has been made in reducing the percentage of retarded pupils. Superintendents are also studying this problem by requiring reports from principals and teachers of pupils whose promotion is doubtful, thus making it necessary for principals and teachers to study individual pupils.

Though not all of the smaller cities have seriously attacked the problem of the retarded or the especially bright pupil, some schools are doing much to prevent retardation and to help pupils gain a grade or two. The following are some of the plans inaugurated within the past few years in several of the smaller cities:

The pupils at Wausau, Wis., are given a chance under special teachers to make as rapid progress as possible. It was found that the most troublesome cases in the Wausau schools were those children who had much more than average capacity and who had become troublesome because they did not have enough to do. The superintendent discovered that from 30 to 50 pupils in each of the ungraded rooms make an extra half year each semester and some of them an extra year, and that they become better students, acquire industrious habits, and cease to be a disturbing factor in the schools.

In the ungraded rooms there are also placed those pupils who for any cause have been absent for a time, yet have ability to catch up with their grades. As soon as they are prepared to reenter their grades they are taken out of the ungraded room and placed in the grade in which they were before their absence.

A third class of pupils accommodated in the ungraded rooms are those who for any reason are slow or deficient in some one branch.

In Elyria, Ohio, the school board has recently started a school of 20 boys from 14 to 17 years of age who have several times failed of promotion and showed but little prospect of getting into the high school. These boys are given academic work for one half the time under a specially selected teacher; for the other half of their time they are distributed through the various industrial classes of the upper grammar grades with the idea of giving them a chance of finding themselves in some line of industrial work. In many cases the teachers give them individual problems suited to their ability.

At Anderson, Ind., the scheme of promoting through all the grades by subjects has been inaugurated. If a child is unsuccessful in arithmetic, for example, he repeats his arithmetic but goes on in other subjects. In many instances the child repeats the arithmetic and has the various other subjects in the same room under the same teacher. Where this can not be done, at a certain period each day the child is sent to another room where the lower-grade arithmetic is taught.

That unusually capable teachers should be placed in charge of special classes is evident, but in many of the smaller cities school boards have not been willing to appropriate funds for special classes. Some superintendents have worked out plans to help the retarded pupils without any additional expense to the city. These are no doubt only a step toward special classes under specially trained teachers. The superintendent of schools at Jamestown, N. Dak., reports a plan that may commend itself to those superintendents who are trying to perfect some scheme that does not involve additional expense to the city. He says:

> While considering the problem of the slow pupil and trying to find some plan which did not involve expense, and which was feasible in a small school, I hit upon the following scheme: I found out how many girls in the junior high school class intended to teach in rural schools when they received their high-school diploma. I then arranged to give these girls a course in psychology and pedagogy in the following way: A suitable textbook for the first was selected, then when this work was completed each girl was given practice-teaching experience in the rooms of regular teachers in the grades. These teachers were told that these girls were not to be treated as visitors but were to be given a chance to observe and then were to be given such tasks as preparing seat work, marking spelling papers, giving extra time and special assistance to slow pupils, dull pupils, or those who had lost ground through absence. These girls were required to spend one or two periods each day in a given room for an interval of two to four weeks, and then they passed on to some other teacher for similar work. The girls were given credit on their high-school course for this work in the same amount which they would have received if they had pursued a regular textbook course. I found that retardation was reduced in a marked degree through this plan and that the student teachers received very valuable training and were able to get a much better salary when they went out to teach themselves than those girls who lacked this training. It also had the effect of helping some of these girls decide whether they really wanted to engage in teaching or not. It also relieved the situation where it was necessary to give a teacher too many pupils. More recently I have tried the same plan at Jamestown, N. Dak., and it works well, and has saved the city the expense of at least one extra teacher this year, because we have a class of sufficient size so that we can assign several girls to a given teacher, each one at a different period of the day. The children soon become accustomed to the situation and do not seem to mind it at all.
>
> At the present time 39 pupils, after being given the Binet-Simon test, have been grouped in two sections. In one are the feeble-minded and in the other those who, for reasons like absence, temporary ill health, discouragement, or wasted will power are below grade. The groups have separate rooms and are

in charge of teachers especially competent for this particular work. The children are, in the main, either of Irish or Italian nationality or of the Negro race and vary in age between 10 and 15 years and between the first and seventh in grade.

The course of study arranged for them embraces the essentials of arithmetic, English, geography, spelling, physiology, and history taught in the corresponding grades of the primary and grammar school. The pupils enter the general contests and examinations given throughout the school, and when strong enough normal pupils are encouraged to return to the regular grades. Effort is continually made to unite both book and handwork subjects so firmly that sewing and woodwork are, plus much review, the arithmetic, while cooking and agriculture furnish the thought content for English.

SCHOOL SAVINGS BANKS.

During the past few years the smaller cities especially have been active in the matter of establishing school savings banks. In Connecticut, for example, 26 such cities have within the last year organized banks. Of the total number of school savings banks in the United States 75 per cent are in the smaller cities.

What the schools at Conway, Ark., are doing to train pupils to thrift habits and business methods is worthy of note. The plan is described by the superintendent, as follows:

Beginning some months in advance, we talked over the advisability of establishing early in life the saving habit. Next we secured from the attorney general and from the State bank commission rulings to the effect that the proposed institution would not come under banking laws. Then we had a full line of bank stationery printed, the line including checks, pass books, deposit slips, identification cards, and last, but not least, beautiful lithographed stock certificates. Two loose-leaf ledgers, an iron box, and a converted cloakroom for the bank completed the equipment.

On a day advertised a week in advance we began the sale of stock. No one except pupils, teachers, and members of the school board were allowed to buy. Only one share was sold to any person. At the close of the sale we had sold 82 shares and had $82 in our strong box.

As soon as the stock certificates could be filled out and delivered the stockholders met and elected a board of directors for the school year. By direction of the superintendent the stockholders elected three directors, the president and the secretary of the school board, the superintendent and the teacher of the business department of the high school being ex officio directors. It was also ruled in advance that the said teacher of the business department should be ex officio president of the bank.

Immediately after the adjournment of the stockholders' meeting the directors organized and elected a cashier to serve one month. It was arranged to hold the monthly meetings one week before the close of the month, so that the newly elected cashier should work a week with the outgoing cashier and learn the work. The work was too heavy for one to do in the short time allowed (30 minutes a day), and we elected the cashier for two months. He served one month as assistant and the second as chief.

The president appointed his committees—one to audit the books at the end of each cashier's term, one to buy supplies for the sales department, and one to look after investments, loans, etc. The last-named committee, as its first

task, arranged with one of the local banks to place our funds from day to day. For the use of our money while in this depository we get 4 per cent interest on the average daily balance. The account is kept as an individual account to save the bank extra bookkeeping. It is understood that the local banks will all be used as depository in turn.

MISCELLANEOUS ITEMS.

In response to an inquiry by the Commissioner of Education, superintendents in the smaller cities sent interesting statements of progress. The following items are selected to show the general trend:

El Dorado, Ark.—Farm demonstration and canning club work.

Alhambra, Cal.—The development from a small academic high school to a large polytechnic high school with about 500 students; the introduction of health inspection, manual training, cooking, sewing, etc.

Bakersfield, Cal.—The establishment of seven kindergartens.

Evanston, Ill.—A wider use of the school plant. Each building has been opened three nights a week and on certain Sundays. Classes in physical culture and social dancing are held after school hours.

Streator, Ill.—The organization of a room for defective children. This school is in a house entirely apart from any other school activities. The girls are learning to cook, to prepare lunches, and to keep house. The boys have been engaged for a considerable part of their time this year in redressing old furniture for use in the home.

Madison, Ind.—The establishment of a special school for children who are behind because of economic or social conditions. It has been found that there are a great many children in Madison who are bright and capable, and yet because of lack of encouragement at home or lack of ideals or poverty, are behind two or more years in their school work. As a class they have no interest in school work, their attendance is poor, and because of their dislike for school they are troublesome to the teachers. The experience so far with the special school indicates that it is possible to give such children a renewed ambition to succeed and to get from them a special amount of effort.

Muncie, Ind.—The erection of an industrial and vocational high school at a cost of $300,000. The organization of junior and senior high schools. Extension of industrial and manual training work, introduction of vocational and physical culture courses.

Keokuk, Iowa.—The introduction of standard tests to bring about a more definite standard of efficiency; the introduction of kindergartens, organized play, and supervised playgrounds.

Parsons, Kans.—Improved salary schedule for teachers and the recognition that teachers must be elected and retained wholly on their merits; the introduction of manual training and domestic science in the elementary schools; the abolition of all formal examinations in the elementary and the high school.

Ithaca, N. Y.—The organization of distinct vocational classes both in the day and the night school and the segregation of the worst cases of retarded pupils. Emphasis has been placed on the night school and summer session. The beginning of the 6–3–3 plan; physical instruction has been begun in all elementary and grammar grades.

Ironwood, Mich.—In former years teachers from the ranks were appointed as supervisors of special subjects. This year specially trained teachers have been appointed as supervisors.

Solvay, N. Y.—The differentiation of curriculum to meet individual needs of pupils, socialization of the school, establishment of the junior high school, the reorganization of the commercial course, great reduction of retardation and elimination.

Salem, Ohio.—Cooperation of home and school through teachers visiting homes of all children, parents' meetings in school buildings, election of a school nurse to examine children and to visit the homes in the interest of better health.

Mitchell, S. Dak.—The introduction of "opportunity work." The duty of the "opportunity" teachers is to look after the slow child, the exceptionally bright child, and the child who is not doing his best.

Anderson, S. C.—The taking over of the cotton-mill schools on the outskirts of the city into the city system.

Spartanburg, S. C.—The adoption of compulsory attendance. (In South Carolina the compulsory-attendance law recently enacted is a local option one.) Though the law has been in operation only a few weeks, opposition is practically dead.

Brigham City, Utah.—The elimination of nonessentials in the traditional course of study and the introduction and extension of practical work, such as potato, beet, tomato, onion, and corn culture, poultry and hog raising, and other farm activities.

Danville, Va.—The establishment of an open-air school, a summer-vacation school, the purchase of 10½ acres for a grammar school and for public playgrounds.

Stoughton, Wis.—Home-project gardens, supervision of play during the summer vacation, organization of a junior high school, pupils in the seventh grade whose average was 85 or above were allowed to take some eighth grade work and enter the high school at the end of the year. Of 120 in the first-year high school 30 had skipped the eighth grade and did the best work by far.

Plymouth, Wis.—The employment of an instructor in agriculture during the summer months to supervise work done by the boys on their own home farms, also to supervise work done on city lots by city boys.

Two Rivers, Wis.—Reorganization upon the six-six plan. Prior to this many students stopped at the eighth grade, now practically all are retained until the end of the tenth year.

Roslyn, Wash.—The establishment of free night schools.

CHAPTER IV.

RURAL EDUCATION.

By H. W. Foght, *Specialist in Rural School Practice, in collaboration with* A. C. Monahan, *Specialist in Rural School Administration, and* J. L. McBrien, *School Extension Agent.*

Contents.—Introductory statement—Progress in the administration and supervision of rural schools—Consolidation—Preparation of rural school teachers: In normal schools; in secondary schools; training teachers in service; relation of salaries to preparation and length of tenure—Standardizing the one-teacher rural school—Rural high schools—Progress in rural school extension—The division of rural education in the Bureau of Education.

INTRODUCTORY STATEMENT.

The year 1914–15 has shown marked progress in a number of lines of work in rural education. These have been, in the main, a continuation of plans for the reorganization and improvement in school conditions begun prior to the present year. Certain definite school policies and educational standards have by this time been accepted by educators for rural school reorganization that are bound to be of great value in unifying the many experiments now in progress to improve rural school conditions. In this work of unifying educational effort, the rural school division of the Bureau of Education has found an important field of activity.

The discussion in the present chapter naturally falls under the heads of administration, school practice, and school extension work and coincides roughly with the work of the three subdivisions of the rural division of the bureau.

PROGRESS IN THE ADMINISTRATION AND SUPERVISION OF RURAL SCHOOLS.

Administration.—Many serious attempts were made by State educational authorities in the 40 States whose legislatures met during the past year to secure legislation providing for important changes in the administration of rural schools. In all cases the movements were either for strengthened State and county departments of education or for the adoption of larger units of local control or for both. A reorganization of State boards of education or of State departments was attempted in 7 States; in 2 only were important changes made. The abandonment of the local "district" unit system for either the township or the county system, or the abandonment of a

system where the management was divided between local district authorities and county authorities for the county system, was attempted in 16 States; in four instances the attempt was successful. Included in this number are only those attempts which received serious consideration and strong support.

These attempts are worthy of note, because they serve to indicate the trend in rural administration. They seem to indicate that there is strong sentiment in favor of the State as a unit in education, with a State system headed by a State department of sufficient strength to direct and unify the educational development in the State, and intrusted with the control of sufficient funds to insure equally good educational opportunities in all portions of the State; also in favor of a local unit of administration and support large enough to secure efficiency and economy in management, and a distribution of the benefits of corporate and other wealth concentrated in small areas over other territory where it may be needed. The discussion created in the legislatures and elsewhere by these proposed measures has done much to spread information about more efficient school management.

The two States in which the organization of the State departments have been changed are Tennessee and Vermont.

Tennessee has now, for administrative purposes, a system that permits rapid progress in rural-school development. Its general plan of administration includes a State board of education, appointed by the governor, charged with the general administration of school affairs, acting through the State superintendent, who is appointed by the board. Each county has its county board of education, elected by the people and having control of all schools in the county except those in independent city districts. The county superintendents are appointed by the county courts.

Vermont has substituted for its old State board of education, appointed by the governor with the consent of the senate, a new board of five members appointed by the governor for five-year terms, and given definite and large functions concerning the general administration of the schools of the State. This board appoints the State commissioner of education, fixes his term and his salary, appoints State supervisors as assistants to the State commissioner, and appoints the school superintendents for the union superintendency districts of the State, in which are included all towns and townships in the State with less than 25 schools. This means that under the new law all school superintendents in the State with but 10 or 12 exceptions are appointed by the State board rather than by local authorities, as in the past. Each town (township) remains a unit in organization and management as before. The State course of

study, however, must be followed in all schools, and all teachers must be certified and approved by the State, and the State board is authorized to enforce these two provisions of the law.

In Alabama, one of the States without a State board of education, an attempt was made to provide one. It was proposed that a board should be appointed by the governor, with the approval of the senate, which would act in an advisory capacity to the present State superintendent of public instruction and the State department of education, and which would replace several independent boards. The bill met with favorable reception and was reported unanimously out of both the senate and the house committee on education. Little serious attempt was made, however, to secure the passage of the bill through either the house or senate on account of other important school measures before these bodies.

In North Dakota an attempt was made to replace the existing board by a smaller board appointed by the governor. The present board consists of nine persons—the president of the State university, the president of the State agricultural college, the State superintendent of public instruction, the State inspector of graded and rural schools, the State high school inspector, all ex officio; one normal school president, one industrial school president, one county superintendent, and one male citizen of the State not connected with the educational system. These four are appointed by the governor. The proposed board would contain no ex officio members whatever, but would provide a nonpolitical board and one not necessarily made up of education officers. This is in keeping with the general tendency.

The 1915 Legislature of Wisconsin passed a "State board of education bill" providing a board whose function is to have "complete control of all the finances of all the educational activities" of the State. In Illinois the legislature was asked to create a State department of education under the general supervision of a State board of education.

The Legislature of Oregon was asked to reorganize the State board of education, which now consists of three ex officio State officers—the governor, secretary of state, and superintendent of public instruction—and to confer upon the new State board additional functions.

It was proposed in South Dakota, where there is no State board of education at the present time, to create one to consist of the superintendent of public instruction, the president of the State college of agriculture and mechanic arts, and four persons appointed by the governor, two of whom would be presidents of State normal schools, one a superintendent or principal of a city or town school, and one a county superintendent.

In connection with this movement on the part of these States and others in recent years, it is worthy of note that while several States without State boards of education at the present time, or with State boards composed of ex officio State officers, are proposing boards made up wholly or in part of ex officio educational officers, that other States which have had boards made up of ex officio educational officers have given up or are proposing to give up such boards and to substitute boards composed of citizens of the States selected by the governors without reference to whether they are engaged in educational work or not. In several instances States have specified that all or a majority of the board must be persons not engaged in educational work.

At least 12 States now organized on the district-unit basis made serious attempts to change their systems of local management to the county-unit basis, and one (New York) to the township-unit basis. Alabama and Texas, two States which already had a county or a semicounty system, passed laws providing for a more centralized county system. Utah, with the county system in part of the State, has applied its county law to all counties. New Mexico has adopted the county unit of taxation but not of administration.

Alabama has had a county system of administration since 1903. The counties were divided into single school districts and three trustees were elected in each district. The county board of education consisted of the county superintendent, who was elected by the people for four years, and four others elected for four years by the chairmen of the school district trustees. The system had several weaknesses which it is hoped the new law will eliminate. Under it the single school districts were necessarily fixed territories and changes in boundary lines and consolidation of small districts into large districts were practically impossible. Furthermore, the county boards were largely influenced in their actions by the wishes of the chairmen of the district boards who appointed them, and consequently did not exercise the full authority of a county board. Another weakness of the system was that all members of the board, including the county superintendent, came into office and retired at the same time. Under the new law the board is composed of five members serving for six years, with not more than one-third of the terms expiring each biennium. The board is elected directly by the people. The county superintendents, at the expiration of the terms for which those now in office were elected, will be appointed by the county boards instead of elected by the people. They will be required to give their entire time to the work; their salaries will be fixed by the boards employing them. The boards will select all supervisors and teachers on the recommendation of the county superintendent. The new law in effect adopts for all counties in the State the system

under which Mobile County by special legislation has been organized for several years. The principal changes brought about by the new law are given below. The first election of county board members will take place in November, 1916.

ALABAMA.

COUNTY BOARD OF EDUCATION.

Old.	*New.*
PERSONNEL.	
Five members, four elected by the chairmen of the district trustees, the county superintendent being the fifth member.	Five members elected from the county at large by the voters of the county, both men and women being eligible.
QUALIFICATIONS.	
Qualified elector of the county.	Good moral character. At least a fair elementary education, of good standing in their respective communities, and known for their honesty, business ability, public spiritedness, and interested in the good of public education.
TERM OF OFFICE.	
For four years, the terms being contemporaneous.	Six years; one or two members retiring at the end of each two-year period.

GENERAL DUTIES.

To control the public schools of the county outside of the incorporated cities and towns, except as otherwise provided by law, to make rules and regulations for the government of the schools, to acquire, purchase, lease, and sell property for school purposes, except as otherwise provided, to sue and contract.

SPECIFIC DUTIES.

To employ teachers nominated by the district trustees; to elect a county treasurer of public school funds; to employ assistants to the county superintendent of education; to control public school funds as provided by law.	(a) To select a county superintendent of education and fix his salary. (b) To elect a county treasurer of public school funds. (c) To elect a successor of any member whose place becomes vacant by death, resignation, or otherwise, for the unexpired term. (d) To select, upon nomination of the county superintendent of education, teachers, assistant superintendents, supervisors, office assistants, and fix their salaries. (e) To erect, repair, and furnish schoolhouses, fix wages of employees, and determine incidental expenses.

Old.	*New.*
	(f) To consolidate schools and transport pupils at public expense; to authorize children in one county to attend school in another, or children in the country to attend school in the city, and vice versa, for sufficient cause.
	(g) To control public school funds as provided by law.
	(h) To appoint one or more trustees for each school.
	(i) To enforce compulsory attendance as required by law.
	(j) To dismiss the county superintendent or any other employee for cause.
	(k) To make a school census.
REMUNERATION.	
Two dollars a day for each day's work for not more than 10 days in any one year.	Actual traveling and hotel expenses in attending the meetings of the board for not more than twelve meetings in any one year.
SALARY OF COUNTY SUPERINTENDENT.	
Four per centum of funds disbursed not to exceed $1,800 from State funds per annum, or salary of not less than $1,000 a year.	Salary of not less than $1,000 a year.

Another important measure passed by the Alabama Legislature, providing for an election on a constitutional amendment, tends also to strengthen the county system of administration. This action is relative to the support of the schools of the State.

Under the present law, which has been in effect for many years, the source of the principal support for the public schools is the State. The State fund is distributed to the various counties on the basis of school population and is expended by the county boards of education in such a way as to provide as nearly as practicable school terms of equal duration in all parts of the county, first apportioning to independent city districts their school population per capita share. This fund the counties, by a constitutional provision, may supplement by a local county tax, the maximum being 10 cents on $100 assessed valuation, but only on a three-fifths vote of the qualified electors of the county. Out of the 67 counties in the State only 46 have voted the local county tax; the others expend no money on their schools except that received from the State. There is no provision for any tax districts smaller than the county. Sentiment in the State for a constitutional amendment permitting a county tax greater than 10 cents on the $100 has been crystallizing for several

years, and there has been considerable agitation for a provision for local tax districts. The 1915 legislature has provided for an amendment to be voted upon in the fall of 1915. If it passes, it will provide that a county may tax itself for school purposes a maximum of 50 cents on the $100, and also that in counties levying a county school tax of at least 30 cents on the $100 local districts whose boundaries have been fixed and approved by the county board of education may, with the approval of the county board, tax themselves an additional 30 cents to be expended in the district for purposes also approved by the county board.

Texas has been organized for the management of rural schools under a semicounty system. Each county has been divided into local districts, which formerly had the entire control of the schools. For high-school purposes a board of "county school trustees" was provided several years ago, and to this board were given several functions besides the management of the high schools. It was expected to classify all schools in the county as "primary, intermediate, and high schools," and prescribe the course of study for all of these schools. In its classifications it was authorized to limit the number of grades in any school, to establish consolidated schools with high-school departments with the consent of the district trustees, and to apportion the State and county school funds. The 1915 legislature has passed a law which will go into effect in 1916 under the name of the "Rural-school law." This puts the general management and control of all the public free schools of each county in the hands of the county school trustees, who are elected by the people. The new board of county school trustees has all the powers and duties of the old board and, in addition, prescribes, in cooperation with the county superintendent, the course of study for all schools in the county; exercises the authority heretofore vested in the county commissioners with respect to subdividing the county into school districts, as well as the authority to consolidate school districts into larger districts; and to apportion, as prescribed by law, the school moneys to the various schools in the county. The county superintendent is made by law the secretary and executive officer of the county school trustees.

Utah, in 1905, provided an optional county organization for administration in counties with 2,500 school population or over. Eight counties adopted this plan, practically all that could do so under the law. The 1915 legislature has made the county-unit law mandatory for all counties in the State.

New Mexico has adopted the county as the unit of taxation, but not as a unit of administration. Under this law, school directors of rural school districts, on or before the 1st day of May of each year, must submit to their county superintendent an estimate of the

amount of funds necessary for conducting the schools for the following year. After approval by the county superintendents, the estimate will be sent to the county board of commissioners. The boards of education of municipal school districts are required to send similar estimates direct to the county commissioners. The county commissioners are required to levy a tax upon all taxable property of the county sufficient to produce funds to support and maintain schools in municipal districts and rural districts employing at least four teachers for nine months, and to support and maintain schools in other rural districts for at least seven months. No district may expend more than $60 per month for instructional purposes for each teacher holding a third-grade certificate, more than $75 per month for each teacher holding a second-grade certificate, nor more than $90 per month for each teacher holding a first-grade or higher certificate. No rural school district shall be entitled to apportionment for more than one teacher for each 50 children or fraction thereof. Money for the purchase of land and the erection and repair of school buildings is to be raised by taxes in the local districts as heretofore.

Nebraska has provided for the county unit of organization in the support and administration of the schools in counties of less than 7,000 population upon majority vote in favor of the county unit in the various counties. There are 27 counties in the State to which this law may be applied. The Nebraska State school code commission, provided by the legislature of 1913 and appointed by the governor, recommended an optional county-unit law for the entire State. The proposed law met with such violent opposition that it seemed impossible to secure its passage and it was amended to apply only as stated above. The school code commission presented several other recommendations that would have affected rural school administration, but none of them were adopted.

Among the other States in which attempts were made to secure a larger unit of organization for the administration of rural schools than now exists were New York, Colorado, Minnesota, Missouri, Montana, Oklahoma, and Oregon.

The Oklahoma attempt consisted of a measure before the State legislature, urged by the State superintendent of public instruction, for an optional county system which might be adopted by any county on majority vote and would give to a county board of education the control and management of all schools in the county except those in independent city districts. The legislature of Oregon was asked to pass an optional county-unit bill similar to the Oklahoma bill, but one which would give to the county board authority to appoint the county superintendent. This could not be done in Oklahoma without a constitutional amendment. Montana's county-unit bill, defeated in the legislature by one vote, would have provided for the State a county system very similar to that of Utah.

The county-unit bill of Colorado, before the legislature in 1915 for the second time, seemed to meet with the general approval of the educational forces of the State. It was concerned almost wholly with the administrative unit, as the State now has a 4-mill county tax. The opposition, however, proved too strong to secure its passage. The State teachers' association has already begun a campaign of education preparatory to the introduction of the same measure in the 1917 legislature.

The State school code commission of Minnesota reported in favor of the adoption of the county unit, but did not ask for legislation, because the sentiment against it in the legislature seemed too great to overcome. For the same reason the county unit bill proposed and prepared by the State teachers' association of Missouri was withheld from the legislature, and an educational movement was started to create sentiment throughout the State in its favor, with the hope of having the bill passed by the legislature in 1917.

In New York a bill was introduced into the legislature providing for the adoption of the township unit of administration, with a township board of education to have jurisdiction of all schools in the township except those in union free districts with 5,000 population or more, and employing a superintendent of schools. The board would consist of seven members elected by the people for three-year terms and would have all the powers and duties now conferred upon city boards of education or trustees of rural school districts relative to locating school houses, erecting buildings, assigning children to the various schools, appointing teachers, etc. The schools of the township would be supported by a township tax. The township system would probably be a very satisfactory organization for New York, as the New York township in civil functions is similar to the New England township, which has proved for New England to be a conspicuously successful unit of administration in school affairs. The bill before the New York Legislature for the township system was prepared and urged by the State department of education. The State commissioner addressed to the State legislature a circular, in which he called attention to the necessity for legislation making possible the betterment of rural school conditions, pointing out that there were in the State 8,430 one-room schools, in almost half of which the average daily attendance was 10 or less. The State contributes from $125 to $200 to each of these schools, whatever the average attendance may be, and it has therefore a concern in the economic aspect of the problem. He called the legislature's attention to the fact that the district property valuation, basis for the support of schools in about one-half of the one-room schools is less than $40,000; that is, a valuation which at 1 per cent would yield a maximum of $400 for school purposes; also that 1,300 of these dis-

tricts have a valuation of $20,000 or less, and 27 a valuation of less than $5,000. He proposed two remedies; first, the consolidation of districts and transportation of pupils where necessary; and second, the creation of a larger local unit of taxation, and consequently of administration. In regard to these two measures Dr. Finley has the following to say:

As to the first (1), voluntary consolidation has proceeded slowly. In recent years the legislature has sought to encourage the movement and has authorized consolidation by district superintendents; but, while the educational results promise to be wholesome, even under this plan progress is made only in spots and with difficulty. If there could be a redistricting of the entire State for school purposes, taking natural and social centers as the school centers, the problem, I believe, would in that way be most successfully solved; but it would be a task requiring not only closest sympathetic study of local conditions and tendencies (a prodigious labor in itself), but the highest and most courageous intelligence and judgment that the State could command.

The present district boundaries were many of them determined by economic and social and physical conditions which existed more than 50 years ago. (The districting was authorized under an act of 1812.) These conditions have been changed, not only by movements above referred to, but also by facilities of communication and transportation, and in many cases have been so changed as to give no reason for the continuance of these boundaries, except the convenience of a few and a sentiment (most worthy in itself) which attaches to a school that has cherished associations. Consolidation is a method of making readjustments slowly and, chiefly, in extreme cases, to changed conditions. Arbitrary redistricting by the department or by a commission of the State would be a means of swift readjustment. The first is practicable but slow; the second is ideal but also remote.

There remains one other course: (2) That of widening the local area of taxation and administration, so that the burden may be more equitably distributed and a better school provision more generally maintained without diminishing local initiative or responsibility or increasing State provision or control. The so-called "township bill" is intended to call the attention of the legislature to this alternative plan. While the township system is in vogue in all the States immediately surrounding New York State, and while it has been for years discussed in reports and in meetings of school teachers and officers, it has not recently, at any rate, been brought effectively to the attention of the people as a whole.

Even if, as is probable, your honorable body will not find itself ready to act favorably upon such a proposed plan this year, its presentation will at any rate invite your serious thought, and will through you reach the thousands of districts in the State which you represent, and there compel attention and have serious discussion. This department has no desire to impose a system from above, even if it could; but it is under compulsion to urge upon your careful and courageous thought what it believes to be for the good of the schools of the State, that there may come a united effort, and sacrifice if necessary, for their improvement where it is most needful.

Just as the schools of our cities are now managed as a whole by the several cities, it should be possible, without in any way impairing local initiative, interest, or pride, to plan for each township as a whole, to make each school a more vital force in the larger area and to relate it more closely to the daily life of the community which it serves.

While the movement in all of the States mentioned above, except New York, is toward the county as a unit of local control, in Wisconsin there has been a reaction and legislation in the other direction. A semicounty system was provided for the State by legislation in 1913; the law providing it was repealed by the 1915 legislature before the system had had a reasonable trial. This action can not be taken as an indication that the county plan adopted by Wisconsin was a failure, for it came before the system provided by the 1913 law was in full operation and before the parts in operation had been tested. The system adopted was far from the ideal and many of the provisions of the law providing it were very indefinite; however, these facts had little to do with its repeal.

The "county board of education bill," as it was called in Wisconsin, was passed in August, 1913, after a long fight. As passed, it contained but few of the provisions of the original county bill presented to the legislature. It provided for an elected board of five members in each county, the first election to be held on the first Tuesday in April, 1914 (April 7). The newly elected boards were required to meet and organize on May 5 (1914), on which date they were to assume the powers and duties conferred upon them by the law, with a few important exceptions. Each board, for instance, was given power to fix the salaries of the county superintendent and his assistants and to audit the accounts of the superintendent's office. This function, however, it could not exercise till the expiration of the terms for which the superintendent then in office was elected. The terms of the superintendents ended in July, 1915. The law was repealed before this date. The principal duties given the county boards of education were the general oversight of the work of the county superintendents, fixing their salaries and appointing and fixing the salaries of their assistants, also the power to change district lines and to consolidate schools. The immediate management and control of the schools rested with the local district trustees as before.

The law repealing the "county board of education bill" provides a "county committee on common schools," composed of three persons appointed by the county board of supervisors. The function of these committees is to appoint for their counties special county supervisory teachers as assistants to the county superintendents. For every county of 60 or less teachers one supervisor is required; larger counties must have two. The committees have no other functions.

Three States have made provision for extensive inquiries into their public-school systems with a view of ascertaining how the administration of rural schools may be improved. Washington State has created a commission to study the management of the public-school system of the State, to be composed of one man from the senate, one

from the attorney general's office, one from the bureau of inspection, and the State superintendent of public instruction. Utah has created a commission known as the "Educational code commission," consisting of the State superintendent, the attorney general, and three members appointed by the governor, to make a study of the organization of the present public-school system, investigate the present needs of the State as to educational organization, and report with recommendations for the reconstruction and codification of the school laws of the State, particularly in regard to schools outside of the cities of the first and second class. The sum of $500 was appropriated for expenses. Wyoming appropriated $1,500 to pay the expenses of a State school-code commission of five persons, including the State superintendent and four others appointed by the governor. The members appointed by the governor include the principal of the State normal school, a county superintendent of schools, a high-school principal, and a ranchman. This commission is making a study of the rural-school situation of the State and will report with recommendations concerning methods of betterment of the situation.

Supervision.—The action of the legislatures in several States is evidence that the need for more expert supervision of rural schools is becoming generally recognized, and that there is a growing appreciation that effective supervision, as a rule, can be given only by men and women with professional training and chosen for their fitness for the work rather than for other considerations. The movement to make school officers, both State superintendents and county superintendents, appointive rather than elective is going forward. One of the greatest difficulties seems to be that both State superintendents of public instruction and county superintendents of schools in many States, particularly in those west of the Mississippi River, are constitutional officers and must continue to be elected with other political officers until constitutional amendments can be adopted in the various States. Up to the present rural-school superintendents in 20 States have been appointed by State departments of education or by the local boards of education to which they are responsible. Alabama and Utah are now added to this list. Alabama, as mentioned above, made provision for the appointment of the county superintendents by the county boards of education instead of by election by the people. Utah, by making the county-unit law mandatory for all counties, makes all county superintendents in the State appointed officers, the appointment being made by county boards.

Actual bills to provide for the appointment of the county superintendents, either directly in States where the legislature has final power, or indirectly through a constitutional amendment where an amendment is necessary, were before seven other legislatures—Ne-

braska, North Dakota, Montana, Oregon, Texas, Nevada, and California. The Texas bill passed the senate but failed in the house.

In regard to the elective *versus* the appointive educational officers, David Snedden, State commissioner of education of Massachusetts, recently declared:[1]

> In almost every State in the Union the question of the elective versus the appointive system of selecting public servants is under discussion. Formerly the attempt was made to elect an official for every possible function. Gradually this has been abandoned in progressive communities, except as regards those representatives of the people, like legislators and such chief executives as Presidents, governors, and mayors, who are expected to reflect popular demands and to give voice to popular policies.
>
> It is proper that we should have the popular election of lay boards in education. It is doubtful if the popular election of officials responsible for administration and directive duties can be defended any longer. But in many States we still elect, by popular vote, the chief educational executive. It is also common to find the chief county educational executive chosen by popular vote. It can not be denied that this system of selection from time to time brings to the front men of rare ability, and also that their services are recognized and rewarded by a relatively long tenure.
>
> Nevertheless, the time has come when, throughout the country, educators should go on record more definitely than has hitherto been the case as to the fundamental soundness of the system of popular election for educational executives. We must seriously examine not only the effects of this system as these are manifested in the work done in States and counties, but also as to the effects of the system on the development of a thoroughly professional point of view on the part of those qualified for educational leadership. Any system that does not bring to the front, in an administrative capacity, those who by nature and training are best suited for such work, and which does not retain such persons in service as long as their accumulated experience makes them available, is bound to be faulty. It should, of course, be recognized that, up to a certain level, a system of popular election may work fairly well, and yet utterly break down beyond. Few people now would argue that an engineer or a superintendent of a water-supply system should be chosen by popular vote. It ought to be equally difficult to argue that an expert educational administrator should be chosen any more than an architect or accountant.
>
> In American cities it would seem that educational administration is now organized along substantially right lines. The lay board, representative of the public, is the final source of authority. This lay board appoints its chief executive, and holds itself ready to scrutinize his policies and to pass judgment upon the results of his work. Under the chief executive are found, in various stages of service down to the rank and file of teachers, other executives, nominated by the superintendent and communicating through him to the board of education. A system analogous to this must be developed if county and State supervision are to rise to the new level of responsibilities now confronting them. We must make a career for the county superintendent no less dignified and important—and enduring—than that of the city superintendent.
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> This is one of the large problems confronting educational administration in America. It must become definitely professional. It can not become professional as long as the methods of selecting State and county executives are what they are at present.

[1] *Educational administration and supervision*, January, 1915.

The action of the Wisconsin Legislature has already been mentioned. Oregon, after three years' experience with its supervision law, has amended it so that it becomes optional in each county instead of mandatory, remaining in force in each county, however, until voted out. The original act was passed in 1911. Under its provisions, in every county with 60 or more teachers the county superintendent was required to appoint a county board of education which divided the county in supervisory districts of 60 teachers each and appointed a supervisor for each district so formed.

Indiana, under the vocational education act of 1913, has accomplished a great deal in the introduction of practical arts subjects in the schools. This was possible through the employment of 116 special township and county supervisors for practical arts subjects, 34 for agriculture, 59 for domestic science, and 23 for industrial arts. Of the total number, 46 were county supervisors.

In several States measures were passed providing increased rural supervision. The action of Vermont in providing for increased supervision and for the appointment of all rural superintendents by the State board of education, instead of by local authorities, has already been mentioned. The school code of Pennsylvania, adopted in 1911, provided for assistant county superintendents to be paid from State funds. None, however, had been appointed until the present year, because the legislature made no appropriation for their salaries. This the 1915 legislature has done, and assistants have now been appointed in accordance with the law. The law provides that every county superintendent with more than 200 teachers under his supervision shall have one assistant; with more than 400 teachers, two assistants; with more than 600 teachers and less than 800, three assistants; and for every additional 400 teachers or fraction thereof, an additional assistant. These assistants must be nominated by the county superintendent and confirmed by a majority vote of the five officers of the "directors' association" of the county; that is, the five officers of an association which includes all township school directors of the county. These assistants must be able to present the same qualifications as are required for county superintendents. The salaries paid are fixed by the directors' convention. The minimum, $1,200, is paid out of the State appropriation.

CONSOLIDATION.

Special State aid to stimulate consolidation was granted in several additional States during the year. Nebraska was one of the States which provided such aid in 1915, and the State superintendent reports that 300 new schools of the consolidated or cooperative and rural high-school types were to be ready for opening in September, 1915.

Missouri reports 175 consolidated schools to which 7,000 children are transported in 400 wagons, and 200 other consolidated schools without transportation.

North Dakota reports 333 consolidated schools, 205 of which are in towns and 128 in open country. This is an increase of 60 during the past year. The records of the State inspector of rural schools show that the proportion of pupils enrolled in the eighth grade in the consolidated schools of the State is twice as great as in the eighth grades of the other rural schools; also that on account of these consolidated schools the high-school enrollment of country children has increased over threefold in the past four years. Consolidation in North Dakota has been stimulated by the vigorous educational campaign conducted by the State department.

Indiana reports that in 1914 there were 665 consolidated schools in 71 of the 92 counties in the State, attended by 73,404 children, or 35.9 per cent of all the pupils attending rural schools; 26,403 children were transported at an expense to the public of $491,265. This is approximately 36 per cent of the children attending the consolidated schools. A recent study of the consolidated schools in Indiana by the State department of education reveals certain evidences that better educational opportunities are presented in the consolidated schools than in other rural schools; for instance, that better teachers are provided is indicated by the fact that the average daily wages paid in consolidated schools are $3.37, as compared with $2.76 in other rural schools. In spite of this greatly increased salary, the cost per pupil in the consolidated school is not much greater than in the other rural schools, the figures being $25.64 and $22.71, respectively. The establishment of so many consolidated schools has made high-school education possible to country children within easy reach of their homes. This is evidenced by the fact that of the total number of children enrolled in the consolidated schools 22 per cent are in the high-school departments. That Indiana, after 25 years of experience with such a large number of consolidated schools, is satisfied with the type of school even when the expense is greater than that of the old type is evidenced by the rapidity with which district schools have been abandoned for consolidated schools. In the past five years the number of schools abandoned was 916.

The State Legislature of Delaware has passed an act which will probably result in considerable consolidation. At the present time the average school district of the State contains less than 6 square miles. One-half the number of schools properly located might replace the present schools and still leave no children more than $2\frac{1}{2}$ miles from the schoolhouse. The law, however, contemplates consolidation with transportation. Upon the petition of five or more residents of any district the State board of education is required to

investigate the advisabilty of altering the district, and at a properly advertised meeting for the districts affected must submit to the residents and property owners a tentative plan for consolidation. If the board considers the change advisable, it is to submit the question to the school voters of the territory affected. A majority vote will be necessary to carry. The bill provides for the disposition of school property, the erection of new buildings, and the raising of funds for the support of the new school.

Oklahoma has amended the State law relative to the consolidation of rural schools, providing that in the future the election to determine whether consolidation shall be effected or not shall be at one central meeting of all the districts concerned and shall be carried by a majority vote of those present. Several other States have already such a provision, and it has been demonstrated that consolidation is more easily agreed upon than when each district concerned votes independently and must be in favor of the movement before consolidation may take place.

In Iowa 55 consolidated schools were established during the year, nearly all with two or four year high-school departments. These schools have all been established under the provisions of an act of the legislature of 1913, giving special State aid for departments of agriculture, domestic science, and manual training in consolidated schools. Each school has a site of from 4 to 10 acres for agricultural teaching. In order to receive State aid the consolidated schools must meet the requirements of the State department of education concerning buildings, grounds, course of study, and qualification of teachers. All of these buildings have been approved by the department; all have satisfactory equipment for work in agriculture, manual training, or domestic science. Several of them have teachers' cottages on the grounds.

PREPARATION OF RURAL-SCHOOL TEACHERS.

It requires a force of approximately 365,000 teachers to supply the needs of rural communities in the United States. The most careful estimates that can be made indicate that one-third of the teachers, or 122,000, have little or no professional preparation for their duties. The average teacher remains in the profession less than four years of 140 days each. This means that there is an entire change of personnel every four years, or that 92,000 new teachers must be provided annually. The supply of professionally prepared rural teachers comes from State normal schools, agricultural colleges, teacher-training high schools, and county normal schools, and a few schools of education in colleges and universities. Teachers who are in the field of service are finding increasing facili-

ties for improvement in the summer schools which are now in operation in every section of the country.

Several States report interesting progress during the year. Indiana has passed a law providing for higher qualifications of rural teachers, equalizing this matter at the same time by enacting an improved minimum-salary law. Iowa will hereafter require at least 12 weeks of professional training of all teachers in rural schools. Oklahoma has enacted a law that after 1917 all teachers, whether in city or open country, must be high-school graduates with some normal-school preparation. Nebraska has made provision by law for the organization of special rural-school departments in all its four State normal schools. Mississippi and Georgia have begun to prepare rural teachers in the strongest of their agricultural high schools, and the former State also in a few strong consolidated schools. This is in addition to the courses for rural teachers in the State Normal School at Hattiesburg. Alabama has reorganized the courses of its class A normal schools to answer more nearly the needs of rural teachers. West Virginia, Florida, and Oklahoma have been added to the list of States making use of high schools in the preparation of rural teachers, while several of the other 17 States with high-school training courses have materially strengthened the organization of this work. Finally, several States, and among these Iowa and Connecticut, have put into effect successful systems for training teachers in active service.

IN NORMAL SCHOOLS.

Special departments for training rural teachers.—In 1908 only one or two State normal schools had separate departments offering specific courses for rural teachers. At the present time at least 43 such departments have been organized and 36 other normal schools offer excellent general courses for rural teachers. In addition, at least 50 normal schools have strong departments which offer instruction to teachers of agriculture, many of them being aided in this work by a very complete farm equipment.

In Nebraska State normal schools.—The Nebraska law referred to above provides:

> There shall be established in the State normal schools of Nebraska a course of study for rural teachers. Said course shall contain thorough instruction in the common-school subjects, rural sociology, management and organization of rural schools, observation, consideration of how to organize a rural school and make the schoolhouse the social center, manual training, sanitary science, household economy, agriculture, and vocal music. The course shall cover two years, and mature students shall enter directly from the tenth grade, and upon completion of said course may be granted county certificates under the rules to be prescribed by the State superintendent of public instruction.

LEADING TO SPECIAL RURAL TEACHERS' COURSE.

FIRST YEAR.

Algebra	5	Algebra	5
Civics	5	English	5
English	5	History	5
History	5	Physical geography	5

SECOND YEAR.

Geometry	5	Geometry	5
English	5	English	5
General physical science	5	General physical science	5

SPECIAL RURAL TEACHERS' COURSE.

FIRST YEAR.

Elements of psychology and principles of teaching	5	Physiology, hygiene and sanitation	5
Biology	3	United States history	5
Composition and orthography	2½	Geography	2½
Drawing	5	Music	5
Agriculture, farm account	5	Penmanship	2
		Home economics	5

SECOND YEAR.

Rural school management	5	Economics, rural and social conditions	5
Manual training	5	Public speaking and dramatics	2½
Mental arithmetic	2½	Open country recreation and play	2½
Grammar	2½	play	2½
Agriculture	5	Children's literature	5
Rural methods, observation and practice	5		

IN SECONDARY SCHOOLS.

Teacher training in secondary schools is now carried on in 20 States.[1] This includes the so-called county training schools as well as teacher-training departments in connection with high schools and teacher training as a part of regular high-school courses. Wisconsin is the only one in the group with genuine county training schools in every respect separate from the public high schools. New York, Michigan, Minnesota, Nevada, and Ohio have what are called county training schools or classes or separate departments more or less closely connected with the public high schools and using public-school buildings and equipment for the work. Arkansas, Iowa, Kansas, Maryland, Missouri, Nebraska, Oregon, Vermont, Virginia, and Wisconsin have training courses as part of the ordinary high-school courses, leaving all except the professional work in charge of the regular high-school instructors. Maine offers teacher training in a few of its accredited academies. North Carolina has similar courses in a number of high schools, although it has no legal enactment directly authorizing their organization. During the past year West Virginia, Florida, and Oklahoma have been added to the list. West

[1] See also p. 16 of this report.

Virginia and Florida have direct legislation to this end, while Oklahoma has enacted a law through which the State superintendent of public instruction has been enabled to organize such departments.

Probably the chief objection to teacher training in high schools has been the fear that the emphasis on teacher training will weaken the academic courses. Schoolmen are not agreed on this point, but the general tendency is now to lengthen the course and grant no certificate until four years of high-school work shall have been completed. A number of States have taken steps to add a fifth year to the high-school course, or, rather, are organizing the teacher-training departments as a one-year course, to be taken upon the conclusion of the regular four-year course. The State of Ohio, which organized its first training courses of this kind one year ago, has practically abandoned its short course and expects hereafter to graduate from the long course only. This requires graduation from high school before entering the training course. New York, the first State to organize this system of teacher training, has just passed a law to the effect that after 1917 no one shall be permitted to enter teacher-training courses who is not a graduate of a regular four-year high school. Many other States are contemplating similar requirements. The total number of high-school training departments and classes for the past year was 1,089, with an approximate attendance of 25,000 and 11,088 graduates.

Alabama has made radical changes in its class A normal schools during the year. Classical and other subjects preparing primarily for university courses have given place to rural sociology, hygiene and sanitation, and such other subjects as have distinct value in the preparation of teachers for the rural schools. The controlling motive of the new course of study is to provide professional training for the 1,200 beginning teachers needed each year in the elementary schools of the State.

Louisiana reports that the teachers prepared in the rural school department of the State normal school at Natchitoches receive better salaries than teachers prepared in other departments of the normal school. Mississippi has organized at Hattiesburg a normal school primarily for rural teachers, which in the three years of its existence has prepared 2,000 teachers, 1,000 of these being in attendance during the past year. Illinois reports that its State normal schools are recognizing more clearly than ever before that rural teaching is different from grade-school teaching. Four of the five State normal schools have now made special provision for the preparation of teachers for the rural schools. Three of them have ample ground and are giving instruction in agricultural subjects which will enable teachers to link up school work with the work children are interested in at home.

TRAINING TEACHERS IN SERVICE.

Aside from the important work accomplished by the summer schools in every section of the country, many States and educational institutions have adopted plans for training their teachers while in active school service. In this connection may be mentioned also the National Rural Teachers' Reading Circle, which has just been inaugurated by the Bureau of Education in conjunction with an advisory committee appointed by the association of State superintendents of the National Education Association.

The National Rural Teachers' Reading Circle.—The plans for organizing a national rural teachers' reading circle were first broached at the National Educational Association meeting in St. Paul in 1914. The final plans, as worked out by the Bureau of Education in cooperation with the advisory committee mentioned above, have been put into operation, and teachers throughout the country have been invited to its membership. Thirty-four States have already joined the reading circle. Only teachers residing within States which have expressed a desire to cooperate will be permitted to join.

The reading circle work is without cost to the members, except for the purchase of books. There is no restriction as to membership.

The books to be read in the study course for the years 1915–1917 are classified under five heads, as nonprofessional books of cultural value, educational classics, general principles and methods of education, rural education, and rural life problems. The work is organized as a two-year course, although it may be completed by the industrious student-teacher in a shorter time.

To those who give satisfactory evidence of having read not less than five books from the general culture list, and not less than three from the other four lists—17 books in all—within two years of the time of registering, will be awarded a national rural teachers' reading circle certificate signed by the United States Commissioner of Education and the chief school official in the State in which the reader lives at the time when the course is completed.[1]

The Iowa plan of extension service for rural teachers.—An effective plan of State-wide extension service for rural teachers has been in operation in Iowa for two years under the direction of the Iowa State Teachers' College at Cedar Falls. The development of the work is thus described by President Homer H. Seerley:

> Preliminary work was undertaken in 1913–14 by the organization of several counties with teachers' study centers as a demonstration of an effective plan for the permanent assistance of teachers at work in the rural schools. These study centers were composed of voluntary classes of teachers who were willing

[1] Complete circulars containing all necessary information as to how teachers may become members, etc., and brief résumés of all the books on the reading circle lists may be procured by addressing the Commissioner of Education.

to come together on Saturdays and give the entire day to recitations on topics of immediate value to their school work. The classes met as frequently as was deemed advisable and preparation by study and reading was required for all meetings after the preliminary one. By this means much benefit was received and nearly all these original study centers were continued for the year 1914–15 and enough new ones were added to organize more than half of the counties of the State, over 5,000 teachers being thus instructed without any fees for service. For 1915–16 the Iowa General Assembly has made a special appropriation of $20,000 and has provided that an equal amount may be thus expended annually thereafter, with the further understanding that if the results anticipated are reached that additional income sufficient to give the best efficiency will be added. This plan gives permanency to the work and makes the demonstration a permanent policy.

The management of this extension service is placed under the supervision of an officer called "The Director of Extension Service." His relation to the Teachers' College is that of head of the department of education, which receives his attention in the classroom Mondays, Tuesdays, and Wednesdays of each week during term time, while Thursdays, Fridays, and Saturdays are given to the extension service through instruction in county teachers' institutes and instruction in teachers' study centers.

The instructors in the teachers' study centers are selected by the director of extension service.

The demonstration rural schools.—Fundamental to the study center service Iowa places her system of demonstration rural schools conducted and supervised by the rural education department of the Iowa State Teachers' College. These rural demonstration schools are 20 in number and are all of them typical rural schools managed either by rural independent school districts or by rural township school districts. * * * All pupils have a course of study in the schoolroom to complete and another equally emphasized course of study in the home and on the farm to complete, and their study and effort involves every secular day the year round, the rural education department being on duty to supervise, to instruct, and to help the pupils to succeed in their vocational work to the same degree as should be expected in their regular school work. To accomplish this desirable end, the fathers and mothers have become the assistant supervisors of the home work and the farm work and they receive the advice, the suggestions, and the instruction of the rural supervisors in so far as they may need it, while everything is done to get the best returns for the endeavors made and to establish the facts by photograph, by samples, and by financial realization of cost and returns. These undertakings are supplemented by neighborhood meetings of large variety and purpose that have had the effect of enlarging community interest, community support, and community improvement. Out of this have come better social conditions, more harmonious relations, larger development of ideals, and better conceptions of living.

The supervisors of the rural demonstration schools become acquainted with every man, woman, and child in this cooperative district; they secure from each one some special assistance that enlarges individual usefulness to the community, while they obtain competent teachers for the schools, introduce appropriate libraries, equipment, and apparatus, hold social center meetings, and inspect constructively the training in teaching being done by the senior students of the rural-teachers' course maintained by the college. To facilitate business and to give the best results transportation by automobile is provided for supervisors and student-teachers and rapid communication is established between the college and its most remote rural schools.

The Connecticut plan for training teachers while in service.—Connecticut makes use of a unique system for training teachers while in service. Under this plan all new teachers are classed as apprentices. In all the smaller towns (townships) having supervisors assigned to duty and paid by the State, these apprentice teachers are placed in charge of the supervisors who, under law, must devote a certain amount of their time to instruction of the teachers within their supervision districts. In order to facilitate this work of instruction, the last State legislature made provision for the establishment of model schools in the State-supervised towns to be used as adjuncts in this system of training the apprentice teachers while pursuing their regular teaching. The law is in part as follows:

SECTION I. One school in each town having 20 teachers or less may be organized as a model school for observation and instruction of the training class conducted by the supervisor.

SEC. II. The State board of education may make application to the comptroller for an order on the treasurer for a sum not exceeding $3 a week for each teacher in such model schools. No application shall be made to the comptroller under the provisions of this act unless the town in which said model school is located shall pay to the teachers of the model school a wage of not less than $10 a week or not less than the wage which was paid for teaching in said school during the previous year.

From this it will be understood that there is at least one model school for each 20 teachers in service and that, with the special State aid, the strongest teachers in the township can be placed in the model school. The requirements for approval as a model school are given by the State department as follows:

The rural school should be a one-room school in a situation acceptable to all teachers of the town.

The building must be in good repair, with sufficient blackboard space.

There must be ample equipment of aids to teaching, including a hectograph and a complete set of wall maps.

There must be a suitable selection of supplementary reading—at least 15 sets.

There should be not less than 15 pupils registered and five grades represented, to include one first grade and at least one grade above the fifth.

The teacher must be able to secure results with well-defined and approved methods.

She must have a good program and keep a book of lesson plans.

She must prepare in some detail one model lesson outline each week for the instruction of visiting teachers.

She is to consider herself as an assistant to the supervisor and be prepared at all times to consult with him relative to the needs of teachers sent to observe her work.

During the past year 25 model schools of this kind have been established, while at least 17 additional towns have asked to be placed on the list for the coming year. The schools established serve a territory with 227 teachers, all of whom, according to the State department

of education, "have enjoyed the benefits of observation in them and conferences with their teachers."

It is readily seen that model schools of this kind in charge of strong instructors can be made of inestimable value to inexperienced teachers. Under the Connecticut plan, the apprentice teachers are allowed certain days during which they attend these model schools and gain the benefit of expert instruction. Says the State department of education further:

> The close correlation between the semimonthly visits of the supervisor, the monthly meetings of all the teachers, the observations at the local model school, and the daily practice in her own school, rapidly develops the young teacher so that she soon acquires confidence and some real skill. Scores of Connecticut young women are now prepared in this way for successful service as teachers. This is done, too, while they are actually earning a livelihood during the apprenticeship.

RELATION OF SALARIES TO PREPARATION AND LENGTH OF TENURE.

The salary received by the teachers of the Nation is partly a measure of the value in which their services are held by the country and partly a measure of their efficiency. The National Education Association committee on teachers' salaries and cost of living, in cooperation with the Bureau of Education,[1] discloses that the annual average wage of farm laborers in 1913 was $257, while the average for rural teachers was slightly more, although the exact figures are not available. At the same time the average wage of rural mail carriers was $1,115. The study makes an interesting contrast of these three figures for a certain number of States, showing throughout a very slight variation in the wage of the teachers and farm laborers, with the mail carriers receiving more than three times as much as either teacher or farm worker. It is clear that so long as the Nation continues to place a low valuation on teachers' services, it will have to get along with much poor teaching. Unquestionably, on the other hand, the individual teacher's preparation and efficiency have much to do with the salary he draws. It is considered good policy now to provide by legal enactment for a liberal sliding scale salary, allowing the teacher's salary to increase in direct ratio to his increasing efficiency and length of service in the same community.

How accomplished in Wisconsin.—The last legislature in Wisconsin made provision for rewards such as have just been mentioned for continued and efficient service in the same community. The law states in part:

> If any school district not composed wholly or in part of an incorporated village or city shall have retained or shall hereafter retain any teacher after the first year such teacher shall be entitled to receive State aid as follows: If such teacher shall be retained for and shall have *successfully* taught such school

[1] Educ. Bull., 1915, No. 31.

during a second year, $2 per month for each month of such year during which the school maintained in such district is taught by such teacher; if for a third year, $4 for each such month; and if for a fourth or any succeeding year, $8 for each such month.

If any school district not composed wholly or in part of an incorporated village or city in which the school shall have been *successfully* taught for the whole or any part of any year by a teacher who is a graduate from a rural school course two years beyond high-school graduation in any normal school or country training school of the State or the equivalent thereof, such teacher shall be entitled to special aid of $10 for each month during which such school is taught by such teacher. And each succeeding year that such teacher shall be retained and shall continue to teach such school successfully he or she shall be entitled to special State aid in the sum of $15 in each month.

It will be noted that the law emphasizes the expression "successfully taught." The county superintendent and State department of education are to decide whether or not a school has, in their judgment, been successfully taught. It is also interesting to note that the amount of salary granted by the State as an award for efficiency and long tenure is in addition to any sum that the district boards pay the teacher, and there can be no bargaining with the teacher on the assumption that the district will pay a part and the State the balance of the salary due.

Grading salaries in Indiana.—Indiana also has recently adopted a law providing for a carefully graded scale of salaries for teachers depending on their qualifications and length of service, although not necessarily in the same community. The law provides that—

the daily wages of teachers for teaching in the public schools of the State shall not be less, in the case of beginning teachers, than an amount determined by multiplying 2½ cents by the general average given such teachers on a highest grade of license at the time of contracting. For teachers having had a successful experience for one school year of not less than six months the daily wages shall be not less than an amount determined by multiplying 3 cents by the general average given such teacher on the highest grade of license at the time of contracting. For teachers having had a successful experience for three or four school years of not less than six months each, the daily wages shall not be less than an amount multiplied by 3½ cents for the general average given such teacher on his highest grade of license at the time of contracting. For teachers having had a successful experience of five or more school years of not less than six months each, the daily wage shall be not less than an amount determined by multiplying 4 cents by the general average given such teacher on his highest grade of license at the time of contracting. All teachers now exempt from examination shall be paid, as daily wages for teaching in the public schools, not less than an amount determined by multiplying 3½ cents by the general average of scholarship and success given such teachers: *Provided*, That the grade of scholarship accounted in each case be that given at the teacher's last examination and that the grade of successful accounting be that of the teacher's term last preceding the date of contracting: *And provided further*, That 2 cents shall be added to the teacher's general average of scholarship and success for attending the county institute the full number of days, and that said 2 cents shall be added to the average scholarship of beginning teachers.

It appears from a study of this section of the law that the teacher's scholarship and success are both recognized in the grade of license held. The Indiana law further provides a penalty of an amount not to exceed $100 and liability in civil action for wages if any school officer shall pay a teacher for school services at a rate less than that fixed in this act.

"STANDARDIZING" THE ONE-TEACHER RURAL SCHOOL.

In certain sections of the country where it is impracticable at this time to reorganize the one-teacher rural schools as centralized graded schools, a movement is under way to make the schools as effective as possible by improving their physical conditions, including grounds, buildings, and equipment, organization for teaching purposes, and efficiency of teacher. This system of school improvement is popularly known as school standardization.

Illinois has probably led the country in the movement to standardize the small one-teacher schools. The State department of education, which in this State recognizes two grades of improved schools, "standardized" and "superior," reports highly satisfactory results from what has been done in the State the past several years. Minnesota makes the granting of State aid to schools contingent on certain high standards to be attained by the ungraded and semigraded rural schools. Texas has recently enacted a law providing State aid to weak schools in the sum of $1,000,000 for the next biennium, to be distributed on the standardization basis under the direction of the State department of education. Wisconsin, Kansas, Georgia, West Virginia, Alabama, and Oregon are other States that have reported satisfactory results from State or county systems of rural school standardization.

The Oregon plan.—In Oregon school standardization began as a local plan in Polk County five years ago. Other counties readily adopted the plan, and in 1914, at a convention held under the auspices of the State superintendent, a plan was adopted for State-wide school standardization. The standards are to be raised year by year so that there shall be no stagnation. The following is a list of requirements for 1914–15:

Flag.—Must be flying, weather permitting.

Schoolhouse.—Properly lighted.

Equipment.—Teacher's desk and chair; desks for pupils properly adapted and placed; suitable blackboards; window shades in good condition.

Heating and ventilating.—Jacketed stove properly situated, minimum requirement; window boards or some other approved method of ventilating.

Rooms.—Attractive at all times.

Standard picture.—One new one, unless three are already in the room, framed.

Grounds.—To be clean, free from paper, etc. At least three features of play apparatus. Walks, if necessary.

Sanitation.—Pure drinking water; either drinking fountain or covered tank and individual drinking cups; individual, family, or paper towels.

Outbuildings.—At least two good ones, to be sanitary at all times and free from marks.

Teacher.—Must maintain good order at all times; supervise the playground; have her work well prepared; follow State course of study; take at least one educational journal; have program posted in room; keep register in good condition; be neat in attire.

Library.—Good selection of books from State list. Case for the books. Books kept upright, in good condition, and recorded according to rules specified by Oregon State Library and required by law.

Attendance.—Average 92 per cent for year and not to exceed 2 per cent in tardiness for year.

Length of term.—Not less than eight months of school each year.

The following statement made by the State superintendent of public instruction shows graphically the progress made in school standardization during the year:

The rural schools of Oregon have, during the past year, made great progress in the way of equipment, better buildings, and playgrounds; and the interest aroused through community meetings held for the purpose of making these improvements has developed a desire among the people to have teachers especially trained for rural work.

The standardization of rural schools has furnished a concrete work for the administrative departments and to this plan may be attributed most of the progress of the past year. * * * Thousands of dollars have been spent in enlarging and equipping the playgrounds. The State department of education published a very complete Recreation Manual, compiled by the National Playground Association, a copy of which is furnished every teacher. After September 1, 1915, no person is eligible to enter a teachers' examination for certificate unless he has completed two years' of work in an accredited high school, and has had at least a summer's term of work in a standard normal school, or is the graduate of the teachers' training course of an accredited four-year high school.

The Oklahoma model schools.—In Oklahoma another form of standardization has been inaugurated by the State department of education. During the year the State superintendent of schools has encouraged the county superintendents to organize one model rural school in each county to serve as an illustration for all other rural schools in the county. The majority of county superintendents organized from one to three such schools. The county superintendents are now planning to organize five or more additional model schools per county.

The plan includes decoration of the schoolroom to make it as nearly ideal as possible, care of the school grounds, organization of agricultural clubs, installation of library equipment for use for the entire community, encouragement of the social center movement, provisions for a rural-life course, frequent visits by the county super-

intendent, and encouragement of patrons' clubs. In counties where the schools were organized during the year there was considerable competition among rural districts wishing the county superintendent to designate their schools as model schools for the ensuing year. In these districts great care was exercised in the choice of teachers for the year 1916, since only well-prepared teachers are desired for the model schools.

RURAL HIGH SCHOOLS.

High-school development has been comparatively slow in rural communities. Rural children are still largely obliged to look to town for their secondary school education. Only here and there is the high school an integral part of rural education. There is still too much of the feeling abroad that the farm child should get to work as soon as the traditional eight-year elementary school course is finished. School centralization, however, is doing much to modify the old standards. People are beginning to realize more and more that the demands on intelligence and technical preparation for life are at least as exacting in the country as for the average worker in town. To meet the new demands a variety of rural high schools are being established. They are variously known as district, township, and county high schools. The former may correspond to the ordinary school district organization or may represent an entire congressional district, as in Georgia. Township and county high schools, as the name would indicate, represent respectively the civil units of the same designation. Township high schools are common in New England and in some of the Middle Atlantic and Middle Western States. Kansas, Oklahoma, and several other Middle Western States have county high schools. Other designations for rural high schools are agricultural high schools, as in Mississippi, and farm-life schools, as in North Carolina.

Township high schools in Illinois.—The objection to the township and county high schools has been that they are not accessible to all the children of the township or county. In Illinois the township high-school act of 1913 has resulted in the establishment of 100 township high schools accessible to many rural children. Another law requires all districts to pay tuition in a four-year high school for graduates from rural schools. These laws make it possible for all rural children to take advantage of high-school privileges, although unfortunately, not always within convenient distance of home.

New rural school law in Kansas.—This State has a large number of county high schools organized under the so-called Barnes law. These high schools are generally located at the county seat or a rural village near the center of the county. Some of the schools have from 5 to 15 or more acres of land for experiment purposes,

although a majority adhere rather closely to the old traditional course of study. The last legislature of the State enacted a law under which other independent rural high-school districts may be established for areas of not less than 16 square miles, with separate high-school boards, under the jurisdiction of the county and State superintendents. Under the new law rural high-school organization has received a new impetus in Kansas.

North Carolina county farm-life schools.—The State of North Carolina has begun to organize what are called county farm-life schools. The general county law provides for a special county election by which the community may bond itself to provide the necessary funds for buying a school farm and other equipment. After this has been done bids for the location of the school are advertised. The school is then placed in that community within the county of not exceeding 1,000 population which offers the largest financial aid for maintenance and equipment. The community getting the school is generally expected to provide some, if not all, the land for grounds and experiment farm and a large part of the funds for school buildings, including dormitory facilities, barns for stock, etc., at an outlay of from $15,000 to $25,000, and also to provide a maintenance fund of $2,500 a year. On these conditions the State will supplement the maintenance fund of the school by $2,500 a year. The law provides further that in case a county bond election fails to carry any township or two or more contiguous townships may issue bonds for equipment and levy special tax for maintenance. Guilford County, which is an exceptionally wealthy county, organizes farm-life schools under a special act which has allowed it to establish two or more such schools in the county.

A number of schools have been organized under the several acts up to the present term. The influence of the schools is already very marked on North Carolina community life. The schools provide a practical training in the problems and pursuits of everyday life. The courses of study are centered about scientific farming and home making. The faculties of the schools carry on a definite and vigorous extension work throughout the county, giving instruction to grown-up people as well. The trained experts of the faculty extend the influence of the school through demonstration work and by organizing adult clubs throughout the county. In a similar way, the teachers of the farm-life schools wield a progressive influence over the general body of rural teachers. The teachers of the small rural schools meet at the village schools for demonstrations and instructions on the school farm and in the laboratories. The head of the agricultural department of the farm-life school is often the county supervisor of vocational subjects.

PROGRESS IN RURAL-SCHOOL EXTENSION.

The primary purpose of school extension is to find a way for every man and woman in the State who otherwise would not have an opportunity to gain an education. In accordance with this view of extension work, many universities, colleges, normal schools, and high schools throughout the country have taken upon themselves the great task of extending educational privileges by correspondence courses, instruction by lectures, debating, and public discussion, general information and welfare departments, and rural chautauquas, to every man and woman who desires to take advantage of these means of obtaining an education.

Rural-life conferences.—Among the States doing effective work in rural-life conferences during the school year 1914–15 were Arkansas and Maryland. At Fayetteville, the seat of the University of Arkansas, there was an enrollment of over 600, and three programs were maintained each day for 10 days—one for teachers, one for ministers and social leaders, and one for farmers and their wives.

Much of the success of the conference was due to the hearty cooperation of a large number of organizations. The director of the conference was able to bring together the best workers of the State board of education, the State board of health, the State horticultural society, the State bankers' association, the farmers' union, and the State organizations of the leading religious denominations found in the Southwest.

Preliminary to this great summer meeting a number of local rural conferences had been held through the cooperation of the department of country life of the Presbyterian Church and the school of education of the university.

The Maryland Agricultural College held country-life schools for ministers during the summers of 1914 and 1915. These country-life schools of this institution were largely the result of two desires—the desire of the college to be of the greatest possible help to the farming communities of the State, and the desire of the ministers to get in touch with the farmers' problems.

Motion pictures in extension service.—One of the newest features in rural-school extension is the use of motion pictures. The Louisiana State University has been doing pioneer work in the rural schools of the State. The scope and purpose of this work is set forth in the *University Bulletin*, July, 1915, as follows:

> During the first seven months of 1915 the junior extension service of the Louisiana State University visited 140 schools in 17 parishes and rendered programs with the autostereopticon and moving-picture machine to an estimated attendance of 23,340 school children, school patrons, and farmers. About one week was devoted to each parish.

In addition to several reels of educational pictures, there were shown at each school stereopticon slides depicting the various phases of corn, pig, poultry, and canning club work. These slides were accompanied by lectures explaining the meaning of the clubs and the valuable training they offer to the boys and girls on the farms. An increased interest in the club work has been manifested in each community in which these lectures have been given, and they have been very effective, also, in acquainting the people of rural districts with the efforts their State university is making to assist them, through its extension service, to solve the problems that confront them in their farming pursuits.

In addition to its use in the production of moving pictures and lantern slides, the current generated by the electric motor of this machine may be utilized to provide heat for cooking demonstrations. An electric cook stove has been added to the equipment of the automobile and successful cooking demonstrations have been made. This feature is expected to prove an important part of the extension work in home demonstration. Cooking by electricity is not to be emphasized, but the apparatus will afford a convenient and ready means of producing heat for cooking demonstrations.

Illustrative of the type of motion pictures now becoming available for extension use is the 7,000 feet of motion-picture film which the Lincoln Highway Association has recently had made. This film portrays the beautiful scenery of plain, mountain, valley, and desert "from coast to coast in an easy chair" for the millions of men, women, and children who are unable to drive over the Lincoln Highway. This film is available for farmers' clubs, farmers' institutes, women's clubs, good-roads clubs, rural-life conferences, and other similar organizations.

Work of private agencies.—The efforts of the National and State Governments and educational institutions are also aided by numerous private agencies. Typical of the definitely valuable work done in this way is the extension service of the International Harvester Co. This company distributes thousands of agricultural lecture charts to teachers and others on soils, sanitation, weeds, alfalfa, live stock, garden and canning, diversified farming, etc. A typical lecture is "The great forward movement in education." The company also has a force of extension lecturers who, upon invitation from the proper authorities, go into various States and conduct forward-movement campaigns for better agriculture, better homes, better schools, and better living, holding from 25 to 50 meetings in a single county in one day, and thus continuing until the State is thoroughly covered. Arkansas, Mississippi, Alabama, Texas, and Oklahoma have been so campaigned, and Prof. P. G. Holden, who is in charge of the service, is now directing a campaign in the Big Horn Basin, Wyo., with a large force of extension workers.

"*How to organize a club of United Farm Women*" is an excellent little booklet published by the *Progressive Farmer*, Raleigh, N. C. Mrs. W. N. Hutt is the general organizer of this work in that State.

In the foreword of this booklet for 1915 Mrs. Hutt says:

> The United Farm Women enters upon its first birthday, with 435 branches. These clubs are in every State in the South. Some are strong; some still struggling. Some have undertaken ambitious programs; some are almost without programs, but the members enjoy the sociability of coming together. Some are interesting themselves in baby contests, county fairs, and other public matters, while others are providing wholesome pleasures for the young people. But one and all, they are working for more efficient homes and more united communities.

Chautauquas and lecture courses.—Probably the greatest fields of school extension are the hundreds of Chautauquas and thousands of lecture courses held in the United States every year. These Chautauquas and lecture courses are now established at places within reach of the rural people as never before. During the past year many village and rural communities in Virginia and many other States were privileged for the first time to have a rural lecture course or a rural Chautauqua, or both, during the year. While scores of these assemblies have imitated only one or two features of the original Chautauqua—neglecting its fundamental principles—and while many of them are commercial enterprises managed for profit, the Chautauqua system is one of the most potent factors of modern times for promoting public education. Millions of men and women have been enlightened and given a broader vision of life through its influence.

The free rural delivery of mail, carrying the daily papers, the magazines, and Government bulletins to millions of rural people; the ownership of automobiles by hundreds of thousands of farmers, thus making it possible for the rural people to attend Chautauquas and lecture courses at centers of population, and by the use of the automobile in taking lyceum talent into the country where community meetings are now held by the thousand throughout the Nation—these extend educational privileges to millions of people who otherwise would be without many of these advantages.

THE DIVISION OF RURAL EDUCATION IN THE BUREAU OF EDUCATION.

Reference was made at the beginning of this chapter to the present organization of the division of rural education.

The following statement will make clear the scope of the work of the division:

Organization.—The division of rural education in the Bureau of Education has been reorganized during the year in order to make it better able to meet the increasing demands for expert advice and assistance in the rural field. As now organized the division comprises the subdivisions of rural-school administration, rural-school practice, and rural-school extension service. The subdivision of rural-school administration has been organized to offer expert advice

in rural-school administration to State and local boards of education; to advise with commissions and committees on school legislation; to make school surveys and to carry on special educational studies in its particular field. The subdivision of rural-school practice is organized to make a fundamental study of the curricula of rural elementary and secondary schools and to offer such aid to rural teachers and school officers as may be required of them; to become a clearing house for the latest and best of subject matter and helps in other phases of school practice, including the training of rural teachers, both before going into the service and while in the field. This subdivision has charge of the propagation of the National Rural Teachers' Reading Circle, which has recently been adopted by more than half of the States. The subdivision of rural-school extension is primarily active in such educational interests in rural communities as boys' and girls' industrial clubs, educational rallies, illiteracy campaigns, school fairs, rural-life conferences, wider use of schoolhouses for lecture centers, work for the extension of the school term, securing better teachers' salaries, improvement of school buildings and grounds, organization of parent-teachers' associations, cooperation with farm demonstration agents and local and State supervisors.

The specialists and assistants in the division of rural education are aided very effectively by nearly 100 special collaborators who are nominally in the service of the Government, but who, as members of various school faculties or as State or local school officials, are in position to report to the Bureau of Education every progressive movement taking place in the rural field. Several of these have undertaken valuable studies, of which a few have already been completed.

Publications.—A large number of publications dealing with rural and agricultural education have been distributed by the Bureau of Education during the year.

Bulletins of the bureau in this field were as follows:

1914, No. 12. Rural Schoolhouses and Grounds.
No. 17. Sanitary Survey of the Schools of Orange County, Va.
No. 20. The Rural School and the Hookworm Disease.
No. 22. The Danish Folk High Schools.
No. 24. Danish Elementary Rural Schools.
No. 25. Important Features in Rural School Improvement.
No. 27. Agricultural Teaching.
No. 30. Consolidation of Rural Schools and Transportation of Pupils at Public Expense.
No. 44. County Unit Organization for the Administration of Rural Schools.
No. 49. Efficiency in Preparation of Rural School Teachers.
1915, No. 5. Organization of State Departments of Education.
No. 11. A Statistical Study of the Public School Systems of the Southern Appalachian Mountains.
No. 20. The Rural School System of Minnesota.

CHAPTER V.

SECONDARY EDUCATION.

By THOMAS H. BRIGGS,

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CONTENTS.—Extension of opportunities for secondary education—Reorganization of courses of study—Influence of State inspectors of high schools—Provisions for economy of time.

To read both official and unofficial reports on secondary education from all parts of the country is to be profoundly impressed by the confident acceptance everywhere of the assumption that the United States shall continue and extend its undertaking of affording education free of charge to all the children of all the people. Despite the fact that in 10 years there has been an increase in the number of public high schools from 7,576 to 11,515 (59 per cent), in the enrollment from 679,702 to 1,218,804 (92 per cent), in the length of time pupils remain in school, and in the annual cost to an astounding total (the income of 24 per cent of all public high schools in 1913–14 was $19,117,841), there is nowhere any indication that the work is to be prosecuted less vigorously. Indeed, the reports are unanimous that the campaign to afford opportunities for free secondary education and also to adapt that education to the needs of all pupils is even extended. This means that the "sifting" function of the high schools is receiving less and less emphasis, and that as the cost of the newer subjects in the program of studies is usually higher than that of the older academic subjects, preparation must be made for a greatly increased high-school budget.

EXTENSION OF OPPORTUNITIES FOR SECONDARY EDUCATION.

The opportunities for secondary education are being extended in various ways. Besides the increase in urban communities, there is a notable extension, even in States of relatively small wealth, of high-school privileges in rural districts. In perhaps a majority of the States in which school legislation was enacted last year some law applied to rural high schools.[1] As instances may be cited the following

[2] See also Ch. IV, Rural Education.

items: Delaware has enacted a consolidation school law, permissive in its nature, under which 20 per cent of the cost of a new building is borne by the State (up to the amount of $2,000), and by which $1,000 is contributed by the State toward the cost of operating such school if a course in agriculture is made a part of its work. In North Carolina a beginning has been made with 18 rural high schools containing "farm-life" departments; the law has recently been amended by striking out the requirement that a county shall be able to maintain a six months' school term before establishing farm-life departments in public schools and by authorizing the county commissioners, if they should desire to do so, to make appropriations to farm-life departments out of the funds for necessary county expenses. Iowa has now 138 consolidated rural schools, to which transportation is provided, offering high-school instruction. Subsequent to the offering by the Nebraska department of public instruction of a program which through cooperation would permit the rural districts to establish high schools covering 9, 10, or 11 grades, depending upon the resources of the district, more than 200 such schools have been organized. An interesting feature of several of these cooperative schools is a cottage for the teacher, who also is employed as a "community manager of social interests."

It is well known that a number of the States, especially those that most wisely administered their land grants, have stimulated the development of high schools by direct appropriations, usually to promote and aid the introduction of some new feature of the curriculum. West Virginia has recently increased the amount for distribution from $40,000 to $85,000. North Carolina reduced its minimum apportionment from $250 to $200 and increased the maximum from $500 to $600. The State appropriation for high schools will hereafter be distributed on the basis of attendance, number of full-time teachers, and grade and character of work done. A school meeting only the minimum requirements hereafter will receive, therefore, from the State only $200; and a school that measures up to good standards, maintains a good attendance, has a good building and sufficient equipment and teachers, and has the standard term of nine months, may receive as much as $600 from the State fund. This provision encourages schools to put forth greater efforts to increase their attendance, to erect good buildings and equip them properly, to organize their work according to proper standards, and to lengthen their terms, by providing more liberal State aid for those that do these things. Nebraska gives directly to each of the new consolidated schools $100 for equipment and $150 annually for expenses. Texas appropriates from $500 to $1,500 to each school that teaches agriculture and from $500 to $1,000 (with a maximum of $2,000 for both items) for manual training.

In Minnesota the direct aid is even more generous. An unfortunate item which must be reported is that in May, 1915, the Arkansas supreme court declared unconstitutional the law providing State aid to high schools, a law under which in four years the number of high schools had increased 150 per cent and the enrollment 126 per cent, with a corresponding improvement in standards of teachers and equipment. The decision is based on the facts that, first, the law provided for what the court considered "discriminatory disbursement of the funds"—that is, it forbade aid for a school in any city or town having over 3,500 inhabitants; second, the law provided for the education, in the teacher-training departments for the aided high schools, of students of any age, thus violating the express provision of the constitution with respect to age limits.

One other change of the law regarding State aid to high schools, that in California, is of sufficient general interest to be reported. Previous to 1915 the high schools of California were maintained very largely by district taxation. Communities might organize high-school districts, but they were expected to bear practically all of the expense of maintaining their high schools. The average cost per pupil, computed on the basis of average daily attendance in the high schools of the State, in 1914 was $121. Of this amount the State raised $15 and the high-school district $106. An investigation of the problem of financing secondary education in California revealed the fact that property assessed at $400,000,000—one-seventh of the total assessed valuation of the State—was not subject to a high-school district tax. Pupils living in territory outside of high-school districts were attending high schools furnished and maintained by the high-school districts and paying only a small tax to meet tuition charges. The average rate of tax for high-school purposes levied on property in high-school districts was about 5 mills, while the average rate levied in territory outside of high-school districts for tuition of pupils attending from such territory was about seven-tenths of a mill. In other words, territory inside was paying at least seven times as heavy a rate as territory outside. The county high-school fund bill which was enacted by the legislature of 1915 provides that a general high-school tax shall be levied on all the property in each county sufficient to raise an amount computed at $60 per pupil in average daily attendance in the high schools of the county during the previous school year. The amount thus raised is apportioned among the various high schools of the county in such a manner as to equalize the burden of high-school taxation. First, $250 is apportioned to each school for each teacher actually employed, not exceeding four teachers for any school. The remainder is apportioned according to average daily attendance. The plan of apportioning a part of the fund on

the teacher basis was introduced to give the small high school a slight advantage. However, this advantage is not so great as to encourage the organization of weak high schools. It is provided that a high school which does not employ two teachers or more, after its first year, shall not share in county high-school funds. In providing extra apportionments for the first four teachers, the bill encourages the employment of at least that number of teachers in each high school. Of the 264 public high schools in California only 26 employ fewer than four teachers. Most of the schools employing less than four teachers have been established for less than four years and will have the normal number of teachers when the full four-year course has been established. Under the county high-school fund bill the territory not included in any high-school district pays a tax twice as great, on an average, as it paid formerly when only a high-school tuition tax was levied on such territory. Taxation for high-school purposes is equalized under the plan of county taxation. Districts having large assessed valuations per pupil contribute something to the support of high schools established in less wealthy districts. The general effect of the law was to reduce high-school tax rates in more than half of the high-school districts of the State. The State and county now bear five-eighths of the cost of maintaining the high schools, leaving only three-eighths of the cost to be met by the district.

Where the high-school privileges are not carried to the children provision is, in many places, made that they may secure instruction in established schools at no cost to themselves. A number of the new school laws provide for the payment of tuition by the local district or by the State. Inasmuch as the amount provided is frequently less than the per capita cost of the school receiving outside pupils, there has been considerable effort, sometimes successful, to secure an equitable amendment to such laws. A recent amendment in New York permits, what was previously prohibited, that a parent may pay any tuition demanded by the receiving district in excess of the $20 provided by the State. Oregon has done away altogether with tuition for high-school pupils. A pupil living outside a district maintaining a standard four-year high school is permitted to select and attend a school anywhere in the State. At the end of the year the school is paid by a tax levied on all districts in the pupil's county that do not maintain a standard high school. California provides that a pupil living in a school district without a high school may attend any high school in the county without charge, and, moreover, that he is entitled to have his transportation paid up to $5 a month. The law provides that no tuition charge shall be made in any high-school district in California. Two or three counties in Florida—and the number, it is said, will increase—have done even better, hav-

ing made provision for aid other than tuition for a pupil who must go outside his own district to secure his secondary education. Alachua County, for example, has agreed to pay $10 a month for the expenses of any such pupil.

REORGANIZATION OF COURSES OF STUDY.

Perhaps of even greater importance than the increase in the number of public secondary schools is the reorganization going on within the courses of study. Stimulated partly by criticism from without and partly by a need felt from within, those responsible for the various subjects have been active in formulating such statements of the purposes of each subject as will direct the presentation in the classroom. The movement, as reflected in educational journals, in discussions at conventions, and in textbooks themselves, is everywhere toward an alignment with the established principles of psychology and the more progressive social theory. It may not seem invidious to mention specifically the tremendous effect of the National Council of Teachers of English and its official organ, *The English Journal*. The greatest single unifying force is undoubtedly the Commission on the Reorganization of Secondary Education. Since the preliminary report in Bulletin No. 41, 1913, of the United States Bureau of Education, the committees composing the commission have had frequent meetings, each committee formulating the principles that should govern the organization and presentation of the material in the several subjects of the program of studies. The reports of these committees were carefully studied and edited by the reviewing committee during the Thanksgiving week of 1915, and a second general report is to be presented at the meeting of the Department of Superintendence in Detroit February, 1916.

As an instance of the kind of reorganization attempted, that proposed for the teaching of civics may be cited. Besides being in different ways exemplified in outlines printed for use in the local schools at Newark, Kansas City, and Wichita. it is fully expounded in Bulletin, 1914, No. 23, of the Bureau of Education. This subject, as outlined in the bulletin, might really be called "The element of welfare," because the work is organized with a view to leading the pupil to an appreciation of the importance of each of these so-called elements of welfare, to realize the dependence of the individual upon social agencies, to secure the right social attitude toward the problems involved, and then to study in detail certain of the agencies that have been set up either by the entire community or by groups of individuals for the purpose of securing these elements of welfare. In studying these agencies in detail, the aim is to secure such knowledge as will assist the citizen in meeting his responsibilities. The new

type of civics differs from the old type in several important respects such as the following:

1. It discusses the ends for which government exists before discussing the machinery of government. This is important for the reasons stated on page 12 of the bulletin, namely: "Many courses in civics fail because they fix attention upon the machinery of government rather than the elements of community welfare for which government exists; that is, they familiarize the pupil with the manipulation of social machinery without showing him the importance of the social ends for which this machinery should be used."

2. A distinction is made between the duties of the citizen and the duties of the official, as stated at the bottom of page 16 of the bulletin; and this course in civics aims primarily to prepare for the duties of citizenship rather than to discuss in detail the duties of officials.

3. The old-time civics concerned itself largely with the future responsibilities of the pupil, whereas this course in civics recognizes the importance of teaching not only the future responsibilities, but also the present responsibilities of the pupil for intelligent cooperation in community activities. The future responsibilities, however, are by no means neglected, because it is necessary to set up ideals of action that will be operative when the pupil becomes an adult.

4. The old-time civics concerned itself only with the governmental agencies for community welfare, whereas this course in civics includes also those voluntary agencies that are established by certain members of the community, either for the promotion of the interests of a group of people or for the welfare of the entire community. This inclusion is, of course, in every way desirable, because the voluntary agencies blaze the way for the establishment of governmental agencies when the community is educated up to that point.

There seems to be a distinct tendency to civics of this kind in the junior high school and in the first year of the more usual organization so that it may reach the large number of pupils eliminated before the senior year, when the subject is recommended for presentation by the committee of seven. Supplementing such civics outside the school are the Americanization day advocated by the Commissioner of Education and citizenship receptions proposed by Frederic Howe.[1]

An effort was made in 1914 to ascertain by means of a questionnaire circulated from the Bureau of Education, the status of the social sciences in secondary schools. The data received were interpreted and tabulated by students working under Prof. Henry Johnson, of Teachers College, Columbia University, and a detailed report, which will be published in the *History Teachers' Magazine*, was prepared by Edward A. Jesser. Returns were received from 62.5 per cent

[1] See *School and Society*, 1: 880–1.

(7,197 of 11,515) of all the public secondary schools in the United States. Unfortunately there was no indication in the returns as to whether or not each school reporting had a full course of four years or one that was shorter; consequently, all the conclusions are not as satisfactory as might be desired. If it is kept in mind, however, that perhaps three-fourths of the schools reporting have courses four years in length, Table 1 will give a very good idea of the distribution of required and elective history work in American high schools. The excess in the number of replies over the number of schools reporting is due to the fact that some principals of the larger schools very properly recorded the required and elective courses in history in each curriculum. The questions relative to the number of hours spent on history were so misunderstood that many of the answers had to be discarded; however, the returns from the remaining schools are probably representative of conditions throughout the country. Thirty per cent of the schools reporting required for graduation all of the history that they offer, while 13 per cent make history entirely an elective subject. Perhaps the most interesting facts in the table relate to the increase or decrease of the amount of history offered. It will be noted that there is an increase of offerings in 43 per cent of all schools reporting, a decrease in 11.5 per cent, and no change in the remaining schools. The average increase or decrease of those reporting definitely was about a year's work.

TABLE 1.—*Number and per cent of schools offering several amounts of history required and elective, and the number and per cent increasing or decreasing their offerings by several amounts between 1910 and 1914.*

Hours in history.	Required.		Elective.		Requirements.					
					Increased.		Decreased.		Same.	
	Number of schools.	Per cent of schools.	Number of schools.	Per cent of schools.	Number of schools.	Per cent of schools.	Number of schools.	Per cent of schools.	Number of schools.	Per cent of schools.
No report	3,281	.....	1,312	.....	1,130	.....	1,130	.....	.....	.....
None	312	8	2,189	41	.....	.....	.....	.....	.....	.....
No amount stated	.....	.....	.....	.....	533	12	122	3	.....	.....
36–88 hours	234	6	185	3.5	386	9	47	1	.....	.....
108–176 hours	396	10	316	6	394	9	75	2	.....	.....
180–264 hours	1,042	26	639	12	436	10	178	4	.....	.....
288–528 hours	1,679	42	805	15	139	3	61	1.5	.....	.....
540–704 hours	674	14	724	13.6	7	.....	4	.....	.....	.....
720–880 hours	136	3	391	7	9	.....	0	.....	.....	.....
More than 880 hours	16	0	118	2	3	.....	0	.....	.....	.....
Total	7,770	.....	6,679	.....	1,907	43	487	11.5	2,037	46

Table 2 shows the number of schools offering required and elective courses in the various social sciences during each academic year. The table is so clear that no detailed interpretation of it will here be presented. The only point in which the data are not worth their apparent value concerns the number of courses in civics. There was

evidence in some of the returns that civics was reported as a separate subject, when, in fact, it was combined with American history. It may be credited, however, that civics is offered either alone or with American history as a prescribed study in more than half of the schools reporting and as an elective in another third of them. The distribution of civics over the four years of the course is noteworthy, as is the paucity of the once popular courses in general history. The evident, though not overwhelming, distribution of the so-called "four blocks of history" manifests the influence of the report of the Committee of Seven.

TABLE 2.—*Number of schools offering required and elective history of various kinds in each academic year.*

	First year.		Second year.		Third year.		Fourth year.		Totals.		Grand total.
	Required.	Elective.	Required.	Elective.	Required.	Elective.	Required.	Elective.	Required.	Elective.	
Ancient history	2,049	1,324	1,558	874	158	123	29	26	3,794	2 347	6,141
Medieval and modern European history	195	97	1,818	1,401	1,000	1,059	70	105	3,083	2,662	5,745
English history	337	191	332	358	1,157	1,749	133	268	1,959	2,666	4,625
American history	121	58	114	51	730	360	3,376	1,391	4,341	1,860	6,201
Industrial history	22	77	23	103	30	138	38	202	113	520	633
Civics	589	242	230	139	641	465	2,397	1,573	3,857	2,419	6,276
Economics	11	11	37	60	140	469	310	1,026	498	1,566	2,064
General history	48	9	179	17	45	12	7	9	279	47	326
Total	3,372	2,009	4,291	3,003	3,901	4,375	6,360	4,600	17,924	14,087	32,011

Number of schools reporting	7,197
Average number of courses required	2.5
Average number of courses elective	2+
Number of schools requiring all history offered	2,172
Number of schools offering only elective history	963
Number of schools offering no history	10

As was implied in the paragraph concerning State aid, the development of secondary education involves far more than the offering of an increased number of academic courses. Not only is there a steady increase in the number of schools offering work of an immediately practical kind, but there is also a noticeable change in the character of such work. Manual training is changed in character, as in name, to industrial or vocational training, guided by such studies as the excellent report to the Iowa State Teachers' Association in 1914, and supplemented by "life career study," as in San Jose, Cal., Decatur, Ill., and elsewhere. The plan of cooperative work, half in school and half in the shop, has spread from Cincinnati, Fitchburg, and Beverly to Dayton, New York, and other cities, besides being considered by many other places that are awaiting the results of the experiment. One new phase of high-school work that is developing with great rapidity is the training of elementary school teachers.[1]

[1] For a detailed discussion, see Chap. IV, p. 98.

INFLUENCE OF STATE INSPECTORS OF HIGH SCHOOLS.

A factor responsible for much of the recent progress in secondary education, especially in the smaller schools, is the State inspector. In some instances he is sent out by the State university primarily to accredit schools, so that graduates may be admitted to the college by certificate; in others, by the State department of education, to ascertain if schools have earned subsidies that are available.[1] From the circular of "Advice and Instruction to High School Visitors," issued by Commissioner Sisson, of Idaho, the following items are taken:

> The first and chief aim of the visitation is to help the schools solve their problems in meeting the needs of the communities which they serve. The second aim is the standardizing of the schools.
>
> Note carefully the emphasis laid upon the *elementary school.* Do not encourage any policy that would sacrifice the elementary school in order to build up a high school.
>
> Definite and specific criticism in a friendly spirit will almost invariably be received with appreciaton. One should remember that an unfavorable judgment sometimes falls with serious force upon a teacher or superintendent, and that an American community is exceedingly sensitive as to its schools.

It is to the general credit of these inspectors that they have interpreted their duties in such a way as to afford the largest amount of assistance to schools in their development. Besides giving advice to each school as they visit it, they have, among other things, been instrumental in promoting conferences of high-school principals and teachers and State-wide contests of high-school pupils. The 1914 Illinois High School Conference issued a report of 328-pages outlining what was done in the general sessions and in the meetings of the 15 permanently organized departments, one of which has for some years published a monthly magazine, "The Bulletin of the Illinois Association of Teachers of English." It is of general interest that an increasing number of the delegates to the Illinois conference have their expenses paid wholly or in part by their respective school boards. In 1914, 51 per cent of the school boards represented in this way manifested their appreciation of the professional spirit of the teachers. California has gone even further, having passed a law empowering the State board of education to call an annual convention of high-school principals or to divide the State into four districts and call in each of such districts a convention of the principals. The law requires attendance by each principal and the payment of his traveling expenses by the district. The State-wide contests of pupils

[1] In Educational Administration and Supervision, 1: 493–510, Prof. Joseph L. Henderson presents the purposes, the means of appointment and control, a list of the duties, and a digest of the State systems of high-school inspectors; in School and Society, 2: 402–8, Prof. George R. Twiss explains the high-school inspection in Ohio under the new State laws; and in the report of the General Education Board, 1914, are detailed statements of what the inspectors in the Southern States have done.

in athletics, debating, or mastery of academic subjects are not infrequently coincident with the conference of high-school teachers. In Georgia one-third of all the high-school pupils of the State are reported to have participated in some form of the preliminary contests. The North Carolina Debating League and the Interscholastic Public-Speaking League of California have been unusually well organized and successful.

The high-school inspectors have almost from the first issued suggestive curricula, which have been of material influence in determining what the secondary schools taught. Recently the curricula have been more carefully planned and justified; a 1915 bulletin from the University of Texas, for instance, first gives the basic principles on which curricula should be erected and then offers several examples that are adapted for schools of different size and kind. In addition, the inspectors are each year issuing more and more detailed and valuable courses of study for the individual subjects. A considerable number of reports for 1914–15 contain specific minimum requirements for high schools desiring standard classification. In Texas, where three classes of high schools are recognized, the minimum requirements for the first class are as follows:

(1) Not fewer than three teachers who hold first grade or higher grade State certificates, and who give their entire time to high-school work; that is, work above the seventh grade.

(2) A public school term of at least eight scholastic months.

(3) A course of study which shall be the equivalent of the one outlined by the State department of education for high schools of the first class; that is, a course in which at least 18 units of work shall be required for graduation. A unit of work, as defined by this department, represents five recitations per week in a subject, each recitation being 35 to 40 minutes long, and the subject being pursued for a period of at least 36 weeks.

(4) Recitation periods of from 35 to 40 minutes in length for high-school subjects. The recitation periods for the subjects of agriculture, manual training, and domestic economy, being less frequent, may be 80 or 90 minutes in length.

(5) Laboratory apparatus sufficient to offer at least three units in high-school science, one of the sciences being physics.

(6) The State department of education also takes into consideration the playground, library, and building facilities, as well as the provisions that are made for instruction in the primary and intermediate grades.

Usually, as in the Texas circular, there is added a detailed list of desirable laboratory apparatus and shop equipment, with the price of each article added. Missouri adds to such a list of apparatus an extended recommendation as to the best reference books, both for general use and for supplementing the textbooks in each subject.

While standardizing schools, those in authority are seeing to it that the qualifications for teachers are raised. Sometimes the qualifications are determined by statute, as in California and Florida;

again by the State department of education or others to whom the power has been delegated, as in Nebraska and Kentucky. In California the statute has for some years required for the high-school certificate a year of postgraduate study; but as there developed a tendency for candidates to center the work of the postgraduate year about one academic subject, the new law requires, among other things, that each candidate must have completed in graduate or undergraduate standing, or the two combined, not less than 15 units (semester hours) of work in courses listed in the department of education in the institution in which the graduate work is completed, or courses in other departments of that or other institutions accepted as preparation by the department of education. Minnesota likewise has amended its law so as to require of new candidates and even of all others who have taught less than 18 months a year of special preparation and training for teaching. Kentucky in 1914 for the first time gave the State board of education the right to fix the qualifications of teachers for public high schools; and numerous State superintendents or inspectors have exercised their right, directly or indirectly conferred, to specify definitely qualifications that high-school teachers shall have.

PROVISIONS FOR ECONOMY OF TIME.

As there has come a better understanding of individual differences in children, both in abilities and in life purposes, more and better provisions are made by the schools to care for them and thus to effect an economy of time in education. Differentiated courses, the junior high school, summer schools, sex segregation in classes, and other means are all based on a recognition of such differences. No extensive data have been secured this year as to the number of junior high schools established, but it is known that a number of cities—e. g., Rochester, N. Y.; Montclair and East Orange, N. J.; Richmond, Va.; and Cleveland, Ohio—have realized their declared purpose and established one or more. There is a distinct tendency in Minnesota toward organizing high schools on the junior-senior plan, though Superintendent Schultz reports that no definite standards have yet been adopted; the State board of education of North Dakota has recommended that "high schools so far as possible organize on the six-and-six plan"; many of the rural high schools in Nebraska are essentially junior schools; and in Pennsylvania Inspector Koch reports that at least a dozen high schools have reorganized on the basis of a six years' course. Inspector Wheelock, of New York, writes that—

> the junior high-school movement is just beginning to receive marked attention in the State. It is a fact not generally appreciated that the New York State elementary course has for many years provided definitely for a differentiation

beginning at the seventh year; that while most New York schools have not definitely organized with reference to this particular plan, the number of individual cases in which the differentiation has actually occurred is considerable. During the past year definite action looking toward the establishment of organized junior schools has been taken in Rochester, Solvay, Dansville, Ellenville, Hempstead, and perhaps some other places.

Of the three plans proposed by Prof. Bobbitt in the report of the survey of San Antonio for future care of the secondary school population, one requires the establishment of "a half-dozen intermediate schools scattered judiciously over the city, each containing the seventh, eighth, and a portion, at least, of the ninth grades." This plan seems to receive more approval than the others. In the Oakland survey Prof. Cubberley writes:

As the elementary school buildings become more and more crowded and the high-school attendance increases, the best arrangement from an educational point of view, as well as the most economical plan from a school building point of view, will be to build five or six or possibly more new buildings, at central locations, designed especially for junior high-school work.

Although California was the first State to establish the intermediate school, it has only recently given definite legal recognition to this type of school. The constitution of the State provides a fund for secondary schools distinct from the fund for elementary schools. This distinction of funds frequently stood in the way of the organization of intermediate schools, which enroll pupils of both elementary and secondary grades. Only in cities where the elementary and high-school districts were coterminous could the intermediate school be established. The legislature of 1915 passed an act legalizing the organization of intermediate schools and removing the difficulty caused by the separation of funds. The intermediate-school grades are made a part of the secondary school, and a transfer of the money from the elementary-school fund to the secondary-school fund to pay for the tuition of pupils in the first two grades of the intermediate school is provided for. It is also provided that by a majority vote of electors union high-school districts, consisting of several elementary school districts, may organize intermediate-school courses and admit thereto pupils who have completed the sixth grade. The legislature also provided that normal-school graduates who have taken one year of college work, or holders of elementary certificates granted upon examination who have taken two years of college work, under regulations prescribed by the State board of education, may be granted permits to teach in any grade of the intermediate school. In some of the intermediate schools all teachers have been required to hold high-school certificates. This requirement has resulted in the displacement of very capable teachers of the seventh and eighth grade work who held only elementary-school certificates. This law will enable ambitious teachers holding elementary-school

certificates to qualify for intermediate-school work, thus removing a cause for much ill feeling among teachers. The State board of education has adopted regulations requiring that normal-school graduates who are candidates for the intermediate-school teaching permit shall take at least 20 semester hours of college work in two subjects, and holders of elementary-school certificates granted on examination shall take at least 10 semester hours of pedagogy and 30 semester hours of college work in three subjects. The subjects in which the prescribed college work must be done are as follows: French, English, German, Spanish, Latin, history, mathematics, physical science, biological science.

Vermont, too, in 1915, passed an act authorizing the establishment of junior high schools. From it the following sections are quoted:

SECTION 1. *Classification of junior and senior high schools.*—The State board of education may, with the approval of the school directors in the towns concerned, divide the secondary schools of the State, now existing or hereafter to be established, into two classes: (*a*) Junior high schools, having a four-year course; and (*b*) senior high schools, having a six-year course.

SEC. 4. *Courses.*—Each junior high school shall have a four-year course, flexible in character, designed for the instruction of pupils who have completed an elementary course of not less than six years, and suitable to the number and needs of local pupils; and the State board of education shall arrange for a course of study, including vocational opportunities appropriate to the needs of the pupils in the several communities. In any town where a junior high school is established the State board of education shall make the necessary readjustments of the course of study in the elementary schools.

SEC. 8. *Vocational education.*—Junior high schools shall include, in accordance with such directions and regulations as to courses, teachers, and equipment as the State board of education may prescribe, within their courses of study a vocational course in one or more of the following subjects: Agriculture, manual arts, commercial subjects, or domestic science, appropriate to the needs and environment of the particular school.

In his sixteenth annual report Supt. W. H. Maxwell, regretting the fact that our children "are losing at least two years in the preparation for life as compared with their European contemporaries," states three causes for this loss: That "the so-called secondary studies are commenced much earlier for those who take them in Germany and France than in America"; that "the German and French boy are at school more hours in the day and more weeks in the year than the American boy"; and that "the American parent is unwilling to allow his children to work hard while they are in school." Because of the condition as he sees it, Dr. Maxwell proposes "three effective ways" of saving time: An extension of the school day in grades 7 through 12 from five to six hours a day, the added time being mainly for recreation; an increase in the same grades of the school year to 220 days; opportunity for a more rapid advance for those pupils who have demonstrated in the first six grades un-

usual ability along academic lines. Although the school day has been extended in many schools—*e. g.*, the Los Angeles Technical High School and the Springfield (Mass.) High School of Commerce—and provision is made in many places by various devices for accelerating the progress of the more able pupils, an experiment has been undertaken in three schools of New York City to see what can be done for some 600 pupils who have completed the sixth grade with credit. One group of 200 is housed in the Speyer School of Teachers College, which will participate in the experiment.

Increase in the length of the school year is opposed generally because of the cost and because of a fear that the confinement will injure the health of the children. There is rapid growth, however, in the movement to hold summer sessions of high schools. Most of the summer sessions in public schools have been inaugurated by private or semipublic enterprise, primarily to afford opportunity for industrial work, supervised play, and coaching for children backward in their books. But as the opportunity has been extended into the secondary grades, and not infrequently taken over by the city, a large element in the enrollment has been made up of ambitious pupils desirous of advancing more rapidly than is possible in regular session. Testimony to this effect is general. To an inquiry concerning summer schools sent in 1914 by Charles Otterman to 104 cities, 71 replies were received; of these 51 stated that they offer in the summer academic work for high-school pupils. Thirty-four of these summer high schools were established in 1913. That the movement may develop most effectively a careful study should be made of what has already been done.

Indicative of what may be accomplished by a longer school day and year is the work at the Hebrew Sheltering Guardian Society Orphan Asylum, near Pleasantville, N. Y. There the work is so organized by the superintendent, Dr. L. B. Bernstein, that in each year there are, exclusive of holidays and examination periods, 225 school days divided into three terms. Thus the curriculum which in public schools requires 12 years is completed in 8, though a ninth is ordinarily added for "mental digestion" and also for vocational specialization. In the summer the children for six weeks do only half work, omitting the academic and the industrial exercises for periods of three weeks each. In secondary education, which consumes 10 terms of 75 full school days, each of the 5 school days in the week has five 45-minute periods for academic instruction and three additional periods for industrial or vocational work. In this department are about 140 boys and girls. The curricula are modeled after the New York syllabus, and have been approved by the board of regents. The question very naturally arises as to the ability of children to endure physically such continuous work and

to assimilate mentally instruction usually offered to pupils somewhat older. Although there have been no exact measurements of the results, the very careful medical records confirm the impression of visual inspection, that the children are in excellent physical condition; and the two municipal colleges of New York—the College of the City of New York and Hunter College—give full academic credit to the graduates of the high-school department. Moreover, teachers in charge of English, French, German, and mathematics in the New York city high schools have been repeatedly called to Pleasantville to inspect and criticize the work there. According to the superintendent's report, they have given "gratifying assurances that on the whole the work compares favorably with the corresponding terms in our public high schools, and this in spite of the fact that the children are from two to three years younger." In the first four terms of the secondary school, as well as in the elementary grades, the industrial work is prevocational, about one-fourth of it being repair work; after that each student specializes in some trade. Both boys and girls take home-craft courses, which they apply practically in the 17 cottages.

W. H. Hand, high-school inspector for South Carolina, continues the campaign begun several years ago to decrease elimination in high schools. In his annual report issued January, 1915, he presents a table showing the persistence of boys and girls in each high school in the State during the three-year period beginning 1911–12, concluding with a brief statement of the causes of elimination:

> In different communities these wide differences in holding the pupil in the high school are traceable to various causes, but wherever the falling off is marked the community should investigate the conditions and locate the trouble. It may be due to an inadequate teaching force or to some teacher or teachers lacking in the ability to inspire pupils, or to a course of study honeycombed with dry rot, or to the apathy of parents, or to the raids of the college drummers, or to the commercial spirit in young America. Whatever it is ought to be discovered and made known to the community.

Most of these causes he discusses at length, particularly the practice of some colleges to receive as freshmen high-school pupils who had not completed their secondary education. After printing detailed tables of high-school and college registration, which manifest "one of the most abnormal educational situations conceivable—a total regular academic college enrollment of over 40 per cent of the total secondary school enrollment, both public and private," Mr. Hand indicates with convincingly specific data each college that has failed to maintain its professed standard. The purpose of his campaign is revealed in his statement that "the colleges do not seem to realize that they are yet in the high-school business and that they are retarding the growth of their own feeders." Such a situation,

in South Carolina or in other States, needs only to be seen clearly and continuously to insure a betterment. At the request of the Association of Virginia Colleges, the State Department of Education has published the names of all freshmen in the "Standard Colleges" of the State, with detailed facts of subjects offered for admission.

Only three other tendencies may be briefly noted: Those toward a divided period for study and recitation, toward sex segregation in classes of the same subject, and toward social guidance. The first innovation has two general forms—that used by Principal Wiener, of Newark, N. J., who lengthened his periods to 60 minutes and gave his teachers the option of using either half or even all of a period, as the daily situation demanded, for supervised study; and that used by Principal Brown, of Joliet, Ill., who at first gave to such teachers as desired it and later to practically all of his staff a full period immediately following the recitation for supervising study. No complete data as to the number of schools adopting the plan has been sought, but news items are continually noted that indicate its rapid spread. Some of the schools besides Newark and Joliet reported as using one of the plans, usually the divided period, are the Wisconsin High School, at Madison; the High School of Commerce, Springfield, Mass.; and high schools at Topeka and Kansas City, Kans., Reading and Pottstown, Pa., Richmond, Ind., Pasadena and "several other places in California." An extended article on "Present Tendencies in Supervised Study" was recently presented by Prof. Hall-Quest, in Educational Administration and Supervision, volume 1, pages 239–256.

Since the experiment by Principal Armstrong, of the Englewood High School, Chicago, several years ago, there has been a steady interest concerning the matter of sex segregation within classes of the same subjects. Complaint is frequently heard that in art subjects a readier and fuller response by girls in mixed classes tends to cause the boys first to restrain themselves and finally to lose interest; that in the sciences the larger experience of most boys in the physical world enables them to outstrip the girls in recitation, however studious the latter may be; and that girls naturally have little aptitude, and so are ordinarily a drag on the classes in algebra and geometry. But for administrative reasons the complaints have seldom resulted in carefully prepared and measured experiments, which should definitely decide which policy is the more profitable. The industrial work by its very nature causes sex segregation, though occasionally even a metropolitan school is found that still gives boys and girls alike only "exercises" in wood, and increasingly, as is evidenced by published programs of study and the character of new textbooks, there is differentiation for sex in the allied sciences. There is urgent need for more studies like that by Mr. Minnick (*School Review*,

23:73–84), which goes far toward discrediting the complaint that mathematics is peculiarly unadapted to the minds of girls. Principal Cole, of the Broadway High School, Seattle, reports (*School Review*, 23:550–554) that in 1914–15 he segregated by sex the pupils in 244 of the 287 classes in the school, and that he kept a record particularly of the number of pupils receiving the higher grades as compared with the preceding years when the classes were mixed. At the end of the year, as a result of experience with both segregated and mixed classes, 53 of the teachers expressed their opinion regarding the experiment—24 were in favor of segregation, 17 were opposed, and 12 saw no beneficial results from it. After considering both the data and the opinions expressed, Supt. Cooper recommended that the segregation be continued in all sciences and in mathematics, in the first year of history, and in the first two years of English; and that there be no segregation in the commercial work and in foreign languages.

Hardly any problem has given conscientious and intelligent schoolmen more concern than that of the social guidance of pupils, a problem that has been intensified by the increasing size of high schools and the tendency because of numerous electives and departmental teaching for natural personal relations between teachers and pupils to be made difficult and in many cases actually impossible. The effort to supply the need through a home-room teacher, which is most often made, is successful only as such a teacher by chance has the talent and the time for the required additional and arduous work. Strangely enough, provision is more often made for the social oversight of the girls than of the boys. In one State in the Rocky Mountain section the home-room teachers are supplemented by a "matron," whose duties almost entirely concern the physical comfort of the girls during school hours. Recently, as a decided advance over either plan, several schools have appointed as adviser a woman especially trained and competent for a larger type of work. In Harrisburg, Pa., there is an adviser who gives all of her time to looking after the interests of the girls. It is her duty to visit the homes; to investigate the cause of absences; to encourage and aid pupils in remaining in school, improving their work, and making up failures; to give vocational guidance and personal counsel when needed. In the Broadway High School, Seattle, Wash., one of the teachers, who is trained in the social sciences, has general charge of the work, which pertains especially to organizing and directing other teacher-advisers who endeavor to get personally in touch with the entering girls and to see that they actively participate in the social life of the school. In the Washington Irving High School, New York City, so far as possible the girls are kept in the same class groups throughout their course,

in order that they may develop friendships, which otherwise would be extremely difficult in a school of 6,000 pupils. The social work of the La Salle-Peru (Ill.) Township High School is probably not surpassed anywhere else in the United States. Annexed to the academic high school are buildings for manual training and domestic science, for a hygienic institute, and for a social center. An extended athletic field and playground are now being constructed. All of the equipment is used for many and varied activities that extend throughout the year both for students of the high school and for citizens of the community.

THE HIGH SCHOOL IN THE SURVEYS.[1]

In the report of a survey of the San Antonio school system Prof. J. F. Bobbitt lays commendable emphasis on the need of supervision of instruction in the high school, declaring that the principal should during school hours make this his prime duty. And finally he presents what he considers an "index of community valuations" in various tables[2] which, at some sacrifice of clearness, are condensed below:

Cost of instruction in certain courses.

	Cost of instruction in per cents.	Instruction hours in per cents.	Cost of instruction per student hour (in cents).	Amount of class work per teacher.	
				Hours per week.	Average size of classes.
English composition and literature	20.4	24.3	6.7	22.4	28
Higher mathematics	17.0	20.0	6.9	23.4	27
The sciences	13.1	15.4	6.8	22.0	25
History and civics	10.6	10.2	8.3	20.8	24
Modern languages	10.3	7.3	11.4	20.7	17
Household occupations	9.7	9.2	8.3	20.8	15
Shopwork and mechanical drawing	6.3	4.8	10.3	23.0	13
Commercial subjects	5.3	4.1	10.3	21.8	18
Latin	5.2	4.0	10.3	21.5	19
Public speaking	1.9	(?)	9.8	20.0	22
Music	.4	.7	4.0	21.5	38
Physical training	.0	.0	.....	.....	.....
Drawing and design (not mechanical)	.0	.0	.....	.....	.....
Training of elementary teachers	.0	.0	.....	.....	.....

[1] See also Ch. XVIII, School Surveys.

[2] In *School Review*, 23: 505–534, Prof. Bobbitt presents an extended study of "High School Costs," incorporating with the material of the following table data from a number of other cities.

CHAPTER VI.

HIGHER EDUCATION.

By Samuel Paul Capen,

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Contents.—General tendencies, surveys, and legislative action—The reorganization of education in Vermont—Survey of the University of Wisconsin—The survey of State-supported higher institutions in Washington—The North Dakota State board of regents—Other surveys ordered by State educational authorities—State-supported institutions of Iowa—Inspections of higher institutions by the Bureau of Education—Legislation affecting higher educational institutions—The Nebraska initiative—Entrance requirements—Classification—New associations and foundations—Academic freedom.

GENERAL TENDENCIES.

The academic year just closed has been in several important respects noteworthy in the field of higher education. Certain constructive movements already under way have gained added momentum. The times have been full of significant signs and portents. Statistical reports show in general a steady and normal growth in enrollment with exceptional increases only in a few areas and in the newer professional courses,[1] but the efforts of college and university officials and of the governing bodies behind them have apparently been directed less toward expansion than toward the ordering and fortifying of territory already won. The conviction that both higher and secondary education must be made more sound and serious has been reiterated in educational gatherings throughout the country and has found reflection in numerous intensive studies of college and university administration and standards. On several occasions the belief has risen to expression that recent international happenings have placed an added responsibility upon American education and must act as a potent stimulus to American scholarship.

As specific manifestations of these larger tendencies and motives the following may be mentioned: The organization and management of State-supported institutions have been critically investigated at the behest of legislatures or State educational authorities in Oregon, Washington, and Wisconsin. Other investigations have been ordered and are in progress in Iowa and North Dakota. The legis-

[1] In view of the earlier publication of the Annual Report this year it has been impossible to summarize these figures.

latures of several other States, notably Montana, Minnesota, Idaho, and Nebraska, have made more or less searching inquiries into the administrative methods of the State higher institutions. The Legislature of Massachusetts had under consideration a plan for the establishment of a State university. The Legislature of Vermont reorganized the educational system of the State in response to the report of its survey commission. Legislative measures relative to State institutions, passed or proposed, dealt with forms of control, financial management, and even with courses and scholastic requirements. In some quarters this legislative activity has been regarded as an unwarranted and dangerous intrusion into fields which should be reserved to expert regulation. Yet in spite of a few failures to draw the line between matters which are the legitimate concern of the appropriating body and those which are the province of the expert, and in spite of some superficial and temporary hostility, this activity has on the whole revealed a sincere friendliness to the cause of higher education and a surprisingly unanimous desire to give it sound and generous support.

Many of the smaller colleges and institutions in the educationally backward sections have raised their admission requirements to 14 units, an amount of precollegiate training which is fast coming to national recognition as the minimum standard. But along with the common acceptance of the principle that a certain definite period of preliminary schooling is an essential prerequisite to a college course there is a growing distrust of the value of purely quantitative measures of intellectual attainment. This is evidenced not only in the recent recommendations of the National Conference Committee on Standards of Colleges and Secondary Schools but also in the action of the College Entrance Examination Board and of several institutions looking toward the establishment of more effective qualitative tests. In line with this tendency has been the recognition by certain college officials of the desirability of offering special encouragements and providing special facilities during the college course itself for highly gifted students. The sentiment of many is apparently expressed in the bold demand of President Hyde, of Bowdoin, that colleges should run a "few limited trains with Pullman cars only" for the benefit of the exceptional students.

The year has seen the further solidifying of higher educational interests through the formation of three important associations, one of which has already exerted nation-wide influence upon professional standards. These are the Association of Urban Universities, the Association of American Colleges, and the American Association of University Professors.

The more important of the movements and happenings here summarized are accorded detailed treatment in the following paragraphs.

SURVEYS AND LEGISLATIVE ACTION.

The outstanding events in the field of higher education during the year 1914–15 center around university surveys. Surveys, especially of public educational institutions, are becoming increasingly frequent. The bureau of education has record of more than 50 carried on within the past few years.[1] Higher institutions long lay beyond the rising tide of the survey movement, but the considerable number of university surveys completed within the past two years, or already projected for the immediate future, shows that the current has at last reached these institutions. As might be expected, the majority of universities and colleges already surveyed or shortly to be surveyed are controlled by the State. Such institutions are more directly subject to the popular will and consequently respond more quickly to the urge of popular educational movements.

The survey movement as affecting colleges and universities has had several highly gratifying results. In the first place, it has called attention to those processes in college and university administration which may be accurately measured and recorded, those educational results which may be statistically demonstrated, those particular needs which, on the basis of precise records, may be definitely forecast. There is not yet, to be sure, an accepted technique for the university survey. No two surveys have sought exactly the same ends or used the same methods. Yet, in spite of this variation and of the uncertainties which have thus far characterized educational standards of measurement, the university surveys are feeling their way toward objective criteria, whereby university administration may be judged, and toward a technique of educational investigation. Diverse as they are, they have already established certain points of agreement. In other words, a science of university administration is slowly being worked out, and in the process the survey is proving itself a very useful agent.

Still more encouraging for the future of State universities is the fact that State legislatures have in several instances either ordered or inspired surveys with the expressed intention of basing legislation relating to the institutions concerned upon the findings of survey commissions. This is another manifestation of that growing conviction on the part of the people that, since the schools are their own, it is their duty to exact a strict accounting of the way in which education has been managed, to the end that the enormous sums of public money invested may bring the most profitable return. While admitting that the legislation subsequently passed in at least one important case is potentially dangerous to higher education in the

[1] See particularly Ch. XXIV, vol. 1, Rep. of Commis. of Ed., 1914; and Ch. XVIII of this volume.

State, and that some other post-survey educational bills have been disappointing, the principle that careful, impartial investigation should precede legislative action is beyond cavil. If the principle becomes generally recognized State institutions will be freed from the ever-present menace of the capricious and hasty determination of questions vital to their welfare and to the educational policies of a State. Because of this intimate causal relation between certain recent surveys and legislation, it is appropriate to treat these two topics in a single division of the present chapter.

THE REORGANIZATION OF EDUCATION IN VERMONT.

The study of education in Vermont made by the Carnegie Foundation for the Advancement of Teaching, at the request of the commission appointed by the Vermont legislature of 1912 to inquire into the educational system of the State, was briefly summarized in the previous report of the Commissioner of Education (p. 170 et seq.). The commission, which reported to the 1914 legislature, adopted without substantial change the principal recommendations made by the Carnegie Foundation. The report dealt with the whole educational system of Vermont. Only those recommendations relating to general educational organization and to State aid for higher education are discussed in the present chapter.[1]

With regard to administration, the commission recommends—

> that the existing board of education be so reorganized as to provide a board of five members appointed by the governor, one member for the term of five years, one for the term of four years, one for the term of three years, one for the term of two years, and one for the term of one year, and at the expiration of a term the term of office should be five years; * * * that the board shall be given plenary administrative powers within the law over the whole educational system and organization of the State, and be charged definitely with the responsibility of providing, through a commissioner of education and at least two deputies, for the effective administration of the educational policy of the State.

The following paragraph summarizes its recommendations as to higher education:

> All institutions of higher learning within the State are private institutions and not entitled of right to State aid. * * * The commission finds that the State in proportion to its property valuation has been making appropriations to higher education far beyond those made by any other of the New England States or by the State of New York; * * * and that in so discontinuing State aid to higher education the State is in no way laying itself open to a charge of failure of duty to its youth; and that a continuance of such appropriations in present amount would be a gross neglect of such duty under the constitution.

A comprehensive bill was introduced in the legislature embodying substantially all the commission's recommendations, but was not

[1] See Chs. I and IV.

passed. The measures finally carried differed in several important respects. The commission's recommendations relating to general agencies for administration, however, were, in the main, ratified by legislation. An act was passed creating a State board of education consisting of five persons to be appointed by the governor, each member to hold office for five years. The board is enjoined to employ a skilled executive officer to be called the commissioner of education, to fix his salary, and through the commissioner of education and his assistants to have general charge of the entire public educational system of the State. Its control of higher education extends to the supervision of the expenditure of all State money expended under the provisions of the act creating the board, the inspection of all institutions in which or by which such money is used, and the preparation of a budget for these expenditures. The commissioner of education is to be appointed by the board for an indefinite term and to be subject to removal only upon a majority vote of the entire board. He must be a person of special training and experience in educational work, and is to act as the secretary of the board. Vermont is therefore to be added to the list of States that have now placed all public educational activities of the State under strong central direction. In the person of the commissioner the act provides for an official with large powers and opportunities for constructive leadership and corresponding responsibilities.

The State in effect repudiated the commission's recommendations with regard to subsidizing higher institutions. Special acts were passed making the same appropriations to Middlebury College and Norwich University as were made in the preceding biennium. The appropriation for the University of Vermont was increased by the addition of $6,500, for the use of the college of medicine. The principle of partial support by the State of privately endowed institutions is thus reaffirmed, contrary to the arguments presented in the report of the Carnegie Foundation for the Advancement of Teaching.[1]

SURVEY OF THE UNIVERSITY OF WISCONSIN.

Mention was also made in the last annual report of the survey of the University of Wisconsin, which was undertaken in the spring of 1914 by the State board of public affairs. The board engaged W. H. Allen and E. C. Branson as investigators. Detailed studies of numerous phases of the university work, organization, and management were made and the findings reported to the board of public affairs, which made its report to the legislature on December 29, 1914.

[1] Quoted in An. Rep. of Commis. of Ed., 1914, pp. 171, 172.

The published report is a volume of 957 pages (not including the table of contents), more than 800 of which are in fine print. One hundred and forty-two of these pages are devoted to the official report of the State board of public affairs. The remainder contains the reports of the investigators (called directors of the survey) to the board and the comment of the university thereon. Mr. Branson's report relates exclusively to the college of agriculture. The section devoted to it and the university's comment is 26 pages long. Some 680 pages are occupied by Mr. Allen's report and the university comment. The Allen report begins with a 39-page summary outlining the purpose and the method of the survey, discussing the general function of the university in its relation to the State and Nation, pointing out what are, in the surveyor's opinion, its major qualities and defects, and finally suggesting an answer to each of the 12 questions which the survey set before it at the beginning of its work.[1] This summary is followed by a general comment by the university, 22 pages in length, on the methods of Dr. Allen and the principal points of agreement and disagreement between him and the university officers. The section closes with the following paragraphs:

> The university * * * submits the following requests:
>
> 1. It formally requests that the board of public affairs do not accept the Allen report and exhibits in whole or in part.
>
> The university is anxious that this request should not be misunderstood. It makes no categorical denial of all Dr. Allen's criticisms. Some of the criticisms are just and the matters should be corrected; some are half true and ought to be considered, but the good recommendations are not seldom mingled with others whose only support is evidence that is partial or even warped. The sound criticisms are so mingled with incorrect statements, half truths, improper insinuations, and unworthy innuendoes that no exhibit ought to be accepted in the lump.
>
> The board of public affairs ought not to take any account or draw any conclusions from the report or exhibits without a careful, independent review of the evidence for and against the Allen recommendations.
>
> 2. The university also asks that the board of public affairs, in case it accepts any part of the Allen report or exhibits, accept also in the same manner and degree the comment or reply which the university may make to the part in question. This request does not relate to any statements or recommendations of Dr. Allen which the board may make its own.
>
> 3. The university further asks that if any part of the Allen report or exhibits is ordered printed (though not accepted by the board) the university may have the time necessary to prepare an adequate reply, and that this reply also be printed, section by section, along with the Allen material.

The compliance of the board with this last request apparently accounts in large measure for the formidable size of the printed report. Following the summary are 36 "exhibits," some of which are divided into several subsections. Accompanying every exhibit and nearly all

[1] See Rep. of Commis. of Ed., 1914, vol. 1, pp. 173, 174.

subsections are specific comments by the university. The 36 "exhibits" deal with questions of varying degrees of importance from the administrative point of view. Among those of the greatest interest to other institutions, discussion of which might be of general value if the method used were less controversial, are the following: 1. Supervision of instruction. 2. Effects of research upon teaching efficiency. 3. Different bases for grading students' work now used by faculty members. 4. University extension. 5. Effect of social diversion on students' ability to do class work, as reported by 351 faculty members. 6. Faculty machinery for investigating and governing. 7. Telling the Wisconsin public in 1914 "what our university does for us." 8. The university budget. 9. Per capita cost and cost of research.

The last exhibit is entitled "Next steps suggested that do not require legislation," and contains 339 suggestions. The university's comment on this "exhibit" estimates that—

> The outcome of the Allen survey is an accumulation of some 1,200 to 1,500 or more "suggestions" which are "next steps" for the university; * * * suggestions in such number and variety * * * may serve as hints or warnings to a competent administrator, but they are not and can not constitute a program.

The report of the board of public affairs itself, which opens the volume and constitutes the official statement to the legislature, while making use of the findings of the investigators and the discussion thereof by the university, wisely avoids wholesale indorsement of the views or recommendations of either party. It begins with an introductory statement relating the history of the university and summarizes the criticisms of the institution which have lately had currency in the State. These are said to be:

> That extravagance and lax business methods have characterized the administration of the university.
>
> That the university is in politics.
>
> That the members of the faculty are sacrificing instructional work to write books, to lecture, and to do other outside work for pay.
>
> That under the cloak of research faculty members are shirking classroom work and devoting much time to other pursuits.
>
> That students are deprived of personal contact with the strong minds of the faculty and that instruction is left to men of less experience.
>
> That instruction is not adequately supervised by deans and heads of departments.
>
> That the university is a school for rich men's sons.
>
> That it is educating students from other States at the expense of the taxpayers of Wisconsin.
>
> That it dominates the high schools of the State to the detriment of education in local communities.
>
> That the university is receiving a larger portion of the moneys expended by the State for educational purposes than is justified by the number availing themselves of university instruction.

The body of the report consists of three sections: General and educational policies, land and buildings, business organization. The last two are chiefly descriptive, dealing with the physical and financial resources of the university and its business methods and accompanied by statistical tables, together with exhibits of blank forms, records, etc. The first section, on general and educational policies, contains what both the general public and the legislature will regard as the pith of the report. Here the board takes up the criticisms of the university which led to the investigation (finding all of them to be either exaggerated or unfounded), discusses a few questions of vital import raised by the investigators, and makes certain broad recommendations which will probably affect the attitude of the State toward the university, the treatment accorded it by the legislature, and the general policies of the institution for some time to come. In view of the wide public interest in this particular survey and the common misconception of its results, some of these findings and recommendations are worth noting.

In regard to the criticism that the university is in politics, the report points out that:

> In recent years while the State has been attempting to meet economic and industrial needs by new legislation, it has been a common practice to consult with those who have studied and written on these problems. In the university faculty there have been, and now are, men who by reason of a lifetime of study are familiar with the various phases of these problems as they have developed and as they have been treated in other countries and States. * * * The State having engaged the services of the men in the university faculty is entitled to such advice and counsel as these men can give regarding the subjects to which they have devoted much ard special attention. * * * While new administrative policies were being inaugurated the State in a few instances has drawn upon the university faculty for members of its commissions. The State sought the services of these men on the theory that the inauguration of a new administrative policy required the advice, counsel, and direction of those familiar with the practices under similar administrative policies in other States and countries. * * * Both the State and university profited rather than suffered by this arrangement.
>
> Criticism has also been made of the practice (not a common one) of the State employing members of the faculty to devote a part of their time to work connected with the State government. A common expression of this criticism has been couched in the phrase that "a university professor should not be allowed to draw two salaries from the State." * * * Inquiry has shown that to have secured the services of men of the same ability would have resulted in many instances either in employing professors from other university faculties or in employing those experts who are in the pay of private corporations, and also would have resulted in the State paying a much greater sum for the same services.
>
> Investigation shows that in so far as students, faculty members, and regents are in politics *as individuals*, the University of Wisconsin is in politics. Students form political organizations, both partisan and factional, representing every faction and every party. Members of the faculty on occasions address these student clubs and give expression to personal convictions. In so doing,

students, professors, and regents, in the opinion of this board, have exercised only their rights to independent thought and action as individuals and citizens. No information has come to this board which shows that the University of Wisconsin as an organization is, or has been, in party or factional politics.

With respect to research and its supervision the report comments briefly upon the recognized value of research to the State, and approves the continuance of such facilities for it as now exist, but adds:

However, there is evidence tending to show that some few [instructors] forget their responsibilities and use the sincere and earnest work done by the many as a cloak for indolence. To prevent this it is necessary that every member of the faculty be held to some degree of accountability. Each man engaged in research work must be always ready to demonstrate to his colleagues the possibilities of his subject. * * * He must satisfy his colleagues and superior officers as to his earnestness and faithfulness in his work. Unless some such step is taken this board is convinced of the danger that particular instances may be used to discredit research, with the result that such opportunities as now exist may be diminished.

A relatively new aspect of university administration is treated under the heading of "Supervision of instruction." The report says:

The tradition that it is not consistent with the dignity of instructors of university rank to be closely supervised does not justify, in the judgment of this board, what is in some instances an almost entire absence of supervision in classroom work.

Certainly there are those of the instructional staff who have demonstrated distinctly the excellence of their scholarship and pedagogical methods. Even these, however, should not be permitted to pursue their work without reference to the work of other instructors. It is necessary that the work of different departments and instructors be correlated, that uniform standards of scholarship be maintained, and that unity of purpose and ideals be achieved. It is impossible to accomplish these ends without adequate supervision. * * * Such supervision need not be antagonistic, but should be at once critical, sympathetic, and constructive.

The criticism that the university is a school for rich men's sons is refuted by elaborate statistics of the cost of living, and the report adds:

While it can not be the policy of a State university to discriminate against any class, rich or poor, this board believes that wide publicity should be given to the fact that investigation has shown that a moderate sum is sufficient to maintain a student at the University of Wisconsin in complete comfort.

Valuable statistical material is also adduced to show that the university is not "receiving a larger proportion of moneys expended for educational purposes than is warranted when the number availing themselves of university education is considered." It is shown that the University of Wisconsin in its present form is much more than an institution for the "education of youth"; that—

its laboratories, its libraries, and its faculty have constituted a source of information which has contributed to the well-being of the people as a whole and

to the material welfare of individuals of every calling, employment, and occupation; that in 10 years there has been but little increase in the proportion of State moneys expended for instruction in the university at Madison to the total expenditures for instructional purposes in all branches of the State's educational system; and that far better than to curtail the opportunity now provided by reducing future appropriations of the university, the State * * * should direct its attention rather to the development of a plan which would make it possible for a larger number of the youth of the State to utilize the advantages of university training.

The report points out that additional junior colleges are needed, citing in defense of the recommendation the relatively small number of high-school graduates who go to college, the tendency of any higher institution to draw from a geographically restricted area, and the large mortality in university classes before the beginning of the junior year.

With respect to the foreign language requirements, which received much unfavorable comment in the Allen report, the board says:

In the opinion of the board it is neither right nor wise for the State absolutely to deny persons qualified in other respects the right to enter the university and pursue regular courses leading to graduation simply because they do not possess and do not wish to acquire, or who because of their surroundings have been unable to acquire, such knowledge of foreign languages as is now required.

This general section of the report closes with recommendations regarding university extension, in the course of which the board says:

The growth [of the extension department] has been so rapid and its work has been so largely experimental that the organization is not yet fully developed. There is also evidence of weakness in the case of some members of the faculty. This board realizes that in building up an entirely new department, with no precedents to follow and no experience as a guide, it is difficult to secure at once for each position in the faculty men equipped and temperamentally adapted to the particular work required. It is no criticism of the past to say that now better organization and more systematic management of the extension division are demanded and that the instructional force should be strengthened.

The survey eventuated in certain very unusual legislation. It also gave rise to numerous other proposals which failed to pass. Indeed, the session of the Wisconsin Legislature just ended saw the introduction of more than 30 bills and several joint resolutions directly affecting the university.

Of most far-reaching influence among these measures is the act creating a State board of education. Effort was at first made to establish a central board of education, to have control of all educational matters in the State and to supersede the board of regents of the university and the board of regents of the normal schools. This proved to be impossible. The boards of regents were left, but their actions rendered subject to review. The act creating the State

board of education provides for a board to consist of five members, the governor, the secretary of state, and the State superintendent of public instruction to be ex officio members, and one member to be appointed by the board of regents of the University of Wisconsin and one by the board of regents of the normal schools. The board is charged with the management of all the financial affairs of the educational activities of the State, including normal schools and the university. It is ordered to examine and audit the accounts of these institutions at the close of each fiscal year and to present on or before the 15th day of December next preceding the convening of the legislature its recommendations as to financial and business needs of the institutions under its jurisdiction, together with estimates for each, specifying in detail the amount of money that will be required for their support and maintenance. No new buildings shall be constructed or lands purchased except by and under the direction of the board. Fifteen thousand dollars is to be appropriated annually for necessary expenses.

A supplemental act provides that all money appropriated for the use of the board of regents of the university and the board of regents of the normal schools is now available for, and to be used exclusively by, the State board of education. In this connection it should be noted that although the University of Wisconsin is the beneficiary of a mill tax, the money raised by this means is not available to the university until it has been specifically appropriated by the legislature.

It is not always possible to tell how any piece of administrative machinery will run until it is started. Occasionally the inventors are surprised. It is perfectly apparent in the present instance, however, that the power to determine the educational policy of Wisconsin's higher institutions now resides in the new board of education, in which three ex officio members, elected on political tickets, two of them presumably for political reasons, form a majority. The fact that the superintendent of public instruction is also a member of the boards of regents of the university and normal schools will probably tend to give added strength to the action of these bodies and to render the review of them by the board of education in general purely formal. But if it chooses, this board, through its control of finances, is able practically to nullify the action of either of the boards of regents. Wisconsin has thus contributed a novel and startling variant to the growing group of central boards of control.

The financial dependence of the university upon political officers of the State acting ex officio is still further increased by other legislative action. The university appropriation bills were cut about 10

per cent. When it was pointed out by the university authorities that a reduction in salaries or the dismissal of part of the teaching staff must inevitably result, the legislature passed an act supplementary to the appropriation bills appropriating from unexpended moneys such additional amounts as may be necessary to conduct any State department (including the university) in the customary manner and authorizing the governor, secretary of state, and State treasurer to determine what amounts are thus needed.

Other important enactments which appear to be the direct outcome of the survey were: The raising of the tuition fee to nonresident students from $100 to $124; the repeal of the appropriation made by the previous legislature for the construction of a men's dormitory; a joint resolution declaring that members of the university faculty are to feel free at any time to appear before legislative committees to give special information when called upon by a member of the legislature or of a committee; and a joint resolution ordering an investigation of the purchases of realty by the board of regents during the last eight years in Dane County (the seat of the university).

Among the bills introduced which failed to pass and which were evidently inspired by the survey were measures (1) requiring the university to admit any graduate of a four-year free high school or other public school and ordering the suspension of high-school inspection by university officers; (2) providing that any resident graduate of an accredited high school shall be admitted to any college or department of the university; (3) establishing an English course at the university, admission to which and graduation from which shall not entail knowledge of any other language than English; and (4) removing the president of the university from the board of regents and from its standing committees.

THE SURVEY OF STATE-SUPPORTED HIGHER INSTITUTIONS IN WASHINGTON.

Washington is another State that is seeking to secure a basis of exact knowledge and impartial opinion before passing radical legislation affecting higher education. The rapid parallel expansion of the State university and the State college in recent years has led to vigorous, but not always accurately informed, protest against duplication. This has been aggravated, as is usually the case, by the activity before the legislature and elsewhere of the partisans of both institutions and by the dynamic loyalty of the district in which each is located. During the 1915 session of the legislature, which was pledged to economy, a crisis seemed to be imminent. Several bills were introduced which it was felt might, if passed, damage one or both of the institutions and hurt the cause of higher education in the State. In order to forestall this possibility, friends of both institu-

tions, together with the governor, invited the Commissioner of Education to come to Washington, study the situation, and recommend a course of action. During the closing days of the session the commissioner and the specialist in higher education made such a review of the situation on the ground as was possible in the time available. On the basis of this investigation the commissioner made a report to the joint committee on educational institutions and education, in which he outlined the major functions of the State university, the State college, and the State normal schools, and recommended a comprehensive survey of these institutions, with such general survey of the public-school system of the State as may be necessary before legislative action limiting the sphere of any of the institutions is taken. To have charge of the survey he recommended the creation of a legislative commission which should work through experts, and he offered the services of the Bureau of Education in the prosecution of the survey.

In compliance with these recommendations the legislature passed an act creating a survey commission, and naming as its members the subcommittee of the joint committee on educational institutions and education, before which the hearings relating to the institutions in question had been held. The commission was instructed to conduct a survey as outlined by the Commissioner of Education and to report to the governor on or before April 30, 1916. Each member of the commission is to receive as compensation $5 a day while actually engaged in the performance of his duties, and for the payment of these honorariums, the traveling expenses of the commission, and the expenses of the experts to be employed, the sum of $5,000 was appropriated. The survey commission at once called upon the Bureau of Education for the assistance promised by the commissioner, and the preliminary steps in the survey have already been taken under the commissioner's direction.

THE NORTH DAKOTA STATE BOARD OF REGENTS.

Like Vermont, North Dakota has regarded a survey as an essential part of educational house cleaning. For several years the Legislature of North Dakota has contemplated the possibility of a comprehensive reorganization of the State educational system. Mention has already been made of the temporary educational commission created by the legislature of 1911 and its very suggestive report.[1] An act passed by the 1915 legislature organizing the administration of State-supported higher educational institutions appears to be a somewhat remote and not altogether consonant echo of the work of the commission. The act provides for the appointment by the governor of a State board of regents consisting of five members, with

[1] See Ann. Rep. of Commis. of Ed., 1912, p. 95.

a six-year term of office, but removable by the governor for cause before the expiration of the term, one, and not more than two, to be appointed from each congressional district, and not more than one from any county, nor more than one who is an alumnus of any institution under the control of the board. The board is to elect a secretary, at a salary of $2,500. Members of the board are to receive $7 a day and their necessary traveling expenses. The board will supersede the governing boards of the State university and school of mines, the State agricultural college and experiment station, the school of science, the normal industrial school, and the school of forestry, and it is charged with all the duties of these boards.

A novel feature of the new act is the provision that—

> the State board of regents first appointed shall, as soon as practicable after having organized, procure, to be made by a competent expert or experts from without the State, an educational survey of all institutions under its control, for the purpose of ascertaining wherein the efficiency of the State insitutions can be best served and economy in conducting the same best practiced.

Upon the completion of the educational survey the board is instructed to appoint as its executive officer a commissioner of education from without the State. The commissioner is to—

> perform such duties of examination, inspection, and visitation as the board may direct and; * * * [to] advise the board on all matters pertaining to the curricula, coordination, and correlating of work in the institutions under its control; * * * and [to] make a special study of the particular needs and requirements of each institution, and report thereon to the board at such time as they shall direct.

The commissioner's salary is to be fixed by the board at a sum not to exceed $5,000 a year. The board is to have the power to elect the presidents and other officers of each of the institutions and fix their salaries, to coordinate and correlate the work of the several schools so as to prevent wasteful duplication, to fix tuition fees, and to prepare a budget for the consideration of each legislative assembly setting forth the financial needs of the institutions under its control. It is required to hold one annual meeting at the State capital and quarterly meetings at one of the institutions under its control, if practicable. Eighteen thousand dollars annually is appropriated for the expenses of the board.

Although the powers of the new officers are not specified as explicitly as in the cases of Idaho and Vermont, it is, nevertheless, apparent that the Commissioner of Education when finally appointed under this new North Dakota statute will be the responsible executive head of the higher educational system.

OTHER SURVEYS ORDERED BY STATE EDUCATIONAL AUTHORITIES.

UNIVERSITY OF OREGON.

The president and board of regents of the University of Oregon requested the Commissioner of Education, in March, 1915, to provide for a survey of the organization and management of that institution. The survey was undertaken during the summer and early fall, under the direction of the specialist in higher education, and treated the following topics:

1. The field of the university and the attitude of the State toward the institution.
2. Organization and administration of the university: (*a*) The board of regents. (*b*) Administrative officers and heads of departments.
3. Faculty. Training and experience. Methods of appointment. Salary scale. Teaching hours and student hours.
4. Provisions for research and results in service to the State.
5. Curricula of various schools and departments.
6. Scholastic relation of the university to its students, including the requirements for admission and graduation and their enforcement.
7. General comparison of the financial status of the University of Oregon with that of other State institutions.
8. The equipment.

The report was rendered on September 26 to the board of regents of the university.

STATE-SUPPORTED INSTITUTIONS OF IOWA.

The Iowa State board of education, created in 1909 to take charge of the affairs of the State university, the State college of agriculture and mechanic arts, the State teachers' college, and the college for the blind, issued in October, 1912, an order looking toward the coordination of the work of these institutions. The general provisions of the order were that courses in engineering should be concentrated at the State college of agriculture and mechanic arts, and that professional training in education and in the liberal arts and work in home economics be centered at the university. In response to resolutions passed by both houses of the legislature, the board rescinded its ruling before it was put into operation. Since then the expenses of the three principal State institutions have been increasing. Rivalry between them and their partisans has not diminished. General complaints of unnecessary duplication are becoming more and more insistent. In view of this situation, the State board of education requested the Commissioner of Education, in May, 1915, to undertake the direction of a survey of the higher institutions of the State and to employ such assistants as he deemed necessary. The commissioner has assembled for the purpose a survey commission consisting of seven educational experts, two members of the Bureau of Education and five outsiders.

INSPECTIONS OF HIGHER INSTITUTIONS BY THE BUREAU OF EDUCATION.

NORTH CAROLINA.

Less thoroughgoing investigations, which are nevertheless to be regarded as minor manifestations of the survey movement, were undertaken by the Bureau of Education in two States.

Under the rules of the department of public instruction of North Carolina the State board of examiners is authorized to exempt from part of the examination for the high-school teachers' certificate graduates of those colleges and universities in the State which satisfy the board of their ability to give the required training in the principal branches covered by the high-school teachers' examination. That the board might have the benefit of the impartial advice of an outsider in selecting its group of approved institutions, the State superintendent of public instruction requested the Bureau of Education to inspect and report upon the colleges and universities of the State. Accordingly the specialist in high education visited, during the academic year 1914–15, 27 of these institutions and reported upon their work and equipment to the State board of examiners.

OREGON.

The State of Oregon passed a law in 1911 authorizing the issuance of teachers' certificates to graduates of standard colleges and universities and providing that "a standard college, university, or normal school is one that shall be standardized by the United States Bureau of Education." In case of the bureau's failure to pass upon the standard of any higher institution of Oregon, the law further specified how such standardization was to be accomplished by local agencies. The bureau accepted the invitation to assist the State of Oregon in the standardization of the higher institutions of that State. In 1911 the specialist in higher education visited all degree-conferring institutions, examined their administration, support, equipment, and faculty, and reported to the State superintendent of public instruction, recommending that three of them be considered as meeting the requirements of a standard college or university according to the State law.[1] The conviction that certain of the others had in the meantime improved and were now entitled to recognition under the terms of the law led the State superintendent early in 1915 to request the bureau to repeat its inspection. The specialist in higher education was sent to Oregon for this purpose in March, 1915. He reported to the State superintendent that, judged by the criteria which had been applied in the previous inspection, the following institutions might be recognized as standard: Albany College, McMinnville College, University of Oregon, Reed College, Pacific University, and Willamette University.

[1] See An. Rep. of Commis. of Ed., 1912, pp. 95, 96.

LEGISLATION AFFECTING HIGHER EDUCATIONAL INSTITUTIONS.

In the reports of 1912 and 1914 attention was called to various efforts of the legislature, educational officials, and interested groups of citizens to bring about a closer correlation of the higher institutions of Montana and to do away with wasteful duplication and destructive institutional rivalries. The 1913 legislature organized the State university at Missoula, the State college of agriculture and mechanic arts at Bozeman, the State school of mines at Butte, and the State normal school at Dillon, into the University of Montana, without consolidating them, and created the office of chancellor of the university, without appropriating money to pay his salary.

Certain citizens of the State felt that the issue was not settled and proposed by initiative petition a bill providing for the consolidation of the State university, the college of agriculture and mechanic arts, and the school of mines under the name of the University of Montana, and for the appointment of an out-of-State commission of five presidents of State universities which are already consolidated, to determine whether the institution should be located at Missoula or Bozeman. This bill was defeated at the election of 1914.

The legislature of 1915 did not make an appropriation for the salary of the chancellor. Indeed, a bill was introduced, but defeated, to abolish that office. After the adjournment of the legislature the State board of education voted to divide the expense of maintaining the chancellor pro rata among the institutions under his jurisdiction. As this report goes to press announcement is made of the election of Prof. Edward C. Elliott, director of the course for the training of teachers at the University of Wisconsin, to this important and influential office.

THE NEBRASKA INITIATIVE.

The Nebraska Legislature of 1913 passed an act authorizing a tax of three-fourths of 1 mill on the grand roll for six years to provide a special university building fund.[1] The opertaion of the act was suspended until the electors of the State should have an opportunity under the initiative to express their choice as to the future site of the colleges of the institution. At the general election of 1914 the two following questions were submitted to the electors in response to initiative petitions:

(*a*) Shall all colleges of the State university, excepting the college of medicine, be consolidated as soon as practicable on the farm campus?

(*b*) Shall the colleges of the State university, excepting the college of agriculture and the college of medicine, be housed in buildings located or to be located on the present city campus and on land contiguous thereto?

[1] In Nebraska the assessors divide the value of the property found by five before turning in the same. Hence, the grand assessment roll for tax purposes is only one-fifth of the value of the property of the State as found by the assessors.

In the event of the passage of the first provision the proceeds of the tax were to become available for the erection of buildings. If the second option was chosen by the voters, then one-third of the levy was to become available for the purpose of erecting buildings on the farm campus and two-thirds for the extension of the city campus and the erection of buildings thereon. The second option was chosen by the electors, and the program of expansion under it has already begun.

ENTRANCE REQUIREMENTS.

COMPREHENSIVE EXAMINATIONS.

A very significant movement relating to the quality of college preparation and the methods for testing it is now, after several years of careful fashioning, successfully and auspiciously launched. The "comprehensive examination" has been formally baptized by two of the most influential bodies dealing with college entrance. The term is comparatively new and until recently has probably not been fully understood by the majority of educators, although the thing itself has long been the subject of discussion. The extended consideration of comprehensive examinations by the Association of Colleges and Preparatory Schools of the Middle States and Maryland in 1912 helped to give currency to the designation and to focus the attention of educational leaders in that section upon the desirability of adopting this kind of test in place of the prevailing type of college entrance examinations. The discussion, which resulted in the appointment of a committee by the association to study and report on comprehensive examinations, was opened by President Lowell, of Harvard University. Harvard's leadership in this new movement was thus appropriately recognized.

Comprehensive examinations, though under a different name, were in effect already being given in connection with the new plan of admission to Harvard put into operation in 1911. The old plan of admission required that each student be examined in each subject demanded by the university for entrance. The university accepted no secondary-school certificates in lieu of examination. The new plan combines the characteristic features of both the examination and the certificate methods of admission. A candidate for admission under the new plan presents a certificate from his secondary-school principal testifying to the *quantity* of the work covered; the university then takes a sample of the *quality* of this preparatory training by examining him in four subjects. Effort has been made to frame examinations which should not be merely mechanical quizzes on certain books or prescribed portions of subjects, but which should test the student's general knowledge of the several subjects and his

power to organize and apply it. Substantially the same plan of admission has lately been adopted by Princeton (there designated the "alternative method"), by Yale, and by certain other institutions.

This official indorsement of the combined examination and certificate method of admission, together with evidence of its success where it has been put into operation, led the National Conference Committee on Standards of Colleges and Secondary Schools, at its meeting in March, 1915, to make a special order of business of comprehensive examinations and to adopt the following resolution:

Resolved, That the national conference committee on standards of colleges and secondary schools recommends that consideration be given by colleges to the method of admission by means of a certified school record and comprehensive examinations in a limited number of subjects.

The College Entrance Examination Board, meeting about three weeks later, in April, 1915, gave added impetus to the movement by the adoption of the following resolutions:

That there be offered by the College Entrance Examination Board in June, 1916, and thereafter, a set of comprehensive examinations adapted to the use of those colleges in the board which offer or propose to offer comprehensive examinations for admission purposes. * * *

That separate committees of examiners be appointed by the board for the preparation of the two sets of examinations offered.

That separate bodies of readers be appointed for the reading of the answer books of the two systems of examinations.

That until otherwise arranged, each college shall determine the conditions under which its own candidates shall be admitted to the examinations of the new system, and that each college shall be allowed, on request, to have the answer books of its candidates for admission under this system forwarded to it without reading on the part of the board.

In the annual report of the board for 1915 appears a memorandum by J. G. Hart, chairman of the Harvard committee on admissions, giving a brief description of comprehensive examinations as the committee understands them. It reads:

To be most useful the new comprehensive papers must be adapted:

(1) To such variety of school instruction as exists in the several subjects—i. e., they must not prescribe methods, but must recognize the general principle that the schools determine how they shall teach a subject and that the college tests results or power.

(2) To different stages of training in the subjects in which they are set—i. e., they must give boys opportunities to show their power, whether they have had the minimum or the maximum training given in school; for example, the papers in French should be so drawn up as to enable a boy who has had only two years of French to show that he has as much command over the language as can be expected from that amount of training, and they must be similarly useful for the boy who has had three or four years of French.

OTHER ACTION RELATING TO COLLEGE ENTRANCE.

National Conference Committee on Standards of Colleges and Secondary Schools.—In the preceding annual report (pp. 177 and 179) appeared a brief description of the proposed changes in the unit values of mathematics and history. It was there brought out that schoolmen generally testify that Mathematics A as defined by the College Entrance Examination Board actually demands two units of time if properly covered. A careful consideration of the subject led the National Conference Committee to the conclusion that the criticisms of the present valuation of the unit in mathematics were justified. It therefore voted, at its meeting in 1915, the following resolution:

Resolved: That the National Conference Committee on Standards of Colleges and Secondary Schools recommends that the valuation of the College Entrance Examination Board requirement in elementary algebra be increased to two units—mathematics A1 and mathematics A2—each to be counted as one unit; that colleges admitting on certificate, however, give credit for one and a half or two units for mathematics A, according to the time actually devoted to the subject, no more than two units credit to be given in any case.

In the case of history the objection had been raised that the present unit values were too liberal. The national conference committee passed the following resolutions bearing on this matter:

Resolved: That the national conference committee on standards of colleges and secondary schools recommends that courses in history of less than four or five periods per week be not given in the first or second year of the secondary school course; that the minimum admission credit in history be one unit, and that credit be not given for more than one unit in one historical field.

That the College Entrance Examination Board establish two examinations in each of the historical fields, to be known as elementary and advanced, or by some other distinguishing terms, and that elementary history be given a credit of one-half unit, and advanced history of one unit.

That colleges admitting on certificate grant credit for work in history of one-half unit or one unit, according to the time employed.

A consultation of bodies which prepare accredited or approved lists of secondary schools, with a view to greater cooperation, was also recommended in the resolution quoted below. Such a meeting should have important results.

Resolved: That, with a view to securing more uniformity in the standards of certification, it is recommended that the associations and commissions which draw up lists of approved schools for the use of colleges hold a conference in the near future, to which shall be invited also representatives of colleges in other parts of the country.

College Entrance Examination Board.—The board, at its meeting in April, adopted the recommendations of the national conference committee in regard to the unit weight of mathematics A, but, in view of the recent appointment of a committee to define more

fully the requirements in history, it did not take action on the recommendations of the conference committee relating to this subject.

The board authorized the printing and circulation of the proposed definition of the requirements in biology, botany, and zoology, with a view to their adoption at the November meeting of the board.

The original purpose for which the board was founded was to substitute for "the separate entrance examinations held every June by individual universities, colleges, and scientific schools," the uniform examinations of the board. The simultaneous action, in 1915, of the faculties of Harvard, Yale, and Princeton (which had hitherto conducted each its own examinations) adopting after the present year the board's examinations in place of those previously given by these institutions in June, marks the accomplishment of this original purpose.

CLASSIFICATION.

COMMITTEE OF THE ASSOCIATION OF AMERICAN UNIVERSITIES.

The Association of American Universities, consisting of 22 privately endowed institutions and State universities which have developed strong graduate schools, has quite naturally long been interested in the question of classification. Its members must have fairly accurate knowledge of the standards and equipment of the majority of colleges in the country in order that the standards of their graduate departments may not be depressed by the admission of ill-prepared students. It is a matter both of self-defense and the defense of scholarship. Whatever may be said in favor of not inquiring to closely into the quality of the preliminary training of boys and girls who aspire to a college education, of putting as few obstacles as possible in their way—and there are many who advocate almost complete academic free trade at this point—the same arguments do not apply to the relationship of the graduate school to the college. The graduate school stands preeminently for the promotion of scholarship. Its double function is the training of specialists in the higher branches for the teaching profession and the facilitation of research. In weighing the measure of its fidelity to both these aims, it is its own judge. There is no ready litmus test whereby the quality of its product may be at once revealed. Only the passage of years makes clear whether or not it has kept the faith. This high obligation both to the foundational profession and to the very spirit of scholarship itself, transcends the claims of any ill-equipped collegiate institution to recognition of its conscientious efforts and even outweighs the ambition for professional training of the earnest but poorly prepared individual.

From various sources (though chiefly in the last four years from the unpublished tentative classification made by the Bureau of Edu-

cation in 1911) the members of the Association of American Universities have each more or less independently attempted to grade institutions whose graduates apply for candidacy for advanced degrees. At its meeting in 1913 the association not only took action formally recognizing the degrees of 119 American colleges,[1] but appointed a committee on the classification of colleges under the chairmanship of Dean Kendric C. Babcock, of the University of Illinois. This committee made at the meeting of the association in 1914 the following striking report:

1. That there be prepared and circulated among the members of this association a list of universities and colleges, consisting of three groups as outlined below, based primarily upon the experience and practice of this association, such a list to be used privately by the members for one year as a provisional list, with a view to its revision and subsequent publication in the proceedings of the association.

Group A.—Institutions whose graduates should ordinarily be admitted to the graduate schools of this association for work in lines for which they have had adequate undergraduate preparation, with a reasonable presumption that advanced degreees may be taken with the minimum amount of prescribed work and in the minimum time prescribed. Students who choose work in lines for which their undergraduate courses has not prepared them adequately must expect to take more time and do additional work.

Group B.—Institutions from which only those graduates of high standing in their classes who are individually recommended by the department of undergraduate instruction corresponding to that in which they purpose to do their graduate work may be admitted on the same basis as graduates from the institutions in group A.

Group C.—Other institutions whose graduates should be admitted to graduate schools, but with the presumption that more than the minimum time and minimum amount of work will be ordinarily required for an advanced degree.

2. That the dean of each graduate school of this association furnish before March to the secretary of the association, for the private information of members of the association, a list of all students newly admitted to his school during the last three years who were rated as deficient. Such a list is to show, as far as practicable, the name of the student, college, degree, date of degree, any work or study intervening between that date and admission to the graduate school, the principal subject of the undergraduate course, the principal subject chosen for graduate work, an estimate of the undergraduate course and the deficiences assessed in the estimate, or special prescriptions made to compensate for deficiencies.

It is further recommended in this connection that each dean furnish a list of institutions other than members of this association from which students have been admitted during the last three years.

The association accepted the report and voted to continue this committee.

RECOGNITION OF THE JUNIOR COLLEGE BY THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES.

Reference has been made in the annual reports of 1912 and 1914 to the multiplication of junior colleges and the attempts of various State and university authorities to define this new type of institution.

[1] See Rep. of Commis. of Ed., 1914, Vol. I, pp. 168, 169.

The Association of Colleges and Secondary Schools of the Southern States, at its meeting in 1913, appointed a committee to study the junior college problem. The committee reported at the meeting of the association in October, 1914, recommending that the association pass a resolution to establish a category of members, known as junior colleges, under the following conditions:

1. The *college* work must be the essential part of the curriculum of any institution recognized as a junior college; therefore, junior colleges must publish in their annual catalogues a classified list of all their students.

2. If a preparatory department is maintained, its work must be approved by the association.

3. The minimum requirements for admission to the college classes must correspond with the present requirements of the association.

4. For graduation from the junior college, the student must complete satisfactorily 30 *year*, or 60 *semester*, hours of work equivalent to that given in the freshman and sophomore years of colleges belonging to the association.

5. No junior college should confer a degree; a junior college diploma may be awarded.

6. The number of teachers, their training, the amount of work assigned them, the number of college students, the resources and equipment of the junior college, are all vital factors in fixing the standard of an institution and must be considered by the executive committee in recommending any institution for membership. On these points, therefore, the committee shall issue recommendations from time to time for the purpose of informing institutions seeking membership in the association concerning conditons to be met.

The association went on record as favoring the establishment of a new category of members, to be known as junior colleges, under the requirements proposed. A constitutional amendment providing that "the membership of the association shall consist of four classes—(1) colleges and universities; (2) junior colleges; (3) schools; and (4) individuals"—was proposed and referred for adoption or rejection to the next meeting of the association.

NEW ASSOCIATIONS AND FOUNDATIONS.

THE MAYO FOUNDATION.

The University of Minnesota was, in February, 1915, offered the Mayo Foundation for Medical Education and Research at Rochester, Minn., endowed by the Mayo brothers to the amount of one million and a half. The foundation was to come under the control of the university only after a trial period of six years. Before the regents of the university took definite action on the offer there arose a vigorous public opposition, which culminated in the introduction of a bill before the legislature to prevent the University of Minnesota from affiliating with agencies outside of the campus. The bill was defeated. This opposition was, in the opinion of the Journal of the American Medical Association, of positive benefit, since it resulted

in a thorough investigation of the Mayo clinic and the new research foundation and in wide publicity concerning them. In June the board of regents accepted the proposed union. The Journal of the American Medical Association thus comments upon the new impetus given to medical education in Minnesota by the arrangement:

Medical education in Minnesota has been unified to a remarkable extent in recent years and has been placed entirely under the control of the State university. * * * At the present time, it is stated, graduate courses are being offered in all laboratory and clinical departments except those of genito-urinary diseases and dermatology, and this work has been arranged in systematic courses leading to the graduate degree of doctor of science. * * * The acceptance of the proposal to unite the work of the Mayo foundation with that of the university is directly in line with the policy to retain the control of all medical education in Minnesota, both undergraduate and graduate, in the hands of the State university.

The facilities for research and graduate instruction of the university and of the Mayo foundation in a large measure supplement each other. Such instruction has been best established at the university in connection with the laboratory branches, whereas, at Rochester, more work has naturally been done in connection with the clinical departments. This being the case, the rotation of graduate students between the university and Rochester will result in a more thorough and all-around training in both the laboratory and clinical aspects of any chosen specialty. Under the plan proposed the research work at the two places will be unified and harmonized under the control of the University of Minnesota.[1]

THE ASSOCIATION OF URBAN UNIVERSITIES.

In recognition of the peculiar problems and obligations of the city college or university and with the conviction that these can most effectively be met by combined action and the interchange of experience and opinion, representatives of a number of these institutions in attendance upon the meeting of the National Association of State Universities at Washington, in November, 1914, formed an Association of Urban Universities. The call for the meeting which led to the formation of this association thus set forth the tasks and purposes of these urban institutions:

The municipal colleges are aiming to do for their cities some of the things the State universities are doing so admirably for their States. Private institutions in cities, realizing the obligations resulting from freedom of taxation, are endeavoring to serve their local communities. The general public, on the one side, is awakening to the value and necessity of expert knowledge, and the universities, on the other, are realizing as never before their duty to train men and women for municipal, State, and national positions. Since much of this is new and experimental, it is thought that a conference on the relations of civic universities to their local institutions and communities will prove helpful.

The following institutions were represented at the meeting: University of Akron, College of the City of New York, Johns Hopkins

[1] See also Ch. VIII, Medical Education.

University, University of Cincinnati, James Milliken University, University of Louisville, Reed College, Washington University, Northwestern University, New York University, University of Pittsburgh, Boston University, University of Buffalo, and Toledo University.

The report of the committee on organization, besides providing for the formation of the association and suggesting its name, recommended as officers for the ensuing year: President, President Dabney, of the University of Cincinnati; vice president, Dean Lord, of Boston University; secretary and treasurer, Prof. Clark, of the College of the City of New York.

It also recommended that membership be by institutions for the present and that each institution pay an annual fee of $10 to cover the expenses of organization and publication of the minutes. It recommended that those municipal universities and urban universities and colleges interested in cooperation with municipal institutions and in training for public service be eligible for membership.

The gathering then resolved itself into an experience meeting, each institution reporting upon the methods of cooperation with city activities which it had already adopted. This material has since been summarized and printed as a bulletin of the Bureau of Education under the title of "The Municipality and the University." (1915, No. 38.)

THE ASSOCIATION OF AMERICAN COLLEGES.

The Association of American Colleges was formally organized in Chicago on January 15. As stated in the preamble to the constitution of the new association, its duties are to be "the consideration of questions relating to the promotion of higher education in all its forms in the independent and denominational colleges in the United States, and the discussion and prosecution of such plans as may tend to make more efficient the institutions included in the membership of the association." The first session of the association was held jointly with the council of church boards of education on January 14, and was devoted to a discussion of the moral and religious phases of education. This session preceded formal organization.

The first independent session of the new association, on the morning of January 15, was devoted to a general discussion of the place and function of such an organization. The fact was brought out that the interests of the independent colleges, as distinct from the public and private universities, are nowhere the particular care of any organization or group of people. The great graduate schools of the country have for a number of years maintained an association (the Association of American Universities), which is charged with defining the ideals and maintaining the standards of these institu-

tions. The State universities have profited much by the formation of the National Association of State Universities. Although the universities which comprise these two associations have collegiate departments, nevertheless the problems of college education, as such, seemed to the promoters of the new association to lack serious and organized attention. From these older associations also and from the National Education Association have emanated certain propositions relating to the organization of the American system of higher education which, it was said, if generally adopted, would render the college wholly or in part superfluous. The college should be in a position to discuss its own situation and to present forcibly its own claims before a policy looking to its elimination from the scheme of American education was adopted. Moreover, colleges, especially the independent colleges, are largely without information of their own operations and needs. In the reports and bulletins of the Bureau of Education and elsewhere much information relating particularly to State universities is available. If the independent colleges were supplied with the same record of facts concerning themselves it would be reasonable to expect a great improvement in college education. Much of the false emphasis known to characterize catalogue statements is due to ignorance on the part of catalogue editors of the offerings of sister institutions. The opinion was reiterated also that what is known as the "Christian college" (by some called the "denominational college," although the term "Christian" is commonly used to include institutions not under denominational control but merely on terms of friendly cooperation with some denomination) has a particular mission to perform which the strictly nonsectarian public institutions can not attempt—namely, the higher education of youth under strongly positive religious influences. For all these reasons and many others it was felt that there is a distinct place for such an association.

The essential clauses of the constitution adopted were those on membership, representation, and officers, the gist of these clauses being as follows:

All colleges conforming to the definition of a minimum college given in the by-laws are eligible to membership. Each institution is entitled to one vote in each meeting. The officers of the association are a president, vice president, and a secretary and treasurer, who are to hold office for one year and to be ineligible for reelection.

The association adopted one by-law at the same business session. The by-law defined eligibility. To be eligible for membership a college must require 14 units for admission and 120 semester hours for graduation, except that by a two-thirds vote of the association a college not meeting these requirements may be admitted to membership. Immediately upon the passage of the by-law the association voted

unanimously to admit Clark College, Worcester, Mass., which, being a three-year institution, requires but 108 semester hours for graduation, to membership.

The report of the committee on classification, which was adopted, recommended that the Bureau of Education and other classifying bodies be urged to use the following terminology in listing institutions: (1) Tax supported—(a) State, (b) municipal; (2) nontax supported—(a) Denominational, (b) with denominational affiliations, (c) independent.

The following officers were elected for the ensuing year: President, Robert L. Kelly, Earlham College; vice president, George E. Fellows, James Millikin University; secretary-treasurer, Richard W. Cooper, Upper Iowa University.

A COLLEGE FOR TEACHERS AT THE JOHNS HOPKINS UNIVERSITY.

Another step toward the creation of a teachers' college in Baltimore was taken in the recent creation of the degree of bachelor of science in education, by the Johns Hopkins University. This marks a partial fulfillment of the hopes of the university which have been entertained for a number of years. As early as 1910 the university announced its desire of establishing a department for the higher training of teachers as an organic part of the university.

The curriculum leading to the new degree will be based on the college courses for teachers and the summer courses. The former, which were established in 1909, are conducted during the regular session in the afternoons and on Saturdays. The latter have been conducted since 1911. The new degree will be open to men and women on equal terms. The regulations concerning matriculation and the curriculum will be determined by a special advisory committee of the faculty. The title of director of these courses has been assigned to Prof. Edward F. Buchner, who organized and has conducted both of these branches of the university's activities.

ACADEMIC FREEDOM.

From time to time the suspicion arises that governing boards are trying to check free speech, that the utterances of American university and college professors, particularly on the tender themes of religion and politics, are subject to review by the trustees who appoint them, and that loss of position is the penalty for a lapse from strict orthodoxy.

That there is always some pressure exerted in academic communities, as elsewhere, to keep radical propagandists quiet and to discourage destructive criticism of the existing order none will deny. Its extent varies with the institution. As a rule, it is exerted subtly,

often unconsciously, in large universities which are supposedly free. Generally it vanishes as soon as the right of free speech is publicly broached. Within the past two or three years, however, there have been so many recurrences of disciplinary action directed by trustees and presidents of prominent institutions against professors reputed to hold unorthodox political, economic, or religious views that the question of academic freedom has become temporarily one of the foremost issues in university administration. Upon its correct settlement depends not only the integrity of the universities, but, more remotely, the whole welfare of American education.

Another phase of the issue concerns the limitations of trustee rule. This is particularly acute in private foundations. Are the trustees the employers of all persons connected with the university, the owners of the business, as it were, whose will is law and not subject to question? Are professors "hired men" merely, to be engaged and discharged without assigned cause at the trustees' good pleasure? Has the faculty a moral, if not a legal, right to be heard in matters relating to appointments and dismissals? In State universities the trustees are less likely to resort to star-chamber tactics because the public has the power to force an accounting. Still, instances are not unknown where the governing boards of State institutions have behaved as if the institutions under their control belonged to them and neither the educational officers nor the public had the right to demand reasons for their acts. Are any boards of trustees, whether of public or private institutions, exempt from responsibility to the public? Is any university, even if partly or wholly supported by private endowment, a *private* institution? Does the measure of its accountability to the public differ from that of the State university? These are some of the more insistent questions that have been raised by the alleged breaches of academic freedom during the present year.

Boards of control, whether of public or private institutions, can no longer hope to have their action involving a decision on one of these points go unchallenged by outside bodies. As test cases have arisen within the past few years, various associations of scholars whose members have suffered from alleged arbitrary treatment have investigated them and given wide publicity to the findings. In the course of the year under review, as well as in the six months preceding, the limits of free speech and the powers of trustees have been illuminatingly set forth in various documents published in part by the associations and in part by other agencies.

THE LAFAYETTE CASE.

The first of these chronologically is the report of the committee of the American Philosophical Association and the American Psychological Association, appointed to inquire into the circumstances

connected with the resignation of Dr. John M. Mecklin from the professorship of philosophy and psychology at Lafayette College. The committee considered itself commissioned to find out the reason for action which might "have the effect of injuring the professional standing and opportunities" of a member of these associations, and also to discover what "doctrinal restrictions are imposed upon teachers and investigators in philosophy and psychology" at Lafayette College. The administration of the college "courteously declined" to furnish the committee information on these points. From other sources, however, the committee secured evidence which enabled it to form conclusions.

With regard to the limits of freedom in philosophical and psychological teaching at Lafayette College the report says:

> American colleges and universities fall into two classes: Those in which freedom of inquiry, of belief, and of teaching is, if not absolutely unrestricted, at least subject to limitations so few and so remote as to give practically no occasion for difference of opinion; and those which are frankly instruments of denominational or political propaganda.

The associations, the committe believes, should intervene—

> only for three ends: (1) To ascertain which institutions do, and which do not, officially profess the principle of freedom of teaching; (2) to ascertain with a fair degree of definiteness in the case of those institutions which do not, what the doctrinal limitations imposed upon their teachers of philosophy and psychology are; and (3) to call attention publicly to all instances in which in institutions of the former sort freedom of teaching appears to have been interfered with, or in which in the latter sort restrictions other than those antecedently laid down appear to have been imposed.

The committee found much disagreement among the trustees, graduates, and faculty of Lafayette College as to whether the institution was of the first or the second type. It came at length to the conclusion that, to quote a trustee, it had been "commonly understood that the teachings in such departments (i. e., those of philosophy and psychology) are generally to be in harmony with the doctrines of philosophy usually taught and held in the Presbyterian Church." There had been apparently no definite agreement upon this matter between the administration and the new appointees, and the opinion of the trustee just quoted was in contradiction with a clause in the college charter. Moreover, the points in Prof. Mecklin's teaching which were objected to as in conflict with Presbyterian principles had not been specified. All of which led the committee to record its belief that "in no institution, of whatever type, should a professor be compelled to relinquish his position for doctrinal reasons, except upon definite charges communicated to him in writing and laid with the supporting evidence before the entire board of trustees and the faculty;" and that "it is unfortunate in any case of this kind that even by agreement between the persons concerned

the matter should fail to be brought to an explicit issue before the responsible governing body of the institution."

Taking up the general question of the accountability of the college administration to the public the committee remarks, apropos of President Warfield's intimation that it was improper for persons not connected with the college to ask or for him to answer "questions concerning the college or its members":

> The attitude thus assumed does not seem to this committee one which can with propriety be maintained by the officers of any college or university toward the inquiries of a representative national organization of college and university teachers and other scholars. We believe it to be the right of the general body of professors of philosophy and psychology to know definitely the conditions of the tenure of any professorship in their subject; and also their right and that of the public, to which colleges look for support, to understand unequivocally what measure of freedom of teaching is granted in any college; and to be informed as to the essential details of any case in which creedal restrictions other than those to which the college officially stands committed are publicly declared by responsible persons to have been imposed.

REPORT OF JOINT COMMITTEE OF AMERICAN ECONOMIC AND OTHER ASSOCIATIONS.

A more extended discussion of the general principles involved appeared in the preliminary report rendered in December, 1914, by the joint committee on academic freedom and academic tenure appointed by the American Economic Association, the American Sociological Society, and the American Political Science Association. The committee found the subject more complex than has hitherto been assumed. Like the committee of the American Philosophical Association and the American Psychological Association this committee also recognized that the problem does not exist in institutions "under obligations to teach denominationalism" or "designed to spread specific doctrines of any kind." In other types of institutions there is a very real problem which is likely to lead to controversy in the case of any instructor whose utterances run counter to accepted standards. Instructors in the field of economics and political science are at the present time especially in danger. The committee examines the difficulties which prevent a dogmatic solution and finds the "nature of employment and tenure of a college or university teacher" to be the most fundamental point in the problem. Here there are two views: One that "academic teaching is a purely private employment resting on a contract between the employing authority and the teachers"; the other that "academic teaching must be regarded as a quasi public official employment in which the original appointment is made by the authorities, who are bound to act not as private employers, or from private motives, but as public trustees." The report then formulates certain queries

which the committee believes must be answered before a definite agreement on the question is reached:

1. Ought an academic teacher ever to be dismissed at all; or ought he to be virtually irremovable, as in the continental universities?
2. Ought a distinction to be drawn in this respect between a college and a university teacher, between an officer of high grade and one of low grade, between an officer of long standing and one of recent tenure?
3. If such a distinction is permissible, ought an academic teacher of long standing ever to be dismissed without the payment of a pension?
4. Ought an academic teacher of any grade ever to be summarily dismissed by the authorities without hearing or trial?
5. If there is to be a hearing or trial, ought this to be before the university authorities or before some tribunal representing the real interests of scholarship?
6. Ought an academic teacher to be dismissed without public declaration of the reasons therefor; and, if not, ought the reasons alleged ever to be a mere pretext, even if suppression of the real reason is in the supposed interest of the individual himself?

The committee records its conclusions that in previous cases of controversy on the question of academic freedom and tenure mistakes have been made on both sides, and that "the chief difficulty arises from a failure of academic teachers as well as of academic authorities to observe the duties no less than the rights of their position."

The committee asked to be continued and was reappointed for further study of the subject.

THE UTAH CASE.

The impersonal and judicial study of the general issue of academic freedom which the committee contemplated was, by an untoward event, suddenly transformed into the investigation of a concrete case of the violation of that freedom. The committee was also practically merged into a new committee representing a new association.

In the early part of 1915 the American Association of University Professors was constituted, with Prof. John Dewey, of Columbia, as president, and Prof. A. O. Lovejoy, of Johns Hopkins, as secretary. In view of the widely representative character of the association, including as it does specialists in all lines and standing for the promotion of the ideals and the defense of the interests of the profession as a whole, it was felt that the investigation of the problem of academic tenure and academic freedom was an especially appropriate task for the association to undertake. The president, therefore, appointed a committee of 15, which was to include the joint committee of 9 of the other associations. Prof. Seligman, of Columbia, who was chairman of the joint committee of 9, was made chairman of the new

committee. It later developed that two members of the joint committee were ineligible to membership in the new committee of 15. "It was, therefore, resolved to continue both committees for the present; the old joint committee of 9 to act with the new committee of 15 on all questions which might seem to be common to both committees, and, on the other hand, to act separately whenever it might seem wise." Then occurred the event which precipitated the action of the new committee.

The board of regents of the University of Utah, on March 17, 1915, on the president's recommendation, dismissed four members of the faculty of that institution, and demoted one. On March 18 and within 5 weeks thereafter 17 other members of the faculty resigned from positions in protest against this action. President Dewey considered the situation so significant that he appointed a special subcommittee of seven, consisting of the following persons: Prof. E. R. A. Seligman, of Columbia University, chairman; Prof. John Dewey, of Columbia University; Prof. Frank A. Fetter, of Princeton University; Prof. J. P. Lichtenberger, of the University of Pennsylvania; Prof. A. O. Lovejoy, of Johns Hopkins University; Prof. Roesco Pound, of Harvard University, and Prof. Howard C. Warren, of Princeton University, to investigate and report on it.

A preliminary report of the findings of this committee appeared in *The Nation* June 3, 1915, and in *School and Society* June 12, 1915. The full report was published as a separate pamphlet in July. While the ramifications of this affair as set down in the report are so numerous and complicated that a summary of it is impossible within the limits of the present chapter, certain documents in the case and the findings of the committee relative to the general questions of tenure and academic freedom are worth noting.

It appears that appointments at the University of Utah are, under the laws of the State, for a period of one year and terminable at the will of the board of regents even before the expiration of that term. The power conferred upon the board by this statute has, however, never been exercised. Indeed, there has always been, in the case of persons of professorial rank, "a definite presumption of continuous reappointment after a certain number of years of satisfactory service." But there are no statutes or permanent regulations of the governing board defining the grounds for dismissal. The committee comments: "In this sense, the government of this university, like that of many others in America, is a government of men and not of laws." The kind of action with reference to dismissals which is possible under this sort of government was illustrated when the president recommended that "two instructors, Messrs. Snow and Bing be not reappointed; and also recommended

the dismissal of two associate professors, Messrs. Knowlton and Wise, and stated the charges against these professors as follows:

First. Dr. A. A. Knowlton. The following are the reasons why I do not nominate Dr. A. A. Knowlton for reemployment: I am convinced that Dr. Knowlton has worked against the administration of the university. Dr. Knowlton has also spoken very disrespectfully of the chairman of the board of regents. My opinion is that respect is due the regents, especially their presiding officer, from the faculty; and that therefore the author of such remarks should not be retained in the employment of the university.

Second. Associate Prof. George C. Wise. I can not recommend Prof. George C. Wise for reemployment in the university for reasons as follows: I am convinced that Prof. Wise has spoken in a depreciatory way about the university before his classes and that he has also spoken in a very uncomplimentary way about the administration.

The committee summarizes the grounds regarded by President Kingsbury as proper for public charges followed by dismissal, thus:

(*a*) Speaking in a very uncomplimentary way about the administration; (*b*) speaking very disrespectfully of the chairman of the board of regents; (*c*) speaking in a depreciatory way of the university before classes; (*d*) working against the administration.

The committee, after a careful sifting of the evidence bearing upon the truth of these charges, the fairness and wisdom of the president's action, and the board's attitude toward the demands of the dismissed professors for an investigation and toward dismissals in general, thus summarizes its findings:

(*a*) Of the four charges which were given by the president of the university as his reasons for recommending the dismissal of professors, three specified no proper grounds for such action and the fourth is without basis in fact.

(*b*) The president of the University and the chairman of the board of regents, by their recent action, virtually gave notice that the expression by a professor in private conversation of an unfavorable opinion of their qualifications for office would be a ground for dismissal. This action, unjustified in general, the committee regards as peculiarly unsuitable in officials of a State university.

(*c*) The governing body of the university has publicly declared that in cases of serious friction between officers and teachers of the university, it is not concerned to know "who is right and who is wrong in the disagreement," but only to secure harmony, by eliminating from the university those whose services it believes to be relatively less valuable. This, in the light thrown upon its practical meaning by recent action of the board, appears to the committee equivalent to a formal announcement that considerations of equity have not been, and will not be, taken account of by the board in cases involving the relations of the president of the university to the faculty.

(*d*) The board has, however, given two irreconcilable versions of its attiture on March 17 toward the request for a judicial investigation of the charges. The first version is that, in view of the board's adoption of the last-mentioned principle, no investigation could alter the essential consideration upon which the board based its action, and that, in fact, the board "refused to be forced into a public, or any, investigation." The other version is that an opportunity for an investigation was actually afforded the professors accused and was

rejected. The committee finds that, though the professors accused were invited to appear at a meeting of the board, no proper investigation into the truth of the charges has ever been made either by the president or by the board of regents.

(*e*) The board now appears to regard either two or three of the charges as "not constituting proper grounds for terminating a professor's connection with the university." It has also received, through this committee, the sworn statement of the professor against whom the fourth charge was made, categorically denying the truth of the charge. The board nevertheless refuses to withdraw this charge, to present evidence in support of it, or to reopen the cases of the professors against whom these four charges were brought.

(*f*) The evidence shows that under the present administration, unverified gossip, coming from persons unwilling to assume public responsibility for their statements, has played an unfortunate part in the affairs of the University of Utah, and that Prof. Knowlton was dismissed without ever being permitted to know who were his accusers in the case of the principal charge against him.

(*g*) In its published statement, issued on March 17, in explanation of the dismissals, the board denied the limits of freedom of speech in the university in such a way as to justify any member of the faculty in resigning forthwith.

With regard to the last-mentioned point, the committee in another place quotes at length the board's "novel conception of the meaning of freedom of speech":

It is argued to the board that professors and instructors should have the right of free thought, free speech, and free action. This can not be, and is not, questioned. The board, however, has the same rights. These privileges are reciprocal. When the rights of the two clash, then it is for the board to determine which is right and which course serves, or is inimical to, the best interests of the university. Some one must have the right and the responsibility to decide such matters, and the law has vested it in the board. Prof. Wise, for instance, has seen fit to belittle the university and to speak in an uncomplimentary way about the administration. That is his privilege. It is also the right and privilege of the board to say that his course is wrong and refuse longer to employ him. Prof. Wise may then go to another institution and State where his views and those of the governing board may coincide, if there is any place where the employee is permitted to belittle the institution that employs him and to criticize its management unjustly.

What has just been said applies also to Dr. Knowlton, who has seen fit to speak very disrespectfully, if not insultingly, of the chairman of the board of regents. From his standpoint, this doubtless means that he has exercised his inalienable rights of free thought, free speech, and free action; but the president and the board have also an equal right to free thought, free speech, and free action, with the result that the president and the board do not agree with Dr. Knowlton's sentiments. He may hereafter find an institution and State where similar sentiments against the presiding officer of the governing board may be approved. If so, that is where he belongs.

As bearing upon the obligations of boards of regents or trustees to faculty members and to the general public, two passages in the committee's preliminary report are especially interesting. The first is:

One of the causes of the resignation of members of the university faculty was the existence of conditions before March 17, such that the faculty had no

proper means of bringing its views on university matters—when its views differed from those of the president—to the notice of the governing body. It was, in the opinion of the resigning professors, partly in consequence of those conditions that the board on March 17 took action which those professors regarded as unjust to individuals and injurious to the interests of the university. Since the resignations the board has adopted radical and excellently conceived alterations in the plan of administration of the university. These changes should give the University of Utah an exceptionally advanced position among American colleges in respect to provision for consultation between faculty and trustees. * * * The committee deems itself bound in simple justice to note that the credit for whatever benefits may accrue to the university from the reforms mentioned must be given primarily to the professors who by their resignations made effective protest against the antecedent conditions, certain of which these reforms are designed to correct.

The second passage reads:

One of the gravest and most regrettable features of the crisis at this university, in the committee's opinion, is the attitude still maintained by the board of regents toward numerous petitions asking for a thorough public investigation of the recent incidents and of general university conditions. These petitions * * * the board has in all cases rejected, declaring that it alone is responsible for the management of the university; that it has no doubts as to the correctness of its past action and the rectitude of its own motives and those of the president; and that it therefore can not permit its action to be influenced by protests coming from others. This position seems to the committee to show that the board fails to understand, or at least to act upon, three fundamental facts, namely: That every institution of public education, and especially a State university, requires for its success the confidence and respect of the public; that there can be no sure hold upon public confidence without an unflinching readiness to face publicity in regard to all official acts and policies; and that the only effective way in which any public body can meet serious charges brought by responsible persons is by not merely permitting, but demanding, a searching and open inquiry into its methods.

THE NEARING CASE.

Another case of the dismissal[1] of a professor without assigned cause, which has aroused, if possible, even greater public interest than the Utah situation, has recently occurred at the University of Pennsylvania. On June 14, 1915, the board of trustees voted not to reappoint Dr. Scott Nearing, assistant professor of economics, for the academic year 1915–16. No official explanation of the action of the board had been made by the end of the year covered by this review. Professors at the University of Pennsylvania are appointed for an indefinite term. Assistant professors and other officers of instruction, unless a term of two or three years is specified, are appointed for a single year. Dr. Nearing was promoted from an instructorship to an assistant professorship in June, 1914. He was unanimously recommended by the dean and faculty of the Wharton

[1] Technically Prof. Nearing was not dismissed, but failed of reappointment at the end of a one-year term of service. Actually, in view of the past practice of the trustees of the University of Pennsylvania, the failure to reappoint was tantamount to a dismissal.

School, on the staff of which he served, for reappointment. The board has, as a rule, accepted the recommendations of these officers in the matter of appointments. In the present instance, also, it appears to have made no criticism of Dr. Nearing's ability as a teacher. His dismissal, therefore, is generally assumed to have been voted on other grounds.

Because of Dr. Nearing's public advocacy of child-labor laws and his indictment of various other forms of industrial injustice—activities which have been sharply criticized in the past by certain of the more conservative elements among the constituency of the university—the press of the East and various groups of alumni, faculty, and students have assumed that these activities constitute the grounds for his dismissal. The issue has been interpreted as one of free speech. The case has seemed to the friends of academic freedom to be of sufficient importance to justify its investigation by a committee of the American Association of University Professors. Pending the report of such a committee no attempt is made here to estimate the justice of the conflicting claims. Certain statements of members of the board and of officials of the general alumni association concerning the limits of freedom of speech and the authority and responsibility of boards of trustees of endowed universities are, however, not without interest.

George Wharton Pepper, a member of the board—in answer to an appeal by Harrison S. Morris, one of the trustees of the estate of Joseph Wharton who endowed the Wharton School, that Mr. Pepper place himself at the head of a movement to restore and assure free speech at the university—thus interprets "free speech":

> If by free speech is meant the unrestricted right of the teacher to adopt any method he pleases for the propagation of any view he happens to hold, then I could not bring myself to advocate such license, either at the university or anywhere else. Conceivably, a man might feel himself justified in advocating a disregard of moral principles regarded by the rest of us as fundamental. If, on the other hand, free speech means the right to proclaim views not discordant with the ethical sense of the community and so proclaimed as to evidence due consideration for the sensibilities of those holding different views, I shall be happy to enlist in a campaign for free speech at the university or anywhere else where the right appears to be in jeopardy.

J. Levering Jones, a member of the board, is thus quoted by the *Philadelphia Public Ledger* of June 19, 1915, on the accountability of the trustees:

> The University of Pennsylvania is not a public institution. It is only quasi-public. We are answerable only to our own sense of duty and responsibility. No one has the right to question us.

In February, 1914, the *Alumni Register*, the organ of the general alumni association, says editorially, under the title "The Professors' Union":

There has been much in the public press recently of their [college professors] forming a "union," to force the right of free speech and to maintain the security of their positions under all circumstances. There is talk of their cowardice in surrendering to the views of trustees and rich benefactors in their teachings. * * * It is a curious development for those of high education, rare culture, and sound minds to catch the popular desire for the employed to manage the employers and to attribute to distinguished gentlemen of character and ability qualities which are the creation of the ordinary popular hysteria. It seems simple and elementary to believe that a man should do the things he is employed to do and for which he accepts remuneration. * * *

The mania for making laws to reform the universe has been unbridled, without regard to the economic fallacies involved in the proposed statutes. * * * We should look to our seats of higher learning to educate men to meet these problems with balance and a wisdom just to all. Their solving is not easy or superficial or quick, and it is a courageous thing for the trustees of a university to stand firm for sound thought and a guarded education in these crises, as against the whim of popular fancy.

Another and contrasting view of the limits of academic freedom has recently emanated from a neighboring institution. In answer to Prof. Kuno Meyer, of the University of Berlin, who had raised a question in connection with matter appearing in a university publication, President Lowell, of Harvard, thus defines Harvard's attitude on freedom of speech:

As you are aware, the freedom of speech of neither the professors nor the students in any American university is limited, nor are they themselves subject in their utterances to the direction of the authorities. On the contrary, we have endeavored to maintain the right of all members of the university to express themselves freely without censorship or supervision by the authorities of the university. * * * This policy of freedom of speech we shall continue to pursue, for we believe it to be the only one which accords with the principle of academic freedom.

CHAPTER VII.

THE TRAINING OF TEACHERS.

By SAMUEL CHESTER PARKER,

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CONTENTS.—I. Notable local events: Opening of Peabody College for Teachers—Radical progress in Ohio—Opening of University of Wisconsin high school—Normal-school surveys in Wisconsin and Missouri—Contract renewed between Teachers' College and Columbia University. II. General progress: Increased professional requirements for teachers' certificates—Increased facilities for practice teaching—Teacher-training courses in high schools—Differentiated courses for primary and upper-grade teachers—Advancing entrance requirements professionalize the normal schools—Extension courses for teachers in service—Generous appropriations for buildings—Courses for improving college teachers.

In this brief chapter it is proposed, first, to describe certain notable local events or developments in the training of teachers, and then to discuss certain more general types of development.

I. NOTABLE LOCAL EVENTS.

The local events which will be described are the following:

1. The opening of the Peabody Teachers College at Nashville, Tenn.

2. The adoption of very advanced professional requirements for teachers' certificates in Ohio, and the influence of these requirements on the educational institutions of the State, especially in the training of secondary teachers.

3. The opening of the practice and model high school of the University of Wisconsin.

4. The organization of surveys of two large systems of State normal schools, namely, those of Wisconsin and Missouri.

5. The renewal of the contract between Teachers College of New York City and Columbia University in such a form as to define more specifically the financial autonomy of Teachers College and to assure to Columbia University that its academic standards shall be properly conserved.

OPENING OF PEABODY COLLEGE FOR TEACHERS.

The opening of the Peabody Teachers College at Nashville, Tenn., will contribute greatly to the progress in general education which has prevailed in recent years in the South. Through its specific

training of teachers of all grades and its general stimulating effect upon the teachers in the field, the new institution will no doubt become the center for this educational progress. President Bruce R. Payne has furnished, upon request, the following statement concerning the opening of the new Teachers College:

1. The new George Peabody College for Teachers was opened on its present campus June 25, 1914.

2. The college has the following assets: Approximately $500,000 invested in land, approximately $900,000 invested in buildings and equipment, and a $2,000,000 endowment fund.

3. Peabody College cooperates with Vanderbilt University, whose campus adjoins that of the college, in providing all of the academic subjects usually needed by teachers. Students registered in Peabody may avail themselves for the same fee of all the courses in Vanderbilt, and those registering in Vanderbilt may likewise profit by the work in Peabody. It is left, then, to Peabody to supply the technical work in education and such special subjects as teachers need which are not given in the academic courses at Vanderbilt University.

4. In addition to the work ordinarily found in teachers' colleges, Peabody makes a special feature of the study of country life, which is provided in the Seaman A. Knapp School of Country Life.

5. During the first college year, just closed, under this method of organization the following courses and subjects were available for Peabody students, either at Peabody or in Vanderbilt:

Subject:	Number of courses.
Agriculture	30
Applied biology	22
Chemistry	14
Classical languages	28
Economics	16
Education—	
Elementary education	31
Health education	13
History and principles of education	11
Rural education	6
School administration	15
Secondary education	10
English	30
Geography	18
History	19
Home economics	36
Industrial arts—	
Manual training	39
Mechanical drawing	5
Drawing and design	17
Mathematics and astronomy	19
Modern languages—	
French	12
German	13
Italian	1
Spanish	9
Music	5
Philosophy	12

Subject—Continued.	Number of courses.
Physical education	23
Physics	11
Physiology and psychology of education	19
Public speaking and debate	3
Social science	3
Sociology	9
Story-telling	1
	500

6. Most of the students are mature persons with experience in teaching. Many of them have been professors in colleges and normal schools, superintendents, principals, and supervisors of schools.

RADICAL PROGRESS IN OHIO.

The recent legislation in Ohio contemplates a complete system for the training of teachers, including prospective elementary teachers in rural and city schools, prospective high-school teachers, and untrained teachers in the field. The advanced standards prescribed in the law created feverish activity in the organization of professional courses by the public educational institutions and by the large number of private colleges of the State. Among the most striking features of the law are: (1) The large amount of professional and semiprofessional work required of a prospective high-school teacher (namely, one-fourth of his college course for the Bachelor's degree); and (2) the fact that this professional work must include a definite amount of actual practice teaching, namely, at least 27 hours.

OPENING OF UNIVERSITY OF WISCONSIN HIGH SCHOOL.

The new high school for educational experimentation and for observation and practice teaching recently opened at the University of Wisconsin is a notable investment by a State university in an effort to provide practice teaching upon a large scale. About two-thirds of the whole building has been completed at a cost of approximately $140,000. The following quotations from official bulletins describe the work of the school:

The Wisconsin High School is maintained by the university as an integral part of the course for the training of teachers. The school has been in operation since September, 1914, in a building especially equipped for its purposes. The Wisconsin High School is a secondary school based essentially upon a six-year elementary school. There are six classes or grades constituting a unified six-year high-school program of studies. Pupils in the lower years do not have typical seventh and eighth grade work, but the beginnings of high-school work under departmental teaching. They are under the same general regulations and discipline as older pupils.

Novel form of directed teaching.—In order to provide for the large number of prospective teachers that graduate annually from the University of Wisconsin, a scheme was devised which is intended to provide the maximum amount of practical contact with and training in teaching, and at the same time a minimum amount of actual teaching by the student-teachers. This scheme requires the college student to participate continuously as a member of a high-school class. He must be prepared to recite or teach at any moment. Certain features of this scheme are described as follows:

The first requirement of students is a proved familiarity with the subject matter of instruction. Such daily preparation is required as will enable them to deal rapidly and effectively with the facts and skills of the subject. The test of such ability lies in practical demonstration. The student is called upon to participate in the performances of the class as a regular member of the group, and to respond in terms of knowledge, skill, and appreciation of the subject matter.

Attention is directed to the elements of instruction, methods of learning, and factors in class management. The various phases of teaching are studied with reference to the concrete conditions of the classroom. For example, daily preparation is made with the expectation of occupying the position of the teacher in the group, as well as the position of the pupil. The student is given a rigid and protracted discipline in these two essential aspects of the classroom.

More specifically, students are called upon, with or without previous notice, to meet all sorts of real situations in the class—e. g., to answer questions; present topics in the lesson; quiz the class; develop types of work; summarize a review; illustrate by means of objective material; check results; analyze performances of pupils, locating difficulties and suggesting ways of meeting them; in short, to take the next step in developing either a lesson or any other phase of the teaching process. The effectiveness with which these various typical situations are met constitutes the principal basis of estimating teacher qualities and teacher possibilities.

In frequent conferences with demonstration teacher, principal, and special supervisor, students are assisted in the analysis and interpretation of principles and methods of teaching. These conferences are based upon the circumstances of actual teaching. Intending teachers are given the benefits of the judgment and experience of those charged with the immediate responsibilities for the direction and control of the laboratory facilities provided in the school.

NORMAL-SCHOOL SURVEYS IN WISCONSIN AND MISSOURI.

Surveys of the two large systems of State normal schools in Wisconsin and Missouri mark the beginning of systematic efforts to determine precisely the character of the work of such institutions and their effectiveness in achieving economically the purposes for which they are organized.

The Wisconsin survey.—The report of the Wisconsin survey[1] comprises 12 chapters, an appendix of 15 exhibits and 10 statistical tables, and numerous other tables. The State map is frequently used to

[1] Conditions and Needs of Wisconsin's Normal Schools. Report of Cooperative Survey. By A. N. Farmer. Issued by the State Board of Public Affairs. Madison, State printer, Wisconsin.

show the distribution of several types of data concerning the survey. The topics of the chapters are:

Normal school survey; development of a system; summary of survey findings; Wisconsin's debt to normal schools; administration of normal-school system; the student body; faculty members; questionnaire replies by normal department instructors; the training school; courses of study; supervision of classroom instruction; character of classroom instruction.

The exhibits present:

Courses of study; results of examinations given to students who entered Wisconsin normal school in September, 1913; replies in psychology test; stenographic report of a recitation in psychology (three exhibits); replies of students in pedagogy test; replies of students in psychology test; replies of students in history tests; stenographic report of recitation in civics; lists of books in children's literature; schedules prepared by the accountant of the board of regents for the annual proceedings and biennial report; classroom instruction card; extracts from students' physiology notebooks; cost of instruction per student recitation hour.

The statistical tables present:

Data on length of teaching service of graduates and nongraduates; residence of students enrolled in normal schools, by counties; residence of students enrolled in normal schools, by cities and towns; academic and professional training of public-school teachers employed during school year 1913–14; relation of teachers' training to salary; relation of salary to length of teaching service; academic and professional training of teachers in one-room rural schools; teaching experience and tenure in present positions of teachers in one-room rural schools; ages of students entering normal schools, September, 1913; positions held by normal-school graduates and nongraduates in public schools during school year 1913–14.

The report presents a summary of its findings and details the suggestions making up the constructive program for directing the next steps taken toward the improvement of the work of the normal schools. These are grouped under four headings: Service rendered by the normal schools; forward steps taken by the board of normal regents; conditions needing attention; and constructive suggestions.

An indication of the amount of service rendered by the normal schools in supplying trained teachers for the Wisconsin public schools is indicated by the fact that 48 per cent of the teachers outside of one-room rural schools, supplying information to the survey, are graduates of the normal schools, occupying administrative positions, teaching in high schools, or in grades of elementary schools; and approximately one-fourth of the 6,639 teachers in one-room rural schools are either graduates or have received partial training in the normal schools.

During the past two years the board of regents of the normal schools has adopted a new and more scientific system of accounting; a new plan for legislative appropriations for normal-school purposes; appointed a business agent; appointed three inspectors for the purpose of inspecting and reporting conditions to the board as to the character and quality of the work done within the normal schools; changed the entire policy of teacher training by creating primary, grammar, and high-school departments so as to separate students into

groups who are preparing to teach in different grades of public school work; abolished (February, 1914) the courses known as the Latin, the German, and the English courses, which had continued for 21 years, and also the two-year college course in three of the normal schools; prohibited the organization of classes which enroll fewer than 10 students, except by special arrangement of the committee on courses of study; raised the entrance requirements of the rural-school course, to take effect September, 1915.

The constructive suggestions of the report center around one principal recommendation: "The most urgent need of the normal-school system is that the regents definitely ascertain the State's need for teachers, and, in cooperation with other State institutions whose business it is to train teachers, formulate a comprehensive program for meeting these needs." The definite suggestions developing from this may be summarized as follows:

Present needs should be ascertained and future needs anticipated, including the need for teachers in special schools. This study should be based on definite budget appropriations. Further study should be made of the quality of service rendered by the normal-school graduates. Extension work should be carried on by each normal school in its own territory. Courses of study should be changed on the basis of the point that mastery of the subject matter to be taught is of the first importance in the training of teachers. The attempt to meet university requirements in the courses for training teachers should cease. Work in observation courses needs to be organized. Presidents should be relieved of clerical work. Demonstrated skill in teaching and a knowledge of the problems of elementary schools should become a prime requisite in the selection of normal-school teachers. Salaries should be increased and the working programs of instructors made lighter. The basis for judging the efficiency of individual schools should be changed. The poor janitor service should be improved. Some provision for the retirement and pensioning of teachers, instructors, and administrative officers of the normal-school system should be made.[1]

In discussing the Wisconsin normal schools survey Prof. C. H. Judd says:

The most extensive study which has ever been made of a State system of normal schools is reported in a thick volume of 653 pages issued by the State Board of Public Affairs of the State of Wisconsin. This report contains a great deal of material which was collected from all of the normal schools of the State. The material is of various types. Much of it is the personal views of presidents or other officers on matters which were covered by series of questions. There are maps showing the sections of the State from which students come and maps showing the distribution of graduates. There are reports of recitations heard in the various normal schools, in some cases stenographic reports. The courses of study, the training of teachers and distribution of their work, the organization of the normal school and of the practice school are among the important topics discussed.

The report describes the survey as a cooperative undertaking. The director of the survey was Mr. A. N. Farmer, who almost immediately after the completion of the report was employed by the State normal school board as a kind of general overpresident of the whole system of the State.

[1]From analysis prepared by E. F. Buchner. For other surveys see Ch. XVIII.

The report contains a great mass of material. Scarcely anyone but the technical student of educational administration will read it through. The tables in the appendix and the maps and earlier chapters will be consulted by anyone who wishes to get at details. The impression grows on one, however, as he tries to use the material, that there is very little organization and generalization. The very richness of the material is baffling. * * *

It is appropriate to comment on the great need of intelligent general discussion of the problems of normal schools. These institutions have long been isolated from other higher institutions of learning, and there has not been such insistent demand made upon them that they organize themselves uniformly as there has been in the case of colleges and high schools. It is to be hoped that the Wisconsin survey marks the opening of a period of vigorous study of normal-school problems.

The Missouri survey by the Carnegie Foundation.—The investigation of the training of teachers in Missouri grew out of the efforts of former State Superintendent Evans and a committee which he had appointed to consider this matter. About the time the committee began its work Mr. Evans learned that the Carnegie Foundation for the Advancement of Teaching contemplated a survey of certain Western States and asked its consideration of Missouri as a favorable field for study. Upon invitation of the governor the foundation agreed to undertake the investigation. At a large meeting of representatives of various educational interests of the State the hearty cooperation of all concerned was pledged to the movement. In speaking of the situation Supt. Evans said in his last report:

The resources of the foundation, the standing of its officers, and the personal interest of its president because of early associations prompt the forecast that conclusions of moment to the cause of public education here and elsewhere will result from the survey. Just how any work that has been prosecuted in good faith can suffer is not apparent. We may well look for the discovery of some things overlooked that one from the outside will readily find. It is recognized that we are all working for the improvement of conditions for the rising generation, and anything that we should know for their good should be welcome. We all know this is true and want the knowledge, whether it ministers to our self-esteem or not.

The foundation has had a large staff of expert investigators at work upon the Missouri survey for some time. It is planned to make a similar study of the training of teachers in Indiana and compare the two situations. The excellent body of statistical material that will be secured from these two States should contribute an excellent basis for comparative studies in other States.

CONTRACT RENEWED BETWEEN TEACHERS COLLEGE AND COLUMBIA UNIVERSITY.

The renewal of the contract between Teachers College of New York City and Columbia University is of interest because of the prominence of the institutions concerned and because the type of affiliation they represent is peculiar and has not been imitated to

any considerable extent in the organization of other colleges for teachers connected with great universities. During the early part of the year 1915 a prolonged debate occurred between representatives of the two institutions concerning the renewal of the contract. The Teachers College authorities desired to retain their financial independence, but at the same time enjoy the benefits of the educational affiliation with the great university. The university authorities were much concerned to assure the maintenance of its educational standards if the affiliation were to continue. The new contract provides for both of these items, the most conspicuous evidence of the maintenance of the educational standards being the provision concerning the degree of doctor of philosophy. According to the new plan—

> there is to be established in the faculty of philosophy a department of educational research, under the direction of a relatively small number of professors chosen by the president from the faculty of education, this new department to have charge of candidates for the degree of doctor of philosophy, with education as their major interest.

Different type of affiliation in most institutions.—As contrasted with Teachers College of Columbia University, in most of the great universities of the country the organization for the training of teachers is financially and academically as much an integral part of the university as are the colleges of arts, literature, and science. In the great universities of the West and Middle West, this intimate relationship is accepted as a matter of course and the heartiest cooperation with the colleges of arts, literature, and science is maintained. The cause of this becomes evident when one considers the following facts: (*a*) That the greatest teacher-training activity of these institutions is in training high-school teachers; (*b*) that thousands of such prospective teachers graduate from the colleges of arts, literature, and science each year; and (*c*) even in the most extreme cases (Ohio, for example), only one-fourth of the studies of these students will be professional, the remaining three-fourths being academic.

II. GENERAL PROGRESS.

Striking developments in training of secondary and rural teachers.—While each of the local developments described above is of sufficient importance to justify the separate treatment accorded it, several of these developments are typical of certain general movements in the training of teachers which will be discussed below. The most striking general developments in recent progress in the training of teachers are found in the training of high-school teachers and of rural-school teachers, the former affecting the work of colleges and universities, while the training of rural teachers has received wide-spread recognition through the recent organization of

pedagogical courses in the high schools of many States. As contrasted with these very striking changes, the developments in normal schools and city training schools appear to be only the usual gradual modifications of certain well-established practices.

INCREASED PROFESSIONAL REQUIREMENTS FOR TEACHERS' CERTIFICATES.

Increase in the professional requirements for teachers' certificates deserves first consideration in connection with progress in teacher training, because, without increased requirements, there will be little increased training, even when the facilities for such training are provided. This relation appears in many of the reports concerning recent changes. The report on Ohio, described above, is the most striking example of large increase in training as the result of increase in requirements. Other examples are found in the following quotations from responses to a questionaire:

From the University of Alabama.—As a result of the recognition by the State department of education of the work done in the school of education in the University of Alabama, the number pursuing professional courses has been increased more than threefold.

Concerning conditions in Maine.—One interesting result of this law [providing increased recognition for professional training] was the establishment last year of about 10 different centers scattered throughout the State where over 150 high-school teachers met for a 12-week course in educational psychology taught by professors in education from the four colleges.

Changes at the Iowa State Agricultural College.—The enrollment in courses in education in this institution has increased as follows: Fall semester, 1911, 15; fall, 1912, 34; fall, 1913, 128; fall, 1914, 190; fall, 1915, 257.

Schools belonging to the North Central Association now require 15 hours in education. This, together with the fact that many of the other schools require a first-grade certificate, is leading more of our students to take the required 20 hours in psychology and education in order to secure the first-grade State certificate upon graduation.

Minnesota normal school crowded as a result of increased requirements.—The increase in the amount of professional training demanded for State teachers' certificates has increased the attendance in the normal school at St. Cloud by a very appreciable per cent. Our school at present is crowded. The recognition given to the advanced diploma from the normal school has also sent back into the normal school a large number of our elementary graduates. It has also prevented our students from attempting to take any course but the full course.

Illinois.—The change in the Illinois law caused increase in attendance in some classes and withdrawals in others in the Macomb Normal School, as indicated in the following quotation: "The new State certificating law for teachers in this State provides several ways in which professional training is recognized. * * * The result of this law seems to have done two things. It has caused an increased attendance of those interested in securing county certificates. One thing has operated, however, in the opposite direction. The fact that students of junior standing in the normal school may receive certificates to teach without examination has caused a good many juniors who would be in the senior class this year otherwise to teach instead of coming to school."

Summary of certification laws.—A general summary of the laws governing the granting of teachers' certificates to professionally trained college graduates is found in a report prepared in December, 1914, by Prof. Harlan Updegraff for the Society of College Teachers of Education.[1]

North Central Association requirements.—An unofficial influence of considerable importance in increasing the professional training of high-school teachers is the recent action of the North Central Association of Colleges and Secondary Schools in prescribing a minimum amount of professional training for the teachers in the high schools of the association. The following statement concerning this action was prepared by Prof. Charles H. Judd, secretary of the commission of the North Central Association:

Two years ago the North Central Association of Colleges and Secondary Schools incorporated into its requirements for teachers in approved high schools a definite statement to the effect that the candidate must be trained in courses in education. The wording of the standard is as follows:

The minimum attainment of teachers of academic subjects shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools requiring the completion of a four-year course of study, or 120 semester hours in advance of a standard four-year high-school course, and including at least 11 semester hours in education. This shall include special study of the subject matter and pedagogy of the subject to be taught. Such requirements shall not be construed as retroactive. (For the succeeding year the board will interpret courses in education as the same courses are interpreted by the colleges and universities offering them, not more than six hours' credit being given for a successful teaching experience.)[2]

There are two points to be noted with regard to this rule. The explicit statement about the length of the course is intended to prevent the appointment in North Central schools of candidates who received their bachelor's degrees from institutions not requiring a full collegiate course or from institutions which are not adequately equipped to administer such courses. There are a number of teachers' colleges and normal schools in the territory that grant the bachelor's degree, especially the degree of bachelor of education or bachelor of pedagogy without requiring for admission a full high-school course. Many of these institutions are applying for admission to the association. A number of the standard normal schools were admitted to the association last year. Such schools probably conform to the full requirement, but their admission to the association raises in very acute form the whole question whether the training of secondary teachers ought to go on in these normal schools or colleges.

In the second place, it is perfectly clear that the intent of this regulation is to compel the colleges which prepare teachers to devote some attention to the special considerations of pedagogy.

It may be said that in the enforcement of this rule regarding requirements in education a good deal of opposition has been encountered. The rule was put into force this year for the first time, and a great many candidates are not eligible under the rule. Inspectors have been asked, therefore, throughout the year with regard to prospective appointments, and many schools say that they are quite unable to fill up their corps of teachers from the available candidates

[1] See School Review Monograph No. VI, University of Chicago Press, January, 1915.
[2] Proceedings of the Twentieth Annual Meeting, pp. 61–62.

and yet adhere to these requirements. Undoubtedly further consideration of the standard will be asked for at the coming meeting of the association. The present form of the rule was passed on the suggestion of members of the association who belong to secondary schools. They desire very earnestly that candidates for teaching positions shall be trained by the colleges, so that they have some acquaintance with general educational problems. At the present time the objection to the rule comes from other officers of secondary schools who are unable to fill vacancies and who do not regard the educational courses as necessary for the equipment of a secondary-school teacher. The whole problem of professional training of teachers is therefore likely to be a subject of vigorous discussion at the meeting in March, 1916.

INCREASED FACILITIES FOR PRACTICE TEACHING.

A necessity even for high-school teachers.—The development of adequate facilities for practice teaching has been a particularly crucial issue during recent years in the organization of training for high-school teachers. In many States such practice-teaching facilities are still merely something to be desired, but in a few, such as California, Ohio, and Minnesota, the practice teaching has become an absolute necessity since the law requires it of prospective high-school teachers. The efforts of Ohio to meet this situation has already been described.

Cooperation with public schools necessary.—It is obvious that the only method by which adequate facilities can be obtained for the practice work of the large numbers of normal-school students who graduate annually is by some such cooperative arrangement with local schools. One of the most successful of such arrangements is that enjoyed by the State normal school at Keene, N. H. It is described as follows:

> Our school has added to its practice facilities for next year the remaining elementary schools of the city of Keene, so that our practice system now consists of the entire elementary-school system of our city, numbering about 1,300 pupils in some 40 rooms.
>
> The schools are absolutely under our own control. The city provides buildings and furniture and makes necessary repairs, and also pays the water bills. The normal-school authorities have entire charge of the educational part of the work—hiring the teachers, fixing the salaries, arranging courses of studies—and the city pays the State the tuition for the educating of the city children. This tuition is based on the average costs of school facilities of the 11 cities of the State.
>
> In addition to these schools we have one rural schoolhouse in a neighboring town, which, with the three rural schools of the city system, gives us four rural schools for practice purposes. The teachers of these schools meet together for conference each Saturday. Every girl is required to practice in one of these rural schools before graduating.

From a few other sources come similar reports of the development of cooperative arrangements for practice teaching in the local public

schools. Thus the president of the St. Cloud (Minn.) Normal School writes as follows:

> The cooperative relation between the local schools and the normal school in St. Cloud has been for years a marked asset for the normal school. The present year shows a request that such practice teaching in city schools should take place in all the normal schools of the State, and it is hoped that such cooperative relations may be established.

Similarly, the president of the Oshkosh (Wis.) Normal School writes:

> We worked out a plan which has now been in operation for a year and starting on its second year—a plan of cooperation with the city. We put two critic teachers into the grades of the city schools, one in the third grade and one in the fifth grade. These teachers have four normal-school students in the morning and four in the afternoon for practice teaching. This is the beginning, but by it we are able to train 32 teachers for grade positions. We shall be ready to extend this plan in the city schools and will have to extend it very soon.

In several instances State universities have made satisfactory arrangements for practice teaching in the local public high schools. The University of Indiana was one of the first to do this. Other examples are the State agricultural college at Ames, Iowa, and the State universities at Vermillion, S. Dak., Moscow, Idaho, Lincoln, Nebr., and Iowa City, Iowa. It is quite probable that some such type of cooperative arrangement with the local high schools will be effected by many State universities in the near future. It seems desirable in view of the following conditions: (*a*) The large number of high-school teachers to be trained; (*b*) the relatively small number of high-school pupils available in many college and university towns; and (*c*) the cost of equipping and maintaining a good high school.

Large investments in special training-school buildings.—In most normal schools at the present time the practice teaching is carried on in special training-school buildings, and large sums are invested in these. Several normal schools report recent additions of this type. At Normal, Ill., the State recently completed a training-school building costing $140,000 and accommodating a kindergarten of 60 pupils, an elementary school of 8 grades with 336 pupils, and a high school of 230 pupils, all of which are used for training purposes. The University of Wisconsin High School, described above, is an example of a similar investment by a State university.

The following quotations give examples of universities which seem to have both facilities for practice teaching in their own training schools and happy cooperative arrangements with the local public schools:

> *University of Nebraska.*—The high school maintained by the university for the purpose of providing facilities for practice teaching for candidates who desire to enter the field of secondary instruction has been enlarged until it now accommo-

dates a hundred and fifty students yearly, giving a full semester's practice to each.

Relations have been established with the superintendent of the Lincoln public schools whereby 75 to 100 students in the teachers' college who are preparing to teach in the elementary schools are accorded the privilege of a full year's service as apprentices in the Lincoln school system.

University of Iowa.—The plan of cooperation between the university and the Iowa City High School, which has been in operation for two years, has been extended. At the present time the university is paying a part of the salaries of 17 of the teachers of the Iowa City High School. Ten of these teachers receive an extra stipend of $10 a month. These teachers throw their classes open for observation to the students in the course in general methods in the university. Each student in this course is required to make 36 observations in the Iowa City High School. These observations are closely supervised by the professor in charge of this work. The teachers in the high school who receive the extra compensation cooperate in making the observation effective.

The heads of seven of the departments in the high school are employed by the university to teach the courses in special methods in the various subjects. For example, the head of the department of English in the local high school teaches classes in the teaching of English in the university. The same is true for mathematics, manual training, German, music, history, and general science.

The university pays half the salaries of these heads of departments, and we are thus enabled to pay better salaries than are paid in any other high schools in the State.

By the action of the State board of education, an elementary school has been established to be used in connection with the experimental work and observation in connection with the training of school superintendents. The three teachers in charge are developing the work in the first six grades. About 30 superintendents who are in training in the university at the present time will be able to utilize this school in gaining first-hand knowledge of standards, practices, etc., in the first six grades of the elementary school.

Ohio.—The county normal training school has the right to use the local school for practice work, and the two new State normal schools were located in towns in which a permanent agreement to that effect was entered into with the local school. Elsewhere the practice work is still hampered by lack of cooperation of local schools. Each of the State normals was in 1914 authorized to open four one-room model rural schools.

West Virginia.—The following table indicates the number of pupils in the model schools of the different normals:

Model or practice schools.

Name of normal school.	Kind.	Attendance.
Concord	Voluntary—The local public school does not offer work in upper grades, the children of these grades and many from the lower grades coming to the normal model school.	110
Fairmont	Cooperative—Regular ward school of city is used	271
Glenville	Voluntary—Model school is made up of tuition pupils from the town; cooperation is being planned.	70
Marshall College	Voluntary—Tuition pupils from city filling all grades	200
Shepherd College	Special students below secondary grade have been used; plans to use the local public school cooperatively are being completed.	
West Liberty	Cooperative—The local public school is used	40

TEACHER-TRAINING COURSES IN HIGH SCHOOLS.

Prof. Burnham, of the Kalamazoo (Mich.) State Normal School, has prepared the following statement on teacher training in high schools and in county training schools:[1]

The course includes one year of attendance and work, which is made up of academic reviews of the elementary school subjects, courses in psychology, method and management, illuminated by observation and practice; and special instruction, including method in the content subjects recently introduced in the rural-school curriculum. *The high-school training class* is well illustrated in Minnesota, which this year has 134 classes at work. Minnesota began this plan in 1905 with 13 classes. The classes enroll about 10 students and are taught by carefully selected teachers, usually State normal-school graduates. The State supervision is by a woman, who is a specialist in rural education. Teachers of these classes are paid up to $1,000 and the supervisor is paid $2,000. Minnesota's commission on education a year ago recommended increasing the annual State subsidy of these classes from $1,000 to $3,000 and salary increases up to $1,200. This commission said that these classes were in the way of developing to a point where it will not be necessary for any rural school in the State to do without a trained teacher. A good illustration of the *county normal training class* is found in Michigan. In 1905 eight of these classes graduated 84 students, and in 1915 there were 667 graduates from 47 classes. The work is, in general, the same as that of the high-school training classes. An observation and practice room, with pupils of varying ages and several grades under the immediate charge of a competent critic teacher, is a feature of the Michigan normal training classes. aSlaries, preparation, and supervision of the teachers are comparable with conditions in Minnesota. Principals of the classes are in many cases college or university graduates. The average academic advancement of students in these secondary school types of normal work is about equivalent to that of the last high-school year. However, many students are enrolled in their third high-school year, and there are also a considerable number who have finished the fourth year. Several States have already safeguarded progress from the future retardation which the rapid influx of teachers of only secondary-school preparation might involve by statutes requiring a graduated increase in preparation.

Excellent Missouri syllabus for teacher-training courses.—One of the most important elements in the success of such pedagogical courses is the existence of suitable instructional materials in the form of textbooks and syllabii. One of the most notable efforts to provide such material is the publication by the State department of education in Missouri of a Syllabus for Teacher-Training Courses in High Schools, which was prepared by Mr. S. E. Davis, the State inspector in charge of this work.

DIFFERENTIATED COURSES FOR PRIMARY AND UPPER-GRADE TEACHERS.

Specific vocational courses replacing general courses.—In the larger normal schools which prepare teachers for city schools one of the most important phases of recent progress is the differentiation

[1] For a detailed discussion of this subject see Ch. I (Rural Education), p. 98 of this report.

of the curricula and departmental courses so as to prepare the students specifically for the tasks of primary teachers or grammar-grade teachers. All of the Wisconsin normal schools have been reorganized on this basis. One of the most enthusiastic believers in the movement is President Keith, of the Oshkosh (Wis.) Normal School, who writes as follows:

> We take all of the students in the normal school who are preparing to teach in primary grades and segregate them in classes, and in this way we work out the subject matter to be taught and the methods of teaching it in a certain group of grades. The thing we were suffering under was the inability of the teacher to adapt the work in geography, say, to those who were expecting to teach in primary grades, in grammar grades, in high school, simultaneously and effectively. As a result of this difficulty, the geography became generalized. It dealt with essentials, it hit the high spots, it was not as vocational as it ought to have been, and the constant tendency in normal schools for the past 20 or 25 years has been a tendency in the direction of generalization of subject matter that would, of course, include the essentials and the fundamentals, but which left not infrequently the group high and dry so far as practical ability and insight were concerned. * * * In our own school we shall have, after a while, a head of the grammar department with a force of teachers associated with him, working primarily for the perfecting of a course of study for the adequate training of grammar-grade teachers.

ADVANCING ENTRANCE REQUIREMENTS PROFESSIONALIZE THE NORMAL SCHOOLS.

The rapid development of high schools has made it possible for many normal schools to advance their entrance requirements and to get rid of the academic high-school courses which they have been offering. This process has taken place rapidly in some States and, as a consequence, has enabled the normal schools to devote more of their energy to purely professional training. An example is Minnesota. The president of a public normal school in that State says:

> A change is in process which will make high-school graduation the condition of admission probably after this year. But few students are left in the school below this standard.

Similarly, the president of the Oshkosh (Wis.) Normal School writes as follows:

> Our entrance requirements have not exactly changed, but they have become effective. Four years ago we abolished the long course at Oshkosh; that is, the four-year course for those who were not high-school graduates. We have been dealing with a diminishing number in the four-year courses, and at the close of summer school graduated the last of these people.

The State superintendent of Michigan writes as follows:

> Practically every person who enters the State normal schools is a high-school graduate, and about 70 per cent of the people who enter the county normal schools are high-school graduates. We admit none to the county normal schools who have not had at least 11 grades' preparation.

Large progress resulting from combination of above factors.—In many of the States there are found various combinations of the five

general lines of progress that have been discussed, namely, (1) advancing professional requirements for teachers' certificates, (2) increased practice-teaching facilities, (3) teacher-training courses in high schools, (4) differentiated courses for primary and grammar-grade teachers in normal schools, and (5) advancing entrance requirements for normal schools.

EXTENSION COURSES FOR TEACHERS IN SERVICE.

Systematic continuous instruction in the form of extension courses is provided by a number of State normal schools for teachers in service. The normal schools of Illinois, Michigan, and Ohio furnish notable examples. The instruction provided is the same as in the courses given in the normal-school buildings; but it is given in different centers throughout the State. Thus, the normal school at Bowling Green, Ohio, employs a professor of education who spends all his time except Sunday in the field. On Monday he meets classes in a certain town, on Tuesday in another town, and so on through the week, returning to the first town on the next Monday.

GENEROUS APPROPRIATIONS FOR BUILDINGS.

The policy of liberal support for the professional training of teachers is shown by the appropriations for buildings in several States. The president of the State normal school at Kalamazoo, Mich., writes as follows:

> We have just completed a new science building which has cost, with equipment, $110,000. We also have an additional sum of $480,000 available for building and other special purposes at the rate of $80,000 a year for the next six years.

Other Michigan State normal schools enjoy similar grants.

The State department of New York reports:

> A new building was occupied last year by the Oswego State Normal School, and the Buffalo State Normal School also moved into its new building during the past year. We also obtained an appropriation to rebuild the old Potsdam buildings.

From Maryland comes the following:

> The Maryland State Normal School, of Baltimore, which was established in 1866, has removed during this month to a new plant located in the suburbs of Baltimore on a tract of about 80 acres. The new buildings have just been completed at a cost of $800,000.

Pennsylvania continues buying private normal schools.—Several years ago Pennsylvania possessed 13 normal schools that were really private institutions enjoying State funds. The State undertook to reform this situation and one of the most important phases of the reform is described in the following sentence by the State superintendent of public instruction: "The State has purchased four of our normal schools and is about to purchase four more."

CHAPTER VIII.

MEDICAL EDUCATION.

By N. P. Colwell, M. D.,

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Contents.—Reductions in 10 years—Fewer but better physicians—Forces which prompted improvement—The establishment of cellular pathology—Germ origin of many diseases established—Antiseptic surgery—A new era in medicine—Medicine now on a scientific basis—Essentials of a medical training—The educational standard—Progress of the past year—Effect of higher standard on student enrollments—Medical graduates in 1915—Fewer but no dearth of medical colleges—Further mergers an advantage—Nonrecognition of medical colleges—State requirements of preliminary education—Conferences on medical education—Higher degrees in medicine—Graduate medical instruction—Rules for the classification of graduate medical schools—The joint conference—Minimum expenses for maintenance of the first two years of an acceptable medical college—Minimum expenses for maintaining the clinical departments—Revised requirements for admission to medical schools—Endowments for medical schools—Other gifts of the year to medical education—The Mayo foundation and the University of Minnesota.

The reports on medical education for the two previous years[1] have set forth the remarkable reorganization that medical education has undergone during the last 10 years. It was shown that from 1865, following the Civil War, the medical colleges in the country rapidly multiplied, until in 1906 there were 162 separate institutions—about half of the world's supply. Although some of these were well-conducted and fairly equipped institutions, a large proportion were owned by individuals or joint-stock corporations and conducted for profit. Entrance standards were ignored in many or made a mere matter of pretense; "liberal" rules governed the promotion and graduation of students; and any student who could pay the required fees was acceptable. Free use was made of glowing advertisements; follow-up letters were sent to large lists of possible matriculants; and agents were sent to offices, workshops, and farms to solicit students, for which the colleges paid generous commissions. It is not surprising, therefore, that in 1904 the total enrollment in all medical colleges had reached the amazing number of 28,142, and that in that year there were 5,747 graduates.

[1] See Rep. of Commr. of Ed., 1913, vol. 1, p. 31; 1914, vol. 1, p. 191.

REDUCTIONS IN TEN YEARS.

It was also shown in the previous reports that during recent years there has been a marked reduction in these annual totals. There are now nearly 50 per cent fewer medical colleges and nearly 40 per cent fewer medical students and graduates each year than in 1904. As can readily be appreciated, these marked reductions represent an equally marked improvement in medical education. In 10 years' time a vast oversupply of medical colleges, many of them sans teachers, sans laboratories, sans entrance standards, and sans ideals, has given way to a more normal supply of well-equipped medical colleges having skilled teachers, fair admission requirements, larger endowments, modern laboratories, and an abundance of hospital and dispensary material. Instead of a great army of students, many without even a grammar-school education, enticed from more fitting occupations by glowing promises of princely incomes, there is now about half the number; but practically all these have had a preliminary education which enables them to understand the more complex problems of medicine.[1]

FEWER BUT BETTER PHYSICIANS.

As to the reduction in the number of graduates, it is surely better for the public welfare to have a hundred well-trained graduates from modern high-grade medical schools than a thousand from low-grade institutions. There is no danger of a dearth of physicians, since the number of graduates annually is nearly double the loss of physicians by death. But even if the number of graduates were less than the annual loss, it would be many years before a dearth would result, because of the overcrowded condition of the profession. Statistics show that there is now one physician to every 600 to 650 people in this country, as compared with one to every 1,500 to 2,000 people in the leading countries of Europe. Even with this marked contrast the figures for this country do not include the thousands of osteopaths, chiropractors, naprapaths, and other practitioners.

[1] The reader will hardly be able to appreciate how marvelous the improvement in the entrance requirements to medical schools has been during the last 11 years unless he is first made aware of the fact that in 1904 a very small proportion (not more than 15 or 20 per cent) of all medical colleges required even a high-school education for admission and that only 4 medical colleges (less than 3 per cent of the total number) required for admission one or more years of collegiate work, in addition to a high-school education. Now 90 medical colleges (94.7 per cent of all colleges) are on that standard, and of these 40 (see chart 1) are requiring two or more years of collegiate work. In 1904 very little was known about the practice of colleges, and such standards as were advocated were largely on paper. At that time no systematic check was kept on the methods used by the medical schools in administering entrance requirements. Now, through the students' register, kept by the Council on Medical Education of the American Medical Association, with the ready cooperation of at least 90 per cent of all colleges, the standards actually enforced by each college are known, faulty methods or "paper standards" are discovered and corrected or exposed. Instead of being an unknown quantity, therefore, preliminary requirements are now known with fair accuracy. There is, of course, still room for improvement in methods of administration and in the securing of still better standards, but these matters are being rapidly corrected.

CHART 1.—RECENT PROGRESS IN MEDICAL EDUCATION.

Although the total number of medical colleges has been reduced since 1907, the number with increased entrance standards (and otherwise greatly improved) has been materially increased.

Total colleges are shown by diagonal shading; colleges requiring 1 year of preliminary collegiate preparation are shown by vertical shading; colleges requiring 2 or more years of preliminary college preparation are shown by heavy shading.

FORCES WHICH PROMPTED IMPROVEMENT.

During the 30 years (1870–1900) when the number of medical colleges of inferior type and conducted for profit had so rapidly multiplied, the very factors were developing which would eventually demand an entirely different type of medical teaching institution. Prior to that period, medical knowledge was largely a collection of clinical observations and theories founded on them. Since that time, however, there has been an increase of medical knowledge unprecedented in the history of medicine. In fact, during the last three decades of the nineteenth century more progress was made as a result of experimental research than in all ages preceding.

THE ESTABLISHMENT OF CELLULAR PATHOLOGY.

It was at the beginning of this period that Virchow established the system of cellular pathology which was based on the study, under the microscope, of the minute structures of both normal and diseased tissues of the human body. He demonstrated conclusively that the origin of disease was in the primary cell. This established a correlation between gross and microscopic effects of disease processes and also removed the conflict previously existing between physiology and pathology. Normal and abnormal tissues are now known to have certain common characteristics, in that both are a product of growth and have their beginning in the individual cell. They differ in that in normal growth simple structures become more specialized and complex, while in abnormal growths there is a retrogressive process—complicated or highly specialized structures break down or give way to more simple structures—scar-tissue, for example. Certain chemical processes are doubtless involved in these changes, and a vast field is here still open for investigation. Little by little, however, as investigation proceeds, the knowledge of these processes is continually widened.

GERM ORIGIN OF MANY DISEASES ESTABLISHED.

Bacteria were first discovered in 1683 by Leeuwenhoek, a Dutch microscopist, and the knowledge regarding them was added to by O. F. Müller in 1786, by Ehrenberg in 1838, and by Henle in 1840. It remained for Louis Pasteur, during the seventh decade of the nineteenth century, however, to demonstrate positively the rôle played by these microorganisms in such familiar natural processes as fermentation, decay, and putrefaction. Formerly these processes were believed to be due to "spontaneous generation" of life. The results of Pasteur's researches were so profound as to be properly termed sensational. His work marked the beginning of bacteri-

ology, and this, in turn, has had a revolutionary influence in the field of medicine, as well as in man's conception of the world around him. Pasteur's work attracted the attention of research workers to the importance of the study of microorganisms. This interest was accelerated in 1876, when Robert Koch demonstrated conclusively that a disease in cattle (anthrax, or splenic fever) was caused by a specific organism, the *bacillus anthracis*. It was in 1882, however, that experimental research received its second great stimulus by Koch's invention of solid culture media and his origination of methods by which single species of bacteria could be isolated. From this time on, reports of discoveries of the germ origin of numerous diseases, any one of which was epoch-making in its importance, were made in rapid succession.

Within a few years' time it had been clearly demonstrated that many of the common diseases were caused by certain specific forms of bacteria, or kindred microorganisms. One need only to mention, as examples, such common diseases as diphtheria, typhoid fever, cerebrospinal meningitis, lockjaw, and consumption to show how profoundly important were the discoveries regarding their causes, not only in showing how to prevent the spread of those diseases to others but also in the positive methods made available for their diagnosis and treatment. For example, the discovery that the primary cause of diphtheria was the *bacillus diphtheriæ* has been followed by a careful study of the habits of that germ. This has resulted not only in preventing the spread of that disease through isolation of diphtheria patients, and subsequent disinfection of the rooms occupied by them, but also in the knowledge—a fact now generally well known—that an opposing substance, called antitoxin, is formed in the body to antagonize the germ and its toxins. For patients who recover, it is the presence of this antitoxin in the blood which prevents the recurrence of the disease—which gives immunity to subsequent attacks. It also has been learned that this antitoxin can be formed in the blood serum of healthy animals, such as the sheep or the horse, and that, without serious discomfort to those animals, large quantities can thereby be prepared in advance for emergency use. Injections of this antitoxin are used not only as a cure for patients who have contracted the disease, but also to immunize others who have been exposed to the infection. So highly beneficial has been the use of this antitoxin as to make it one of the great triumphs of modern medicine.

TABLE 1.—*Bacterial origin of certain diseases, showing when specific bacterial origin of certain diseases was established.*[1]

Diseases.	Microorganism.	Relationship established in—	By whom established.	Year germ was discovered.	By whom discovered.	Remarks.
Anthrax (splenic fever)	Bacillus anthracis	1876	Koch	1855	Pollender	Knowledge of, greatly added to by Davaine in 1863.
Asatic cholera	Spirillum choleræ	1883	....do	1883	Koch	
Bubonic plague (black death)	Bacillus pestis	1894	Yersin-Kitasoto	1894	Yersin-Kitasoto	Working independently.
Cerebrospinal meningitis	Micrococcus meningitidis or micrococcus intracellularis.	1887	Weichselbaum	1885	Leichtenstern	
Diphtheria	Bacillus diphtheriæ	1884	Löffler	1883	Klebs	First described by Klebs.
Dysentery	Bacillus dysenteriæ	1898	Shiga	1898	Shiga	
Glanders	Bacillus Mallei	1882	Löffler and Schutz	1882	Löffler and Schutz	Working together.
Gonorrhea	Micrococus gonorrhœæ	1879	Neisser	1879	Neisser	
Infantile paralysis	"Globold bodies"[2]	1909	Flexner and Lewis	1913	Flexner and Noguchi	Do.
Influenza	Bacillus influenzæ	1892	Pfeiffer	1892	Pfeiffer and Kitasoto	Working independently.
Malaria	Plasmodium malariæ	1880	Laveran	1880	Laveran	Knowledge of, greatly added to by Golgi, 1885.
Malta fever	Bacillus melitensis			1887	Bruce	
Pneumonia	Diplococcus (or streptococcus) pneumoniæ.	1884	Fränkel	1880	Sternberg	Weichselbaum's researches 1886 claimed by some authors as the first actual proof of the causative relation of the microorganism to the disease.
Relapsing fever	Spirocheta recurrentis	1873	Obermeier	1873	Obermeier	
Syphilis	Treponema pallidum	1905	Schaudinn and Hoffman	1905	Schaudinn and Hoffman	Working together.
Tetanus (lockjaw)	Bacillus tetani	1889	Kitasoto	1884	Nicolaier	
Tuberculosis	Bacillus tuberculosis	1884	Koch	1882	Baumgarten	Germ may have been seen by Villemin as early as 1865.
Typhoid fever	Bacillus typhosus	1884	Gaffky	1880	Eberth	

[1] This table is presented to show the comparatively recent date when the microorganisms causing these well-known diseases were discovered and their relationship to the diseases established. The authority is Jordan's Textbook on Bacteriology, fourth edition.

[2] Classification among microorganisms is still uncertain.

In typhoid fever, as now is also well known, finding the specific microorganism causing the disease led, in turn, to the discovery that it was usually transmitted through drinking water which had been contaminated by sewage containing the germs. The prevalence of typhoid fever has been greatly diminished through the purification of our water supply and the warfare on flies. Although no serum or antitoxin has been developed having curative powers equal to the diphtheria antitoxin, a vaccine has been prepared which has a high protective value. The widest application of this vaccine has been in the protection of soldiers in the field. During the Spanish-American War, before the days of antityphoid vaccine, in the United States Army of 107,973 men there were 20,738 cases of typhoid fever, including 1,580 deaths, or nearly 1 case to every 5 men. During the summer maneuvers of 1911 an Army division of 12,800 men occupied a camp at San Antonio for about four months. All of the men were inoculated with the vaccine, and only one mild case developed, and this was before the inoculation had been completed. During the same period there were 19 deaths from typhoid fever in San Antonio, which shows that typhoid fever was prevalent in the neighborhood. In the whole United States Army in 1912 (88,178 men) there were only 8 cases of typhoid, and no deaths.

An immunizing antitoxin is now used with decided benefit in tetanus (lockjaw); a curative serum is employed in cerebrospinal meningitis; a protective virus, the so-called Pasteur treatment, in hydrophobia, and within the past few years a chemical preparation has been produced which, if injected under proper safeguards into the subcutaneous tissues, produces rapid and remarkable improvement in cases of syphilis.

The discovery of the microorganism causing bubonic plague, the *bacillus pestis*, has resulted in finding that the germ is transmitted from sick to well persons through the bites of such insects as the louse or the flea, and that it is carried from one country to another not only by human hosts, but by rats and other vermin which get into ships. History shows that in the great epidemic in Europe during 1348–49 nearly twenty-five million people—about one-fourth of Europe's population—died of this disease, then commonly known as the "black death." From the present knowledge of the disease, epidemics are quickly stamped out and its spread is prevented.

It is now known that malaria, which was formerly attributed to a "miasma" arising from swampy tracts, is due to a microorganism, the *plasmodium malariæ*, and that the disease is generally transmitted by mosquitoes (*anopheles*), which, of course, originate in swampy places. The spread of the disease is now prevented by screening off patients sick of malaria, thereby preventing mosquitoes from

obtaining and transferring the microorganism. Efforts have also been made to exterminate the mosquitoes.

The transmission of bubonic plague and malaria by the bites of insects led to the discovery that yellow fever, Rocky Mountain fever, and typhus fever were transmitted by the bites, respectively, of the mosquito (*stegomyia calopus*), the woodtick, and the louse. The discovery of these facts in regard to malaria and to yellow fever alone has saved thousands of lives, has changed Habana and other tropical cities from plague-infested spots to places of safe human habitation, and has made possible the completion of the Panama Canal. It must be remembered that the part played by the mosquito in the transmission of yellow fever was proved by the immortal work of three physicians—Reed, Carroll, and Lazear. To prove Maj. Reed's theory, Carroll and Lazear deliberately allowed mosquitoes which had previously bitten yellow-fever patients to settle on their hands and infect them with the disease. Both contracted yellow fever, and Lazear died a martyr to his zeal. The same is true regarding Ricketts and McClintic, who died in their effort to discover the cause and cure of Rocky Mountain fever.

ANTISEPTIC SURGERY.

Another great field of improvement that has been opened as a result of Pasteur's researches is that of antiseptic surgery. Through this department of medicine alone, the number of lives that have been saved is incalculable. Operations which formerly were almost invariably fatal, and which were undertaken only in emergencies or as a last resort, are now regularly performed with comparative safety to the patient. Wound infection, which was formerly a matter of course, is now the exceptional occurrence. All this had its beginning in the work of Lord Lister only a few decades ago, following the researches of Pasteur and the proof that so many infections and putrefactive processes were caused by bacteria.

A NEW ERA IN MEDICINE.

The researches of Pasteur and the discoveries since his time have practically revolutionized the conception of disease. As the old idea of etiology of diseases gave way to the absolute knowledge that many of them were due to certain recognized germs, so also the old empirical methods of treatment were replaced by more scientific methods, methods based on an actual study of the germ causing each disease. Chemical preparations or drugs are now put to the test, and only those of service are retained. More important still, as already shown, great results have been obtained from the investigations in regard to antitoxins, immunizing serums, protective vaccines, and the like. Only a bare beginning has been made in this great field and herein lies the possibility of still further important discoveries.

MEDICINE NOW ON A SCIENTIFIC BASIS.

In all these great advances during the last few decades it can be seen how much depended not only on the premedical sciences—physics, chemistry, and biology—but also on the fundamental medical sciences, anatomy, physiology, physiologic chemistry, pharmacology, bacteriology, and pathology. It can be seen how essential is a knowledge of these sciences for the modern practitioner of the healing art, no matter in what particular branch or method he may wish to specialize. No longer does a grade-school education constitute an adequate preliminary training for those who are to study medicine. No longer is a medical college in position to furnish its students with a satisfactory training unless it possesses thoroughly equipped laboratories in the fundamental medical sciences. No longer can these sciences be taught—as they formerly were—by busy practitioners, who can give only their spare time to teaching. So extensive now is the work in each of these sciences that they must be taught by experts who are paid salaries sufficient to enable them to devote their entire time to teaching and to research. It goes without saying that every student of the healing art, after obtaining his training in the fundamental sciences, should also have the opportunity of observing and further studying the various diseases of patients in hospitals and dispensaries, that he may become proficient in the latest improved methods of diagnosis and treatment.

ESSENTIALS OF A MEDICAL TRAINING.

The victories of medical research, by which untold thousands of human lives have been saved since the days of Pasteur, emphasize the great importance of an adequate training for those who are hereafter to have in charge the care of the sick. The student of medicine needs a knowledge of physics, of chemistry, and of biology, since a knowledge of these sciences enables him better to master the more complex medical sciences. He needs a thorough knowledge of human anatomy and physiology, since he must know the normal conditions and functions of the body and its various organs; otherwise he will not be able to differentiate between normal and abnormal conditions, between health and disease. He must have studied bacteriology and pathology, since he must know about the various diseases and their bacterial causes. He must have studied physiologic chemistry, since he must know the composition and the functions of the various secretions and substances of the body. He must study pharmacology in order that he may know the physiologic action of various chemicals and medicinal substances, so that, if medicinal treatment is needed, he may apply the preparation which will do the most good. While

still under instruction, he should have the opportunity to study the various types of disease in dispensaries and at the bedside in hospitals. While he is still under supervision he should further develop skill and reliability and round out his course of medical training by at least a year's experience as an intern, or resident physician, in a good hospital. A student who has followed this routine course will usually become a safe, efficient, and successful practitioner of medicine. If he desires to specialize in any particular class of disease or in any particular method of treatment, the course thus outlined should be followed by one or two years of study devoted to the desired specialty.

In brief, anyone who is to undertake the repair of delicate life processes of human beings, which are rendered doubly sensitive in times of sickness, should have had such a training as will enable him (*a*) to differentiate between normal and abnormal conditions, (*b*) to determine what particular disorder is present, and (*c*) to be acquainted with all the approved methods of treatment, so as (*d*) to apply the particular form of treatment which will best meet the needs of the patient. To safeguard the interests of the public a no less educational training should be countenanced. No other department of education needs to be more strictly supervised than medicine, since in no other calling does the practitioner assume to such a degree the responsibility for the lives of human beings and in no other profession can bungling or ignorance work such havoc. This responsibility has been emphasized since the marvelous discoveries following Pasteur's work have added so much to the positive knowledge regarding the cause, cure, and prevention of diseases—a knowledge which is now obtainable in any of the better medical colleges.

THE EDUCATIONAL STANDARD.

The educational standard now adopted in all leading nations as the reasonable minimum for practitioners of the healing art (medicine) includes—

(*a*) A secondary school education equal to that obtained in the accredited four-year high schools of the United States and in addition one or two years of work in a college of liberal arts, including courses in physics, chemistry, and biology;

(*b*) A medical training provided by a four-year course in a well-equipped medical college, including two years of laboratory work in anatomy, physiology, physiologic chemistry, pharmacology, bacteriology, and pathology, and two years of clinical instruction in dispensaries and hospitals; and

(*c*) The practical experience obtained in a fifth year as an interne (resident physician) in a good hospital.

PROGRESS OF THE PAST YEAR.

The beginning of the college session of 1914–15 marks an important epoch in the history of medical education in the United States, in that it witnessed the general adoption by the medical colleges of the country of the standard of preliminary and medical education just outlined. Last fall 39 medical colleges began the enforcement of the higher entrance standard, which, added to the 43 which had previously done so, and 8 which began the requirement since that time, make 90 medical colleges which now require for admission one or two years of collegiate work in addition to four years of secondary school training. Forty of these require two years of such college work as the minimum, which makes their entrance requirements equal to those of leading medical schools abroad. (See chart on p. 187.)

EFFECT OF HIGHER STANDARDS ON STUDENT ENROLLMENTS.

As was expected, the general adoption of higher entrance requirements caused a marked decrease (nearly 10 per cent) in the student enrollment—14,891 in 1914–15, as compared with 16,502 in 1913–14. Statistics indicate, however (see Table 2), that after a period of a year or two has been allowed for readjustment under the higher standards the enrollment in each college will return more nearly to normal. Of the 39 medical colleges beginning the higher requirement in 1914, all but 1 had lower enrollments than during the previous session; while of the 43 which began the higher admission requirement in 1913 of previous years, all but 5 reported either increased enrollments or larger freshman classes.

TABLE 2.—*Variations in medical college enrollments.*

[Figures showing numbers of colleges having enrollments in the session of 1914–15, respectively, larger, equal, or smaller than in the session of 1913–14. Figures in parentheses show number of colleges which although the total enrollment was diminished, had larger freshman classes than a year ago.]

Total registration this year.	Medical colleges requiring for admission—					Total colleges.
	Two years of college work, effective in—		One year of college work, effective in—		High-school course.	
	1913 or previously.	In 1914.	1913 or previously.	In 1914.		
Increased	24		8	1	4	37
Equal	(1)2				2	4
Decreased	(3)5	3	(2)4	35	12	59
Total	31	3	12	36	18	100

MEDICAL GRADUATES IN 1915.

There was a slight decrease in the number of medical graduates in 1915 below that of the previous year, 3,536 as compared with 3,594 in 1914. This is a decrease of 2,211, or 38.8 per cent, below the total for 1904, when 5,747, the largest number, were graduated. Although the total number has been diminished, as already shown, the quality has been much improved. Whereas in 1910 only 15.3 per cent (see Table 3) of all graduates had also secured degrees from colleges of arts and sciences, 24.3 per cent of all graduates in 1915 had secured these evidences of higher preliminary education.

TABLE 3.—*Medical graduates with liberal arts degrees.*[1]

Years.	Nonsectarian.			Homeopathic.			Eclectic.			Total.		
	Graduates.	A. B., B. S.	Per cent.	Graduates.	A. B., B. S.	Per cent.	Graduates.	A. B., B. S.	Per cent.	Graduates.	A. B., B. S.	Per cent.
1910	4,113	664	16.1	183	13	7.1	114	3	2.6	4,440	680	15.3
1911	4,006	683	17.0	152	18	11.8	110	4	3.6	4,273	705	16.5
1912	4,206	744	17.7	185	15	8.1	92	4	4.3	4,483	763	17.0
1913	3,679	732	19.9	209	20	9.6	93	1	1.1	3,981	753	18.9
1914	3,370	794	23.5	154	7	4.5	70	6	8.6	3,594	807	22.5
1915	3,286	839	25.5	195	16	8.2	55	3	5.5	3,536	858	24.3

FEWER BUT NO DEARTH OF MEDICAL COLLEGES.

During 1914–15 there were 102 medical colleges which had students enrolled, the average in each college being 146, or 36 in each of the four classes. As can be readily seen, 50 medical colleges with 75 students in each class, or 300 students in each college, could have taken care of the students enrolled in all colleges last session. It is clear, therefore, that the number of medical colleges could still be considerably reduced, should that be necessary, without diminishing the students' opportunities to study medicine. Some of the medical colleges with their present enrollments are spending each year for maintenance several times the amount obtained from students' fees. It costs practically as much to furnish a complete and well-rounded medical education for 25 or 30 students in a class as it would for two or three times that number. As a matter of economy, therefore, it would appear better if the number of institutions were still further reduced by one-fourth, or one-third. Meanwhile, with the close of the last college session 7 medical colleges ceased to exist, including 2 which merged with other medical colleges. These colleges are:

Birmingham Medical College, Birmingham, Ala. Discontinued undergraduate teaching.

California Eclectic Medical College, Los Angeles.

[1] Statistics from Jour. Am. Med. Assoc., 1915. Voy. LXV, p. 691.

Hahnemann Medical College of the Pacific, San Francisco. Transferred its property to the medical school of the University of California, where elective courses in homeopathic materia medica and homeopathic therapeutics will be offered.

College of Physicians and Surgeons of Baltimore. Merged with the University of Maryland, School of Medicine.

Kansas City Hahnemann Medical College, Kansas City, Mo.

St. Louis College of Physicians and Surgeons. Merged with the medical department of the National University of Arts and Sciences, St. Louis.

Southern Methodist University, Medical Department, Dallas, Tex.

Of the 95 medical colleges now remaining, there are 83 nonsectarian, 8 homeopathic, and 4 eclectic colleges. Altogether 92 medical colleges have been closed since 1904, of which 52 were merged with other medical colleges and 40 became extinct. It is noteworthy that this rapid diminution in the number of medical colleges began in 1905, when the Council on Medical Education began the campaign for better medical colleges. It is also interesting to note (see Table 4) that, of these 92 colleges, 48 had been rated in classes A and B by the council and 44 in class C; that all but 5 of the colleges in classes A and B closed by merger with other colleges, and that all but 5 of the colleges which became extinct had been rated in class C.

TABLE 4.—*Colleges closed since 1904.*

Years.	Class A.[1]		Class B.		Class C		Totals.		Total closed.
	Merged.	Extinct.	Merged.	Extinct.	Merged.	Extinct.	Merged.	Extinct.	
1905	8	1					8	1	9
1906									
1907	3		3	1		3	6	4	10
1908	2		2		1	4	5	4	9
1909	3		2			7	5	7	12
1910	1		3		3	6	7	6	13
1911			3		1	3	4	3	7
1912	2					3	2	3	5
1913	3		6	1	1	3	10	4	14
1914					2	3	2	3	5
1915	1		1	2	1	3	3	5	8
Total	23	1	20	4	9	35	52	40	92

[1] Based on the classifications of medical colleges prepared by the Council on Medical Education.

FURTHER MERGERS AN ADVANTAGE.

There are still 17 cities in each of which two or more medical colleges exist and in two of these (Memphis and Nashville) mergers are scarcely possible, since the institutions are for different races, leaving 15 cities where mergers might be brought about. These cities and the number of colleges in each are: Chicago, 8; New York, 7; Philadelphia, 6; Boston, 4; San Francisco, 3; St. Louis, 3; Washington, 3; and there are two colleges each in Ann Arbor, Atlanta, Baltimore, Cincinnati, Columbus, Iowa City, Los Angeles, and Omaha. In 1904 there were 30 cities having from 2 to 15 medi-

cal colleges each, a total of 119. The highest development of medical education in each city is prevented so long as there are two or more competing medical colleges. For the further improvement of medical education there should be other mergers in the 15 cities named.

TABLE 5.—*Cities having two or more medical colleges.*

Cities.	Number of colleges.		Cities.	Number of colleges.	
	1904	1915		1904	1915
Ann Arbor	2	2	Los Angeles	2	2
Atlanta	2	2	Memphis	1	2
Baltimore	8	2	Milwaukee	2	1
Boston	4	4	Minneapolis	3	1
Chattanooga	2	.....	Nashville	4	2
Chicago	15	8	New Orleans	2	1
Cincinnati	4	2	New York	8	7
Cleveland	3	1	Omaha	2	2
Columbus	2	2	Philadelphia	6	6
Dallas	5	1	Richmond	2	1
Denver	2	1	San Francisco	5	3
Detroit	3	1	St. Joseph	2	.....
Indianapolis	4	1	St. Louis	6	3
Iowa City	2	2	Washington	3	3
Kansas City	5	.....			
Knoxville	2	.....	Total	120	64
Louisville	7	1			

NONRECOGNITION OF MEDICAL COLLEGES.

Of the 95 medical colleges still existing, there are about 20 which do not have unqualified recognition by the licensing boards in from 15 to 34 States, the reason usually given being that those colleges are not considered as properly equipped with teachers, or with laboratories, or that suitable entrance requirements are not enforced. For students contemplating the study of medicine it is highly important that they should know before selecting a medical college whether the diploma it grants will be an acceptable qualification for the license to practice.[1] The 34 States in which, as a rule, the licensing boards are thus refusing to license graduates of low standard medical colleges are:

Alabama.
Arkansas.
Colorado.
Connecticut.
Delaware.
Florida.
Georgia.
Indiana.
Iowa.
Kentucky.
Louisiana.
Maine.
Maryland.
Michigan.
Minnesota.
Mississippi.
New Hampshire.
New Jersey.
New Mexico.
New York.
North Carolina.
North Dakota.
Ohio.
Oklahoma.
Pennsylvania.
Porto Rico.
Rhode Island.
South Carolina.
South Dakota.
Texas.
Vermont.
Virginia.
West Virginia.
Wisconsin.

[1] A reprint pamphlet containing this and other information regarding medical colleges is published by the American Medical Association, Chicago, a copy of which will be sent to any address on request.

STATE REQUIREMENTS OF PRELIMINARY EDUCATION.

Another important fact to be noted by prospective medical students is the minimum standards of preliminary education now required by the various State licensing boards. There are now 10 States in which the boards require, in addition to a four-year course in an accredited high school, two years of collegiate work, including courses in physics, chemistry, and biology. Some also require a reading knowledge of French or German. There are also 18 States which, in addition to the high-school course, require one year of college work, including the sciences named. These 28 States, the number of years required, and the dates when the standard is effective are:

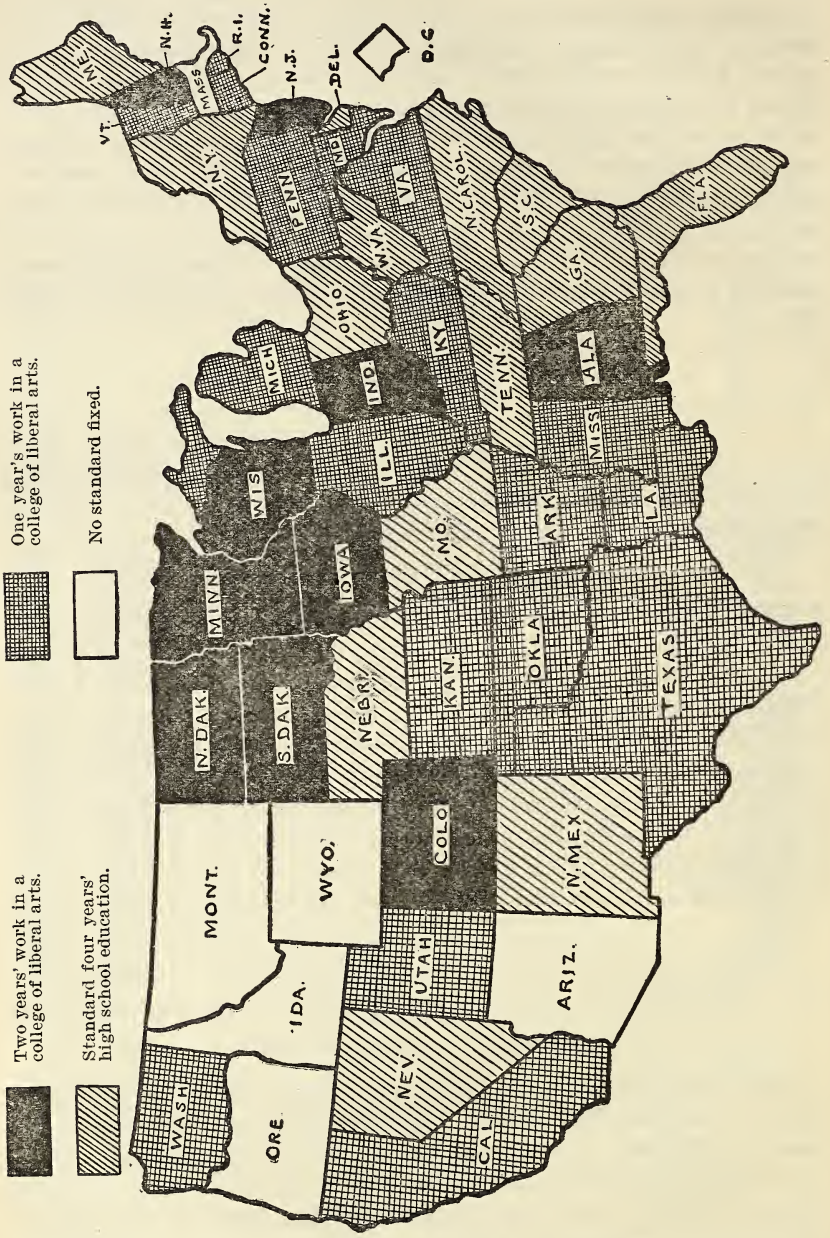
States requiring preliminary college courses.

State examining boards.	Number of years required.	Affects students matriculating—	Affects all applicants.
Requiring two years:			
Alabama	2	1915–16	1919
Colorado	2	1910–11	1914
Indiana	2	1911–12	1915
Iowa	2	1911–12	1915
Minnesota	2	1908–09	1912
New Hampshire	2	1915–16	1919
New Jersey	2	1917–18	1921
North Dakota	2	1908–09	1912
South Dakota	2	1911–12	1915
Wisconsin	2	1915–16	1919
Requiring one year:			
Arkansas	1	1915–16	1919
California	1	1915–16	1919
Connecticut	1	1910–11	1914
Illinois	1	1915–16	1919
Kansas	1	1910–11	1914
Kentucky	1	1914–15	1918
Louisiana	1	1915–16	1919
Maryland	1	1914–15	1918
Michigan	1	1914–15	1918
Mississippi	1	1915–16	1919
Oklahoma	1	1914–15	1918
Pennsylvania	1	1914–15	1918
Rhode Island	1	1914–15	1918
Texas	1	1914–15	1918
Utah	1	1913–14	1917
Vermont	1	1913–14	1917
Virginia	1	1914–15	1918
Washington	1	1914–15	1918

CONFERENCES ON MEDICAL EDUCATION.

Important conferences on medical education and licensure during the year included that of the Council on Medical Education of the American Medical Association, which was held in Chicago, February 16, 1915, and the joint conference of the Federation of State Medical Boards of the United States and the Association of American Medical Colleges, held February 17, 1915.

CHART 2.—STATE REQUIREMENTS OF PRELIMINARY EDUCATION FOR PHYSICIANS.[1]



[1] In each of four States—Arkansas, Florida, Louisiana, and Maryland—there are two or three separate boards controlling the licensing of physicians. The standard indicated in the chart is that upheld by the so-called "regular" board.

CONFERENCE OF THE COUNCIL ON MEDICAL EDUCATION.

The most important topic on the program of this conference was the report of a special committee[1] on the "Reorganization of clinical teaching," a report which is sure to have a profound influence on the further development of medical education.

In the introduction to the report it was stated that any standards suggested at present should be sufficiently moderate to permit their being adopted by all medical schools of the country having sound reason for existence. More advanced standards might be suggested, however, to be adopted at certain fixed periods in the future.

In advising a standard of clinical organization the essentials which were considered and a brief summary of the conclusions in regard to each are as follows:

Reorganization of Clinical Teaching.[2]

I. ADEQUATE HOSPITAL AND DISPENSARY FACILITIES.

A properly equipped hospital, under the absolute control of the medical school, is a first essential.

For a class of 100 senior students or less there should be a hospital of at least 200 beds, which would afford 75 beds for general medicine, 75 beds for general surgery, and 50 beds for obstetrics and gynecology. Such a hospital should possess a clinical laboratory, a Röntgen-ray department, a bacteriologic laboratory, a laboratory for metabolic investigation (physiologic chemistry), and space for the installment of apparatus for investigating cardiovascular diseases and the organs of special sense.

There should also be an outpatient department of at least 10,000 patients, or 50,000 visits annually, which should be in intimate and harmonious connection with the hospital.

II. THE NECESSITY OF ADEQUATE FINANCIAL INCOME.

Adequate finances for each clinical department of a medical school is another essential, in order to secure the needed teachers, technicians, and janitors, supplies, new apparatus, and books. The head of each department should have a

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[1] The committee appointed was as follows:

Dr. Victor C. Vaughan, chairman, president of the American Medical Association, Ann Arbor, Mich.

Dr. George E. Armstrong, professor of surgery and clinical surgery, McGill University, faculty of medicine, Montreal.

Dr. Frank Billings, professor of medicine, Rush Medical College, Chicago.

Dr. John G. Clark, professor of gynecology, University of Pennsylvania, School of Medicine, Philadelphia.

Dr. Harvey Cushing, professor of surgery, Harvard University, Medical School, Boston.

Dr. George Dock, professor of medicine, Washington University Medical School, St. Louis.

Dr. John M. T. Finney, professor of clinical surgery, Johns Hopkins University, medical department, Baltimore.

Dr. Samuel W. Lambert, dean and professor of clinical medicine, Columbia University, College of Physicians and Surgeons, New York.

Dr. William J. Mayo, Rochester, Minn.

Dr. George E. de Schweintz, professor of ophthalmology, University of Pennsylvania School of Medicine, Philadelphia.

[2] The complete report appears in the American Medical Association Bulletin of Mar. 15, 1915, p. 244.

salary, but more important is the need of adequate salaries for those next in rank. Even small schools should have at least one man in each department so salaried; larger schools would need two or three. Next to these men there is need of from two to six well-trained men to carry on teaching, clinical work, and research. Below these would come residents and assistant residents, getting still lower salaries, and their keep. There should be enough technicians to care for the laboratories and to do other routine work. The budget should provide for a stenographic force and for new equipment. In developing satisfactory clinical staffs it may be necessary to take young men and train them, beginning with small salaries, since men of desired experience are difficult to obtain.

With one exception there is to-day no medical school so financially situated as to institute the plan for full-time professorships, however ideal that plan might be, and a budget to provide for it would be prohibitive.

The minimum clinical annual budget for a medical college having a clinical class of 100 juniors and 100 seniors should be from $75,000 to $100,000, not including the cost of maintaining the hospital and dispensary. This would provide from $30,000 to $40,000 for medicine, $30,000 to $40,000 for surgery, and $15,000 to $20,000 for obstetrics and gynecology; and this budget could be doubled without extravagant expenditure. The total budget will vary with the locality and other conditions. The same amount of money, for example, would go much further in Ann Arbor than it would in New York City.

A suggestive budget to provide for the clinical faculty for the school and hospital unit in the department of internal medicine is as follows:

	Salary.
1 chief or head of department	$2,500–$5,000
1 associate or assistant clinician in hospital	1,250– 2,500
1 associate or assistant chief of clinical laboratory	1,250– 2,500
1 associate or assistant chief of outdoor department	1,250– 2,500
1 resident	600– 1,200
4 internes.	
1 associate or assistant in charge of research laboratory	1,250– 2,500
1 biochemist	2,000– 2,800
33 senior clinical clerks.	
Stenographers, artists, etc	3,000– 3,000
Dermatology, head and assistants	2,500– 5,000
Pediatrics, head and assistants	2,500– 5,000
Neurology, head and assistants	2,500– 5,000

The organization and disposition of the budget of the surgical and obstetric departments would be practically the same, differing only in details.

III. THE PLACE TO BEGIN PRESCRIBED CLINICAL INSTRUCTION.

Two years appear insufficient for the work of the clinical branches, which has become increasingly complex. The same is true regarding the laboratory subjects. Some relief may be had by a careful reorganization of the clinical departments. With the increased entrance requirements, courses in physical diagnosis and in the principles of surgery may well be offered in the latter part of the second year. This change seems advisable also because it serves to connect more closely the preclinical and clinical courses.

The student should begin in his second year the study of physical signs, on normal subjects or with patients from the outpatient service. Textbook work in the long-established facts of medicine and surgery, under an instructor, would follow in his third year, coincidentally with further practical work in the dispensary and in bedside clinics, and with lectures dealing with the most recent ideas on medicine and surgery. Instruction in obstetrics and gynecology, as well as in ophthalmology, otology, and rhinolaryngology, should begin and be

finished in the third year, with the exception of certain practical courses usually best given early in the fourth year. In his fourth year the student should follow the ward service of a teaching hospital.

If clinical instruction is begun in the sophomore year, students coming from medical schools giving only the first two years of the medical course will not be enabled to secure the physical diagnosis and the preparatory course in surgery, unless a certain amount of dispensary and hospital material may become available at those schools.

IV. USE OF THE DISPENSARY.

The outpatient clinical material is one of the most valuable teaching assets of the medical college, and should be used for the instruction of undergraduates and for the clinical and other researches of the attending staff. It is best used for students in the second year for teaching physical diagnosis, and in the third and fourth years in internal medicine and in the medical specialties. Its greatest and perhaps most neglected use is in the instruction of third-year students in history taking and fourth-year students in the therapeutics of the lesser medical and surgical ailments. The dispensary service should be intimately connected with the hospital ward service. The obstetric material should be used in the third year for diagnostic purposes only, the practical care of the lying-in patients being reserved for the fourth-year students. The gynecology dispensary material also is best used in the fourth year. For the specialties, such as opthalmology, otology, and rhinolaryngology, outpatient clinical material is highly essential, and should be utilized for sections from six to ten students, each section in charge of an instructor.

V. THE ORGANIZATION OF THE HOSPITAL UNIT.

In the construction of a hospital, the number of beds in each ward should be considered. This depends on the number of the beds assigned to each attending nurse. For acute cases, 4 beds, and, for chronic cases, 6 beds may be assigned to a nurse. This makes 24 beds a convenient ward unit for either chronic or acute cases. As many such units may be added as needed, varying with the size of the hospital. A minimum-sized teaching hospital can, therefore, be divided into eight units of 24 beds each, four units each for the medical and surgical service. More satisfactory, however, would be a hospital providing six units (144 beds) each for the medical and surgical services. Each service could then be divided into three subdivisions of 48 beds each. Taking the medical service as an example, the personnel would consist of the professor in charge (the director of the service), 3 first assistants, and 6 second assistants. Under this nonresident staff there should be a resident staff, to consist of at least 3 resident physicians, who should be the direct overseers and instructors of the clinical clerk service and of the intern staff. There should be 6 interns, serving for one year, in two grades of six months each—junior and senior—and 24 clinical clerks, all fourth-year students. Voluntary assistants, serving without pay, might be doing research work in the wards and laboratories. There should also be a number of extern assistants.

The addition of one or more units to the foregoing estimate would necessitate an entire duplication of a department staff in medicine and surgery, since a single director should not be asked to take charge of more than 150 beds.

The laboratories, research rooms, history rooms, working library, residents' rooms, auditorium and, indeed, every part of a clinical unit should be housed under one roof. Cooperation between departments should be encouraged, but a hospital unit should constitute a complete workshop, self-sufficient for all clinical purposes, and independent of all other departments.

VI. THE UTILIZATION OF STUDENTS AS CLINICAL CLERKS.

The clinical clerk system provides the best training in the clinical branches if the work is properly supervised. Experience shows that students may begin as clinical clerks in the last trimester of the third year in the divisions of medicine, surgery, and obstetrics and complete a trimester in each. In this way the student learns by applying the scientific and technical knowledge acquired in the first two years and by further instruction in wards, laboratories, operating rooms, clinics, and library.

The utilization of clinical clerks in the obstetric wards is most important. The examinations of secretions, the testing of blood pressure, the observation and care of the infant, the estimation of the value of the mother's milk are so important that clerks should be in constant attendance, if not in actual residence. In the wards devoted to the specialties, on the contrary, such as ophthalmology, otology, and rhinolaryngology, students as clinical clerks are of very little service. Most of the material in these departments is better used in ward class instruction.

Before serving as a clerk, even in the wards devoted to medicine and surgery, the student should have a sufficient knowledge of the specialties to determine the most conspicuous departures from the normal.

The period of service in each division (medicine, surgery, obstetrics, etc.) should be from two to four months. The teaching personnel in each department should consist of a directing officer and instructors. The hospital must be large enough so that at least 5, 6, or 8 beds could be assigned to each student for at least one-third of the college year.

VII. UTILIZATION OF SPECIAL AND EXTRAMURAL HOSPITALS.

A medical school with a 200-bed hospital, an outpatient department, and a minimum budget for 200 students in the third and fourth year classes, could amplify the clinical instruction, without additional cost, by affiliation with other hospitals, and increase their teaching force by volunteer clinical teachers on the staffs of those hospitals. When such hospitals are near by, and when efficient teachers are connected with them, they may be utilized to good effect.

Almost every community is served by a large number of general and special hospitals. The medical school can often secure in this way an opportunity for its students to study the types of diseases which are not usually seen in the active general-hospital service. It is possible also to use extramural and special hospitals for ward classes and for clinical clerks, but the school should control the appointment of the instructors in charge of that work.

As many extramural hospitals as possible should be brought into affiliation with the medical school to provide for the development of graduate work, which now deserves careful consideration.

VIII. DEPARTMENTAL COORDINATION OF TEACHING.

There is need of a greater coordination between the various clinical departments as well as between the clinical and laboratory departments. Too often a student feels that he has finished certain branches of his instruction (chemistry, for example), and literally puts them away until he must hurriedly resurrect them prior to a State board examination. This could be voided if there was a closer coordination of the laboratory courses with the instruction in the clinical departments.

Combination courses, like those inaugurated at McGill and Harvard, in which the professor of medicine and pathology unite to demonstrate antemortem diagnosis and postmortem findings, are recommended. Similar combinations are

possible between the departments of surgery and anatomy in the study of fractures and dislocations, between the departments of physiology and medicine in the study of the heart and circulation, and between the departments of general medicine and surgery and those of specialties.

IX. LIMITING THE PRACTICE OF CLINICAL TEACHERS.

The committee was unanimous in expressing a sympathetic interest in the educational experiment of providing full-time clinical professors in medicine, surgery, and pediatrics now being tried out at the Johns Hopkins Medical School, an institution having such admirable facilities for it. In fact, the principle that the practice of clinical teachers should be restricted has general acceptance. In determining to what extent that practice should be limited, there are two extremes somewhere between which it is possible to construct a rational scheme. On the one side is the whole-time requirement, as adopted at Johns Hopkins, and on the other side is the condition in some medical schools where clinical teachers are so busy with their private practice that their teaching is badly neglected. Opinion is by no means unanimous that the whole-time requirement is ideal, but even if it were ideal, such requirement could not be advised at the present time, owing to the fact that few of the medical schools are adequately financed for it.

On the other hand, it is imperative that we get away from the other extreme. An extensive, time-consuming private practice, with the minimum of teaching responsibility, must give place to the teacher whose chief business is to instruct medical students, who chooses the work because he loves it, and who is qualified by education and by personal experience in experimental work to be a productive teacher. Given such teachers, the limitation of their practice will take care of itself. A matter of the highest importance is to build up a system that will develop for the future the best clinical teachers. Some believe that the practice of the clinical teacher should be restricted to hospital consultations. Others feel that a certain amount of private practice is essential to develop the best clinical teachers. It is believed that some private practice, either by the head of the department or by other prominent clinical teachers in the department, is essential to keep medical education in sympathetic touch with the human side of medical practice. There is a serious danger that the placing of all clinical teachers on a full-time basis would result in a gradual separation of medical teachers from some of the most vital problems of active medical practice.

HIGHER DEGREES IN MEDICINE.

At this conference also a symposium was given on the general topic of "Higher Degrees in Medicine." The recent progress in medical education makes it essential that physicians concentrate their attention to some narrow specialty, thereby developing a higher degree of skill in that special line of medical practice. Before being recognized as a specialist, however, he should show evidence of special training, and medical schools are now providing advanced courses to meet these needs. Such courses require at least one year, and usually two or three years of special study for which a higher degree is given. To avoid a confusion of having too many such degrees was the purpose of this symposium. Of graduate degrees in medicine we already have the doctor of public health (Dr. P. H.), granted after one or

two years of special study by eight medical schools.[1] The universities of Minnesota and New York now offer also courses of three years in each of the medical specialties, for which a special degree of doctor of science (D. S., followed in parentheses by the name of the particular subject—surgery, pediatrics, ophthalmology, etc.—is granted. This is clearly less confusing than to give a special degree for each of the multiplicity of medical specialties. The value of this doctorate will, of course, depend on the excellence of the higher courses on which the degree is based.

GRADUATE MEDICAL INSTRUCTION.

The third main topic of the conference was a report of a subcommittee of the council on "Graduate Medical Instruction." The committee had just completed an inspection of the various postgraduate medical schools of the country and a study of the problems of such instruction. The following is a brief abstract of the report:

A distinction should be made between the advanced courses, which may properly be called "graduate courses," and the more elementary courses, constituting the bulk of the work especially designed for practitioners, which may well be designated as "practitioners' courses."

The following definitions for use in connection with the instruction of graduates in medicine are recommended for general acceptance:

1. *An undergraduate school* is understood to mean a regular medical school, since the instruction it gives leads to graduation in medicine.
2. *An undergraduate course* is one required for the degree of M. D.
3. *A graduate course* is one more advanced than an undergraduate course.
4. *A practitioner's course* is one of undergraduate grade but intended for practitioners.
5. *A graduate department, or a graduate school*, is one organized to give graduate courses. Such a school may also give practitioners' courses.
6. *A practitioners' department, or a practitioners' school*, is one organized to give courses for practitioners. Only in exceptional instances should such a school attempt to give graduate courses.
7. *A certificate* means a document which resembles a diploma in form, is suitable for display, and may impress the public.

The instruction of graduates in medicine is essential in order to furnish better doctors to the public. By raising the standards of medical schools the proper training of medical students is practically settled. Much remains to be done, however, to improve the training of physicians who are already in practice and enable them to keep pace with progress in medical knowledge.

No medical school should attempt to provide graduate teaching unless its undergraduate course is satisfactorily developed. Consequently schools in classes B and C should not attempt to teach graduates. Even class A schools should not attempt to teach graduates unless the instruction for their undergraduates is in a complete state of development. The standards for the

[1] Such courses are given by: Medical School of Harvard University; Tulane University of Louisiana, School of Medicine; University and Bellevue Hospital Medical College; University of Colorado, School of Medicine; University of Michigan Medical School; University of Minnesota Medical School; University of Pennsylvania, School of Medicine; and the University of Wisconsin Medical School.

instruction of graduates should be just as high as those for the instruction of undergraduates, no matter whether the courses are advanced or elementary.

During the past year the committee inspected the more important postgraduate schools of the country—independent schools organized for the purpose of teaching medical graduates. As a class the independent postgraduate schools are inferior and unsatisfactory. Few of them can stand comparison with even fairly good medical schools. Not only is the instruction poor and the equipment inadequate in many of these schools, but some are clearly commercial in type. They can not be depended on for adequate instruction for graduates. Good medical schools, therefore, which have adequate facilities, should undertake this form of instruction. Good medical schools can readily secure the services of competent teachers if the regular force is unable to undertake the teaching of graduates. They already have the necessary equipment, or they are in position to secure such equipment, if more is needed. It would mean a needless waste of money for the postgraduate schools as a body to attempt to secure the means which would enable them to secure an equipment adequate to meet the demands of the many graduates who wish instruction. Herein lies one of the strongest arguments why medical schools should undertake this work.

There are five classes of graduates who need opportunity for further study, depending on their desire (1) to undertake research, (2) to enter some specialty, (3) to take other advanced instruction, (4) to take the later improved studies in the medical school, and (5) to make up deficiencies in previous medical training.

1. *Research.*—Abundant opportunities for research, sufficient to meet the needs of those who wish such work, are already available in the medical schools of this country.

2. *Training for specialists.*—There is an urgent necessity of establishing standards for specialists. Nothing brings greater discredit to the profession than the blunders of self-styled specialists who have had an inadequate training. The training of specialists should involve a systematic course of instruction of at least one year, followed by a year or more of supervised clinical experience. This involves the possession of exceptionally good clinical facilities. It is clear that only the better university medical schools which have exceptionally good opportunities should attempt the training of specialists. Such a course is worthy of some degree in medicine higher than M. D., and such degrees should be granted only by universities.

3. *Advanced instruction other than (1) or (2).*—Several of the best medical schools are beginning to give serious consideration to the needs of graduates who seek opportunities for keeping abreast of the advances in medical knowledge and practice. Instruction of this type can be given only with the teachers and equipment of the best schools; therefore, it is a duty these schools owe to the community to seriously consider how far they can meet the demand for such courses. They should not hesitate to take up graduate teaching because they could not do so on an extensive scale. It is the quality of the work that is important, not the quantity. It is creditable for a school to offer but a single course if it is a good one and is useful to the profession. On the other hand, it is discreditable for a good school to try to cover more ground than it can do well for the sake of making a showing. Only when this form of instruction is undertaken on an extensive scale is it desirable to establish a separate department or school. Many schools could offer at least a few graduate courses at some time in the year which would be attractive to physicians who wish advanced instruction. There is an advantage in having centers for teach-

ing graduates distributed over the country for the greater convenience of those physicians who are limited as to time or money.

4. *Admission of graduates to undergraduate courses.*—Graduates in classes 4 and 5, those who have become "rusty" and wish to "brush up," and the graduates of poor schools who have had an inadequate training, constitute the bulk of those who seek further instruction. They do not need advanced courses, and, as a rule, are not qualified to take them. The admission of these graduates to undergraduate exercises is permissible, provided it does not interfere with the regular teaching. As a rule, undergraduate courses require more time than physicians can spare from their professional work. Specially organized practitioners' courses are, therefore, desirable.

Hitherto such courses have been left for the postgraduate schools, which vary from good to very bad, and as a class are inferior and unsatisfactory. They could be made satisfactory only through extensive improvements, and the funds required for such improvements would be expended to better advantage in strengthening the regular medical schools. Therefore it is unwise to leave the giving of practitioners' courses to these independent schools. The better medical schools, as far as they can, should provide practitioners' courses as a public service. The better the school the greater the advantage for the public.

Postgraduate schools do not merit universal condemnation, even if as a class they are unsatisfactory. They deserve credit because they have attempted to meet the demand of graduates for further instruction. Hitherto they have been successful because they have had to compete only with poorer schools of the same class. If the good medical schools enter this field of teaching, the postgraduate schools will face a crisis, which is accentuated by the question of standards for such teaching. Either they must come up to the standards of good medical schools or they will lose their best teachers, many of whom have become associated with postgraduate schools because these were the only ones where such teaching could be done. Now that the question of standards is raised, these men will be in demand for the good medical schools which undertake this work. The problem of the independent postgraduate schools will take care of itself if the good medical schools undertake this kind of teaching. The better postgraduate schools will be forced to join the regular schools and the poorer ones will find it unprofitable to continue. The number of physicians who will patronize poor schools of this type when better instruction is offered is very limited.

Medical schools should understand, however, that courses for practitioners must often be different from the regular undergraduate courses. Practitioners, as a rule, can leave their practice for only a limited time. Courses should be arranged that may be completed in a month or six weeks. This means a greater subdivision and a greater variety of subjects than in undergraduate studies; it means also that the work should be concentrated and practical. Courses should be so arranged that the graduate can occupy himself with studies along certain narrow lines throughout the day. If courses can not be offered throughout the year, they should be concentrated, so that there will be definite periods when the practitioner can have a wide range of choice.

Admission requirements.—There can be no uniform admission requirements of an educational character. Medical graduates need courses which range from the elementary to the most advanced. For the benefit of the public, even the most poorly trained practitioner, if he is legally entitled to practice medicine, should have an opportunity to improve his medical knowledge. He should, of course, be admitted only to such courses as he is qualified to take. It is desirable that graduates from poor schools who are not registered should not be

able to coach up in these courses and learn just enough to pass the State licensing boards.

Certificates.—To offset the evils attendant on the loose regulations about granting certificates it is recommended that the minimum time requirement for the granting of a certificate be four months of all-day work, taken consecutively; that it should be granted only for a systematic course, approved by the school, in which attendance and work have been satisfactory; and that the student must pass an examination based on this course of study. A school may issue for shorter courses an official statement as to the student's attendance or the character of his work, but the form must be such that it does not resemble a diploma.

RULES FOR THE CLASSIFICATION OF GRADUATE MEDICAL SCHOOLS.

The following rules regarding the classification and indorsement of graduate medical schools were recommended by the committee and adopted by the council:

(*a*) No graduate medical school will be approved by the council which accepts as students physicians who are not licensed practitioners, unless they are graduates of medical colleges rated in Class A.[1]

(*b*) Certificates, diplomalike in character, should not be granted for less than four months of all-day work, taken consecutively; they should be granted only for a systematic course, approved by the school, in which attendance and work have been satisfactory, and to secure this certificate the student should pass an examination based on the course of study. Only such graduate medical schools will be approved which exact these requirements.

(*c*) The council, in its discretion, will give its approval to research courses, to systematic courses for the training of specialists, and to other graduate courses where given in Class A medical colleges. (This does not mean that all such courses in Class A medical colleges will be approved, but that no such courses will be approved if given in medical colleges graded lower than Class A.)

(*d*) In determining the standard of graduate departments of medical colleges, or independent schools giving instruction to graduates, the council will be guided by the following outline, grading the various institutions on a civil-service basis, on a scale of 1,000 points:

1. Any evidence obtainable showing the character of the training furnished by the graduate medical school.
2. The observance by the graduate medical school of the rules herein set forth regarding the admission of students.
3. Supervision of the students' work; character of the records; observance of the rules herein set forth regarding the granting of certificates.
4. Graduate school buildings or quarters: Light, heat, ventilation, cleanliness.
5. Laboratory facilities and instruction.
6. Dispensary facilities and instruction.
7. Hospital facilities and instruction, maternity work, necropsies, specialties.
8. Faculty: Number and qualification of trained teachers, full-time instructors and assistants, organization, research work, etc.
9. Extent to which the school is conducted for teaching rather than for the profit of the faculty directly or indirectly.
10. Possession and use made of libraries, museums, charts, stereopticons, etc.

[1] In statements regarding classes of medical colleges reference is made to the classification prepared by the Council on Medical Education of the American Medical Association, whic divides them, according to their excellence of teachers, equipment, etc., into Classes A, B, and C.

Although the council has not attempted as yet to classify graduate medical schools, reports indicate that it is collecting data on which such a classification can be based. Any graduate school may apply for approval, and this is to be granted if the school meets the requirements as above set forth, and if, in all departments in which instruction is given, it comes up to the standard of a Class A school.

THE JOINT CONFERENCE.[1]

The joint conference of the Association of American Medical Colleges and the Federation of State Medical Boards of the United States was held on Wednesday, February 17. Of particular interest was a paper presented by Dr. Henry S. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching, on "The Classification of Medical Colleges," in which he discussed the work of the Council on Medical Education. He showed that the effectiveness of the council's work came from the fact that it was supported by the great mass of the organized medical profession of America. In speaking of the rule of the council that all medical colleges to be rated in Class A should require for admission a year of college work, including courses in physics, chemistry, and biology, in addition to a four-year high-school education, Dr. Pritchett said:

> I look upon the enforcement of this provision over the whole United States as premature. In the South the medical schools were barely upon the high-school basis and I fear the effect of this action both upon medical school and high school. It will, I fear, work to continue for some years a series of insincere adjustments, and the progress made in the raising of standards, while attractive on paper, is likely to be in part illusory.

The reply of the council to this was as follows:

> The council has been especially interested in the development of the high schools of the South, since it has been and is one of the most important problems confronting the medical schools of that section of the country. The reasons why the council believes the enforcement of the one year of college requirement in the South should not be delayed are as follows: In the first place the council has fixed a standard for the entire country and has tried to obliterate any lines between the North and South, or the East and West. A second point is that the South, according to statements made year after year at these conferences, no longer desires to have special concessions made for it. The colleges of that section desire to be judged on the same basis as those of other parts of the country. Third, if the high schools of the South are imperfect, is it not all the more reason why those who are going to study medicine should be required to take the one year of extra work even though it may not be at first as perfect a college year as is desired?
>
> As to the requirement itself, many educators throughout the South, college presidents, professors of secondary education, and others have stated that the effect of the requirement one way or the other depends on the manner in which it is administered. In response to the question: "Would not the requirement of a year of college work, with the strict understanding that it be preceded by a

[1] Assoc. Amer. Med. Col., Proc. 25th An. Meeting, Feb. 17, 1915, p. 11.

four-year high-school education, or its actual equivalent, help the high schools in the South?" the answers, with only one exception, were decidedly in the affirmative. The chief difficulty found in the inspection of some of the universities in the South, as well as of the medical schools, has been the lack of efficient methods of administering their entrance requirements. Such faulty methods are a positive hindrance to progress both of the high schools and of the colleges. If the medical schools verify every credential, and make sure that students admitted have the four-year high-school education, before any college work taken may be counted as such, it would be a positive aid in the development of the high schools. Such requirement will induce the small colleges in the South to increase their entrance requirements to at least 14 units of secondary school work, or not be recognized by the medical schools.

President Pritchett also suggested several criteria which he believes should be applied in deciding the classification of medical colleges. These were:

1. The entrance qualifications demanded of the students admitted.
2. The quality of the teaching, the ability and devotion of the faculty.
3. Completeness and availability of the scientific laboratories in chemistry, anatomy, physiology, pathology, and associated sciences.
4. Character of the clinical facilities, including both hospital and dispensary, and the use made of them.
5. Financial income as shown by a detailed statement of receipts and expenditures.

MINIMUM EXPENSES FOR MAINTENANCE OF THE FIRST TWO YEARS OF AN ACCEPTABLE MEDICAL COLLEGE.

A paper on this subject was presented by Dr. F. C. Waite, secretary of the Western Reserve University School of Medicine, Cleveland, Ohio. The following is an abstract of the paper:

The cost of each of the laboratory departments falls under three general heads: Salaries, maintenance, and additions to equipment. Aside from the building and fixed furniture, the movable apparatus for each laboratory sufficient to care for the teaching of 50 students in a class is not far from an average of $5,000 per laboratory. The figure of $25,000 for five laboratories is conservative. To this should be added at least $10,000 for a working library, and teaching collections, especially in anatomy and pathology. Such collections represent a value of at least $5,000. They can not be purchased; they must be accumulated. There is, therefore, represented in the equipment of five laboratory departments at least $40,000.

The salaries for each department will amount to at least $7,000; library appropriation, $200; breakage and repairs, $500; material for students, $750, allowing $15 per student, as an average, for the five laboratories. The sum-total for the annual maintenance of the five laboratories would amount to $41,750. The minimum salary would be $3,000; the dieners and technicians, of course, receive considerably less. An acceptable school must have at the head of its laboratory departments men who are not only capable of directing the teaching, but also of doing and directing some research. Some men when they start may be willing to accept less than $3,000, but as they continue in the work they deserve and must receive some increment, so that the average of the five professorial salaries is certainly $3,000. The professorial salary scale in many schools is

now $4,000 or above. To teach a class of 50 students there should be at least three teachers to each department. In laboratory exercises an instructor can not care for over 15 to 20 men and get good results. Of course, all of these men should be full-time teachers. Three men to a department, five of these being heads of the departments, and eleven subordinates, constitute the full-time teaching staff in the laboratory department. The subordinates should not receive less than $1,500 a year. Technical assistants are absolutely necessary, and may be pair at least $900 a year, in order to make the place attractive as a career. To attract and hold capable teachers, library facilities must be provided. The initial investment will be about $10,000. The cost of maintenance for a year is about $200 per department. This takes no account of overhead charges in connection with maintaining the buildings and ground, nor is any taken of general administrative expense. Allowing $6,000 per year for such expense gives a minimum total of $50,000 for maintaining the two laboratory years. Income from fees is about $150 per student. The difference between the tuition fees and the maintenance expense must come from some other source.

MININUM EXPENSES FOR MAINTAINING THE CLINICAL DEPARTMENTS.

This was the subject of a paper presented by Dr. John L. Heffron, dean of the College of Medicine of Syracuse University, Syracuse, N. Y. The following is an abstract of that paper:

Data were collected from 23 Class A schools. At Johns Hopkins the total expense of the clinical department is $141,742. If interest on money invested in buildings and permanent equipment is included, the clinical teaching in Johns Hopkins Medical School costs $375,000 a year. Some schools report an annual expenditure for this work of considerably more than $150,000. At Syracuse University College of Medicine, which does not own a hospital, the clinical teaching expense in hospitals is nil, and yet we think it is efficient. There is a college dispensary which, with equipment, cost $95,000. The laboratories in the dispensary are equipped and supplied by the university. The laboratories in the affiliated hospitals are largely supported by the hospitals, the university expending not to exceed $200 for this purpose. Each student is required to own his own microscope. For the laboratories of clinical diagnosis, clinical pathology, and clinical bacteriology about $5,000 is expended annually for salaries and supplies. If the university should charge interest on $95,000 and the cost of upkeep, the total annual expense for clinical teaching would be approximately $10,000.

The cost of clinical teaching varies, depending on whether the college owns its own hospital, dispensary, and clinical laboratories, and whether the clinical teachers are paid on a part-time or full-time basis. Good clinical teaching can be done with a volunteer clinical faculty in affiliated hospitals, but it is not the best way or the right way. A medical school should own or use or control and use a general hospital and a dispensary, and both should be fully equipped with clinical laboratories for students' use. Clinical teaching can be done efficiently by men who are paid enough to permit them to devote sufficient time to the study and teaching of their subject and who are permitted to engage in consulting practice which does not interfere with their duties as teachers and investigators. Each major department would require in salaries about $7,500 a year, or a total expenditure for medicine, surgery, pediatrics, and obstetrics of $30,000 a year in salaries. In Syracuse the cost per patient per day in the hospital we use is $1.75. The city or some responsible party pays $1.50 of this

sum, leaving a daily deficit of 25 cents per patient which must be made up from the treasury of the university or by subscription. Take as a standard hospital one with four units of 24 beds each, and suppose that all the beds were occupied for 75 per cent of the time. That would give an annual deficit representing the cost to the university or to the public over what had been received of $13,324. Added to the salaries, the total expense would be about $45,000. This is so nearly the $50,000 which it had been estimated is necessary for the conduct of the clinical department of a first-class medical school that it is quite significant.

REVISED REQUIREMENTS FOR ADMISSION TO MEDICAL SCHOOLS.

During the February conference on medical education a joint committee of the Association of American Medical Colleges and of the Council on Medical Education assisted by Dr. Kendric C. Babcock, dean of the college of liberal arts and sciences of the University of Illinois, formerly specialist in higher education in the United States Bureau of Education, was appointed to prepare a statement in greater detail in regard to the requirements of admission to medical colleges to be enforced during the next few years, including a statement of such conditions as were to be allowed for the two following years. A preliminary statement was submitted to 50 or more leading authorities on preliminary education for their suggestions and criticisms, and on receipt of the replies the following statement was adopted:

I. HIGH-SCHOOL REQUIREMENTS.

(*a*) For admission to the preliminary college year, students must have completed a 4-year course of at least 14 units in a standard accredited high school or other institution of standard secondary school grade, or have its equivalent as demonstrated by an examination conducted by a duly authorized examiner of the college entrance examination board, or by the authorized examiner of a standard college or university which has been approved by the Council on Medical Education, or by an examiner whose certificates are accepted by such approved standard colleges or universities. A detailed statement of attendance at the secondary school, and a transcript of the student's work should be kept on file by the medical school authorities. This evidence of actual attendance at the secondary school or schools should be obtained for every student no matter whether he is admitted to the freshman or to advanced classes. This information regarding high-school education should be kept separate from the transcript of college work described below.

(*b*) The subject for which credits for admission to the preliminary college year may be accepted are shown in the accompanying schedule:

Schedule of subjects offered in academic and secondary schools, credits in which are acceptable for entrance to the preliminary college year leading to the medical courses.

Subjects.	Units.	Required.	Elective.
ENGLISH:			
Reading and Practice	2	2	
Study and Practice	1		1
MATHEMATICS:			
Algebra to Quadratics	1	1	
Algebra (Quadratic Equations, Binominal Theorem, and Progressions)	½		½
Plane Geometry	1	1	
Solid Geometry	½		½
Trigonometry	½		½
LATIN:			
Grammar and Composition	1	(1)	1
Caesar	1	(1)	1
Cicero	1		1
Virgil	1		1
Cornelius Nepos	1		1
Greek:			
Grammar and Composition	1	(1)	1
Xenophon	1	(1)	1
Homer	1		1
German (or French):			
Elementary	2	1 2	
Intermediate	1		1
Other Foreign Language:			
Elementary	2		2
HISTORY:			
American History and Civil Government	1	1	
Greek and Roman History	1		1
Medieval and Modern History	1		1
English History	1		1
Science: [2]			
Botany and Zoology, each	1		1
or Biology	1		1
Chemistry	1		1
Physics	1		1
Physiography	½		½
Physiology	½		½
Agriculture	1		1
Drawing	1		1
Manual Training	1		1
Domestic Science	1		1
Music:			
Appreciation or Harmony	1		1
Total	33½	7	26½

[1] Two units of Greek or Latin may be substituted for the two required units of French or German.
[2] Credentials of each science course must include evidence of laboratory work.

A *unit* is the credit value of at least 36 weeks' work of 4 or 5 recitation periods per week, each recitation period to be of not less than 40 minutes. In other words, a unit represents a year's study in any subject in a secondary school constituting approximately a quarter of a full year's work. A satisfactory year's work in any subject can not be accomplished under ordinary circumstances in less than 120 sixty-minute hours or their equivalent.

Required branches.—Of the 14 units of high-school work it is suggested that the subjects in capitals aggregating 7 units be required. Other work to the amount of at least 7 units may be made up from any of the other subjects of the above schedule.

II. WORK OF THE PRELIMINARY COLLEGE YEAR.

(*c*) The preliminary college year, which is the present minimum requirement for admission to medical schools, shall extend through one college session of at least 32 weeks of actual instruction, including final examinations. Its purpose

is to provide the student with a training that will enable him to enter more intelligently on the study of the fundamental medical sciences.

(*d*) In excellence of teaching and in content the work of this preliminary college year shall be at least equal to the work done in the freshman year in standard colleges and universities which enforce for admission at least 14 units of accredited high-school work and exact for graduation at least 120 semester hours [1] of collegiate work.

(*e*) This preliminary college year shall consist of at least 30 semester hours,[1] fully completed before the student enters the medical school. This is entirely in addition to the 14 units of secondary school work. Each student before being admitted to the medical school must have fully completed 14 units of high-school work and 30 semester hours of college work. If the college work did not include the specified subjects, as shown in (*f*), the students must be required to remove such conditions as are permitted in those subjects by *additional* college work. Additional college credits are necessary also to make up any deficiencies there may be in high-school credits. For example, if a student completed only three years of high-school work before entering "college," then two years of collegiate work (60 semester hours) must be required before he is admitted to the medical school.

Schedule.

Subjects.	Lectures or recitations per week.	Laboratory periods [1] per week.	Total hours per semester.	Total semester hours per year.
Physics, 1	2 or 3	2 or 1	4	8
Chemistry, 1	2	2	4	8
Biology, 1	2 or 3	2 or 1	4	8
(or Zoology, 1) [2]	(1)	(2)	(3)	(6)
Elective, preferably French or German, 2 [2]	4 or 3		4 or 3	8 or 6
Total	9 or 11	6 or 5	16 or 15	32 or 30

[1] Each laboratory period must extend over at least two hours. [2] See paragraph (*f*).

(*f*) This preliminary college year shall include courses in physics, chemistry, and biology, each course to embrace at least 8 semester hours of didactic and laboratory work as shown in the accompanying schedule, provided that the requirement in biology may be satisfied b ypresenting 6 semester hours of college zoology, or by presenting one unit of high school biology, including laboratory work, and completing 4 semester hours of college zoology; and provided that requirement in biology may be satisfied by presenting 6 semester hours of college school physics, including laboratory work, and completing 4 semester hours of college physics which continues and does not duplicate the work done in high school. Under no arrangement, however, should there be a total of less than 30 semester hours of college work. It is strongly urged that these include 6 semester hours of a modern language other than English, preferably French or German.[2]

(*g*) Credits for two or more years of collegiate work can not be considered *fully* acceptable unless courses in physics, chemistry, and biology, as described above, have been completed. It is urged that a reading knowledge of French or German also be required.

[1] A semester hour is the measurement of work represented by one class period per week for half of the college year. Each laboratory period to be so valuated must extend over at least two hours.

[2] The inclusion of French or German is required for entrance to institutions which are members of the Association of American Medical Colleges.

(*h*) Medical schools which aim to give a premedical year, including these science courses, should admit only those students who have completed at least 14 units of unconditional high-school work,[1] should provide expert full-time teachers in the various subjects in addition to the regular staff of the medical school; provide standard laboratory equipment; and should provide a training in the subjects of the premedical year no less thorough than that given in standard colleges of liberal arts and the total work of this premedical year should amount to at least 30 semester hours of nonmedical subjects.

(*i*) Postgraduate courses given in high schools can not be considered equal to college courses given by college teachers, unless such postgraduate courses are definitely organized on a junior college basis, and credits for work done in them regularly recognized and accepted by a State university or other university of similar rank, approved by the council.

(*j*) A year of work in a college of medicine, dentistry, pharmacy, or other professional college is not considered as an equivalent to the required premedical college year.

III. ENTRANCE CONDITIONS UNTIL JAN. 1, 1917.[2]

(*k*) A student may be admitted with certain subject conditions provided he has completed at least one year [30 semester hours, see paragraph (*e*)] of work in an approved college of liberal arts or science, provided no conditions may be permitted in the prescribed 8 semester hours of college chemistry. These conditions may be either in (1) or (2), but not in both: (1) in one-half (4 semester hours) of the required course in physics, or (2) in one-half of the required course in biology (4 semester hours), or in zoology (3 semester hours). These conditions must be removed before the beginning of the work of the second medical year, and the credits for these conditions must be in addition to the required 30 semester hours.

(*l*) A candidate who has completed two or more years of work in an approved college of liberal arts, or science, may be admitted conditioned in all of the required work in physics, or one-half of the work required in biology, to a total not to exceed 8 semester hours. These conditions must be removed before the beginning of the second medical year. No condition may be permitted in the prescribed 8 semester hours of college chemistry.

(*m*) A candidate who holds a baccalaureat degree from a standard four year college or university approved by the Council on Medical Education may be admitted, in the fall of 1915 only, conditioned in all the physics or all the biology or in one-half of the physics and one-half of the biology, the total condition not to exceed 8 semester hours. After 1915 only one-half of the biology (4 semester hours) and one-half of the physics, or all of the physics, the total not to exceed 8 semester hours, may be carried as a condition. These conditions must be removed before the beginning of the second medical year. No condition may be permitted in the prescribed 8 semester hours of college chemistry.

(*n*) Since the medical course demands the full energy of the student, especially in the freshman year, all deficiencies should be removed, so far as possible, during the summers preceding and following the freshman medical year.

(*o*) A medical school having students who were conditioned on entrance in 1914–15, under the former regulations, are entitled to have the conditions of such students brought into conformity with the rulings here announced without prejudice to its standing.

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[1] Part courses or uncompleetd courses are not to be accepted.

[2] Deficiencies in preparation should be made up in large part in attendance at a summer session of the university, either before or following the freshman medical year.

ENDOWMENTS FOR MEDICAL SCHOOLS.

Prior to 1900 the great majority of medical colleges depended entirely on the income from tuition fees. This situation has been reversed. Instead of paying dividends, the faculty members of some independent medical colleges at the present time are being regularly assessed each year to pay deficits. It is now well known that the cost of teaching each medical student in the better-equipped medical college is two, three, or even several times the sum which he pays for tuition. The reason for this change is evident. A great field of medical research has been opened by the work of Virchow and Pasteur. The establishing of the germ origin of many diseases, the development of immunization by vaccines, antitoxins, and serums, and the advent of antiseptic surgery have practically revolutionized the teaching of medicine and demanded schools having expert, salaried teachers, extensively equipped laboratories, generous provision for medical research, and an abundance of hospital and dispensary material. It was soon clearly demonstrated that even the most exorbitant tuition fees would not meet the expense for maintaining one of these modern medical schools, and that either State aid or private endowment was essential. Philanthropists did not care to give money to profit-bearing institutions, but responded nobly to the needs of high-grade medical schools. As President Eliot once said:[1] "The way to get endowment for medicine is to improve medical education." As medical colleges have adopted better standards of admission and shown that they deserved to exist, the needed financial aid has been obtained. Generous appropriations have been granted to State university medical schools, and endowments of hundreds of thousands, or millions, from private sources, have been so frequent in recent years as to become almost commonplace. These gifts have been so generous for some institutions as to make them equal, if not superior, in resources to the leading medical schools abroad. Since 1906, when Harvard Medical School obtained its beautiful new buildings, the Peter Bent Brigham Hospital, the Huntington Cancer Hospital, the State Psychopathic Hospital, and other institutions have been built in the immediate vicinity and brought into close affiliation, resulting in the development of a great medical center. Johns Hopkins Medical School, with its modest start in 1896, has since been developed by large additions to its endowment, by the increased provision for medical research, and the expansion of its hospital, until it, likewise, ranks among the world's great medical schools. There have been marked developments at Pennsylvania and Michigan and, more recently, at Minnesota, Columbia, and Tulane. New medical buildings at less expense, but pro-

[1] Fourth An. Conf. of the Council on Med. Ed., Chicago, Apr. 13, 1908. Am. Med. Assoc. Bul., May 15, 1908, p. 263.

portionally of equal importance, in recent years have been erected for the medical schools of the State universities of Georgia, Nebraska, and North Carolina and for the Medical College of South Carolina. A beautiful new medical library building has been secured for Leland Stanford Junior University, and greatly increased hospital connections, leading to the development of more compact medical teaching plants, have been obtained by Western Reserve University and the University of Cincinnati. The medical department of Vanderbilt University at Nashville and the Atlanta Medical College, after long struggles against competition and adversity, have received liberal endowments and are now undergoing a rapid development. Within the past year, however, another achievement of great importance has been brought about at St. Louis. The Barnes Hospital, the St. Louis Children's Hospital, and the Washington University Medical School have built splendid new buildings in immediate proximity, at an expense of over $2,500,000. The three institutions, furthermore, have endowments amounting to approximately $3,000,000. Of greater significance, however, is the fact that these institutions have formed a close affiliation by which they can work together to fulfill in the best manner possible a threefold function: (*a*) To furnish the best and most enlightened care of the sick in accordance with modern medical knowledge; (*b*) to add to the positive knowledge regarding the cause, cure, and prevention of disease through scientific research; and (*c*) to furnish courses of instruction by which the public will be provided with thoroughly trained physicians and nurses. The dedication of these new buildings marks the completion of another great medical teaching institution in the United States, and places the Washington University Medical School on a par with other leading medical schools.

In the light of all these marked achievements in medical education, it is not surprising that as great, or perhaps greater, things are being planned in other parts of the country. These recent accomplishments, therefore, give confident expectation that the plans for a ten-million dollar medical center at Columbia University will be successfully worked out. Surely, no development is more worthy of generous support; no investment could bring greater returns in the saving of lives, in the prevention of sickness and distress, and in promoting the welfare of the public.

OTHER GIFTS OF THE YEAR TO MEDICAL EDUCATION.

Arkansas.—The University of Arkansas, Medical Department, received $65,000 from the Arkansas Legislature for maintenance during the next biennium.

California.—The University of California Medical School received in perpetuity an endowment which yields an annual income of $1,200 for the maintenance of a position of research associate in pathology. During the year, also, subscriptions of $615,700 were received for a new hospital.

Connecticut.—The Yale University School of Medicine received $25,000 for the further endowment of the university clinic and $5,100 for the establishment of the Ramsey memorial scholarship.

Georgia.—The Atlanta Medical College has been taken over by Emory University as its medical department. Through the generosity of Asa G. Candler an endowment of $250,000 has been provided, and a teaching hospital to cost from $200,000 to $300,000 is to be erected on or near the college property.

The University of Georgia Medical Department received $25,000, to be known as the William J. Young library fund, the income to be used in the improvement of the library and the purchase of new books.

Illinois.—A gift of $1,000,000 was given by James Deering to the Wesley Memorial Hospital, Chicago, on condition that it become the teaching hospital of the Northwestern University Medical School.

The University of Illinois received a total appropriation of $5,000,000, about $100,000 of which is to be utilized for a new medical college building in Chicago.

Indiana.—Indiana University received a gift of $100,000 from Dr. Luther D. Waterman, to be used for scientific research; an additional $10,000 was received from Dr. and Mrs. Robert W. Long for the teaching hospital of the school of medicine.

Kansas.—The University of Kansas School of Medicine received an appropriation of $25,000 for a new laboratory building.

Massachusetts.—The Boston University School of Medicine received $100,000 for a maternity hospital to be erected on a site near its campus.

The Medical School of Harvard University received a bequest of $50,000 by the will of Dr. William H. Baker, to be used for the endowment of the chair of gynecology. The will of Mrs. Endicott provides $25,000, the income to be used for cancer investigation work. A gift of $10,000 for the endowment of a scholarship was received by the will of Fannie Bartlett.

Nebraska.—The University of Nebraska received an appropriation of $150,000 for a State hospital to be erected on the campus of the College of Medicine.

New York.—Columbia University received $113,750 from William K. Vanderbilt, to purchase a site for the new medical school; $100,000 was received by the will of Emil C. Bondy for research in cancer. Two gifts, one amounting to $4,000 the other to $2,500, were received for surgical research; $2,000 was received for the department of physiology, and $2,000 for the Frank Hartley scholarship fund.

The New York Medical College and Hospital for Women received $10,000 by the will of William Washington Cole.

Ohio.—The University of Cincinnati College of Medicine was offered $250,000 for a new building by Mrs. Mary M. Emery, on condition that a like amount be raised before July 1. On that date $255,000 had been secured, making a total of $505,000.

Oregon.—The University of Oregon, Department of Medicine, raised $25,000, on the securing of which the $50,000 appropriated by the State for a new building becomes available.

Pennsylvania.—The University of Pennsylvania received $50,000 by the will of Miss Anna M. Blanchard. Another sum of $50,000, the income from which is to be used for the maintenance of the William Pepper clinical laboratories, was provided by the will of Samuel Dickson.

The Corinna Borden Keen research fellowship, the annual income from which amounts to $1,000, has been established in the Jefferson Medical College, Philadelphia, by Prof. William W. Keen, with the provision that each recipient shall spend at least one year in research work.

The Woman's Medical College of Pennsylvania received $10,000 from the Shipper estate; $5,000 was received by the will of Mrs. Anna Yarnall; $5,000 was received for the Edith E. Keisher scholarship fund; and $225 for another scholarship fund.

South Carolina.—The Medical College of the State of South Carolina received $1,000 under the will of Mrs. Salina Huger, the income to be used in the purchase of books for the college library.

Tennessee.—The building formerly occupied by the Medical Department of the University of Nashville, valued at $50,000, was purchased by William Litterer and donated to the Vanderbilt University, to be used for teaching and research in bacteriology.

Texas.—A Woman's Hospital and a new nurses' home costing, respectively, $125,000 and $90,000, have been erected on the grounds of the John Sealy Hospital, which is the teaching hospital of the medical department of the University of Texas. The money for the former was provided by Mrs. R. Waverly Smith and her brother, John Sealy.

West Virginia.—A new building, to cost $57,000, is being erected for the School of Medicine of West Virginia University, Morgantown.

Wisconsin.—Subscriptions to the endowment fund of Marquette University, School of Medicine, have been received to the amount of $150,000.

THE MAYO FOUNDATION AND THE UNIVERSITY OF MINNESOTA.[1]

Another special incident of the year was the establishing of the "Mayo Foundation for Medical Education and Research" by the Mayo brothers, of Rochester, Minn. This was endowed for $1,500,000 and has been placed in affiliation with the University of Minnesota for a trial period of six years. From a small beginning many years ago the Mayo clinic developed until it is now recognized the world over. It possesses a large amount of material and equipment useful in diagnosis and research, and the clinical records of patients have been carefully kept and cross indexed, making them of special value for statistical study. The taking over by the University of Minnesota of the Mayo foundation has greatly aided the development in that State of a high type of graduate medical instruction and research.

MEDICAL EDUCATION IN CHINA.

The Rockefeller Foundation has outlined the plan of its proposed endowment of medical education in the Republic of China under the management of an American resident director, Dr. Roger S. Greene. It is the intention of the foundation to establish a system of medical colleges and hospitals throughout China by appropriations to certain existing schools and the establishment of additional institutions. Modern surgical and medical methods will be introduced in all the centers controlled by the foundation.

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[1] See also p. 154.

CHAPTER IX.

VOCATIONAL EDUCATION.

By William T. Bawden,

Specialist in Industrial Education, Bureau of Education.

Contents.—Present tendencies—National aid for vocational education—State systems of vocational education—New work in State universities—Training teachers for vocational education—Organizations interested in vocational education—Investigations and surveys—Vocational guidance—Vocational education in the small city—Achievements in typical centers—Items of special interest.

One year is perhaps a brief period within which to expect to note progress in some fields, but not so in vocational education at the present time. The intensity of popular interest, the increasing numbers of those who seek definite suggestions for specific purposes, the eagerness with which information is sought, and the magnitude of the physical proportions of the movement, as manifested in legislation and in the creation and extension of schools to meet newly conceived needs—all of these grow steadily and rapidly more impressive. A review of the year's developments within the limits of a few pages must of necessity be cursory and fragmentary. It is believed, however, that further consideration of the topics dealt with in the following pages would give the student a grasp of the significant phases of the movement. In the preparation of this chapter many of the recognized leaders in all parts of the country have materially assisted by reports and suggestions. This assistance is here cordially acknowledged.

1. PRESENT TENDENCIES.

(*1*) *Cooperation.*—It is always more difficult to interpret contemporaneous events than it is to gauge their importance when seen in retrospect. Nevertheless, it seems reasonably clear that there has been during the past year no force or principle of action more influential than the spirit of cooperation.

The idea that the factory, the labor union, the commercial establishment, the woman's club, the parent-teacher association, and other representative groups, with the public school as an aggressive intermediary and leader, may and should unite in the study, and the ultimate solution, of the problems of vocational education, is causing almost a revolution in educational thinking. If this revolution can be carried over into educational practice, as now seems probable,

many other departments of school activity besides vocational education may reap the fruits of cooperative effort.

(*2*) *Trade agreements.*—One of the immediate practical and tangible benefits resulting from cooperation has been the development of agreements relative to vocational and continuation school programs and apprenticeships. The pioneer work in this field dates back four or five years at least, but the developments of the past year have been especially noteworthy. Examples and precedents and texts of agreements to meet a variety of typical situations are now becoming available, and their extension to a large number of cities and to new conditions may be expected to be a feature of the new year's work.

(*3*) *Specific programs.*—The belief seems to be growing that there is no such thing as general vocational education beyond the elementary stages, but that programs and courses of study must have specific ends in view. Vocational education has been declared within the past year to be a "local and not a general question," and much emphasis has been placed on the necessity of an understanding of local conditions in determining methods of procedure.

(*4*) *Basis of aims and purposes.*—Because of this evolution of opinion with reference to the importance of local conditions there has been a disposition to reexamine seriously the basis of supposed facts upon which vocational schools and courses have been built. A new note has been struck in the recognition of the "futility of training a boy or girl for a place that does not await him." The new point of view is characterized by keen interest in questions of supply and demand in the labor market and by intensive study and analysis of occupations and a more careful inventory and analysis of existing educational facilities.

(*5*) *The prevocational school.*—One of the significant phases of the year's progress is in the further development of a type of school or department designed to assist boys and girls of approximately the 12 to 16 years old period to a better understanding of their own abilities and of the best possible use to be made of such abilities from the point of view of the life career. When work with this object in view has been undertaken as a form of classroom study without special equipment, with or without visits to industrial and commercial establishments and individual studies and researches, it has been referred to as "vocational guidance."

When, however, special equipment has been provided, so that the pupil may participate in practical shop and laboratory activities on real projects selected from a number of fundamental vocations, with a sufficient amount of time assigned to practical work, it has been believed that the pupil may be able to form for himself an intelligent relative estimate of his fitness for the various types of

vocation in which he thus engages as the basis for the choice of a life career. To such special school or department has been given the title of "prevocational school" or "prevocational class." There has been some criticism as to the propriety of the term "prevocational" in connection with such work, and it does not yet appear that the term will be permanently adopted.

(*6*) *Raising the age of entrance into industry.*—The tendency toward raising the age at which young people may enter profitable employment in the industrial and commercial world is unmistakable. The term "blind-alley job" persists in educational discussion, just as the thing itself persists in real life, and probably will persist for an indefinite period to come. Many kinds of work must be done; all kinds of work are not equally interesting or edifying or of equal promise for the future. It is coming to be recognized that even the "blind-alley job" is not an unmitigated evil, especially if its character is clearly understood by the worker and by society.

Many boys and girls are persuaded to reject opportunities for merely casual employment when its true nature and probable effects are made clear to them, and necessary sacrifices are willingly made in order that more adequate preparation may be made for something more worth while. For many others, who must, or who think they must, go to work at whatever offers, the "way out" may be provided through continuation and part-time schools.

The enactment of legislation in the States relating to employer's liability and workmen's compensation, industrial accident insurance, minimum wage, and compulsory education, together with the changing public sentiment which has inspired or resulted from this legislation, are potent causes of the gradual but certain rise in the age at which boys and girls permanently discontinue their schooling to go to work.

In an investigation, recently made in Iowa, information was secured from a group of employers with a total aggregate roll of 401,130 workers, representing 65 of the leading industries of the State. In this total number of employees there were reported only 249 boys and 76 girls under 16 years of age. The statements from the employers indicate a growing conviction that an employee under 16 years of age is not an industrial asset. Such facts, and the actual changing of the status of the young worker, must be regarded as an important phase of the movement for vocational education.

(*7*) *Democracy in education.*—Vocational education is an integral part of a great national attempt to achieve real democracy in education. It is preeminently an attempt to work through the schools and through the industries to minister to the educational needs of children who have not been served completely or efficiently by

existing schools. It is an attempt to supplement existing educational opportunities, to the end that "all the children of all the people" may be adequately prepared for their life work.

(*8*) *A social as well as educational problem.*—Of great significance, finally, is the evident tendency to see in vocational education something more than a mere special problem of the schools—the tendency, that is, to regard it, with all of its ramifications, as a great social problem. As such, according to the new point of view, it will never be satisfactorily solved until all those forces and agencies that are interested in social amelioration and human progress can be brought together for a cooperative and concentrated attack upon those fundamental evils that are beneath the surface of illiteracy, inefficiency, and poverty.

2. NATIONAL AID FOR VOCATIONAL EDUCATION.

The bill proposing Federal aid for vocational education, drafted in accordance with the recommendations of the Commission on National Aid to Vocational Education (House bill No. 16952, known as the Smith-Hughes Bill), which was introduced in the second session of the Sixty-third Congress, was not acted upon finally before adjournment. It is expected that the bill will be brought up for further consideration at the next session of Congress.

A summary of the provisions of the bill was given in the 1914 report.[1]

3. STATE SYSTEMS OF VOCATIONAL EDUCATION.

No change has taken place since the last report in the number of States having systems for organizing and supervising vocational schools and for assisting local communities in the maintenance of such schools through grants of State aid. These States are Massachusetts, New York, New Jersey, Pennsylvania, Wisconsin, and Indiana. In each of these States administration is effected through the office of a special deputy or expert assistant attached to the staff of the State superintendent of public instruction or commissioner of education.

In Connecticut the law provides for industrial schools under two optional plans: (1) Supported and controlled by the State board of education; (2) controlled by the local community, with State aid under specified conditions. In Maryland annual grants are made for the partial support of colored industrial schools. In Vermont, Maine, Minnesota, Montana, North Dakota, Rhode Island, and Tennessee provision is made for State appropriations to communities or schools

[1] See Educ. Rept., 1914, vol. 1, p. 239.

offering approved courses in industrial, manual, or household arts subjects.

Earnest attempts to secure legislation for a State system of vocational education in Illinois again failed. Three separate bills were introduced into the State legislature: (1) The Cooley bill, drafted according to the suggestions of Dr. E. G. Cooley, of the Chicago Commercial Club, providing for a modified form of dual administrative control, involving special industrial education boards appointed by the regular boards of school trustees; (2) the so-called teachers' bill, placing the organization and administration of vocational education in the hands of the regular boards of school trustees, otherwise embodying certain of the approved features of the Cooley bill; (3) the Hatch bill, providing for unified control, providing that State aid may be given only to vocational education programs based on preliminary community investigation of needs and conditions, definitely recognizing three factors in vocational adjustment, namely, choice of, preparation for, and employment in some suitable occupation.

The committee on education of the assembly held several public hearings, but failed to report any one of the bills. Lack of agreement among the advocates of the new legislation is commonly understood to be the explanation for the committee's refusal to recommend action at this session.

The following summary, based upon reports received from the offices of the State departments of public instruction, constitutes a brief review of activities during the past year in the States mentioned. In general, it may be said that this has been a year of quiet, consistent growth and progress, of strengthening in the details of organization, with little of the spectacular or of the kind of display that appeals to the press agent. The year has been marked by numerous conferences of selected groups of workers, who have come together for the purpose of serious study of common problems and for mutual helpfulness. The cordial and reciprocal relations subsisting between groups of workers in the various States, representing different points of view and diverse administrative conceptions, must be regarded as one of the very encouraging features in the movement for vocational education.

A list of the members of the staffs of the divisions of vocational education in the State departments of public instruction is presented herewith.

State officials in charge of vocational education.

States.	Division designation.	Staff.	Official position.	Appointed.
Massachusetts	Department of vocational education, State board of education, Boston.	Robert O. Small	Deputy commissioner for vocational education	Aug. 1, 1913
		Charles R. Allen	Agent, industrial training for men and boys	Mar. 1, 1911
		Rufus W. Stimson	Agent, agricultural education	Aug. 1, 1911
		Nellie M. Wilkins	Assistant, training for women and girls	Oct. 1, 1913
		Chester L. Pepper	Special agent	Aug. 1, 1914
New York	Division of agricultural and industrial education, State department of education, Albany.	Arthur D. Dean	Chief of division	Sept. 1, 1908
		Royal B. Farnum	Specialist in drawing and handwork	Nov. 29, 1909
		L. S. Hawkins	Specialist in agricultural education	July 1, 1912
		L. A. Wilson	Specialist in industrial education	Oct. 1, 1912
		Anna C. Hedges	Specialist in vocational education for girls	Oct. 1, 1914
		Arthur K. Getman	Assistant in agricultural education	June 24, 1915
		George A. Works	State college of agriculture cooperative associate	Do.
Connecticut	State board of education, Hartford	Frederick J. Trinder	State supervisor of trade education	Jan. 6, 1914
Pennsylvania	Vocational division, State department of public instruction, Harrisburg.	Millard B. King	Expert assistant for industrial education	Dec. 6, 1911
		Lindley H. Dennis	Expert assistant for agricultural education	Do.
Wisconsin	Department of industrial education, State department of public instruction, Madison.	Warren E. Hicks	Assistant for industrial education	June 1, 1912
New Jersey	Division of industrial education, State department of public instruction, Trenton.	Lewis H. Carris	Assistant commissioner of education	Jan. 1, 1913
		Edward A. Reuther	Expert in manual training	Sept. 1, 1914
Indiana	Vocational division, State department of public instruction, Indianapolis.	William F. Book	Deputy State superintendent for vocational education.	June 1, 1913
		Z. M. Smith	Special agent for agricultural education	Do.
California	Division of vocational education, State department of public instruction, Sacramento.	Edwin R. Snyder	Commissioner for vocational education	Jan. 1, 1914
New Mexico	Division of industrial education, State department of education, Santa Fe.	Miss M. A. Myers	State director of industrial education	Sept. 1, 1912
Maine	Industrial division, State department of public instruction, Augusta.	Benjamin H. Van Oot	State director of practical arts	Sept. 1, 1914
		Marion C. Ricker	State director of domestic arts	Do.

MASSACHUSETTS.

Legislation.—Chapter 106 of the acts of the year 1912 has been amended in certain particulars, so that the amended paragraph reads:

Any city or town may, through its school committee or other board of trustees for vocational education, establish and maintain separate day and evening classes in household and other practical arts. Such classes shall be known as practical art classes. If day classes only, or evening classes only, are established, they shall be open to all women over 16 years of age; if both day and evening classes are established, the day classes shall be open only to women over 16 years of age, and the evening classes shall be open only to women over 17 years of age who are employed in any capacity during the day. Such classes may be established and maintained as approved State-aided practical arts classes under the provisions of, and subject to, all the conditions, not inconsistent with this act, of chapter 471 of the acts of the year 1911.

Bulletins.—The seventy-eighth annual report of the State board of education, 1913–14, contains details of the progress made in vocational education. Reprints of various sections of this report have been issued from time to time.

The following bulletins relating to vocational education were issued during 1914–15:

1914, No. 2. Massachusetts State-Aided Vocational Education.
3. State-Aided Vocational Agricultural Education.
5. Directory of State-Aided Vocational Schools.
7. Poultry-Keeping Project Study.

1915, No. 2. (a) Continuation Schools.
(b) Training Classes for Teachers in Vocational Schools.
3. State-Aided Vocational Agricultural Education in 1914.
4. Reorganization of Elementary Education for Older Children.
5. State-Aided Vocational Education, including State-Aided Agricultural Education.
6. Vocational Education in Massachusetts, 1914. (Reprint of Nos. 2, 3, and 5, 1915.)
10. Laws Relating to State-Aided Vocational Education and to Agricultural Education.

Training prospective teachers.—During the year the State board of education has cooperated with communities in conducting courses for the preparation of teachers for vocational and continuation schools. Classes were organized for this purpose in five centers: Boston, Worcester, Springfield, Lowell, and New Bedford. Each class met for two evening sessions weekly for 20 weeks. The number of students in the five classes was 46, representing the following trades: Machinists, 13; toolmakers, 4; carpenters, 5; painter and decorator, 1; weaver and loom fixer, 1; pattern makers, 5; plumbers, 3; printers, 2; electricians, 3; bookbinders, 2; stationary engineer, 1; sheet-metal worker, 1; cabinet maker, 1; baker, 1; not reported, 3. Some of the members of these classes had already secured good teaching positions before the close of the fiscal year, and there were

good prospects of more desirable openings with the resumption of work in the fall. Since membership in the classes was limited to skilled mechanics employed at their trades, no hardship is involved while waiting for suitable teaching positions.

Training teachers in service.—The third annual conference of teachers in State-aided vocational schools was held in May, and was productive of definitely valuable results. The conference was organized in such a way as to serve two main purposes: (1) To provide for discussion of the most troublesome teaching problems encountered in vocational schools; (2) to divide the teachers into homogeneous groups, for a portion of the time, for the intensive consideration of questions that are not of universal interest.

By arranging for a general session on each day, followed immediately by a number of round-table discussions, classified according to trade groups, held simultaneously in different rooms, it was possible to cover a wide range of subject matter within a short period of time. It is reported that 78 papers were read in the boys' industrial school section, 39 in the girls' trade school section, and 25 in the homemaking section. These papers represent contributions from directors, department heads, and practically all the full-responsibility teachers in the full-time day industrial schools of the State. The papers presented were regarded as of such value to the teachers that steps have been taken to publish the entire proceedings of the conference.

The State officials report a constantly growing spirit of self-confidence, manifested by the entire teaching force in addressing itself to the new problems that are constantly coming up. Less than a year's successful teaching experience is sufficient to imbue the beginner with enthusiasm and the spirit of cooperation. It is characteristic of the teacher in the vocational school to be on the lookout for opportunities for self-improvement, to be eager to receive suggestions from others that will aid in the development of his own courses of study and methods, and to be always only too glad to pass on to others engaged in similar work any new ideas and suggestions that may emerge from his own experience.

Special problems.—The special problem in Massachusetts, in the opinion of the deputy commissioner in charge of the work, is to utilize to the utmost these favorable conditions for progress as they exist, and to make the resources within the school system itself contribute to mutual development to the highest degree possible.

To this end, it is proposed to systematize further the conferences and group studies of teachers for the coming year. An analysis is to be made of the major problems that confront the teacher of vocational subjects. In the case of each of these problems, some teacher who has made definite progress toward its solution will be asked

to describe his experiences in some detail, in writing. The State department will distribute copies of this statement to other teachers throughout the State who are engaged in similar lines of work. Each such teacher will be asked to criticize the paper, and to return it with suggestions. These comments on the paper will be collected and edited, and sufficient copies printed to send a complete set of the papers to each one contributing to the discussion. The State department will add any other suggestions or comment gathered from outside the State that may relate to the particular question under consideration.

By this means it is hoped that each important unit of instruction in all the various trades or departments may be discussed, and detailed statements of successful teachers and methods relating to each question made available.

NEW YORK.

Legislation.—There has been no new legislation. The official title of the division has been changed from "Division of Vocational Schools" to "Division of Agricultural and Industrial Education."

Conferences.—An important phase of the year's work was a series of conferences organized for the purpose of developing and promoting a spirit of cooperation among the vocational teachers of the State and to assist in bringing to their attention the latest contributions to the solution of the problems of vocational education. The State was divided into five districts, and a vocational teachers' association was organized in each—western, southern, central, southeastern, and capital districts. Two conferences, each lasting two days, were held in each district. Programs were prepared and mailed to teachers 10 days in advance of each conference. The date of the first conference was October 16–17, 1914, and of the final one May 7–8, 1915.

Training of teachers.—In addition to the regular day-school courses for the training of special vocational teachers offered in a number of institutions in various parts of the State, the State College for Teachers at Albany offers a two years' evening course for trade workers which fits them to become teachers in vocational schools. Teacher-training courses for trade workers are offered also at the State Normal School, Buffalo; Teachers College, Columbia University, New York, and Pratt Institute, Brooklyn.

Teachers of agriculture in the high schools of the State have been called together for a week of instruction at the State College of Agriculture. Men actually engaged in the work, as well as those who expected to teach during the following year, were in attendance.

Trade agreements.—Considerable progress has been made during the past year in developing cooperative efforts of employers, workers, and the public schools. In Rochester, especially, cooperation has

reached a high stage of development, both in spirit and in substance. More than two years ago the first agreement was entered into between the Rochester Typothetæ and the Rochester Shopschool. By the terms of this agreement the Typothetæ agree to provide places for a certain number of boys each year who are to be certified by the shopschool as having passed the test of a preliminary three months' course designed to eliminate the unfit. A graduated wage scale is agreed upon for the apprenticeship period, four years. The first two years are spent in alternating weekly between the school and the factory, wages being paid for school time as well as for factory time.

Upon the successful completion of the work of the first two years the remaining two years are spent in the factory, but still under the supervision of the school. Graduation from the school is not possible until the satisfactory completion of the entire four years' work and the passing of efficiency tests. Each successful graduate apprentice receives from his employer a bonus of $100.

The agreement with employers of machinists provides that the school shall give to boys, who have been carefully selected by means of a preliminary try-out course, "a preparatory course of approximately two years, one-half of each day being spent in shop practice and the other half in the study of shop mathematics, mechanical drawing, applied science, industrial history, civics, and English." The employers agree to provide places for a certain number of graduates of such course for a two years' apprenticeship with a graduated wage scale. One-half day each week, on full pay, is to be devoted to further work at the school. The diploma of the school is not awarded until after the completion of three months' satisfactory work with the employer. The agreement was adopted by representatives of 27 establishments employing machinists and other metal workers.

The director of the Rochester shop school reports that 45 boys are receiving training in the machine-shop department on the basis of this agreement, of whom 30 will be ready for graduation in 1916,

> and each boy, even at this time, has a place secured for him. * * * The boy has not only a definite job ahead of him, but a definite shop and employer; certainly a far call back to the time when a boy left school and roamed the streets looking for help-wanted signs.

Agreements have been entered into with employers of buttonhole makers, clothing manufacturers, master painters and decorators, and others.

In Buffalo the public school department has entered into agreements with Typographical Union No. 9 and with the International Association of Machinists, District No. 12, by which students who complete specified courses in the public vocational schools will be credited with certain deductions from their apprenticeship periods.

Bulletins.—The following bulletins have been published: No. 597, Rural Education Series, No. 1. Schools of Agriculture, Mechanic Arts, and Homemaking. Five numbers of the Empire State Vocational Conference Bulletin, containing reports of 5 of the 10 special conferences of vocational teachers held during the year. These bulletins were printed by boys in the printing department of the Elm Vocational School, Buffalo.

PENNSYLVANIA.

Legislation.—The passage by the last general assembly of the Cox child-labor law, in which provision is made for continuation schools for minors between the ages of 14 and 16, presented some very serious problems to the bureau of vocational education, which is charged with the organization and supervision of these schools, under the general direction of the State board of education. The most difficult of these problems was that of insuring a supply of properly trained teachers for the work. A brief statement of the summer training schools organized for this purpose will be found below.

The State department of public instruction has in preparation a bulletin which will give an analysis of the legislation, and suggestions for the organization of continuation schools, courses of study, and equipment. The funds made available for distribution under the direction of the State board of education for 1915–16 include $325,000 for vocational work and $1,000,000 for continuation schools.

The problem.—The special problem of vocational education in Pennsylvania is conceived to be that of adapting the school to the community rather than of attempting to adapt the community to the school or to a standardized scheme of procedure. For this reason a number of different types of school have been developed rather than any one particular kind.

No effort has been made to develop special schools beyond the number which can be cared for adequately by the funds available for the work. At the close of the school year, July 6, 1914, there had been established, in 11 different counties, 2 day industrial schools or departments, 1 continuation industrial school, 10 evening industrial schools, 3 all-day household arts schools or departments, and 8 evening household arts schools. During the past year these numbers have been increased as follows: Counties, 20; day industrial schools or departments, 4; continuation industrial schools, 3; evening industrial schools, 21; all-day household arts schools or departments, 4; evening household arts schools, 14; continuation household arts classes, 3. The total enrollment during the past year was approximately 10,000 persons.

The work which has seemed to meet with the greatest success during the year has been that done in the evening industrial schools and

the evening household-arts schools. A new type of household-arts school has been developed in the form of continuation classes for adults.

Mining schools.—The schools for miners have had a very successful year. That these schools have been of great service to the workers in the anthracite and bituminous mines of the State is the general testimony of all who have had opportunity to know of the work. Mr. J. J. Walsh, mine inspector for the tenth anthracite district, has prepared a chart which shows that during the period 1907–1912 there was one accident by explosion of gases in the tenth anthracite district for every 790,000 tons of coal mined; while during the year 1913, in the same district, there was only one accident by explosion of gases for every 2,500,000 tons of coal mined. Mr. Walsh attributes this decrease in the number of accidents in large measure to the influence of the evening mining schools, a number of which were conducted in the district.

The advisory committees appointed by the various school boards to assist in the work of the vocational schools have been of great assistance during the past year. The success of the schools has been due in no small degree to the activities of those who have interested themselves in their development.

An interesting type of school has been developed in the ungraded vocational school, or department, in the West Chester High School. Boys are admitted to the industrial courses and girls to the home-making courses with sixth, seventh, and eighth grade preparation. This decision made necessary the organization of the classes in academic subjects on an individual-instruction basis. The superintendent of public schools in West Chester is of the opinion that the existence of this school is responsible for a marked reduction in the number of applicants for employment certificates during the past year.

Teachers.—The problem of securing teachers with suitable preparation for vocational school work becomes more serious each year. In the opinion of the State department, neither the teacher who has had theoretical training alone, nor the one who has had practical training alone has been a great success. Certain districts have been able to secure teachers who have had some professional training as well as practical experience. The work of these teachers has been regarded as successful in most instances.

Summer training schools.—In the effort to meet this problem, the bureau of vocational education formulated a plan for the organization and operation of summer schools for the training of special teachers for continuation schools. It was decided to hold these schools in selected industrial centers, in order that the prospective teachers might have opportunity to study the conditions and prob-

lems of the manufacturer and of the workers. It was decided also to utilize public-school buildings, in order that the teachers might familiarize themselves with the conditions in which they will be required to work.

Five schools were opened—in Philadelphia, Reading, Scranton, Altoona, and Pittsburgh—and were in session from July 19 to August 13, 1915. The number of teachers enrolled in the summer schools was as follows: Philadelphia, 82; Reading, 59; Scranton, 102; Altoona, 13; Pittsburgh, 55; total, 311. Privilege of enrollment was limited to teachers holding a teacher's certificate valid in Pennsylvania and to those who had had at least one year's experience in teaching. The principals and instructors for the summer schools were selected from the public school teaching staffs in the various cities.

Instruction was given in English, arithmetic, civics, hygiene, geography, drawing, and special methods for continuation schools. In addition class visits were made to a number of industrial establishments, written reports of which were required.

The success of the summer schools was such that the State officials have recorded their convictions that the experiment should be repeated next year, that the work should be materially enlarged in scope, and the advantages offered to others than those who are to be teachers in continuation schools.

Surveys.—The staff of the bureau of vocational education has been called upon to assist in a number of surveys of industrial and school conditions, with the view to preparing recommendations for the establishment of vocational schools. In cooperating in this work the effort has been not to make detailed statistical studies, but to assist local districts in securing the necessary information for use in planning courses of study that will meet the conditions as they exist.

Bulletin.—Annual Report of the Superintendent of Public Instruction for the year ending July 6, 1915.

WISCONSIN.

Legislation.—The State legislature of 1915 passed five laws affecting the administration of vocational schools: (1) Increasing the number of schools which may receive State aid by removing the limit (45 schools heretofore), providing appropriations for State aid up to $150,000 annually. (2) A new apprenticeship law, making the terms of apprenticeship more flexible and, it is hoped, more acceptable. School attendance is required under contract up to 18 years of age. It is not compulsory thereafter. (3) Requiring young persons employed in industry over 16 years of age and under 17 to attend part-time school not less than five hours per week for six

months in the year. (4) Increasing the period of attendance upon part-time schools for young persons employed in industry over 14 years of age and under 16 from 4 hours per week for 8 months in the year to 4 hours per week for 10 months. (5) Requiring attendance at continuation schools of persons over 14 years of age and under 16 when employed in domestic service or at home.

Types of school.—Four classes of school have been established under the provisions of the law:

1. Industrial school: This includes day classes for apprentices over 16 years of age and also all-day industrial activities for persons 14 to 21 years of age.

2. Continuation school: This school is for all persons 14 to 16 years of age who are employed under labor permits, or persons 14 to 16 employed in domestic service.

3. Commercial school: This school is for persons over 16 years of age, temporarily unemployed, or for exceptional pupils who wish to become efficient salesmen or accountants.

4. Evening classes: These classes are for persons over 16 years of age.

During the past year 29 cities have maintained one or more of these types of school under the supervision of the State department of industrial education. Three cities maintained evening schools: Marinette, Menomonie, Two Rivers; 2 cities maintained continuation, commercial, and evening schools: Marshfield, Menasha; South Milwaukee maintained industrial, continuation, and commercial schools; Beaver Dam and Cudahy maintained continuation and evening schools; 17 cities maintained industrial, continuation, and evening schools: Appleton, Beloit, Chippewa Falls, Eau Claire, Fond du Lac, Green Bay, Janesville, Kenosha, La Crosse, Manitowoc, Neenah, Oshkosh, Sheboygan, Superior, Stevens Point, Wausau, West Allis; 4 cities maintained industrial, continuation, commercial, and evening schools: Grand Rapids, Madison, Racine, Milwaukee.

The average rate of tax levy for the year 1914–15 was 0.000413. The average expenditure per capita, based on total enrollment for all vocational schools, was $13.44. The average attendance in the vocational schools is 1 person in 29 of the population of the State. The summary of the receipts and expenditures for vocational schools in the 29 cities is as follows:

RECEIPTS.		DISBURSEMENTS.	
Balance, July 1, 1914	$89,414.78	Overdraft, July 1, 1914	$13,848.56
State aid, 1914	91,022.79	Salaries, instruction	226,170.06
Tax levy, 1914	308,377.97	Equipment	48,075.53
Miscellaneous	8,539.73	Contingent expenses	96,558.73
Overdraft, June 30, 1915	30,012.20	Miscellaneous	8,811.23
		Balance, June 30, 1915	133,903.36
Total	527,367.47	Total	527,367.47

Training teachers in service.—A very important phase of the year's work is the teachers' conference and institute, extending over a period of three days, and bringing together practically all of the teachers and directors of the industrial schools, as well as many members of the industrial boards and advisory committees. Two conferences were held during the year, the first at Milwaukee, September 2, 3, 4, 1914, and the second at Oshkosh, May 17, 18, 19, 1915.

Training prospective teachers.—In addition to the conferences referred to in the preceding paragraph, important plans for the training of teachers are administered by the following institutions, in cooperation with the State department: University of Wisconsin, department of manual arts, at Madison; University of Wisconsin, extension division, at Milwaukee; Stout Institute, at Menomonie; State Normal School, at Oshkosh. The courses offered at these institutions afford excellent opportunities for teachers in neighboring schools to extend their training, as well as facilities for training and trying out new recruits.

Bulletins.—The following bulletins have been published:

No. 10. Proceedings of the conference and institute of industrial teachers held at Milwaukee, September, 1914, including outlines of courses of study and reports of committees.

No. 11. Proceedings of the conference and institute held at Oshkosh, May, 1915.

Report of the State board of industrial education.

NEW JERSEY.

Legislation.—The term "industrial education" has come into more or less general use in New Jersey as referring to certain educational activities which have been developed under three laws, each of which uses the term.

Industrial school law.—This law, enacted in 1881, is one of the earliest industrial education laws in the United States. As now in force, it provides State aid up to a maximum amount of $10,000 for any one school. Industrial education is not defined in the statute, but it is provided that funds contributed by the State—

shall be applied * * * to the establishment and support of schools for the training and education of pupils in industrial pursuits (including agriculture), so as to enable them to perfect themselves in the several branches of industry which require technical instruction.

Three schools, each under an independent board of trustees, have been organized under the provisions of this act: The Trenton School of Industrial Arts, the Newark Technical School, the Hoboken Industrial School.

Manual-training law.—For more than 10 years New Jersey has been granting State aid for manual training in the public schools

under a law which provides for "industrial or manual training." The law does not define the term "industrial or manual training," but provides for its definition by the State board of education in requiring that the course of study in any district must meet the approval of the State board as a condition of a grant of State aid.

The interpretation given to the law has permitted the giving of State aid, under its provisions, to manual training, household arts, and work in agricultural subjects in elementary and high schools. The State department of public instruction reports that in no instance has a distinctly vocational school been organized under the terms of this law, and only in rare instances are there to be found classes or departments that are prevocational in character.

The amount of State aid for "industrial or manual training" is limited to $5,000 for any one district.

Vocational-school law.—In 1913 the State legislature enacted a law for the encouragement and aid of vocational education, in which are defined the terms "vocational education," "industrial education," "agricultural education," and "home-making education," with substantially the same meanings as those formulated by legislation in Massachusetts. Evening classes in industrial or agricultural subjects are restricted to persons over 16 years of age, and the instruction must deal with the subject matter of the day employment. Evening classes in home making are restricted to women and girls over 17 years of age.

The law provides for the union of two or more districts or for county boards for the organization of schools. State aid is provided for equal in amount to that raised in any district for the establishment of a vocational school, with a maximum of $10,000 in any one district. In the case of county organization the maximum amount of State aid is $10,000 irrespective of the number of schools established.

There are at the present time, under the joint control of State and local school authorities, vocational schools or departments in 13 districts, with 2 additional districts now formulating plans for the establishment of schools at an early date. The occupations for which classes have been organized in all-day vocational schools include: Printing, mechanical drawing, carpentry, cabinetmaking, electrical work, machine shop, agriculture, home making. As is pointed out in the report of the assistant commissioner, "When we consider the very large number of vocations, even in the industrial field alone, we see at once that we have not gone very far in providing vocational schools."

New work.—One of the most notable developments in vocational education in New Jersey has been the organization of county units. Most of the school districts in the State, outside of the large cities,

are unable to establish and maintain vocational schools, but with the county as a unit of organization and with the financial resources that a county board of education can control it will be possible to meet some, at least, of the vocational needs of the smaller communities.

The form of administrative control under the county-unit plan is somewhat anomalous. So far as their relation to the State department of public instruction is concerned, the organization and management of these schools are the same as in the case of any school district. Within the county, however, the county vocational school board is administratively independent of other public-school jurisdictions to the extent of being given authority by law to organize and maintain vocational schools. These county boards in all cases work in close relations with the local school systems. The county superintendent of schools is a member of the county vocational school board.

As an indication of the appeal made by schools of this type the following quotation from the published announcement of a county vocational school may be noted:

> To those boys who have no prospect of a high-school or college education, but who desire to enter the business world on the completion of their grammar-school work, the vocational school offers many advantages.
>
> A two years' course in this school will give a boy a foundation for his life work in any of the various branches of woodwork, drafting, or show-card writing, or will qualify him to do, in a workmanlike manner, a great variety of repairs to buildings and farm implements, and, in addition, will furnish adequate instruction in grammar, spelling, penmanship, and practical arithmetic.
>
> The vocational guidance committee will endeavor to aid boys in the choice of a vocation that will prove both congenial and profitable.

Four counties have now organized vocational schools on the county-unit basis: Atlantic, Cape May, Essex, and Middlesex.

Bulletin.—Annual report of the assistant commissioner for vocational education, *in* the annual report of the State commissioner of education.

Conferences.—Several conferences of vocational teachers have been held during the year in various sections of the State.

No specific program for the training of teachers has been undertaken by the State department. The plan of certification has been revised during the year, but for the most part the vocational schools must draft their teachers from the trades, depending on such training and supervision as can be given by expert directors.

INDIANA.

The first annual report on vocational education in Indiana was presented to the State board of education December 1, 1914, including the following items: (1) An account of the work of State-aided

vocational schools and departments; (2) a statement of the progress made in instruction in elementary agriculture, domestic science, and industrial arts subjects in the regular public schools; (3) an account of the trade-extension work of the county agents of agriculture; (4) a report on the work of boys' and girls' clubs, and school and home gardening.

Under the present law State aid may be given to three types of vocational education: (1) Agricultural education, (2) domestic-science education, (3) industrial education.

"Agricultural education" means that form of vocational education which fits for occupations connected with the tillage of the soil, the care of domestic animals, forestry, and other wage-earning and productive work on the farm.

"Domestic-science education" means that form of vocational education which fits for the business of home making.

"Industrial education" means that form of vocational education which fits for the trades, crafts, and manufacturing pursuits, including the occupations for girls and women carried on in workshops.

Types of school.—Three types of vocational school have been provided for by the Indiana law: (1) The all-day school, designed to meet the vocational needs of young people over 14 years of age, and preparing for specific vocations; (2) the part-time school, designed to help young workers between the ages of 17 and 25 years to greater efficiency in the skilled occupations in which they are engaged; (3) the evening vocational school, designed to help workers over 17 years of age to secure greater efficiency in the skilled occupations in which they are engaged.

CALIFORNIA.

Legislation.—Two measures relating to vocational education were passed by both houses of the State legislature, but were vetoed by the governor, on the ground that the State is not yet ready to assume the financial burden involved. These two measures were known as senate bill No. 236, which provided for the "establishment and maintenance of vocational courses and schools by local boards of education for the purpose of encouraging agricultural, industrial, trade, commercial, and all other practical subjects, and providing State aid therefor," and senate bill No. 237, providing for the "establishment and maintenance of classes for the training of vocational teachers, and providing State aid therefor."

Of the 41 general education acts passed by the legislature of 1915, however, several have a distinct bearing on the progress of vocational education. The new legislation places all responsibility for issuing certificates to teachers of special subjects in the hands of the State board of education. Special provision is made for a vocational teacher's certificate, requiring actual experience in the occupation for the teaching of which the applicant seeks certification. Cadet

teaching is provided for as a part of the training of special vocational teachers.

Vocational training has been included among the statutory studies, as provided in section 1665, chapter 467. Section 1750, chapter 597, provides that the courses of study in all high schools must be approved by the State board of education, thus affording the board an excellent opportunity to stimulate vocational education, even without State aid, by means of encouragement and suggestion.

Sections 1750a and 1617d, chapter 90, provide for the establishment of intermediate schools, which will enable rural high schools to organize as centers for seventh and eighth grade pupils. This reorganization will make possible the introduction of agricultural courses lower down in the grades than has been practicable heretofore.

The new county high-school tax provides a minimum of $60 for each pupil in average daily attendance in high schools. This amount, added to $15 per pupil which is raised by the State tax, automatically provides approximately $75 for each pupil in attendance. The effect of this law will be to cause local school authorities to introduce courses of study that will retain pupils in school, and to produce automatically almost the entire revenue necessary for their instruction.

Section 1858, chapter 726, will doubtless encourage the development of vocational classes, by providing that the attendance of pupils in part-time day classes, and evening continuation and vocational classes, may be counted with the attendance in other schools. The significance of this provision arises from the fact that approximately two-fifths of the funds for elementary schools are raised by State tax and two-fifths by county tax, leaving only about one-fifth to be raised by the local district.

According to the opinion of the State commissioner of vocational education, the movement is gathering added force daily, and it is confidently expected that important progress will be made during the next year or two. California experience has apparently been quite at variance with that of the eastern experts who, in recommending certain legislation for California, reported that it has been "next to impossible to get the technical high schools to meet the vocational situation." The response on the part of the high schools is regarded as indicating a notable spirit of cooperation, a determination to study the needs and conditions, and a readiness to act in accordance with the findings. No difficulty is anticipated in getting the authorities of the technical high schools to build up strong independent departments for vocational education, and to contribute their full share to the progress of the movement.

Bulletin.—Annual report of the State commissioner of vocational education, for the year ending June 30, 1914.

CONNECTICUT.

Legislation.—Section 1 of chapter 263, Public Acts of 1915, provides that the State board of education may continue to maintain schools already established, and may establish in such towns as may seem best adapted for the purpose public day and continuation schools, part-time schools, and evening schools, for instruction in the arts and practices of trades and vocations. The State board may make regulations controlling the admission of students to such schools, provided that no person under 14 years of age shall be admitted to schools established under this law, except during vacations.

Section 2 of the same act gives the State board of education authority to expend the funds provided, to appoint and remove teachers, to make rules for the management of the schools, and to make annual financial statements and reports as to the conditions of the schools and the acts of the board. The board is also authorized to negotiate cooperative arrangements between vocational schools and manufacturing and mechanical establishments.

Section 3 permits the State board to lease temporary accommodations, for a period not to exceed four years, when necessary in establishing a school.

Section 4 authorizes towns or districts to raise by appropriation such sums as are necessary for the maintenance and improvement of such schools, and for leased buildings.

The State legislature of 1915 appropriated $250,000 for trade-school work for the biennium 1915–1917. A State supervisor of trade education was appointed January 6, 1914.

Any city or town school committee may organize a school of trades and apply to the State board of education for State aid. If upon investigation the work of the school is found to meet the requirements, State aid is given to the extent of $60 for each 2,400 student-hours of instruction. Each school is required to report monthly to the State board a detailed statement of students' actual attendance upon blanks furnished for the purpose.

For the guidance of principals of vocational schools, and inspectors, a "basis of approval" for State aid has been formulated by the State board of education.

There are at the present time five trade schools operating under the rules and regulations of the State board of education: Bridgeport, New Britain, Putnam, Torrington, South Manchester. Other schools giving vocational instruction include the Boardman apprentice shops, a part of the public-school system of New Haven, referred to elsewhere in this chapter; manual training high school, New London, which offers certain vocational work in combination with high-

school manual training courses; continuation schools, Waterbury and Hartford; prevocational school, New Britain.

NEW MEXICO.

The legislature in 1912 provided for the appointment by the State superintendent of public instruction of a State director of industrial education who should have general charge of the introduction and teaching of industrial education in the public schools of the State. On January 1, 1913, Manette A. Myers was appointed to the position.

The term "industrial subjects" has been interpreted to include "domestic science, manual training, and agriculture," and the activities of the new division have consisted chiefly in the promotion of these lines of work throughout the State. County institutes of teachers have been conducted; machinery has been set up for examining and certificating special teachers; outlines of courses of study have been prepared and distributed; and there has been much visiting of schools.

Bulletins.—The following bulletins have been issued:

Educational Legislation Enacted at the Last State Legislature; Education Bulletin, vol 1, No. 1, March, 1915.

Code of Public Instruction; revising and harmonizing conflicting school laws; prepared by a committee of the New Mexico educational association.

Bulletin of the State Board of Education; Abstract of Minutes of Meeting, February, 1915.

Manual of the Common-School Course of Study for the Public Schools of New Mexico, 1915; including agriculture, domestic science and art, manual training, drawing.

Ten Lessons in Woodworking; prepared by W. Melvin Fox.

Annual Report of the State Director of Industrial Education, for the year ending June 30, 1915.

New work.—Special attention has been given to the development of evening school courses during the year. The superintendent of schools in Santa Fe County is planning to organize evening classes for parents in every rural school in the county during the coming year.

Training teachers.—The State normal schools have organized special departments for the training of prospective teachers of home economics, manual training, and agriculture. The State university also has organized a department for this purpose, and the State agricultural college has reorganized its courses and added several new instructors.

Teachers' institutes, giving special instruction to teachers of the lines of work indicated above, were held in practically every county in the State. Teachers from counties in which no institute was held were accommodated in special classes organized at the State normal schools.

The special problems before the department in New Mexico are the adequate training of teachers for the work, the securing of adequate funds, the raising of standards and ideals of vocational education, and study of the special needs of the State.

MAINE.

Industrial education as it is developing in the State of Maine is based upon the theory that suitable preparation for future vocations can be given without materially changing the existing school system. That is, it has been determined that a special system of schools for the purposes of a special type of vocational education is unwise and unnecessary. It is held that a knowledge of industrial processes, and the accompanying participation therein, is a part of a liberal education that ought to be made available for all children. The State, therefore, encourages the development of courses of study leading toward such liberal education, and including these elements.

Recent legislation encourages cities and towns in taking the initiative in the development of such vocational courses and classes as are deemed best adapted to meet local needs, at the same time reserving supervisory authority and direction to the State department of public schools.

Legislation.—In general, the State aids the local community to the extent of two-thirds of the salaries paid to teachers, with specified maximum limits, reserving the right to pass on qualifications of teachers, courses of study, and equipment. The lines of work for which aid is given include: Manual arts; domestic science; agriculture; trade, technical, or general industrial schools; evening schools in which industrial subjects are offered. The sum of $40,000 is appropriated annually for State support of industrial education.

Chapter 188, Public Laws, 1911, as amended by chapter 37, Public Laws, 1913, provided for the establishment of special industrial departments in the State normal schools, for the preparation of teachers of industrial subjects. An annual appropriation of $6,000 is made for the establishment and maintenance of these departments, of which two are already in operation. The normal school at Gorham offers special courses in the mechanic arts, and the normal school at Farmington in domestic science and arts.

Section 3 of the same act provides for State aid to public elementary schools a sum equal to two-thirds of the total expenditure for salaries of teachers of mechanic arts and domestic science, the maximum amount to be paid by the State for the employment of any one teacher not to exceed $800 in any one year; providing further, that the town receiving State aid shall make special appropriations for the support of industrial education.

Section 4 of the act provides for State aid to communities maintaining approved courses in agriculture, mechanic arts, and domestic science a sum equal to two-thirds of the amount paid for instruction, with a maximum payable by the State of $500 for any one course. Schools which receive such aid must maintain an average attendance of 12 pupils throughout the year. The equipment, course of study, and qualifications of the teachers must meet the approval of the State before aid is given.

Section 6 provides for State aid to communities maintaining approved courses in evening schools in the mechanic arts, domestic science, or free-hand or mechanical drawing a sum equal to two-thirds of the amount expended for salaries of teachers of such subjects.

Section 7 provides for reimbursement by the State of two-thirds of the amount paid for instruction by communities maintaining approved general industrial schools. The maximum amount payable by the State to any one community is $2,000 in any one year. A school, to receive State aid, must maintain an average attendance of 20 pupils for a period of 36 weeks. The quality of instruction, course of study, and qualifications of teachers must meet the approval of the State.

Types of school.—The public schools of Portland have opened classes in salesmanship in cooperation with retail dry-goods merchants. Girls from the department stores report to special classes held in a public school building, receiving full pay for the time thus spent. The instruction covers a period of one-half day daily, mornings, for six weeks. Further developments in a more comprehensive scheme of cooperation are being outlined.

The public schools of Westbrook maintain a full-time cooperative school, involving local paper mills, silk mills, and machine shops. The course of study meets college entrance requirements, and at the same time offers two options—paper making and textile work. Instruction is given in the processes of making paper and textiles, study of machines, and other mechanical details. Students spend one-half day each week in the mills. This practical work is supplemented by analytical chemistry, mathematics, history, and physics as applied to the industries. Upon graduation students are taken into the mills, or may enter the University of Maine.

Teachers' conference.—During the fall of 1914 the industrial teachers of the State were organized into the Maine Manual Arts Club for the purpose of discussing problems of mutual interest. The club holds three meetings each year. A portion of the program of the State conference of superintendents is devoted to a discussion of industrial education.

Certification.—Teachers of the mechanic arts and domestic science are certificated by qualifying under one of the following conditions: (1) By graduation from an approved institution for the training of teachers; (2) by passing satisfactorily a written and oral examination for skilled workmen, giving by the State department; (3) presentation of credentials showing satisfactory experience in other States maintaining equal standards of instruction.

WASHINGTON.

In March, 1914, the State legislature authorized the appointment by the State superintendent of public instruction of a commission on vocational education, which should make a study of conditions in the State and report recommendations as to procedure. An advisory board of 50 members was appointed, and received the report of the commission, which was submitted in December, 1914. At this date the commission went out of existence.

The members of the commission were: Prof. Herbert G. Lull, chairman, University of Washington, Seattle; Ben W. Johnson, director of industrial education, public schools, Seattle; Prof. F. O. Kreager, State College, Pullman; W. M. Kern, superintendent of public schools, Walla Walla; Mrs. Lizzie Jones, superintendent of public schools, Snohomish County; A. J. Rhodes, merchant, Seattle; H. L. Hughes, editor "Labor World," Spokane.

A statement from the chairman of the commission indicates that such study as it was possible to make of a few selected typical communities seems to warrant the conclusion that there is real need of a State-wide system of vocational education. The commission recommends State aid for prevocational education, especially for rural communities: (1) Because so many pupils leave school before the high-school age; (2) because the rural communities will be able to establish prevocational instruction much sooner than vocational instruction; (3) the importance of agriculture in Washington, in comparison with commerce and manufactures, makes early as well as sound instruction in agriculture essential in vocational education and to the prosperity of the State.

State aid is recommended for the following lines of work:

1. Prevocational instruction, including industrial, commercial, agricultural, home economics.
2. Vocational instruction of less than college grade, including industrial, commercial, agricultural, and home economics.
3. Vocational departments in the public schools, or, in the largest cities, as conditions may require, special vocational schools under the public-school system.
4. Full-time vocational instruction.
5. Part-time vocational instruction.
6. Evening vocational instruction.

In the opinion of the commission, the important problems of administration of vocational education are, in the city, the organization of the existing school system to meet a variety of industrial and vocational needs; in the rural community, the organization of the school districts in such a way that the proposed developments will be financially feasible, and provision for adequate supervision of the proposed new lines of educational effort.

The recommendations of the commission included the draft of a proposed "act to provide for the encouragement, maintenance, and supervision of prevocational, vocational, and trade education in industries, agriculture, commerce, and home economics."

4. NEW WORK IN STATE UNIVERSITIES.

MINNESOTA.

During the past year action has been taken which adds the University of Minnesota to the list of State universities maintaining departments for the preparation of special teachers of the manual arts. The new department at Minneapolis will be organized at the opening of the school year 1915–16 by Ray L. Southworth, of the Minneapolis public schools.

Other State universities that have taken this step are: University of Wisconsin, Madison, September, 1910; University of Missouri, Columbia, September, 1913; Indiana State University, Bloomington, June, 1914.

INDIANA.

An instructive experiment was conducted during two weeks in July, 1915, by Indiana State University, in a special teachers' training class open only to women workers in the trades. The trades represented were cooks, milliners, and dressmakers. In considering candidates for admission to the class, school-teachers were rejected, even teachers of the special subjects of cooking, millinery, and sewing, with the exception of one or two who had had actual trade experience. Membership in the class, with these exceptions, was limited strictly to those who were employed in the trades, and who gave promise of adaptability to the work of teaching. Aside from these considerations, questions of university credits and entrance requirements were minimized, if not neglected.

The number of applicants for admission to the course, 90, suggests that there is here a large field of work ready for development. Of these applicants, 18 were selected after careful inquiry and considerable preliminary correspondence.

The class met for a three-hours session daily, five days per week, for two weeks. The work included a limited amount of attention to practical activities for the purpose of illustrating examples of

methods of dealing with materials and processes in the three trades; methods of organizing and presenting teaching material; methods of handling administrative details; demonstration lessons, criticism, and discussion. It is reported that from the first morning there was an unexpected readiness to ask questions and to participate freely in the discussion.

The course was not given on the university campus, but in Indianapolis, in order to place the opportunity within reach of as large a group of trade workers as possible. Through the courtesy of the Indianapolis public schools, the necessary rooms and equipment were made available at the Shortridge High School. It is especially interesting to note that this experiment was conducted in an industrial city, under the auspices of the school of education of a State university, with the active cooperation of a city board of education. Thus does evidence gradually accumulate to show that the public-school system can and will deal with the problems of vocational education.

The course for trade workers and the summer conference on vocational education in the small city, referred to elsewhere in this chapter, were organized as parts of a general program for vocational education being developed by the department of industrial education of Indiana State University. The plan for the institute at Indianapolis included a similar class for men workers from the trades, which had to be abandoned at the last moment because of the sudden illness of the instructor.

Bulletins.—Two important bulletins have appeared during the past year resulting from the activities of the department of industrial education of Indiana State University:

A Study of the People of Indiana and Their Occupations for Purposes of Vocational Education, by R. J. Leonard; Indiana University Bulletin, Vol. XII, No. 17, February 15, 1915.

Some Facts Concerning the People, Industries, and Schools of Hammond, and a Suggested Program for Elementary Industrial, Prevocational, and Vocational Education, by R. J. Leonard; published by the Board of Education, Hammond, Ind., April 15, 1915.

WISCONSIN.

The University of Wisconsin, Madison, Wis., now offers through the university extension division four correspondence-study courses, as follows: History and literature of manual and industrial arts; teaching and supervision of manual and industrial arts; organization of manual and industrial arts; vocational education and vocational guidance.

The aims in offering these courses, which are limited to those not requiring extensive shop or other laboratory equipment, are: (1) To enable those in teaching positions to extend their general knowledge of the subject matter and teaching methods, and to give them

breadth of view through a study of the broader aspects of their professional work; (2) to secure a means by which those contemplating a bachelor's degree in manual arts may do a portion of their work in absentia; (3) to provide instruction for systematic reading by those who are interested in manual arts and industrial education in the home, social settlements, regular public schools, or special vocational schools.

CALIFORNIA.

The university extension division of the University of California, Berkeley, Cal., announces that it has effected a plan of cooperation with the California State Normal School of Manual Arts and Home Economics at Santa Barbara, whereby correspondence-study courses, lectures, and demonstrations in home economics are offered to women practically engaged in home making. The courses are designed to meet the needs of the home, and deal in general and in detail with the economic problems of the family. They are planned primarily for those who have not made a systematic study of the subject, and the purpose is to meet the everyday needs of housewives.

The courses, as announced, include: Selection of foods; preparation of foods; care and preservation of foods; feeding the family; feeding of infants; the house; household management; selection and maintenance of clothing; general survey of home economics.

Following the very favorable reception given to the course in vocational guidance in the summer session of 1915, a seminar course in vocational guidance will be offered for the year 1915–16.

5. TRAINING TEACHERS FOR VOCATIONAL EDUCATION.

The most important events in the training of teachers for vocational education have been the special measures to insure a more adequate supply of teachers that have been undertaken in the several States, as outlined in the preceding pages. In addition to the institutions named, the State normal school, Buffalo, N. Y., has organized a course for trade workers, designed to give the fundamentals of teaching methods and the professional point of view.

There are indications that history is repeating itself in the changing attitude toward qualifications of teachers. In the early stages of the manual-training movement it was thought that only the practical mechanic is capable of teaching the processes of his craft, and numerous attempts were made to recruit staffs of shop teachers from this source. In the course of time those who were responsible for the supervision of the work of such teachers began to realize that certain essential qualities were lacking. Professionally trained teachers were then substituted, but on the whole the results were still not entirely satisfactory.

Occasionally the mechanic teacher would realize his need of the pedegogical training that would enable him to analyze the technic of his trade for teaching purposes, and that would give him some understanding of the nature of the processes of development that take place in the child and youth, and he would take steps to supply the lack. On the other hand, the school-trained teacher, somewhat less readily perhaps, came to realize the necessity of a more intimate acquaintance with industrial materials and processes than can be obtained ordinarily in a school shop, and he would spend his summer vacation, or his Saturdays, in supplementing his school-shop training by practical experience in the factory or on actual construction work.

Similar experiences have been encountered in the vocational-education movement, and, as in the earlier stage, there is still difference of opinion as to which procedure produces the more useful teacher. The director or supervisor who has been successful in organizing his staff of teachers into a continuous-study class, and in inspiring a professional attitude and the desire to improve by experience, gradually comes to express a preference for the trade-trained teacher. Such a director relies upon the professional training that may be secured "on the job" under conditions of careful supervision, and upon his success in eliminating from the service those individuals who do not manifest adaptability to the work.

There is another point of view that emphasizes the importance of correct methods of procedure, especially in the early stages, proper habits of work, and a wholesome attitude toward work and its place in life. From this point of view breadth of vision and a certain idealism are as important as specialized skill in the equipment of one, even a shop teacher, who assumes the responsibilities of a teacher and leader of youth. An inspired and inspiring outlook upon life is not guaranteed to every graduate of an institution of learning, but the very fact that a prospective teacher has made the effort to prepare himself for his work by suitable professional training creates a presumption in his favor.

Reports from the field suggest a well-defined tendency in the direction of increased respect for those qualities in the teacher that are the result of or that are measurably enhanced by professional training. There seems to be a growing demand for teachers of manual arts and vocational subjects who have completed a teachers' course in some standard institution. A teachers' agency, reviewing a number of years' experience in this field, is quoted as believing that in the near future it will be difficult "to place any man in a good school unless he has completed a full course and holds a degree."

THE RICHMOND CONFERENCE.

In view of the evident interest in the subject the Commissioner of Education called a conference on the training of teachers for vocational schools in Richmond, Va., December 11, 1914, in connection with the annual convention of the National Society for the Promotion of Industrial Education. To this conference were invited specialists in charge of departments for the training of teachers for vocational schools in State universities, normal schools, and other institutions, and presidents or directors of such institutions, also State officials in charge of the administration of vocational education.

The general topic before the conference was "the qualifications of teachers for vocational schools," discussed from the points of view of the institution that undertakes to prepare the teachers, the school that is to employ the teachers, and the State official who is to inspect the teacher's work. The formal program was followed by an earnest and spirited discussion. A 10-page report of the proceedings, prepared by the Bureau of Education, has received a wide circulation.

6. ACTIVITIES OF ORGANIZATIONS INTERESTED IN VOCATIONAL EDUCATION.

Progress in vocational education is due in no small measure to the publicity given to the discussion of vital questions on the programs of numerous organizations, representing a wide range of interests, and to the constructive work done by officers and committees of these organizations who have taken their responsibilities seriously. No review of the year's work would approach completeness without consideration of the activities of at least the following organizations:

NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

During the past year representatives of the National Society for the Promotion of Industrial Education have taken an important part in the work of the vocational education surveys in Richmond, Va., and Minneapolis, Minn., referred to elsewhere in this chapter.

In addition to work done in these two investigations the assistant secretary of the society, Cleo Murtland, under the direction of the committee on women's work, has been contributing much valuable assistance and special research work in a number of other cities, including New York, Cincinnati, Indianapolis, and Bloomington, Ind.

The resignation of Dr. Prosser as secretary has compelled the board of managers to give serious consideration to problems of the society's immediate future. For the present, Alvin E. Dodd, business manager for the past year, has been appointed secretary.

ANNUAL CONVENTION.

The eighth annual convention of the society, held in Richmond, Va., December 9–12, 1914, was in several respects the most important that the society has held, and perhaps the most important convention that the movement for vocational education has seen.

The convention was unique in that it was preceded by an industrial education survey on a more ambitious scale than had ever been previously attempted. To the superintendent of the Richmond schools and the officers of the society must be credited the conception of a great idea when it was decided to attempt a survey that, in addition to pointing the way to the solution of local educational problems, might serve other communities as a type or model study, and when, still further, it was proposed to have the investigation precede the annual convention of the society and to offer its findings and conclusions, as well as its methods, for critical examination and discussion at the convention.

Three entire sessions of the convention dealt with various phases of the survey and it received consideration incidentally at still other sessions. After the completion of the field work, a number of type classes suggested by the survey were organized, and were in operation at the time of the convention. Thus the visiting delegates were able not only to go over the actual ground that had been surveyed, to examine the data that had been collected, and to check up the conclusions and interpretations, but also to inspect the classes which had been organized in accordance with the resulting recommendations.

Those who have not followed the development of the national society from its organization in New York City, in November, 1906, up to the present time, are hardly prepared to appreciate the progress in vocational education that has taken place within this brief period nor the important part the society has played in this progress. The changes that have taken place within the society itself and its own growth in wisdom and breadth of view are evidence of its vitality and capacity to adjust itself to changing conditions. The following statement from a sympathetic reviewer of the Richmond convention summarizes these changes in a significant paragraph:

> Among the more important evidences of growth are, first, its reversal of its early unsympathetic attitude toward prevocational work, which it now heartily indorses and finds absolutely necessary to a complete or adequate solution of the problems involved in democratizing a school system; second, it seeks to secure the necessary training through the amplification of the existing school system rather than through a system of separate industrial schools, as at first advocated; third, the society has learned to depend upon the educational authorities for the working out of a part of the problems instead of relying mainly upon the so-called "practical man"; and, finally, the society has come to recognize that the local conditions must determine to a considerable extent the kind of industrial education needed and the methods of organization and control.

This brief analysis might very appropriately be offered as an epitome of the development that has taken place in the entire movement for vocational education during the past 10 years. To the foregoing should be added one additional factor that the society has been particularly active in bringing into prominence—cooperation.

NATIONAL VOCATIONAL GUIDANCE ASSOCIATION.

The National Vocational Guidance Association was organized in October, 1913, in Grand Rapids, Mich., and held its second annual convention in Richmond, Va., December 7, 8, 9, 1914. The organization meeting was preceded by two national conferences on vocational guidance, the first having been held in Boston in 1910 and the second in New York in 1912.

The general topics discussed at the Richmond convention included: Practical phases of vocational guidance; vocational guidance in the public-school system; vocational guidance and social welfare.

A summer meeting was held at Oakland, Cal., August 17–18, 1915, in connection with the conventions of the National Education Association and the International Congress on Education. At this meeting the secretary of the association, W. Carson Ryan, jr., summarized the present status of the vocational guidance movement, as follows:

(*a*) *The preliminary work has been done.* The question is no longer as to whether there shall be vocational guidance, but as to the best methods of organization and procedure.

(*b*) *A permanent literature of vocational guidance is developing.* At least three important books in this field have appeared during the past year; special attention has been given to vocational guidance in Government reports and in the reports of industrial and educational surveys; and there is a constantly increasing number of articles in periodicals.

(*c*) *Trained workers are being developed.* University departments of education are preparing vocational counselors, and teachers in service are receiving special training for vocational guidance work.

(*d*) *There is a visible improvement in the methods of vocational guidance.* Instructions and schedules for use in vocational guidance work are more intelligent and practical than formerly.

(*e*) *More and more vocational guidance is felt to be the function of the school.* The vocational aim is permeating all education. The "six-and-six" plan of school organization, for example, which many believe is destined to revolutionize the American public-school system, is essentially a plan of vocational guidance.

Bulletins.—Bulletins have been published, as follows:

Proceedings of the Second National Conference on Vocational Guidance, New York, N. Y., October 23–26, 1912.

Papers Presented at the Organization Meeting of the National Vocational Guidance Association, Grand Rapids, Mich., October 21–24, 1913. Published as Bulletin, 1914, No. 14, United States Bureau of Education, Washington, D. C.

Proceedings of the Second Annual Convention, National Vocational Guidance Association, Richmond, Va., December 7–9, 1914.

Beginning in April, 1915, the association has been publishing a monthly "Vocational Guidance Bulletin," issued from the secretary's office.

The president of the association is Jesse B. Davis, director of vocational guidance, public schools, Grand Rapids, Mich.; secretary, W. Carson Ryan, jr., United States Bureau of Education, Washington, D. C.

VOCATIONAL EDUCATION ASSOCIATION OF THE MIDDLE WEST.

The first annual convention of the Vocational Education Association of the Middle West was held at the La Salle Hotel, Chicago, Ill., February 5–6, 1915. A spirited program brought together enthusiastic audiences averaging over 600 in attendance. The success of the meeting was considered to have been—

> clearly due to the fact that there was one major theme running through all the sessions, and this theme was regarded by all as being of great importance. Although the topics of the several sessions were "Vocational Experience of Other States," "Proposed Legislation," and "Child Welfare," the real theme was "The Unit versus the Dual System of Administration of Vocational Education." The president, William J. Bogan, principal of the Lane Technical High School, who made the program, deserves credit for having acted at the psychological moment in selecting his theme, and then for procuring speakers who treated it from almost every possible angle.

One of the activities of the association is to meet as a study class for the consideration of measures for the promotion of vocational education. All available types of schools, as well as industrial plants, are to be visited and studied. The information gathered from these visits and from other sources is to be discussed at stated meetings of the board of directors, open to all members. These discussions will serve to determine the topics to be presented in public at the annual convention.

The first of these meetings of the board of directors was held at the Insurance Exchange Building, Chicago, May 8, 1915. At this meeting the report of the secretary was presented and discussed, followed by an informal address by a representative of the United States Bureau of Education.

The president of the association is Prof. Frank M. Leavitt, University of Chicago, and the secretary is Albert G. Bauersfeld, Lane Technical High School, Chicago.

NATIONAL EDUCATION ASSOCIATION.

Much important work has been accomplished by the special committee on vocational education and vocational guidance, which was appointed at the Chicago convention, July, 1912. The personnel of the committee remains the same as last year, with Robert J. Fuller,

superintendent of schools, North Attleboro, Mass., as chairman. The committee expects to publish its report within a few months.

The amount of attention given to vocational education subjects on the programs of the regular sessions, both of the Department of Superintendence and the association proper, indicates a continued recognition of the importance of this phase of education. Numerous valuable contributions have been made by these discussions.

THE AMERICAN FEDERATION OF LABOR.

No report on the activities of organizations interested in vocational education would be complete without reference to the American Federation of Labor. The federation was one of the earliest national bodies to issue an official pronouncement on this subject and to begin a serious study of the problem in all its bearings through the work of its committees. The first of these committees was appointed at the annual convention of the federation in Boston, in 1903, and its successors have been at work assiduously ever since.

The most important statement made by officers of the federation during the past year was the address of President Samuel Gompers at the Richmond convention of the National Society for the Promotion of Industrial Education, December 10, 1914. The public generally, and schoolmen in particular, have not been fully aware either of the interest taken by organized labor in educational problems or of the nature of the tentative conclusions that have been reached as the result of deliberate study. For this reason Mr. Gompers's address attracted wide attention.

Mr. Gompers assured his audience that organized labor, far from being opposed to vocational education, has been for years "active in its efforts to make the public schools do precisely that which some misinformed people even think labor opposes." According to Mr. Gompers, workingmen are not disposed to obstruct the effort to modify the curriculum of the public schools so that the needs of workingmen and their children shall be served more fully. Such opposition as organized labor has manifested toward specific proposals, or in the case of particular schools, has been directed, not toward the fundamental principles of vocational education, but toward those features that are regarded as evils. The control of vocational education under private auspices, actuated by other motives than the highest interests of the pupil and the welfare of society, as well as attempts to deceive young people into the belief that there are "short cuts" to industrial efficiency, and any program that might result in curtailing or limiting in any way individual opportunities for further education and advancement—these are regarded as objectionable from the point of view of public policy.

Organized labor is "eager to cooperate actively in instituting industrial education in our public schools," and welcomes the development of plans for such work when based upon careful preliminary surveys of actual conditions and needs, as was the case in Richmond.

Considering the problem in its larger social and economic aspects, President Gompers concluded his address as follows:

The period is almost past when the United States can depend upon cheap raw materials obtained with comparatively little labor from its mines and virgin fields. It is entering upon a period when it must depend upon the qualities of human labor. Under these conditions industrial decline is the only alternative to industrial education. Do you think that organized labor is going to advocate a policy of industrial decline—a policy of competing on a basis of cheap labor, instead of trained and efficient labor? Do you think it is going to advocate the adoption of Chinese methods in its competition with Europe? I can assure you that the American workingman will not accept any such solution of the problem. He will insist that competition shall be upon the basis not of cheap brute labor, but of intelligent efficient skilled labor, which means that he will in the future, as he has done in the past, insist that the instruction in our public schools be made democratic; in a word, that the public schools generally shall institute industrial education, and that that education shall be based upon an exhaustive study of the industries to determine what sort of industrial training is required and is most conducive to the physical, mental, material, and social welfare of the workers, the community, and that which holds out the best hope for America's workers, her citizenship, the perpetuity of our Republic, and fulfillment of its mission as the leader in the humanitarianism of the world.

DECLARATION OF PRINCIPLES.

A declaration of the attitude of organized labor, with reference to the development of a system of vocational education in the public schools of New York City, was adopted April 20, 1915, at a conference of delegated representatives of organizations whose members aggregate approximately 500,000 wage earners.

Organized labor in New York City indorses industrial education in the public schools and believes that this sort of education, when organized with reference to the industrial character of the community in which it is given, is for the best interests of labor, but organized labor may fairly demand that the training given to the children of wage earners in the public schools shall be such as will insure their economic well-being to the fullest extent possible. This can be achieved only by systematic organization. * * *

We, therefore, condemn and wish to abolish every sort of industrial training which is not based upon, and continually modified with reference to, the industrial character of the community.

Without attempting to outline a course of industrial education, which is recognized as a piece of work calling for expert service the report demands that a systematic and general survey be made of the city, its industries, and its schools. The essential thesis of the declaration is a demand that—

industrial education in the public schools shall train the youth not for some industrial employment, but in the case of each youth so far as possible for

that employment where the demand for labor is, relatively to the demand in other employments, greatest.

Opposition to any system of training which will increase labor's efficiency and wage-earning power is characterized as "foolish," but it is submitted that wisdom demands a system of education that shall bring about this increase in efficiency without the reaction of an artificial and systematically stimulated oversupply of labor in certain pursuits. It is held that the wisdom necessary to insure such organization comes only from accurate, extensive, and detailed knowledge of conditions. In general, this knowledge is not yet available; hence the necessity for careful scrutiny of proposals.

At a meeting held in Washington, D. C., in September, 1915, the declaration of principles and policies with reference to industrial education in New York City, referred to in the preceding paragraphs, was indorsed in principle by the executive council of the federation.

Mention should be made also, by way of record, of the report of the committee on industrial education of the American Federation of Labor, which was introduced into the United States Senate on August 17, 1912, and printed as Senate Document No. 936, of the second session of the Sixty-second Congress.

NATIONAL ASSOCIATION OF CORPORATION SCHOOLS.

The National Association of Corporation Schools was organized in New York, N. Y., January 24, 1913, with delegates present representing 31 corporations. The third annual convention was held in Worcester, Mass., June 8–11, 1915, at which time the committee on membership reported 72 corporation members. In addition to corporation members, class A, the constitution of the association provides for class B members, who are persons connected directly with the schools conducted by the corporations, and class C members, who include other persons in sympathy with the objects of the association who are not eligible to membership in either class A or class B.

The spirit of the organization, and of the convention, seems to be well represented in the following excerpts from the address of the president, Dr. Charles P. Steinmetz, General Electric Co., Schenectady, N. Y. The problem of the supply of skilled workmen, which confronts every large employer, is analyzed and its two main causes pointed out: (1) The very nature of modern industry on a large scale, with its necessary subdivision and increasing specialization of work, offers almost no opportunity for a young man to learn a trade and become a skilled workman; (2) European countries no longer send us the supply of skilled workmen formerly available. But vocational education is not only a serious problem of American industry; its importance is realized even more outside of the corporation by the general public.

There it appears as a problem of the parents to find a suitable occupation for their children, as a problem of the young men and women to find work without getting into a blind-alley occupation. Increasingly the general public thus makes the demand on the public schools to provide the vocational training which the industry gave in former times, but which it now, in its corporate form, fails to give. So far, the output of the apprentice courses of corporations is still very small compared with the industrial demand.

The trade apprenticeship courses of corporations and the industrial education of the public schools at first appear to be in competition with each other, but in reality the problem of the trade apprenticeship can be solved only by the cooperation of the corporation and the public school, as was proven by the experience in the professions. * * * Applying this experience to the trades we see that the practical trade training must be given in the industry by the corporation apprentice course, but the public schools must do the preparatory work.

The field of the corporation school is the industrial training of those fitted for the industry. The field of the public schools is the general education; that is, to supply that minimum amount of knowledge which every intelligent citizen must have before he can specialize in trade or profession, or at least that part of general education which is difficult to acquire afterwards.

With increasing civilization the requirements of general education also have increased. With increasing population density, and the growth of cities, physical development, hygiene, and medical supervision become essential parts of public education, and familiarity with the use of the most common industrial tools, such as hammer, saw, etc., which formerly was acquired in the home, has to be taught by manual training in the schools. This increasing general educational demand on the schools precludes the possibility of industrial training—that is, of teaching a trade—within the limited time of mandatory school attendance, and industrial or vocational training thus must be continuation school work, while manual training, giving a general familiarity with the common tools of industry such as every man should possess, belongs in the grades as a mandatory subject. * * *

The new field of the public school is to establish an intelligent system of vocational guidance based on the teacher's familiarity with the pupil's characteristics, and especially on the adaptability and interest shown in manual training, so as to lead the pupils into those trades and professions for which they are adapted and in which they can find the satisfaction resulting from success.

After discussing other serious problems confronting the corporation, the address concludes with a reply to the objection commonly urged that the large corporation destroys individual development, on which all progress in invention and scientific research is based, and that therefore it is hostile to civilization:

It is true that in the early days of the new country, when unlimited natural resources gave everybody a good chance for success, individualistic effort was most efficient for progress; but these times have long passed, and in the world to-day the fight for existence has become so intense that the individual's energy is wasted in the mere earning of a living, without much chance of development, and it is only in the comparative safety of the industrial corporation or the educational corporation—the university—that the conditions are favorable for such development of individualism as leads to the world's progress. It is significant that to-day practically all scientific research, most of the inventive

and development work, is done within the industrial corporations or the educational institutions, and very little by the unattached individual, showing that in the corporation is found also the most efficient means of making individual development possible in our present state of civilization.

The report of the committee on policy and finance recommended as one of the immediate requirements of the association the organization of a department which should make the necessary preliminary studies and formulate courses of study for the schools which, "while individualizing and specializing, will at the same time provide for that more general education which will be most useful and helpful to the employees and to their employers."

The executive committee understands the work of the association and of the schools maintained by the member companies, as "intended to supplement all other forms of education," and not to take the place of or to duplicate the work now being efficiently done elsewhere, or the work that appropriately belongs to other institutions. The committee on public education has been specifically instructed to study and report at the next annual convention the extent to which teachers in the public schools are going into the industries with their students during the time that the latter are spending in industrial study, and the extent to which arrangements have been perfected by which corporations are taking students from public schools, at graduation, directly into the industries.

The 1916 convention of the association will be held in Pittsburgh, Pa., May 30 to June 2. The president is Mr. John McLeod, Carnegie Steel Co., Pittsburgh, Pa. A series of monthly bulletins is published and distributed from the office of the executive secretary, F. C. Henderschott, New York Edison Co., Irving Place and Fifteenth Street, New York, N. Y.

NATIONAL ASSOCIATION OF MANUFACTURERS.

For several years the National Association of Manufacturers has had a committee studying the problems of industrial education, and its reports have had a large circulation. As in the case of the National Association of Corporation Schools, the officers of this organization have felt the necessity of defending its policy from what is held to be unnecessary and unjustifiable misunderstanding on the part of the public. At the eighteenth annual convention of the association, Detroit, May 21, 1913, the report of the committee on industrial education contained the following paragraphs:

Incredible as it seems, it has been alleged that employers want to exploit the youth by this education, and merely to get better mechanics for their shops.

The working people and employers are a thousand times more alive to this situation than others, because they see most clearly the necessity of it. Had they kept still, the school-teachers might never have come to consider it important that half the children intrusted to them are never educated.

The employers and the employees desires to save this half of the citizenship for its own sake. They want it educated first of all in the fundamentals of citizenship, wisely informed as to its rights, and how to secure them; as to its obligations and how to observe them.

Educated and efficient mechanics, farmers, salespeople, homemakers are wanted for the Nation's sake, for the sake of each and all of us. * * *

Employers can make money with any grade of help. Employers, after all, are only middlemen, and must sell a given product for its real worth. Whether it brings a high price or a low one depends upon the intelligence put into it. Neither employer nor laborer can get more out of anything than they put into it. Labor's reward will be great in proportion as its efficiency and skill are great.

The position taken in this report was reaffirmed at the 1915 convention in New York, when on May 25 the committee opened its report with the statement that "vocational education is not teaching for an occupation only; it is the making of men and women."

In adopting the report of the committee, the National Association of Manufacturers went on record in favor of a system of vocational schools, including continuation schools, composite trade schools, special trade schools, and corporation schools that will be not entirely separate from the present public school, but collateral and supplementary to it.

Special commendation is given to the work of the continuation school and the plan by which the worker is released for a short period each week during working hours, without loss of pay, in order to go to school. The committee believes that it is possible so to plan the five hours per week of instruction, and so to relate the instruction to the work of the other 43 hours of employment that together they shall constitute 48 hours of schooling that shall be profitable alike to workers, employers, and society in general.

The association favors the development of plans for vocational education in the organization and administration of which employers, employees, and educators shall participate on equal terms. Special emphasis is given to the necessity for vocational education for the thousands of boys and girls, young men, and young women who can not avail themselves of the opportunities afforded for higher education of the types which have prevailed in the past. A reorganization of the public elementary schools "as respects the attitude and the desires of all children toward work" is regarded as probable.

An important feature of the 1915 convention was an extensive exhibit designed to show the progress and possibilities of industrial education. In addition to displays of finished product, several trades schools from New York and neighboring cities installed partial equipments, and presented classes of students at work upon regular school projects.

7. INVESTIGATIONS AND SURVEYS.

In the two previous reports the special investigations which have been made in a number of cities claimed a considerable part of the discussion. As pointed out elsewhere, the work of investigation shows no signs of abatement, and a number of important contributions have been made during the past year. Space can be given at this time to brief statements from only three of these cities: Richmond, Va.; Minneapolis, Minn.; New Orleans, La.[1]

THE RICHMOND INDUSTRIAL EDUCATION SURVEY.

Beginning about the 1st of May, 1914, and ending about the middle of October, the city of Richmond, Va., made a comprehensive survey of its schools and industries for the purpose of formulating plans for vocational education. The city school board took the initiative in making the investigation, supported by the Richmond Chamber of Commerce, the Business Men's Club, the Rotary Club, the trustees of the Virginia Mechanics Institute, the central trades and labor council, the metal trades council, and other local organizations. From the outside, advice and assistance were rendered by representatives of the National Society for the Promotion of Industrial Education, the Russell Sage Foundation, the United States Bureau of Labor Statistics, and the United States Bureau of Education.

Dr. Leonard P. Ayres, of the Russell Sage Foundation, was director of the school survey. By means of an inquiry conducted through the children in the schools information was obtained as to the range of occupations engaged in by the young people of the city, and a study of the schools themselves was made to show to what extent preparation is made for these occupations. The facts as brought out seem to indicate that, in general—

> employers are unwilling to hire immature boys and girls, and that the best investment that a boy or girl can make from 14 to 18 is to secure the training which will enable him or her to do the best work and to earn the largest wages after the age of 18.

Boys and girls of 13 and 14 years of age were found scattered through the schools in all grades from the first year in the elementary school to the third year in the high school. Since boys and girls at these ages drop out of school rapidly, and since more than half of them are in the sixth grade or below, the facts indicate that in Richmond many of these children—

> may be expected to leave school soon and go to work with an educational preparation so inadequate as to hamper them in their vocations and seriously to reduce their value to the community. One of the important problems in the

[1] See also Ch. XVIII of this report.

progress of vocational education in Richmond is the increasing of the amount of common schooling secured by the average boy and girl.

Mr. Charles H. Winslow, of the United States Bureau of Labor Statistics, was director of the industrial survey. This part of the survey included a special study of the John Marshall Night High School and the Virginia Mechanics Institute to determine in detail what was being done in vocational education and what facilities existed that might be utilized in future developments.

The study of the industries included analyses of the four chief mechanical industries of Richmond—the printing trades, 26 occupations; the building trades, 35 occupations; the metal trades, 30 occupations; the tobacco industry, 17 occupations. In addition, the department stores were considered in the study of women's occupations.

The information was obtained through two types of schedule: (1) An establishment schedule, analyzing the situation from the point of view of the employer; the schedules taken represented concerns employing more than 15,000 workers; (2) an individual schedule, of which more than 700 were obtained, analyzing the individual histories and experiences of workers representing all the important occupations noted above.

Bulletins.—Two preliminary bulletins were issued for distribution in December, 1914, by the National Society for the Promotion of Industrial Education: Synopsis of the Findings of the Richmond Vocational Education Survey; Synopsis of the Recommendations for Vocational Education for Richmond. Both of these bulletins are already out of print, but all of the material will be republished in the full report of the survey, which is to appear as Bulletin No. 162 of the United States Bureau of Labor Statistics.

Important features.—The important features of the Richmond vocational education survey may be enumerated briefly, as follows: (1) This was the first attempt on a large scale to base a program for vocational education in a public-school system on the results of an intensive study of the schools and the industries of the city. (2) It was the first attempt to study the needs and aspirations of individual workers in large numbers for the purpose of determining desirable modifications in the public schools. (3) Groups of workers from the same, or closely allied occupations, having indicated a desire for more education, were gathered together and organized into classes, and the first steps in courses of study designed to meet expressed desires were developed through conferences with the workers. Afterwards, teachers were sought who could meet the specific conditions which were thus disclosed. This is a radical departure from the accepted plan of preparing a course of study in the office of the director of a school, and then offering it to prospective students, who may "take it or leave it." (4) The city school board took the initia-

tive in the organization and control of the investigation, and assumed the responsibility for determining what measures should be taken in view of the findings and recommendations. (5) The survey presented a remarkable situation of cooperation, involving local, State, and national agencies, both public and private.

THE MINNEAPOLIS VOCATIONAL EDUCATION SURVEY.

By the will of the late William Hood Dunwoody, of Minneapolis, a trust fund of more than three million dollars was created for the purpose of giving free instruction in the industrial and mechanical arts to the youth of Minneapolis and the State of Minnesota generally. Before undertaking to put into effect the provisions of the will in any comprehensive way, the trustees of the fund desired complete information as to the kind of vocational education most needed by the city and advice as to the best ways in which the school could cooperate with the other educational agencies and institutions of the city and State. Various recent events and local conditions led directly to the present survey, for which this gift furnished the necessary funds to meet a part at least of the expense for industrial education, and made necessary a study which should define the activities of the public schools and of the Dunwoody Institute.

The superintendent of schools, together with the board of education and the trustees of the Dunwoody Institute, secured the cooperation of various local agencies in bringing the National Society for the Promotion of Industrial Education to Minneapolis to make this survey and hold its annual convention.

Many different agencies are cooperating with the national society in making the survey. The expense, which will be about $8,000, is being met by the board of education, the William Hood Dunwoody Institute, the University of Minnesota, and the Woman's Club. In various ways, service whose total value is not less than an additional $8,000 is being contributed without cost by the board of education, the Dunwoody Institute, the University of Minnesota, the Minnesota department of labor, and the Minneapolis Public Library. Business men, social workers, workingmen, and educators are giving freely of their time and their knowledge. Especially valuable have been the contributions of employers and employees, meeting in trade conferences to talk over the content and detail of their common interests.

The survey follows, in general, two lines: First, an investigation of public and private schools, in order to ascertain what vocational training is already being given, and how effectively it is meeting the needs of the pupils; second, an investigation of a number of selected

industries for men in which the major portion of the working population is employed, and certain industries for women, in order to ascertain the teachable content of these industries and how best that could be taught.

Important features.—A more complete statement of the work of the Minneapolis survey must be reserved for the next report. The work of the survey is based in many respects directly upon the experience gained in the Richmond survey. It is of interest to note the features in which progress is being made because of this fact. (1) The conditions as they exist in Minneapolis are thought to be typical of those to be found in a larger number of cities than was the case in Richmond. Consequently the results of the study will probably be applicable to a wider field of effort. (2) The wealth of data assembled through the use of schedules in the Richmond investigation is available for use, and to whatever extent the conclusions based on these findings are valid elsewhere the work does not need to be done again. The study of individuals, therefore, and the schedule methods, are somewhat less in evidence in the Minneapolis survey. (3) The practical benefits and results of cooperation between employer and employee are being secured to a much greater degree in Minneapolis than was possible in Richmond. Trade agreements have been entered into, involving the trades, the public schools, and Dunwoody Institute, in accordance with which boys are guaranteed two years of schooling, a specified status in the trade for a year, after which a school diploma is to be granted. (4) The study of the industries is carried further in that outlines of courses of study are developed for the guidance of proposed classes to be organized for each industry investigated. These courses of study are the outcome of a series of conferences, which included representatives of the survey staff, employers, and workers.

A full report of the survey will be published by the National Society for the Promotion of Industrial Education.

SURVEY OF INDUSTRIES AND MECHANICAL OCCUPATIONS IN NEW ORLEANS.

To the division of educational research of the public school department was assigned the task of making a vocational survey in advance of the establishment of a central trades school, which has been made possible by the bequest to the city by Mr. Isaac Delgado of approximately one million dollars. The following are the questions which guided the inquiry:

What are the numbers, present advantages and disadvantages, processes, health aspects, and future prospects of the mechanical occupations of boys and men in New Orleans? What provision in the schools is made for preparation for such occupations? What does first-hand study disclose of prevailing types of industrial and trades schools in other cities? Having determined upon the

courses of study required to meet ascertained needs, what provision must be made for teachers, rooms, shops, buildings, and equipment in order to execute the program thus deduced? What are the criteria for the choice of a site suited for the program and buildings as planned? What conclusions may be reached regarding finance?

Three numbers in a projected series of bulletins have been published:

Facts about the public schools in relation to vocation.
Measurements in elementary education.
An experimental study of delinquent and destitute boys in New Orleans.

An outline of the report has been published also in *School and Society*, beginning September 18, 1915, page 421.

OTHER INVESTIGATIONS.

In addition to the reports of surveys mentioned elsewhere in this chapter, the following bulletins should be noted:[1]

Survey of Opportunities for Vocational Education in and near Philadelphia, published 1915, Public Education Association, Philadelphia, Pa.

Seattle Children in School and in Industry, by Dr. Anna Y. Reed; published January, 1915, Board of School Directors, Seattle, Wash.

Vocational Education and Vocational Guidance, by a committee of the Iowa State Teachers' Association; published November, 1914, State Department of Public Instruction, Des Moines, Iowa.

Survey of the Printing Trades, by Charles R. Hebble, director of survey; published February, 1915, Chamber of Commerce, Cincinnati, Ohio.

A Survey of Manual, Domestic, and Vocational Training in the United States, under direction of Wallace E. Hackett; published February, 1915, Board of School Directors, Reading, Pa.

The Possibility of Vocational Training in Paper Box Making, Department Store Work, and Candy Making, and the Wage Value of Vocational Training; reprint of Appendix VI, fourth report of the New York State Factory Investigating Commission, Albany, N. Y., 1915.

8. VOCATIONAL GUIDANCE.

Probably no phase of the movement for vocational education exhibits clearer evidence of the rapid evolution in thought and practice that is taking place than vocational guidance. Only a few short months ago vocational guidance was conceived of chiefly as a matter of giving to boys and girls advice in the choosing of a life work and assisting in the securing of positions. In view of the ambitious attempts made in a few quarters along these lines, and especially the claims of a few concerns that have investigated the commercial possibilities of vocational guidance, extravagant expectations have been raised in the popular mind that have not been realized.

This conception is rapidly passing, however, and among the leaders of the vocational guidance movement the chief function of their work

[1] For additional surveys see Ch. XVIII.

is now regarded as the study of vocational conditions and opportunities, and the making of the resulting information available to boys and girls.

The most important service that can be rendered the individual youth, under the name of vocational guidance, is to set him to thinking, at the proper time, about the problem of choosing a life work as a problem to be seriously faced and prepared for—to make him fully conscious of its existence as a problem to be solved, and aware of the sources of data having any bearing on its solution.

Expectations concerning the contribution of psychology to vocational-guidance formulas and prescriptions are undergoing a complete revision. The following paragraphs from a thoughtful study of the subject[1] reflect the newer point of view:

A careful examination of the prevailing notion about vocational guidance shows that it is open to serious objections, which must be pointed out and overcome if real progress is to be made. In the first place, much misunderstanding about the use of psychological tests will have to be corrected. Popular fancy regards a single one-hour test as probably sufficient to indicate vocational aptitude. Any plan, however, that involves single measurements of mental capacity is bound to meet with difficulties. Power of achievement varies from day to day according to changes in weather, physiological and emotional conditions. This fact vitiates the reliability of single measurements, and any system of psychological tests that claims validity must make allowance for it. It does not constitute an insurmountable obstacle, however, as with sufficient research it will probably be possible to devise a method whereby this can be allowed for. Nevertheless, it should be kept in mind as a possible source of error. * * *

Aside from the technical difficulties involved in the current notion of vocational guidance, there are considerations of philosophical import that demand its revision. It holds the fatalistic implication that in the grand cosmic scheme there is but one task that can be satisfactorily accomplished by a single person. It further implies that the failures made by "misfits" are due solely to the fact that they did not find the right avenue for their talents. This theory, while embracing the conception of a beautifully well-ordered and harmonious universe, leaves out of account the factor of personal volition. It tacitly assumes that if the methods of science be sufficiently refined, one will be able to foretell with practical certainty what will be the destiny of an individual. Such a program is feasible in astronomy, where the course of fixed and soulless stars is concerned, but in the realm of human endeavor it is not likely to be of much value as a working hypothesis. * * *

In view of the serious objections to which the current doctrine of vocational guidance is subject, it seems wise to seek an amendment—some aim that is possible of attainment and that does not depend for serviceableness upon a supervision of facts. At this early stage of development, discretion dictates that the work of vocational guidance be regarded as of purely monitory value. That is, it should pretend to do nothing further than to marshall facts and to point out possibilities of attainment in giving advice. * * *

In the light of the conclusions that follow upon the premises of the current conception of vocational guidance, its untenability is readily apparent. This

[1] H. D. Kitson: Suggestions toward a tenable theory of vocational guidance; Manual Training and Vocational Education, Jan., 1915, pp. 265–270.

does not mean, however, that educators and others should lessen their zeal in this direction. Instead, the adoption of this monitory conception should accelerate the progress of true vocational guidance. It is thoroughly in accord with the requirements of scientific method and entirely within the realm of possibilities. Positively stated, monitory vocational guidance has for its ideal the granting to every individual of the chance to attain his highest efficiency under the best conditions it is humanly possible to provide. Education can have no worthier aim, and the best efforts of the future can accomplish no more than this.

Vocational guidance in its application to college and university students has been receiving its share of attention. In this field, according to the report of a committee of the faculty of Leland Stanford University, California, vocational guidance is the dissemination among students of information regarding the various vocations and professions open to college graduates and of advice regarding the nature of the aptitude and training required for success in each.

The report refers to the fact that the high degree of specialization and complexity found in modern industry is characteristic of the vocations which are entered by college graduates as much as any others. It is pointed out that even the professions have become allied groups of specialties, and Prof. Charters is quoted as having said that it would be easy to mention 50 lines of work, all requiring more or less specialized training, that might be entered by a graduate in electrical engineering. The committee records its conviction that:

> Sooner or later a closer correlation will have to be worked out between the college course and the life of the community for which students are educated. There was a time not long since when this problem of correlation seemed to center in the enlargement of the curriculum. It is now apparent, however, that the mere multiplication of courses does not necessarily result in giving the students the kind of equipment they need.

Probably the most serious obstacle to progress in vocational guidance is the aloofness of the school-teacher, under ordinary conditions, from much of the world's work, and the practical difficulties in the way of his knowing very much about certain vastly important phases of it through actual participation, or even through close contact.

Important events during the past year include the offering of a college course for vocational counsellors by Boston University in cooperation with the Vocation Bureau, Boston, Mass., and the announcement by the Tuck School of Finance and Business Administration, at Dartmouth, of a new course for employment managers, to consider the problems arising in connection with the examination, employment, and training of a staff of employees.

9. VOCATIONAL EDUCATION IN THE SMALL CITY.

The special problems of the smaller cities are gradually coming to receive more attention. They are still, however, far from being as well understood, or as efficiently dealt with, as those of certain of the more progressive large cities. Up to the present time most of the discussion of vocational education, aside from agricultural phases, has had to do with conditions characteristic only, or chiefly, of large cities. In many cases the measures proposed could be carried out only in populous districts, and not always therein.

There are a few cities in the United States that have been able to employ expert assistants to make investigations from time to time and to work out the details of educational procedure to meet ascertained needs. In most communities, however, the superintendent of public schools is not supplied with adequate help to keep the regular school machinery running properly, and there is seldom any provision for coping with wholly new problems as they arise. Especially in the smaller city is the superintendent confronted with very serious physical difficulties in attempting to deal with a program for vocational education.

THE CINCINNATI CONFERENCE.

Realizing the importance of the interests involved, the Commissioner of Education made arrangements for a conference to consider these special problems, to which were invited "superintendents of public schools in cities having a population of 10,000 to 25,000." The conference was held in Cincinnati, Ohio, February 24, 1915, during the week of the convention of the Department of Superintendence of the National Education Association, and was well attended. In addressing the conference the Commissioner of Education said, in part:

> One respect in which the vocational problem is simpler in the smaller city is that here occupations are still carried on more nearly as *wholes*. They have not become, as in the big city, merely series of *processes*.
>
> The problem is to be solved in the small city not so much by the establishment of trade schools as by better adaptation of the work in school. The part-time plan is commendable, if care is taken that the shop part is educational as well as useful. The trade school is impracticable for the small city because the demand for skilled mechanics in any one line is limited, whereas there is a real need for workers trained in a considerable variety of lines.
>
> We must study the industries with a view to discovering those principles and processes that are common and fundamental to the largest number of occupations. These should be arranged and grouped for instructional purposes, and so taught as to develop general adaptability. The importance of part-time arrangements with the industries in connection with this work is clearly evident.

The trend of the discussion seemed to indicate the belief that practical and efficient work in the manual arts and home-making courses constitutes the first step toward vocational education. After these

departments have been well established they can be used as a basis upon which to develop subsequent and more specialized courses as the needs become clearly defined.

While the difficulties in the way of giving efficient vocational education in the small city are recognized as formidable, the speakers at the conference expressed the conviction that the demand is real and must be met. As one superintendent said: "Vocational training must be given, and in the present public schools, or these schools will be given less money by the amount that is taken out for vocational training elsewhere."

Specific suggestions resulting from the discussion included the following: (1) We can take care of vocational education in the public schools by establishing continuation schools. Employers are ready and willing to cooperate as soon as we show that we are ready to give the real thing. (2) We can make an effort to secure employment for our older students, under conditions that will enable them to pursue their school work, on a part-time basis, if necessary. (3) By more efficient handling of the placing of graduates of our high schools we can convince many more boys and girls that more education is worth while. (4) We can give more real, live problems in our school work, and thus connect the school more closely with the life of the community. (5) We can teach at least the elements of practical agriculture, sending out students to spray fruit trees, to test the productivity of dairy cows, and to meet other practical conditions. (6) We can beautify school, public, and private grounds by the planting and cultivation of trees, shrubbery, and flowers.

INDIANA STATE UNIVERSITY.

A State conference on problems of vocational education for the small city was held at Indiana State University, Bloomington, Ind., during the opening week of the summer season, June 29 to July 3, 1915. The conference was addressed by representatives of the university faculty, the State department of public instruction, the National Society for the Promotion of Industrial Education, city superintendents of public schools, and the United States Bureau of Education.

Two sessions of the conference were held daily, and the following topics were considered: The organization of community forces; how to determine the needs of a community; reports of surveys and analyses of typical industries; prevocational education; vocational guidance; organization of special classes; training and supervision of teachers.

10. ACHIEVEMENTS IN TYPICAL CENTERS.

In the following paragraphs it is proposed to complete the review of the year's progress in vocational education by directing attention to certain specific and suggestive examples. It should be expressly understood that there are numerous other experiments that ought to be described, if space permitted.

NEW YORK, N. Y.

In October, 1914, the New York City Board of Education employed Dean Herman Schneider, of the University of Cincinnati, and William Wirt, superintendent of public schools, Gary, Ind., to formulate plans for vocational education for the city school system.

Mr. Wirt submitted a report recommending that at least six schools representing different types of facilities be organized on "the duplicate school" plan, which has been developed in Gary, as a step in the direction of meeting two serious problems in the New York schools—lack of accommodations and provisions for prevocational and vocational classes.[1]

During the past year Mr. Wirt has given a portion of his time to the supervision of the experiment of transforming a few selected schools in accordance with his recommendations.

Dean Schneider presented a report on continuation and cooperative courses in vocational education. The following excerpts suggest the basis of the recommendations made:

> Just what measure of autonomy is possible under the present laws is a matter for the corporation counsel to outline; after this is done, the character of such legislation as may be desirable can be determined. I am convinced, however, that the new department of school cooperation should not be made a part of the organization under which the present school system is operated. This is a new and distinct type of educational work, the basic idea of which is cooperation; and cooperation is not possible unless both agents are equally free to adjust their systems into a combined working unit * * *.
>
> I therefore recommend:
>
> That a bureau of school cooperation, practically autonomous in its operation, be established with a director in charge, and that a managerial system of organization subject to basic legal requirements be adopted.
>
> That the rules governing the details of operation of the present school system shall not apply to the bureau of school cooperation, so that the new bureau may be free to devise operating mechanism to meet its special needs.

A portion of the year has been spent by Dean Schneider in studying the situation and in perfecting an organization for the administration of a number of experimental classes.

These experiments have attracted the attention of the entire country, and the outcome is awaited with keen interest.

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[1] See Ch. II, this report, for a further discussion of Supt. Wirt's plan.

Bulletins.—The following bulletins have appeared, dealing with various phases of the problems immediately confronting the board of education:

Addresses Delivered at the Industrial Education Conference, Washington Irving High School, June 29, 1914.

Report on a Plan of Organization for Cooperative and Continuation Courses, by William Wirt, superintendent of schools, Gary, Ind., July 30, 1914.

Report on a Plan of Organization for Cooperative and Continuation Courses, by Herman Schneider, dean of college of engineering, University of Cincinnati, Cincinnati, Ohio, August 6, 1914.

Public Demand for Vocational Training, report of the president of the board of education, by Thomas W. Churchill, September 1, 1914.

Preparation for Trades, from the sixteenth annual report of the city superintendent of schools, October 28, 1914.

Report on the Organization and Extension of Prevocational Training in Elementary Schools, by Dr. W. L. Ettinger, March 24, 1915.

The School and the Immigrant, by Dr. Albert Shiels, director of reference and research; Bulletin 1915, No. 11.

Another trade school has been opened during the past year, so that there are now four such schools in operation. In addition a great part of the evening school work is devoted to trade instruction in eight evening trade schools. Prevocational classes have been conducted on an experimental basis in six day schools.

CHICAGO, ILL.

In few cities of the United States is there to be found so extensive a development of continuation courses for young workers as in Chicago, and quite certainly in no city outside of those States which provide specific State aid for vocational education. In October, 1913, the district superintendent in charge of this work, W. M. Roberts, reported as follows concerning the development at that date of the special classes for apprentices, the first of which was opened in January, 1901:

About 600 apprentices employed in four different trades are attending the Chicago public schools and are studying subjects which have a direct bearing on the work of their trades. They include 275 carpenters' apprentices, 160 plumbers' helpers, 140 electrical workers' apprentices, and 30 machinists' apprentices. The carpenters attend every school day for three months in the year, and the others attend one-half day each week throughout the school year, from 8 o'clock in the morning until 11.30.

Since this date these apprentice classes have been growing, and new classes have been organized for pharmacists' apprentices, printers' apprentices, and sheet-metal workers' apprentices.

Special forms of cooperative agreements or contracts are entered into, involving associations of contractors or employers, labor organizations, and the board of education. In consideration of the instruction furnished by the public school, the employers and the unions

agree to require attendance on the part of the apprentice, and to recognize school attendance as a definite part of the apprenticeship. The agreement also includes a stipulation concerning the amount of wage to be paid for the time spent by the apprentice in school.

Representatives of the labor organizations and of the employers assist the school authorities by advising with reference to the courses of study and selection of teachers, and by visiting and criticizing the work of the classes from time to time.

PITTSBURGH, PA.

In October, 1914, the superintendent of public schools recommended the organization of part-time day continuation schools, in which instruction should be given by teachers appointed and paid by the board of education, in case any employer applies for such instruction for a class of at least 20 workers of 14 to 18 years of age, the board of education to furnish the teacher and the necessary textbooks, and the employer to agree to excuse the workers, without loss of pay for two hours twice a week, and to furnish and equip a room suitable for the sessions of the class. It was recommended, further, that the board of education furnish the room also in case two or more employers, unable to furnish a suitable room, or a full class of 20, join in an application and agree to meet the other conditions.

The board of education approved the recommendation, and appropriated a fund of $8,000 for the inauguration of the work, beginning early in the calendar year 1915.

The work in the evening schools has been developed during the year by the addition of continuation courses for journeymen mechanics employed during the day. Two classes have been organized for bricklayers, who work at their trade during the day and in the evening classes study the theory of their work in blue-print reading, estimating, taking off quantities, mechanical drawing, and mathematics. The instructor is a practical bricklayer, who has been a teacher of the subject in a trade school for several years. A similar class has been organized for plumbers.

The following paragraph from the annual report of the director of industrial training is of special interest:

> One thing badly needed for the development of these schools is the chance to do more practical work for the public schools, if we are to train boys to go out into the industries better prepared to take their places. We must do work under conditions more nearly like the conditions they will find when they leave school and go to work. Other cities that have schools very similar to our North Industrial and Irwin Avenue Industrial are doing a great amount of repair work for the schools, and the boys are also making articles for school use such, for example, as work benches for the school shops, tablet arm chairs, etc. Cincinnati is making about 300 of these benches and chairs for the extension of its work. We should do similar work.

The department of vocational guidance reports interviews during the year with 2,111 children of 14 to 16 years of age and with their parents. Of these children, 1,862 had gone into permanent employment. The reasons given for leaving school includes: (1) Necessity, by 858 boys and 662 girls; (2) desire to go to work, lack of interest in school, etc., by 455 boys and 148 girls. There were 791 boys and 419 girls who expressed an intention to go on with evening or other continuation school work.

ST. LOUIS, MO.

Vocational training for workers in the trades, industries, and commercial occuptaions is offered in numerous classes in evening schools in St. Louis. A new class for electroplaters has been added during the past year, which meets on Saturday afternoons. A request for a class for painters' and decorators' apprentices has been received, and a special class is being organized to open in September, 1915.

During the year a large number of short-unit courses in various subjects has been offered. In most cases these courses have been provided by reorganization of work already offered in the evening schools. The shorter courses have made it possible for workers to get in a short time specific training which they probably would not seek if it were necessary for them to attend a full length course in order to get it.

Special classes for apprentices in printing and in automobile and carriage body designing have been offered for two years past.

The great majority of the courses offered in the evening schools are distinctly vocational in character. Training in commercial branches, in shopwork, and in occupations of the home has been continued with ever increasing attendance.

NEW HAVEN, CONN.

During the past year a prize scholarship of the annual value of $100 has been established through the generosity of a member of the advisory board of the Boardman Apprentice Shops. A competitive examination is to be held annually, open to candidates for admission to the course in painting and decorating in this institution. There are now five prizes open to students who enroll in this course:

No. 1, Paint and Oil Club Scholarship, $100, New Haven.
No. 2, National Lead Co. Scholarship, $100, New York City.
No. 3, Master Painters' Scholarship, $100, New Haven.
No. 4, The R. P. Rowe Scholarship, $100, New York City.
No. 5, The E. M. Walsh Scholarship, $100, New Haven.

It is the purpose of these prizes to assist boys in paying their expenses while at school, the $100 representing approximately one-half of what a boy would be able to earn were he at work in the usual

occupations open to him during this period. Upon completing the training, positions are guaranteed by the master painters of the city of New Haven, who agree to pay to the graduate upon the completion of his time $2 to $3 per day with steady employment, and to give him an opportunity to progress in the trade.

A marked contrast is noted in the number of hours spent by the students here in comparison with those spent under ordinary public-school conditions. The Boardman Apprentice Shops are a part of the public-school system of New Haven, but are in operation 8 hours per day, 5½ days per week, and 50 weeks per year. The amount of instruction offered in the trade in which the student specializes is 4,800 hours in the 2-year courses. Approximately one-fourth of this time is devoted to related academic subjects, and the remaining three-fourths to actual trade practice with skilled mechanics as instructors. The output of the productive shops makes a considerable contribution toward the maintenance of the school.

A cooperative arrangement has been entered into between the school and the White Adding Machine Co., by which boys alternate in pairs between the trade school and the factory. In the factory a systematic apprenticeship has been established which divides the plant into a number of departments, to each of which the apprentice is assigned for a definite period of time. The board of education, through the trade school, exercises a certain control over the conditions under which the apprentice works in the factory.

Before entering the factory the apprentice must have completed 2,400 hours of instruction in the trade school. This provision serves to eliminate those who, after a trial, decide that they do not care to continue in the trade and insures to the factory a productive worker who has at least passed the elementary stages of preparation. The apprenticeship plan provides a wage scale of 7 cents an hour for boys who have completed 2,400 hours or more of instruction in the trade school and 7½ cents per hour for those who have completed 3,600 hours or more. Boys who complete the trade-school course, 4,800 hours, receive not less than the minimum rate of 20 cents per hour.

One feature of this plan is that the time the apprentice spends in school is reported to the factory weekly and counted in the pay envelope at the regular factory rate. This prevents a boy from feeling that one week he goes from "work to school" and the next week from "school to work."

Boys are not admitted to the courses that are preliminary to the apprenticeship who are under 14 years of age. The cooperative plan, therefore, is an attempt to substitute a permanently beneficial training for the aimless drifting and consequent deterioration that

are all too often the experience of boys between the age of 14, when rigid public supervision begins to relax, and 16, before which the entrance to many desirable occupations is practically closed. The amount earned by the boy while in the school and in the factory is an offset, in part at least, to what might otherwise be earned in those casual and usually undesirable employments which alone are open to him during these years. Sometimes the earnings are the deciding factor in keeping the boy in school.

DETROIT, MICH.

Suggestive of a very difficult problem confronting the superintendent of schools in many cities is the following statement from the annual report of the superintendent of the Detroit schools:

> The requirement that an applicant for working papers must have completed the fourth grade is altogether insufficient. This is resulting in our permitting each year hundreds of children, 14 years of age, to leave school permanently with the most inadequate preparation for life. The presence in Detroit of thousands of families of foreign birth whose ideals are not as yet adjusted to American standards makes this low academic requirement peculiarly unfortunate. Earnest effort should be given to the securing of an amendment to the statute governing compulsory education which will require applicants to have completed the sixth grade. In view of the commonly accepted theory that elementary as distinguished from secondary education properly ends with the completion of the sixth grade, this proposed universal requirement of a minimum of six years' training seems particularly pertinent.

The development of two junior high schools makes possible the offering of distinctly vocational training in the following lines: (1) For boys—cabinetmaking, carpentry, pattern making, wood turning, sheet-metal work, electrical work, mechanical drawing; (2) for girls—dressmaking, millinery, home making; (3) for both boys and girls—bookkeeping, stenography. At present one-half the pupil's time is devoted to vocational subjects and one-half to academic subjects. Questions as to the degree of specialization to be allowed and the grade in which such specialization shall begin are still being carefully studied. The courses in the junior high schools cover the seventh, eighth, and ninth years.

Special forms of agreement have been entered into involving the public-school department, employers, and individual workers, in accordance with which the Cass Technical High School has organized special continuation classes for apprentices and journeymen mechanics in various trades. It is reported that one of the most encouraging features of the work is "the large number of older workers who are asking for the privilege of coming to school."

LOS ANGELES, CAL.

The annual report of the superintendent of city schools includes a "Vocational Bulletin," which analyzes the occupations for which direct or indirect preparation is given in the courses offered in the Los Angeles schools specified. The occupations are grouped under the following heads: Art work, agricultural occupations, commercial, domestic science and domestic art, marine vocations, technical and semitechnical vocations (trades).

The schools offering courses relating to the various groups of occupations are indicated and each occupation is considered under the following topics: Nature of occupation, preparation necessary, demand for, opportunity for advancement, money returns, other conditions affecting desirability, professional outlook with college course.

The committee on vocational high-school courses, which prepared the chart, testified to a noticeable "lack of trustworthy, systematically arranged information, available to actual or prospective high-school students on which to base a tentative choice of vocation," and of suitable vocational studies in the high schools. The attitude of the committee is suggested by the following:

> Your committee wishes to report its conviction that just so far as possible a pupil should plan his high-school course with his life work in mind. While specialization in our high-school courses is not narrow and it is entirely possible for a student to revise a premature choice of vocation, yet adolescence is preeminently the time for acquiring the mental slant—the modes of thought—essential for success in specialized callings or group of callings.

LOUISVILLE, KY.

Developments referred to in the latest report of the superintendent of public schools include the following: Establishment of a continuation school for girls, the addition of a two-years' vocational course to the curriculum of the manual training high school, the establishment of a prevocational school.

It is worthy of note that although the original idea was to make the work of the prevocational school especially a preparation for business and industrial occupations, the board of education has decided that satisfactory completion of the course shall admit pupils to the city high schools. The course of study in academic subjects parallels the regular courses of the seventh and eighth grades.

> The regular school day, from 8.30 to 1.30, is divided into three 1½-hour periods. The program is arranged for each pupil to choose two lines of industrial work, a major and a minor course. The major course covers four, or in some cases five, 1½-hour periods per week, and the minor, three 1½-hour periods. The remainder of the time is devoted to the academic classes. This arrangement divides the academic and shop time equally.

The industrial work includes printing, woodworking, and electrical work, for boys, and trade sewing, printing, and bookbinding, for girls.

II. ITEMS OF SPECIAL INTEREST.

Appointment of Dr. Prosser.—One of the most important events of the year was the appointment, in May, 1915, of Dr. Charles A. Prosser as director of the William Hood Dunwoody Industrial Institute, Minneapolis, Minn., to take effect September 1. As secretary of the National Society for the Promotion of Industrial Education since 1912, Dr. Prosser had become the recognized leader in the promotion of State and Federal legislation for vocational education.

By the will of the late Mr. Dunwoody a fund of approximately three million dollars has been established for the foundation of a school which is to give instruction in "industrial and mechanical arts, including as of special importance the art of milling and the construction of milling machinery." Instruction is to be "given free to the youth of Minneapolis and the State of Minnesota," and to have as its object the provision of opportunities for young people to "learn the different handicrafts and useful trades, and thereby fit themselves for the better performance of life's duties." The management of the fund and the school is vested in a board of trustees, consisting of men who had been business associates of Mr. Dunwoody, who are endeavoring to make the institution a vital factor in the educational system of the State.

Education for salesmanship has been receiving an increasing amount of attention. For more than a year the Department Store Education Association, New York City, has been at work developing an organization under the direction of Miss Beulah Kennard, former president of the Pittsburgh playground association. A preliminary study was made to determine what may properly be demanded of the selling force in a department store, what are the conditions affecting the success of the individual salesperson or of a department, and what are the conditions favorable to an increase in efficiency.

A beginning was made with experimental classes in seven representative departments in the new establishment of Lord & Taylor. The aim of the work has been to avoid emphasis upon mere details of salesmanship, and to give attention to the broader aspects of physical and mental efficiency. At first the classes were limited to salespeople, since the office force, stenographers, and bookkeepers generally received specific training for their work before entering employment.

Later, the cooperation of other department stores was secured, and classes organized. On May 26, 1915, the first class was graduated, and on July 17 the second class, at which time 50 graduates received their certificates. With the cooperation of Stern Bros.' department store, the association has offered courses during the past year in studies of stock in each department, in commercial ethics, and in scientific salesmanship. The girls were also given talks on health and hygiene. The aim of the association is to make of salesmanship a skilled occupation, by improved methods, scientific standards, and a trained personnel.

The pioneer in the work of training for salesmanship is Mrs. Lucinda W. Prince, who established the Boston School of Salesmanship in 1905, under the auspices of the Women's Educational and Industrial Union. In 1913 a cooperative arrangement for the training of teachers of salesmanship was made with Simmons College.

The classes for saleswomen are held each morning except Monday from 8.30 to 11.30 o'clock at the Women's Educational and Industrial Union. Members of the class come from five of the largest department stores in Boston, being permitted to give this amount of time to the school work without reduction in wages. Each class meets for a period of 12 weeks, three classes being held during the year.

Salesmanship is studied through (1) informal discussions of daily problems arising in the store work; (2) lessons on special topics, such as "Care of stock;" (3) demonstration sales; (4) lectures from store officials, explaining the work of various departments and their interrelation.

Other subjects in the course include textiles, color and design, mathematics applied to store problems, personal hygiene, and lectures on miscellaneous subjects dealing with elementary social and economic problems.

Graduates of the Boston School of Salesmanship are holding positions in more than 20 department stores in cities from Portland, Me., to Los Angeles, Cal. They are also teaching salesmanship in a number of cities. The basis of the work of the school, and the explanation of its success, in large measure, has been cooperation between the school and the business world.[1]

The United States Bureau of Labor Statistics, Department of Labor, Washington, D. C., has published two bulletins during the year of interest to students of vocational education:

Bulletin No. 147. Wages and Regularity of Employment in the Cloak, Suit, and Skirt Industry; containing a study of occupations, plans for apprenticeship for cutters, and for education of workers in the industry.

Bulletin No. 159. Short Unit Courses for Wage-Earners in Part-Time and Evening Schools, and A Factory-School Experiment.

[1] See also Ch. X, Commercial Education.

Cooperative courses of a somewhat novel type are being developed in Putnam, Conn. The cooperating units are the public high school and the State trade school. The high school offers four-year courses of four types. During the first and second years the courses are: (1) General; designed particularly for those who are not going to college, also for those who plan to enter a State normal school; (2) college preparatory; (3) cooperative; designed to prepare pupils for responsible positions in the fields covered and for advanced work in technical colleges. During the third and fourth years the courses are: (1) General; (2) college preparatory; (3) commercial; designed to prepare for office positions. There are four sections of the cooperative course, requiring the following specified numbers of hours of shop or laboratory work during the two years: (1) Machine shop, 1,500 hours; (2) electricity, 2,100 hours; (3) woodworking, 1,800 hours; (4) textiles, 1,800 hours. A cooperative arrangement also provides accommodations for classes of boys from the seventh and eighth grades of the public schools in the woodworking department of the State trade school.

A new course in business methods for engineers is offered by the school of applied science of New York University, New York City, designed to prepare men for the business side of engineering. The students will receive training in the fundamentals of engineering, but in place of the more advanced technical work they will be given fundamental courses in accounting, economics, industrial history, statistics and cost finding, business organization, factory organization, and engineering economics or shop management. The special fields for which it is expected the graduates will be prepared include management of engineering and industrial enterprises, salesmanship of engineering products, manufacture of materials, machines, and machine products; management of transportation and construction work.

The Pullman Free School for Manual Training, at Pullman, Ill., opened in September, 1915. The school is to be in session 8 hours per day, 5½ days per week, and 48 weeks per year, with a short vacation at the end of each of four quarters. The time of the pupils will be divided by assignments to work in the shops, laboratories, classrooms, athletic field, and gymnasium. Boys from the higher classes will be given an opportunity to secure practical experience in the shops of the Pullman Company. The plan of the school is to offer to the pupils definite assistance in preparation for selected occupations.

Recommending for positions.—In Rochester, N. Y., the public-school department has induced a large number of employers to present to the young applicant for a position a printed card stating that the firm is at present employing workers under 18 years of age only

when recommended by the department of public instruction, and referring the applicant to the office of the director of industrial education. The department reports that as a result of this experiment over 100 young people have presented themselves at the offices of the department of education to find out how they may get in line for a position; 77 boys and girls who had left school, expecting never to return, have been induced to reenter school.

Wanted.—Nearly a score of young people were brought into a certain eastern trade schools by a single insertion in a daly paper of a "Want ad" calling for "Boys and girls out of work to take courses in the trade school until positions are secured for them." Positions for some were found promptly, others became interested in the work of the school and remained to complete a year's work.

The public schools of Boston, Mass., now have 21 prevocational centers, 3 of which opened for the first time in September, 1915.

CHAPTER X.

COMMERCIAL EDUCATION.

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IMPORTANCE OF COMMERCIAL EDUCATION.

The importance of commercial education, measured in numbers of commercial students, is little realized. The Report of the Commissioner of Education, 1914, Volume I, gives the number of commercial students in public and private high schools and in private commercial colleges as 346,770 for the year 1914. The number is not complete, however, since, as the report states, of the 1,300 private commercial schools, but 704 institutions made returns, with a number of students totaling 168,063.[1] According to the same statistics, there are 34,367 students in agricultural high schools, 79,240 students pursuing domestic arts, 95,286 students in public normal schools, and 214,493 students in colleges, technological schools, and universities. The total number of high-school pupils in public and private high schools is given as 1,373,661. Commercial pupils consequently constitute at least one-fourth of all high-school pupils, ten times as many as there are agricultural students, five times as many as there are students of domestic arts, and nearly twice as many as are found in all our higher educational institutions.

Considering the numbers involved, it is astonishing that there is so little educational literature upon the subject of commercial education. Among the few books upon commercial education is the dicussion of Edmund J. James, entitled "The Education of the Business Man," published in 1898. This volume consists chiefly of a description of European practices respecting provisions for commercial education, with suggestions for appropriate plans to be laid for similar work in our own country. The book was intended particularly to persuade higher educational institutions to make provision for professional commercial training. A book written by Cheesman A. Herrick, entitled "Meaning and Practice of Commercial Education," published in 1904, is largely a plea for the establishment in this country of special secondary schools of commercial education. With the exception of these two volumes, there are found (up to the

[1] The report of the Commission on National Aid to Vocational Education estimates that 50,000 to 100,000 students were in private commercial schools who were not tabulated in the returns to the Commissioner of Education.

current year) practically no other books upon the subject of commercial education.[1]

Up to the current year there has appeared no literature of a critical character upon the subject of commercial education. Those reports or discussions which are available in print are either descriptive, hortative, or statistical. The prevailing notion concerning commercial education may be seen in the printed proceedings of the National Education Association, 1911 (pp. 827 to 868).

The important papers in the proceedings have the following titles: "Bookkeeping Fundamentals," "Teaching Typewriting for the Best Results," "Business English," "Commercial Economic Geography," "Shorthand, Its Educational and Practical Value." Nowhere in the discussions does there appear the realization of the importance of fundamental principles. No one seemed interested in the matter of whether or not commercial education is pointing in the right direction, to say nothing of whether or not it is hitting the mark.

In an educational period wherein vocational education is being promoted, discussed, analyzed, and defined, we are paying little heed to the major branch of vocational education, namely, commercial education. A logical classification of commercial education locates it under vocational education, yet few educational administrators conceive the subject in such a category. The report of the Commission on National Aid to Vocational Education classifies commercial education as vocational, but does not recommend the subject for national aid, since private and public enterprise, it is assumed, is making adequate provision for its effective continuance and expansion.

Commercial education has needed no extraneous stimulus to hasten its growth. Without subsidy, without propaganda, and, indeed, without active encouragement in many sections of the country, it has grown to be the colossus of our secondary school system. To-day it possesses no literature and lacks an appraiser as well as an historian. All other branches of study in our secondary schools have been the object of investigation, of controversy, and of agreement; not so commercial subjects.

The deliberations of the Committee of Ten and the Committee of Fifteen did not touch the subject. No association or society of prominence is in existence to-day which devotes exclusive attention to the questions concerning and growing out of commercial educa-

[1] The author of this chapter, F. V. Thompson, has published a book on commercial education, entitled "Commercial Education in Public Secondary Schools": World Book Co., Yonkers, N. Y., 1915. There is an English publication on the subject of commercial education, the authors of which are Cooper and Graham. This volume is mainly descriptive of continental practices with regard to commercial education. Another book (American) published in 1914 by Farrington, entitled "Commercial Education in Germany," contains a descriptive account of German practices in commercial education.

tion.[1] Serial publications on commercial education are chiefly "commercial" and not professional, and "commercial" literature is interested in maintaining the status quo, not in changing it.

In a period characterized by richness of material in the way of investigations, experiments, and conclusions on practically all school subjects, the exceptional situation found with regard to commercial education is anomalous indeed. In considering the matter one may suspect that either of two conditions explains the situation; namely, commercial education at present is so efficient and prosperous as not to require questioning, or else commercial education by some accident has escaped the critical eye which has surveyed every other educational activity. Commercial education to-day might not be numerically so important had it been subjected to the criticism devoted to other school enterprises, but it would probably be in a stronger position to face the analysis, appraisal, and judgment which it must inevitably confront.

Commercial education to-day needs to be roused to a clearer recognition of new duties and expanding demands. Too many schools are satisfied to go on as in the past, paying little heed to changing commercial demands. Commercial education to-day needs an awakening to new ideas and a recognition of new conditions to bring about a realization of the need of adjustment. Manual training has recently been greatly stimulated and vivified by the competition of industrial education; in fact, much of manual training is being made over into industrial training. The vision and revelation which have come to manual training are lacking in large part for commercial education.

There is in promise no outside force to spur and arouse commercial education which will be compelled to remodel itself without the example of an educational competitor. The failure of State and National commissions on vocational education to consider commercial education as a fit object of approval and subsidy leaves the subject without a powerful agency for the reconstruction which it needs. In justice it ought to be said that commercial education has never lapsed into the dissociated-from-life attitude that in certain portions of the country has been so generally characteristic of manual training. Commercial education has never made the extravagant claims of general culture or of psychological influence in the way of mental discipline by which the adherents of manual training have endeavored to maintain their cause. Commercial education, within the limits of a restricted vision, has always sought to keep close to its objective field. It has aimed to prepare for a job, to enable the individual pursuing the work to fit into economic society and to benefit

[1] The National Education Association has a commercial section making annual reports. There are several associations of private and public commercial teachers, such as the Eastern Commercial Teachers' Association.

himself by meeting an evident demand for his talent. Commercial education, however, must be criticized for seeing its field narrowly, for failing to recognize the newer demands which a rapidly expanding business world is forced to make, and for ignoring the complexities of modern commerce which have created a whole new army of commercial functions. A recent book (The Worker and the State) calls attention to the fact that in industry 25 per cent of the industrial occupations of to-day did not exist a generation ago. A similar condition is found in commerce, but commercial education has shown no parallel adjustment to changed conditions.

This situation is in part explained by the process through which commercial education came into the public schools and by the influences which have continually surrounded it. Commercial education was perhaps the first subject to be generally adopted by the high school as a concession to the desire that the school should furnish preparation for vocations. No trained teachers were available a generation ago, hence through necessity many untrained and incompetent instructors were brought into the schools. In spite of this, commercial education has made a praiseworthy struggle against initial school prejudice and other obstacles and to-day finds itself in a relatively strong position, compared with other school enterprises. The names "commercial teacher," "commercial course," and "commercial pupil" are no longer terms of school reproach, as was true a decade or so ago. Commercial education has been busy establishing its position in the school world, where it has felt the spur and the whip, and has paid little heed to the business world, where it has found mainly neglect and indifference. Business consequently is in no small degree responsible for the chasm between the school and business, and for several reasons. The business world has paid but little heed to commercial education, to the character of courses of study, to the efficiency of teachers, and to the encouragement and development of the idea of commercial training. This assertion can not be made of business men of certain progressive foreign countries, but it is particularly true of the United States and of England. Mr. Herrick (Meaning and Practice of Commercial Education) points out as an exception the example of the London Chamber of Commerce, which has been largely instrumental in creating and fostering commercial education in England, and by an examination method has created a system of awards to commercially trained persons. The Chambers of Commerce of Boston and New York have recently shown an active interest in the subject and have appointed committees to cooperate with school authorities in matters of improvement respecting commercial education. Instances of this cooperation, however, have been rare and have not as yet vitally affected the policies of commercial education, which, left so largely to its own devices,

has felt that it owes its allegiance first to the school system and only remotely to business. Again, no definite formulation of business standards and demands has been obtainable by the schools. The schools manifestly could not train for important needs of which the business man himself was uncertain. Only the clerical demands of business have for some time been fairly definite and standardized, and these needs the schools have seen and met with a reasonable degree of success.

ESSENTIALS OF COMMERCIAL EDUCATION.

In a study made by the author (New York School Inquiry) considerable evidence was secured showing the disagreement among business men respecting the essentials of commercial education. There has been in the past no widespread faith in commercial education on the part of business men. True it is that the business man who needs a stenographer or a bookkeeper will apply to a business school for such an employee; but when he wants a real apprentice, a young man to learn the business, he commonly has far more faith in native endowment than in any amount of specialized training. This last statement is not intended to be a criticism. It may very probably be that the business man has been right in his instincts and impressions, but with the increasing application of scientific principles to business, as in all other pursuits, the importance of training must needs become increasingly apparent. Native endowment not supplemented with training will eventually be as unprofitable in business as it recognizably is in the many other occupations which have already progressed to a stage of development beyond that attained by business.

The result of this separation of method and interest between commercial education and actual business puts commercial education at a disadvantage when compared with industrial education. There is a curious dissimilarity between the methods and general characteristics of the two forms of applied education, whereas seemingly there is every reason for close similarity. Industrial education has been fortunate in the causes and conditions to which it owes its inception. The enterprise sprang from cooperation between the two interested parties, the factory and the school. Industrial education has insisted upon freedom from scholastic traditions and customs.

Commercial education has become firmly rooted in our school systems under very different conditions. It did not begin as a cooperative movement—business sharing the burden with the school. It was a school enterprise in the beginning and is the same largely to-day. The problem of improved commercial education is beset with particular and burdensome difficulties. In the main, the problem is to reconstruct the edifice. It would be far easier and simpler perhaps to erect a new structure, but this is not practicable. An investment is

made, the building is erected, and great numbers of workers, conscientious and deserving, have given their lives to the task in a service as honest as any could be, and as efficient perhaps as conditions made possible. As a general principle, in improving an established educational system the factory custom of "scrapping" is not possible. Education, like government, has been obliged to proceed by the method of adaptation and adjustment.

Commercial education, however, must recognize the need of adjustment. Though the excuses for the present state of affairs are many and good, they explain only the past and do not justify a continuation of the present situation. The business man has his obligation no less than the schoolmaster. He can not continue to criticize and complain; he must take hold and lift. It is fortunate that the competitive conditions of business to-day aid in urging such cooperation. The corporation school or something akin to it is becoming more and more common, because a higher degree of service is demanded. The business house can not make the best and most permanent achievement with "an actual school in the business house" any more than the school has been able to succeed with the plan of "an actual business in the school." We should adopt the sounder principle of industrial education, which might be stated as follows: "Actual education in the shop and in the school."

It is evident that a strict analogy between industrial and commercial education is at present impossible. The reason is, presumably, inherent in the nature of the two economic processes, production and distribution. Of the two, the distributive process (business) seems to be more complex and to require for effective administration a larger number of different types of individuals. Industry deals primarily with the modification of inanimate material, while commerce involves more generally human adjustments. The resulting educational provisions are different, and the reasons for the greater complexities of commercial education become clearer. There will need to be more English, modern languages, and æsthetic studies. These subjects are found universally in commercial school programs, but we have made the mistake of not teaching these liberalizing subjects with a vocational objective. We have too uniformly taught English, the modern languages, and the art of college preparatory schools, and failed to teach these subjects from the point of view of use in commerce.

The above discussion of commercial education may seem in no way to justify the title superscribed, but discerning friends of commercial education must recognize that it is constructive criticism, rather than complacency, which is more needed if real progress is to be assured. Evidences of real progress in commercial education, especially within the past five years, are by no means lacking. While

not yet permeating the mass, these signs undoubtedly point out the way that improved commercial education must take. We are beginning to seek a fact basis for commercial education, instead of blindly adhering to conventional courses. As an instance of a progressive and receptive attitude on the part of commercial teachers may be adduced the procedure of the Massachusetts State committee on business education at its first meeting on June 14, 1913, best illustrated by the following resolution, which was unanimously adopted and assigned to a committee for appropriate action:

> It is the sense of this meeting that commercial courses should be founded primarily upon the basis of business needs, as far as such needs are discernible. This committee seeks the facts concerning those business needs which affect commercial education, and welcomes opinions of business bodies, and wishes to encourage all investigations that may shed light upon this important matter.

Much evidence concerning business needs was secured from investigations inspired by and resulting from the quoted resolution. These important investigations into the needs of commercial education were conducted in and about Boston during the school year 1913–14. They were conducted by the following organizations, respectively:

The Women's Educational and Industrial Union, Department of Research: "The Public Schools and Women in Office Service."

The Boston Chamber of Commerce: "Report on Commercial Education to the Committee on Education."

Committee of teachers (Massachusetts State Board of Education): "Records in Business of Graduates of Public Schools."

From the foregoing investigations several important conclusions are evident, showing that both the school and organized business need to make adjustments and to incorporate changes looking toward improvement. These conclusions may be summarized as follows:

1. The schools need to adjust courses and methods to correspond more closely to business practice. This means that most school commercial courses should be modernized to meet the new standards established by large organization and specialization of occupation. Bookkeeping courses at present are taught largely on the supposition that boys and girls will occupy positions as head bookkeepers. In view of the kind of service demanded, it will be manifestly wiser to train pupils by giving due attention to skill, speed, and accuracy in the unit processes in which the student will find business openings. New equipment in the way of special machines, such as adding machines, billing machines, card-filing devices, and the like, must be added to our present meager furnishings.

2. The schools must attempt and achieve more in the way of developing the personal qualities needed for successful participation in business. It is apparent that business men assign great importance

to personal qualities, even more than to efficiency in technique. Our schools have always sought to develop the moral qualities of their pupils, but, in addition to this, commercial schools should try to develop the personal qualities of pupils with a specific view of their business importance. We should make this training concrete, showing the relation between personal qualities and success in business. Pupils who lack fortunate examples in their home environment should find in the school the specific information and models needed for inspiration and imitation. The schools should feel as much concern for the success of their graduates, with respect to personal relations in business, as for the quality of their technical instruction.

3. Part-time and cooperative plans will probably furnish the only adequate method of guaranteeing the achievement of satisfactory results in producing more competent commercial graduates. By such methods only can the pupil be checked, judged, and improved while under training. These plans render it possible to measure practice against theory. No form of applied education has been able to succeed without the adoption of the plan of testing the novice in the practical operations of his art and of criticizing and correcting mistakes which could not be foreseen in purely theoretical training. The cooperation and understanding of business men are also important advantages to be gained by the adoption of part-time and cooperative plans of commercial training.

4. Guidance, placement, and follow-up work are essential features of a well-ordered, comprehensive, and effective plan of commercial training. Pupils are not at present guided to suitable commercial positions or placed in them. Much waste, discouragement, and failure are assignable to this condition. At the present time the schools are not furnished with the resources, funds, and expert service necessary to undertake these additional functions; but communities seeking to increase substantially the efficiency of commercial education must soon recognize and meet the deficiency.

5. Commercial education must expand its scope to include training for commercial occupations other than clerical. The investigations show that while stenography is the best-paid commercial vocation for a girl, for a boy salesmanship is better than all other commercial occupations, because stenography as an occupation for men is gradually decreasing in importance. Commercial courses, consequently, must be recast to furnish training for commercial opportunities discoverable in actual business.

6. Business men must do more than find fault with the schools; they must participate in the training process. It is important now that business men should aid the schools in the honest and serious effort to improve their work. Business is no longer merely business,

nor are schools merely educational institutions. The interconnections which characterize all the more perfect organisms are taking form throughout the social structure; the schools must become in part business, and business must become in part schools.

7. The time has probably come when State and National authorities should undertake and carry on further inquiries. No subject within the range of secondary public instruction has larger interests or involves more pupils and more extensive investment of public money than commercial education. In the efforts to bring about more effective educational achievements it is important that the already-established courses in commercial education should receive the advantage of expert advice similar to that available for the newer school endeavors represented by the recently founded industrial and trade schools.

COURSES OF STUDY.

The city of Boston has begun to experiment vigorously with cooperative commercial education.[1] The Boston High School of Commerce has conducted cooperative work since its foundation in 1906. Since 1913 courses in salesmanship, with cooperative features, have been established in the Girls' High School (Boston) and in the Dorchester High School. In January, 1914, a marked extension of cooperative education was undertaken by school authorities. A director of practice work in salesmanship[2] was appointed to coordinate commercial courses in general high schools throughout the city with practical work in a group of some six or seven cooperating stores. The new cooperative courses are optional with the schools, but the desire to undertake the experiment is apparently strong. The following district high schools, in addition to those mentioned above, have adopted the plan of cooperative salesmanship courses, namely, Roxbury, South Boston, West Roxbury, East Boston, Brighton. The work of the director of practice is an important feature in the hoped-for success of the undertaking. Unbearable confusion to business managers would be the result if each individual school sought to arrange practice periods with the stores. The director of practice learns the possibilities of practice in the different stores and is at the same time familiar with the general conditions of the schools. Thus she is able to coordinate the work between the store and the school so that the minimum confusion may result. The director of practice has authority also to deal with the technical salesmanship courses attempted in the schools, has supervisory func-

[1] Also the city of Cincinnati.

[2] Mrs. Lucinda W. Prince, formerly director of the school of salesmanship, Women's Educational and Industrial Union, Boston.

tion over the teachers of salesmanship, and possesses familiarity with the moral, physical, and business conditions of the store where the pupils are sent. She brings to the store the knowledge of the limitations and possibilities of the school and to the school the demands and difficulties of the stores.

The above plan is designed to bring about effective methods of teaching salesmanship. Girls in high school are almost exclusively concerned with the experiment. The High School of Commerce, attended only by boys, operates a plan of longer duration, designed to meet the different conditions which boys find in business. Considerable freedom regarding the character of the courses in salesmanship is allowed. One desirable requirement is made, viz, that teachers of salesmanship shall be those only who are qualified by business experience and training to give the technical instruction. At the present time no careful attempt is made to relate the general instruction to salesmanship. The suggestive program given below may be analyzed roughly as made up of general unrelated academic work, such as English and modern languages; related technical work, such as commercial geography, economics, and textiles; and purely technical or vocational work, such as shorthand, bookkeeping, and salesmanship. The tendency is toward a closer connection between the academic and vocational elements of the course.

PROGRAM OF THE DORCHESTER HIGH SCHOOL.

[Showing offerings in the fourth year for various commercial needs.]

FOURTH YEAR.

Required.	Points.	*Elective—Choose one.*	Points.
English	3	Economics	4
Modern language	3 or 4	Physics (for boys)	3
Phonography and typewriting	4 or 6	Chemistry	4
Commercial law or textiles (for girls in salesmanship)	3	Drawing	3
		Bookkeeping	4
		Salesmanship[1] (wholesale, boys)	4
		Salesmanship[1] (retail, girls)	4

A new school in Boston, known as the Clerical School (established in 1914), is designed to round out a system of commercial education which already comprises commercial courses for boys and girls in general high schools and a special high school of commerce for boys. The new school serves primarily the needs of girls by offering specialized and intensified training in clerical vocations. Three courses are offered; first, a course for office service, available for girls who have successfully completed two years of high-school work, not necessarily

[1] Pupils may elect salesmanship, subject to approval of teacher in charge.

commercial in character; second, a course for stenographers and high-grade clerks, available for girls who have successfully completed three years of high-school work, without designation of kind; third, a course for bookkeepers and accountants, and a course for secretaries, who must be either high-school or college graduates. The Boston Clerical School will attempt no liberal training whatsoever. The applicants for the various courses will come with an academic equipment which presumably constitutes the essential elements of general education necessary for successful entrance into the specialized work in the vocations sought. No specified length of time for the course will be assigned; some students with preliminary commercial training in other courses may be expected to complete the work in half a year; others of slower rate of achievement may take a year or even longer. The methods to be used are designed to be primarily individual, while the standards of achievement are planned to prepare for successful entrance into the specialized commercial occupations arrived at.

Following are the unit courses of study offered in the Clerical School of Boston:

Course preparing for office service.

This course is available for girls who have completed two years of high-school work, and consists of the following subjects: Bookkeeping, office practice, commercial arithmetic, commercial law, penmanship, and business English.

Course preparing for stenographic and higher clerical work.

This course is available for girls who have completed three years of high-school work, and consists of the following subjects: Shorthand, typewriting, penmanship, business arithmetic, English, bookkeeping, political geography, and office practice.

Course preparing for secretarial work and bookkeeping.

This course is available for young men and women who are high-school and college graduates and consists of the following subjects: (*a*) (for secretaries) Stenography, typewriting, business correspondence, office practice, commercial procedure; (*b*) (for bookkeepers) bookkeeping, use of office machinery, filing devices, commercial arithmetic, commercial law.

Students in each of the above courses are advanced as rapidly as their progress will permit, and they are given certificates when they have satisfactorily completed the courses, without regard to the length of time required for completion.

The creation of high schools of commerce in the large cities of the country shows a realization of the need of improved institutions for commercial training. Unfortunately, these schools, as a rule, have not broken away from the clerical traditions which have obsessed commercial education. Following is presented a suggestive course of study for a boys' commercial school.

Course of study (of 4 years) for a boys' commercial school.

Studies.	Periods per week of home preparation.	Periods per week of recitation.
FIRST YEAR.		
English (related) [1]	4	5
Commercial German, or Spanish, or French (to be pursued for four years; to be selected after 1 month in school)	4	5
Penmanship, first half; business knowledge and practice, second half	4	5
Physical geography,[1] two-fifths of year; physics,[1] three-fifths of year	4	5
Mathematics (commercial)	4	5
Assembly (talks by business men)		1
	20	26
No electives.		
SECOND YEAR.		
English (related) [1]	4	5
A modern language (see first year)	4	5
Bookkeeping	4	5
General history,[1] two-fifths of year; commercial geography, three-fifths of year	4	5
Mathematics (commercial)	4	5
Assembly (talks by business men)		1
	20	26
No electives.		
THIRD YEAR.		
English (related) [1]	4	5
A modern language (see first year)	4	5
Chemistry (commercial)	4	5
Typewriting		1
Assembly (talks by business men)		1
Economic history	4	5
Local industries		2
	16	23
Elective—One of the following subjects required:		
Bookkeeping	4	5
Stenography and typewriting (to be pursued 2 years)	5	6
Plane geometry	4	5
Advanced commercial arithmetic (special commercial problems)	4	5
Drawing (commercial design)		3
FOURTH YEAR.		
English, first half (related); civil government, third quarter; commercial proceduro,[2] last quarter	4	5
A modern language (see first year)	4	5
Economics	4	5
Bookkeeping, unless taken third year as elective (including arithmetic and penmanship review)	4	5
Assembly		1
Lectures by business men, advertising, salesmanship, South America, business procedure, economic resources of the United States		2
	16	23
Elective—One of the following subjects required:		
Merchandise, salesmanship, business organization	4	5
Bookkeeping, accounting	4	5
Stenography and typewriting (continuous elective)	5	6
Chemistry, applications to commerce	4	5
Drawing (commercial design)		3

[1] These general subjects aro understood in each case to bo treated in relation to commerce.
[2] Such aspects of commercial law as may be valuable and comprehensible to students of high-school age.

The above course of study is not offered as a finality, but as one that is practicable under present conditions and promises a possibility of development away from the clerical instruction of the past toward training for the larger aspects of business activity. In the course of time the group (fourth year) named "lectures, etc.," should grow to a more defined subject given the full time during the fourth year. This course of study does not compel ex-

clusive attention to clerical subjects, though there is opportunity by means of electives for boys to get as good clerical training as has been offered in the past. The general tendency of the course is to direct the boys' attention toward the active, competitive side of business. By means of electives in the fourth year opportunity is given to specialize in one of the three major functions of business, viz, merchandising, accounting, and secretarial work. Along with the pursuit of the above-outlined course all students should undertake apprenticeship work in stores; they should be employed on Saturdays, Mondays, during holidays, or by means of some other part-time arrangement. Theory without practice is unprofitable.

SCIENTIFIC STANDARDS AND TESTS.

The application of scientific standards to business achievements is beginning to appear. Within the past three years a number of business houses, notably the Curtis Publishing Co., the Metropolitan Life Insurance Co., and the National Cloak & Suit Co., have used a variety of tests of speed and accuracy in the performance of common operations in the business office and examinations on matters of general fundamental education as a partial basis for the appointment of applicants to positions and for promotions with the result that they believe they have raised the quality of the personnel of their staffs very materially. Other houses are seriously considering following their example.

For example, one stenographer might be able to write shorthand at the rate of 100 words a minute and transcribe letters on the typewriter at the rate of 25 words a minute and would make an average of five minor errors to the hundred words, while another would write shorthand at the rate of 100 words a minute, but in transcribing would write at the rate of 35 words a minute and would make one error on the average to the hundred words. The latter would be worth at least 25 per cent more to the house. But without accurate, scientific measurements of speed and accuracy a business man might be just as likely to choose the poorer stenographer.

Progressive schools are eager to know the actual standards of the business office, so that they may measure their pupils and know how they compare with what the business men require on each of the various points that are essential. In order to bring about cooperation between business men and schools and scientifically to discover and establish national standards and methods of measurement, an association was incorporated in 1913 as "The National Associated Schools of Scientific Business," and its board of trustees is made up two-thirds of business men and one-third of educators, with Gov. Ferris as president. A series of 20 tests was prepared and given experimentally to employees of a list of well-known business houses. On the basis of the results obtained a second series of tests was prepared with the approval of the employment managers of the firms and distributed in conjunction with a report sent out by the Bureau

of Education as Vocational Letter No. 5. The next step was to have these tests given in representative commercial high schools and business colleges and a practical system of grading devised with the assistance of Dr. George D. Strayer, of the Teachers' College, Columbia University. When the improved tests have been given in a still larger number of business houses to selected employees representative of six standard classes of employees, namely, beginners (office boys and girls), general clerks, beginning stenographers, secretarial stenographers, bookkeeping clerks, and correspondents, a set of averages according to the standard system of grading will have been obtained which will be the starting point for a series of national standards useful alike to business houses and commercial schools.

An excellent starting point for such tests in commercial schools is to be found in the Courtis tests in speed and accuracy in addition, subtraction, multiplication, and division of whole numbers which have been so widely given in elementary schools in Boston, New York, and many other cities over the country, and have also been found useful in business houses, though no extensive tests of business employees have yet been made. These have been adopted by the authors of the National Business Ability Tests in order that advantage may be taken of progress in other fields.

A report made in 1913 by a joint committee of the Chicago Association of Commerce and the Chicago Board of Education particularly emphasized the need for prevocational training in the seventh and eighth grades, consisting of a narrow, intensive drill on speed and accuracy in handling figures, spelling the vocabulary of business letters, simple punctuation, and correct English expression, as the necessary fundamental education without which even an office boy can not hope to attain future usefulness. The requirements for the business office are in this respect recognized to be considerably higher than the educational requirements for industrial positions. The progress that is being made in the matter of tests on these points for eighth-grade graduates must be recognized as tending to lay a sound basis for tests and standards in strictly commercial education.

The promoters of the National Business Ability Tests have not been able to secure any agreement between business men and educators for a standard test on bookkeeping—that is, anything higher than the fundamental requirements for bookkeeping clerks; nor on tests for salespersons. These two subjects are now occupying the attention of investigators in the field of commercial education.

Commercial education has made a substantial development and improvement since its adoption into the schools. Better accommodations have been provided, more adequate equipment and apparatus furnished, teachers better trained and paid have been employed. In this advance, however, commercial education has progressed only

with the general improvement of the school system. The people have grown in faith in the worth of education, more money has been spent, and more opportunities demanded in the schools. Commercial education has advanced with the development of the school system, but has not kept pace with the growth of business; it has progressed with the schools; it has studied the trend of the school, but not the trend of business; its leadership has been scholastic, not commercial. To-day, commercial education finds itself largely of the school, schoolish, and not of the business house, businesslike.

It should be stated, however, as a broad summary that commercial education is in a receptive mood to-day. Hopeful experiment and earnest readjustment are found in numerous communities. Commercial education in a considerable portion is willing to learn, is not restive under criticism, has no blind adherence to past traditions. Instances of the willingness of communities to experiment in improved forms of commercial education are seen in the establishment of special high schools of commerce. Boston, for example, maintained for years clerical commercial education in general high schools which furnished sufficient provision for all pupils desiring this kind of work. A special high school of commerce in Boston was established in 1906 to furnish a different kind of commercial instruction, to experiment with a new idea of commercial training. This idea was mainly to furnish to young men a preparation for commercial opportunities other than clerical. Other cities which show similar progressive tendencies of like intent deserve enumeration and they all illustrate, as far as they go, the hopeful attitude of American communities toward the problem of placing commercial education upon a more efficient and adequate basis.

CHAPTER XI.

AGRICULTURAL EDUCATION.

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Contents.—Agriculture in elementary schools—Agriculture in secondary schools—Agricultural education at meetings of the year—Agricultural education in other countries—Educational work of the Department of Agriculture—Educational work of the Office of Experiment Stations.

AGRICULTURE IN ELEMENTARY SCHOOLS.

Agriculture is now required by State legislation as a subject of instruction in all public rural elementary schools in 21 States. The States are Alabama, Arkansas, California, Florida, Georgia, Indiana, Iowa, Louisiana, Michigan, Mississippi, Missouri, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Tennessee, Texas, West Virginia, Wisconsin, and Wyoming. In many of these it is required in rural high schools, and in probably one-half in urban elementary schools as well. It is required also in a few other States in all rural high schools, for instance, in Utah, Pennsylvania, and Idaho.

Legislative enactment for compulsory agriculture in secondary schools has not had strong support in the majority of States where proposed. Educational authorities have feared that the agriculture taught under such compulsion would be of the bookish kind, and have, therefore, favored a slower introduction, with adequate supervision by State authorities. They have favored its introduction when assisted by State financial aid, so that administration and teaching may be under definite regulations and have funds enough to secure qualified agricultural instructors. Many States are now giving such financial aid to assist agricultural instruction in high schools, particularly for vocational courses. As a rule the State departments of education are charged with the administration of the funds and are given direct control. Many of the States which provide such aid provide also for the employment of an expert in agricultural teaching in the State department of education, to whom is given the immediate supervision of the agricultural instruction. In other States supervision is given by law to the State college of

agriculture, or by cooperative agreement with the State department of education it has been assumed by the college.

Among the States employing experts in agricultural teaching in the State departments of education as supervisors of vocational instruction in agriculture in secondary schools are New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, and Indiana. States where the supervisor is an employee of the State agricultural college include Vermont, Michigan, Maryland, West Virginia, California, Louisiana, and Mississippi. In several States where special State aid to vocational agricultural instruction is given and no expert in agricultural teaching is employed approval of the schools must be given at regular intervals by some representative of the State department. In several States, as in Iowa and Minnesota, this approval is by the State rural school inspector.

While there seems to be unanimity of opinion in regard to the inadvisability of State legislation requiring agriculture in all high schools, there seems to be no great amount of objection raised to legislation requiring its inclusion in all elementary rural schools. This is probably because it is felt that elementary school agriculture need not be so distinctively vocational as secondary school agriculture ought to be, and that worth-while results may be obtained even with teachers who have comparatively little agricultural education, since the elementary school agricultural work is usually a study of a textbook of information about agriculture, or a course in agricultural nature study, or one of practical work through the boys' and girls' agricultural club organizations. In any of these three forms of instruction an untrained teacher may secure good results.

The statement is often made, as an argument against such legislative enactment, that to force elementary teachers to teach agriculture regardless of whether they have had any special preparation is nonsensical. Experience is proving, however, that much good is coming from such laws. In Iowa the law requiring agriculture in all rural elementary schools was passed by the legislature in 1913 and went into effect in August, 1915. One of the results of its passage has been a very large attendance in courses in agriculture in summer schools during the past two years. Another is the changed attitude of the teachers toward the law and the subject. In regard to this, Prof. G. M. Wilson, head of the department of agricultural education of the Iowa State Agricultural College, says:

> Possibly the most notable progress in Iowa has been the change in sentiment of the teachers. At first after the law had been passed there was a distinctly hostile attitude. Since that time teachers have been reading books, working over courses of study, attending summer schools, and in various ways finding out that agriculture lends itself admirably to teaching through simple exercises in such a way as to make it one of the most interesting subjects in the school course.

One point of satisfaction in the character of the instruction in agriculture in the elementary rural schools in the States where such instruction is mandatory is the development away from the textbook study about agriculture toward the performance (and study) of practical projects by each child, either in school or home gardens or in other home farm activities. Reference is made to this in the following pages, particularly in the report on the introduction of agriculture in the schools of Indiana. The particular form of organization for carrying out the project instruction has been the organization of agricultural clubs, corn, cotton, potato, poultry, pig, etc. A report on the activities in agricultural club work of the United States Department of Agriculture is given later in this chapter. It refers, however, only to the work carried out by the Department or the Department and the State colleges of agriculture in cooperation. Much similar work is also done under the supervision of the State departments of education, and there is a growing tendency for cooperation in the conduct of such work between the State departments and the State agricultural colleges.

In Oregon, for instance, the State superintendent of public instruction has two assistants who spend all their time in organizing agricultural clubs and helping county superintendents in local institutes. As soon as a club is organized the names of all members are sent to the State Agricultural College. The college sends to the children instructions for carrying on their agricultural project, with scientific information relative to it. The State department of education is responsible for the administration, the college for the technical instruction. During the past year 12,000 boys and girls were enrolled in the various clubs; there were held 110 local fairs, with exhibits of the products of their work, and the prize winners were all exhibitors at the State fair. As the work is done under the immediate direction of the State department of education as a definite part of the school work, correlation between it and other school work is certain.

In Washington State there is also close cooperation of the club work with the regular school. Agriculture is a required subject in all schools, and its administration is in the hands of the State department. Each eighth-grade pupil in the public schools must take either agriculture, domestic science, or manual training before receiving his diploma admitting him to high school. To connect this course of study work with the club and fair movement, the State department allows pupils 50 per cent of their final mark in agriculture on home-project work, reports being made on the regular federated club blanks.

The Indiana vocational education law, passed in 1913, included the law for the mandatory teaching of agriculture in rural schools.

The subject is taught in the seventh and eighth grades of the elementary schools and in the high schools. A State supervisor of agricultural education has been secured under whose direction the instruction is given. A course of study has been outlined and published by the State which teachers are required to follow. The seventh and eighth grade pupils may be included in one class. Two periods per week must be given to the subject. The State supervisor recommends that textbooks be used for reference only and that instruction be carried out in connection with home-project work.

In order that the home-project work of the pupils may be properly supervised during the summer, the department is urging the employment of agricultural teachers for these months. Twenty-one were employed during the past summer; they were paid in part by the extension service of the State college of agriculture.

The State supervisor of agricultural education reports that during the past year 7,600 rural teachers taught agriculture in their schools. Much of the teaching was not practical, but every possible means is taken to make it so. The State department has issued bulletins of instruction; the State supervisor and three assistants furnished by the agricultural college have given instruction to a large body of teachers; the county agricultural agents have given part of their time to assisting the teachers; and 34 special supervisors of agriculture have been employed in local districts by local funds. Of this number 12 were county supervisors; the others were township or union district supervisors with districts composed of two or more townships.

AGRICULTURE IN SECONDARY SCHOOLS.

Progress in the development of agricultural instruction in secondary schools is indicated by the following reports from several States. It is worthy of note that the great majority of teachers in these schools reported are agricultural-college graduates, that the use of land for instructional purposes is increasing, and that a very increased number of schools are now teaching through the home-project method:

California.—Agriculture is now taught in 64 high schools. Of these, 21 give a one-year course, 24 give a two-year course, 8 give a three-year course, and 11 give a four-year course. Thirty-one of the teachers of agriculture in these 64 high schools are graduates of agricultural colleges, 9 others have had college courses in agriculture. Fifty-six of the teachers have had farm experience ranging from 1 to 25 years. Salaries paid agricultural teachers range from $1,000 to $2,160.

Of the 64 high schools teaching agriculture, 54 own or rent land for agricultural instruction, varying from one-fourth of an acre to 29 acres. At 24 of the schools all of the work done on the land is done by agricultural students; on the larger plats a small amount of labor is employed. A greenhouse, lath house, or both, is used by 26 schools in connection with their agricultural instruction.

Louisiana.—Six additional agricultural schools, making a total of 42, were established during the year, all under immediate supervision of the State department of education and receiving special State aid. The State department employs in conjunction with the State agricultural college a supervisor who has charge of the agricultural work of these schools.

Maine.—Organized work in agriculture in the secondary schools was first undertaken in consequence of legislative action in 1909 granting special aid to incorporated academies. The next legislature extended the same aid to public high schools, the act becoming operative July 1, 1911. Since 1909 there has been a steady, though not rapid, gain both in schools offering approved courses and in the number of students enrolled. The gain in interest on the part of the students and of the communities immediately affected in most every instance has been marked. While the work is still in the experimental stage, it is noteworthy that none of the schools have given up the course as a failure, and there is evidence of considerable extension in the near future. In 1910 there were four schools offering courses in agriculture, maintained under the approval of the State educational department, with 23 students enrolled; five years later there were 14 such schools, with 329 enrolled in agriculture.

Massachusetts.—Four separately organized agricultural schools are now receiving State aid, also 14 agricultural departments in selected high schools. Three of the separate schools and two of the departments have land for instructional purposes, the others depend entirely upon the farms of the pupils. The instruction is carried out through the home-project method, each project being approved and supervised by the instructor in agriculture of the school. All instructors are graduates of approved agricultural colleges. A considerable number of other high schools are giving brief courses in agriculture, but receive no State aid and are not under the supervision of the State department of education.

Michigan.—The total number of public high schools giving agricultural courses during the past year was 43. In 41 of these the instruction was given by a graduate of an agricultural college. The course covers four years and consists of a unit of work in each of the four years. Fifteen hundred students have been taking the courses in these 43 schools. Twelve of the schools have land for agricultural purposes, ranging from one-fourth of an acre to 18 acres. Part of this land, at most schools, is given over to demonstration work and a part to the production of garden and field crops. Practically all of the young men in these courses are required to do home-project work in agriculture, consisting of the growing of corn, potatoes, beans, sugar beets, alfalfa, and vegetable gardens, also in the care of dairy herds and in orcharding. This project work is supervised by the high-school inspector in agriculture, who, in addition, renders whatever service is possible to the farmers of the community.

Nebraska.—The legislature of 1912 passed what is known as the Shumway Act, providing State aid for high schools maintaining approved departments of agriculture, manual training, and home economics. The law required schools to be supplied with suitable laboratories and equipment, with 5 acres of land for agricultural purposes, and that they should employ teachers approved by the dean of the college of agriculture. State aid to the amount of $1,250 is paid to approved schools. Twenty schools were recognized the first year, 11 of which secured instructors who were graduates of four-year courses in agricultural colleges; the remaining 9 employed teachers with from one to three years' training in agriculture. Teachers will not be recognized in the future who have not had a full agricultural-college course.

The course of study in these agricultural schools was prepared by a committee of public school superintendents in cooperation with the State college

of agriculture. During the past year the 20 schools continued their work in agriculture and two additional schools were approved.

New Hampshire.—Of the approximately 100 high schools in the State of all kinds, 21 during the past year offered courses in agriculture. As a rule, in each school five double periods per week are devoted to distinctively agricultural subjects. The balance of the course is taken up with subjects included in the classical or college preparatory course, the agricultural subjects merely replacing Latin and ancient history. In the 21 there were enrolled in the agricultural courses 150 freshman boys in the general subject of agronomy, 25 sophomores in horticulture, and 75 juniors in animal husbandry, making 250 enrolled in the courses. It should be remembered that the majority of the courses have been running only one or two years. Four or five of the schools have farms where school projects are carried on, but in every instance each boy taking the agricultural course is required to have a home project in field crops, horticulture, or animal husbandry. In the freshman work in agronomy home projects are being carried out with potatoes, corn, oats, grass, and market gardening. In animal husbandry, projects carried out include dairying, beef production, poultry and swine raising. The teachers in agriculture are all agricultural college graduates, most of them employed for 12 months and devoting all or a large part of the summer to supervision of the home-project work.

New York.—During the five years that the State has given special aid for vocational instruction, there has been a steady growth in the number of high schools teaching agriculture, the number increasing from 1 to 64. In these 64 schools, supervised by a special expert in agriculture from the State department of education, the home-project method of instruction is emphasized. In 1914–15 the students of the 64 schools carried out 881 individual projects, involving 1,251 acres of land, 361 dairy and beef animals, and 21,000 poultry. There has been established during the year two intermediate schools of agriculture, one at Westford and one at King Ferry. A four-year course is given both in agriculture and home-making to pupils who have completed the sixth grade, the first two years of the course being equivalent to the seventh and eighth grades and the last two years equivalent to the first two years of high-school work. The course of study in agriculture is as follows:

COURSE IN AGRICULTURE.

First year. [Seventh school year.]	Hours a week.
English	5
Arithmetic	5
American history	2
Mechanical drawing and shop-work	3
Commercial and industrial geography	5
General agriculture	3
	23

Second year.	
English	5
Mathematics	5
American history	3
Mechanical drawing and shop-work	5
Plant husbandry (growing clubs in the line of home projects with plants)	5
	23

Third year.	Hours a week.
English	3
Mathematics, including bookkeeping	5
Biology	5
Soils and fertilizers	5
	18

Fourth year.	
English	3
Agricultural physics and agricultural chemistry	5
Animal husbandry and dairying	5
Special agriculture to suit local conditions: Fruit growing, grape culture, market gardening, poultry, etc	5
	18

A difficulty in New York State, as in other States, in carrying out satisfactorily the high-school agricultural courses, is the shortage of prepared teachers. The State College of Agriculture at Cornell University in July, 1914, organized a department of rural education, giving a four-year course for persons preparing to teach agriculture in high schools. In the last year of this course students are placed as assistant teachers for one-half the year in some of the best schools of agriculture in the State where they are supervised both by the department of rural education of the college and by the State department of education. The establishment of this department of rural education is a result of the close cooperation of the agricultural college with the division of agricultural and industrial education of the State education department.

North Dakota.—The 1911 legislature enacted a law authorizing counties to establish and maintain county agricultural schools to which the State would contribute $3,000 annually. Up to date two such schools have been established, one in Walsh County, opened in 1913, and one in Benson County, opened in the fall of 1914. In the State there are five high schools designated as high schools of agriculture, manual training, and domestic science, each receiving from the State a subsidy for this work of $2,500 annually. These schools follow a course of study prepared by the State department of education.

Texas.—The State is encouraging agricultural instruction in public high schools through a special State appropriation of $50,000 annually. The first of these appropriations, made in 1913, was for two years. The 1915 legislature continued the appropriation for two additional years.

Vermont.—During the year ended June 30, 1915, nine high schools employed special teachers of agriculture, graduates of agricultural colleges, and before the end of the year seven additional schools had engaged similar teachers for the present year. In addition to these schools giving four-year courses are many other high schools with one or two year courses taught by regular teachers. The 1915 legislature, in revising the educational laws of the State, has provided for junior high schools to be maintained in the smaller towns where there are not enough of secondary school pupils to warrant maintaining a senior high school. These junior high schools will give a four-year course to graduates of the sixth grade, their work covering the years ordinarily covered by the seventh and eighth grades of the elementary school and the first two years of the regular high school. The course of study must include vocational work approved by the State board of education, who are authorized to provide and supervise all vocational courses. The State bears part of the expense of maintaining such courses. The vocational courses in most of the junior high schools will be agriculture and domestic arts.

The State now helps to support two State agricultural schools in addition to the State college of agriculture at the State university. These are the Theodore N. Vail School, at Lyndon, known as the Lyndonville Agricultural Schools, and the Randolph Agricultural School. By act of the legislature of 1915 these schools are under the management and control of a board of trustees composed of the State commissioner of agriculture, the dean of the State college of agriculture, and three trustees appointed by the governor.

West Virginia.—During the year courses in agriculture have been added to approximately 25 high schools. The work in these schools is supervised by a superintendent of agricultural education in the State department of education, who is also professor of agricultural education in the State university.

Wisconsin.—The number of high schools offering more than one year of agricultural work increased, at the beginning of the past school year, to 78. The grade of work accomplished is improving. In 1913–14, 10 schools only reported the use of land in connection with their agricultural instruction; in

1914–15, 40 of the 79 schools had land for use in agricultural instruction, the amount varying from a half acre to 14 acres. In 1913–14 six instructors were employed for a full year; in the last year 24 were employed for the full year. In 1913, 23 of the schools did home-project work; in 1915 all of the schools adopted the home-project method.

Another county school of agriculture and domestic economy was organized during the year, located in Wood County. There are now eight of these county schools of agriculture. Considerable emphasis has been placed on short courses by them the last year or two.

AGRICULTURAL EDUCATION AT MEETINGS OF THE YEAR.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

At the annual meeting of the American Association for the Advancement of Science, in 1914, a section for agriculture was established. In this step the American association followed the lead of its sister organization, the British association, which some 10 years ago provided a subsection for agriculture and also carried out the plan of the corresponding association for natural science and medicine in Germany, which for some years has provided for agriculture in its program.

Dr. Charles W. Eliot, president of the association, presided at the opening of the first meeting of the section and in a brief address referred to the teaching of agriculture as an opportunity for furthering a reform clearly needed in American education, namely the devotion of much more time to the teaching of the natural sciences in the school.

Prof. L. H. Bailey's vice-presidential address was essentially a plea for a democracy approached from the standpoint of the public service institutions for agriculture and especially from that of the new national work of agricultural extension. He defined the country life movement as "the expression of a rapidly crystallizing desire to make rural life all that it is capable of becoming and to understand and to realize in the best way all the natural products of the earth." In the prosecution of the movement for better country life he urged that the first principles of democracy should not be lost sight of, "which is to let the control of policies and affairs rest directly back on the people." This paper was of unusual interest, especially at this time, and may be summarized in these closing sentences:

Agriculture is the foundation of the political, economic, and social structure. If we can not develop starting power in the background people, we can not maintain it elsewhere. The greatness of all this rural work is to lie in the results and not in the methods that absorb so much of our energy. If agriculture can not be democratic, then there is no democracy.

AMERICAN FARM MANAGEMENT ASSOCIATION.

D. H. Otis, in his presidential address before the fifth annual meeting of this association held in Washington, D. C., November 9–10, 1914, held that work in farm management should aim at the coordination of all forces connected with agriculture for the farmer's financial gain, and that courses in farm management should develop in the student executive and business ability.

The report of the standing committee on teaching farm management showed that of 40 colleges reporting, 38 offered farm management as a separate study in 1913–14, an average of four hours' credit being allowed, exclusive of advanced and seminar courses. The association looked with disfavor upon the operation of separate farm-management farms to demonstrate business methods. The cooperation of institutions in the exchange of illustrative material was advocated.

SECOND PAN AMERICAN SCIENTIFIC CONGRESS.

Preliminary programs were issued by the State Department for this congress, which will hold its next session in Washington, D. C., from December 27, 1915, to January 8, 1916. One section of the congress will be devoted to agricultural science as it affects the conservation of (*a*) forests, (*b*) animal industry, and (*c*) plant industry, and to discussions of the agricultural phases of irrigation and the marketing and distribution of agricultural products.

AMERICAN ASSOCIATION OF AGRICULTURAL COLLEGE EDITORS.

The third conference of this association was held at the College of Agriculture, University of Wisconsin, June 24–25, with representatives and visitors from 19 institutions in 18 States and the United States Department of Agriculture.

Dean H. L. Russell stated that, in his opinion, one of the most important things for the consideration of the association is the matter of popularizing technical bulletins for the use of the farming community at large, and that, inasmuch as the farm paper is more widely read, many more people can be reached through that medium.

"Getting information to the people who can use it" was the title of a paper read by G. W. Wharton, of the United States Department of Agriculture. Among the obstacles to the successful dissemination of agricultural information, the following were mentioned: (1) Attempts to mix both popular and technical matter in the same bulletin; (2) tradition of form, size, type, etc.; and (3) overtechnical statements.

AGRICULTURAL EDUCATION IN OTHER COUNTRIES.

AFRICA.

Under a law of December 3, 1913, providing for a readjustment of the annual appropriation of $400,000 for agricultural and other developmental work in Algeria, plans are being put into effect for carrying on this work. Under these plans, $20,000 will be used for cooperative agricultural credit societies and $40,000 for long-term agricultural credit institutions. The remainder will be available for grants to building and marketing associations, to mutual agricultural insurance societies, for instruction, experimental, and extension work in agriculture, and for a number of nonagricultural purposes.

The administration of the law is intrusted to a commission of which the Governor General of Algeria is president and the director of agriculture, commerce, and colonization vice president. This commission is to organize an instruction, experimental, and extension service and a superior board of advisers to assist this service in the direction and coordination of its work. The various existing agencies will be reorganized under this plan. Branches are contemplated in meteorology, agrogeology, agronomy, botany, and animal pests, special attention being given for the present to cereals, grapes, forage crops, and tree fruits. There will be a number of experiment stations, as well as a system of extension work through meetings, publications, model farms, and the like, and a corps of itinerant agents or instructors. The experiment-station system is expected to include for the present a reorganization of the experimental garden at Hamma, a new station at Habra for the special study of irrigation and dry-farming problems, and experimental fields at Sidi-bel-Abbes, Setif, Serson, and Batna for forage crops, at Orleansville for tree fruits, at Guelma for forage crops, olives, etc., at Tlemcen for fruit growing, and at Kabylie for figs and olives. Dr. Charles Brunel has been appointed director of agriculture under the new system.

Plans have been prepared for a reorganization of the agricultural work in Mozambique, Portuguese East Africa. A central department is contemplated, with headquarters at Lourenço Marquez, and divided into bureaus of agriculture and forestry and animal husbandry. The staff of the bureau of agriculture and forestry is to include a botanical explorer, a silvicultural engineer, an entomologist, an inspector of fruits and plants, and an agricultural engineer with an agricultural expert in charge of the agricultural station at Inhamussua, and assistants. The staff of the animal husbandry bureau is to include a corps of veterinarians as chief and assistant chief, and in

charge of divisions of animal sanitation, tropical veterinary pathology and zootechny, and their assistants.

A royal decree of March 3, 1914, provides for the establishment of the agrarian office of Tripolitania, the direction of which has been intrusted to Prof. Emanuel Cillis, of the Royal High School of Agriculture at Portici. Grounds have been secured in the city of Tripoli, and the director is engaged in formulating working plans, the activities of the office being divided into experimental, administrative, and miscellaneous services. The experimental division will be located on Government land surrounding the old Turkish agricultural school in the oasis, a short distance from Tripoli. The work of the office will include study and research in cultivation by irrigation and dry-farming methods; the conduct of small farming units for better ascertaining the entire economic value of a given equipment; animal industry with particular reference to the improvement of native species, such as the camel, donkey, sheep, goat, cow, and horse, and to the increase of grazing land and provender; problems relating to brackish water, farm chemistry, vegetable biology, and pathology, meteorology, rural engineering (particularly hydraulic problems), etc. A depository for farm implements and tools will be established not only for the needs of the station, but also for loan or hire for private trials.

AUSTRALIA.

The Child Emigration Society of England has established a farm school at Pinjarra, Western Australia, as an experiment in child emigration. There are 33 boys from England, Scotland, and Wales at the farm, from 7 to 12 years of age. Until 14 years of age the boys are subject to the elementary education of the State, after which they receive two or three years of definite agricultural instruction before they are given positions with reputable farmers. Each boy is given a garden plat and is also taught the elements of pruning fruit trees, packing apples, caring for pigs and poultry, and milking cows. All are employed in turn in house duties. The quarterly cost of supervision, clothing, and maintenance of one boy has been $126 a year, which it is hoped to reduce to $97.

The newly established university at Perth, Western Australia, announces a two-year diploma course in agriculture and a three-year course leading to the degree of B. S. in Agr., and candidates may be required to pass an additional year at practical work on an approved farm. Two short courses for farmers were offered at the university from June 8 to July 3, 1914, including instruction in cultivation and cropping, elementary inorganic chemistry, elementary botany, and veterinary science by means of illustrated lectures, laboratory work,

demonstrations, etc. Single lectures or short courses of three lectures are also given at country centers by the university agricultural staff, when time permits, in the following subjects: Principles of agriculture, how crops grow, soil and its management, factors in wheat growing, soil moisture and dry farming, crop rotations and forage crops, fertilizers, milk and its management, breeds and management of sheep, principles of breeding, breeds and care of the horse, and parasites of interest to the farmer.

CANADA.

The increased appropriation under the agricultural instruction act has enabled the Government of Prince Edward Island to make progress in organizing a complete system of agricultural education correlated with the general system. The Province has been divided into 10 districts, in each of which an inspector has been given charge of the educational work. These inspectors will be assisted by the county representatives of the department of agriculture and by the supervisors of women's institutes. Provision has been made for short courses in household science in Prince of Wales College, long and short courses in agriculture, practical instruction in agriculture for those qualifying for teachers of the public schools, a science course for teachers now in charge of schools, and women's institutes.

In the Province of Alberta the second summer school for teachers was held at the university, under the direction of the department of education, and was attended by 165 teachers, as compared with 80 in the previous year. The instruction included first and second year work in agriculture, nature study, etc., and first-year work in domestic science, household arts, and physical training. A special course for the provincial inspectors of schools was given for the first time.

In British Columbia the department of agriculture conducted 25 five-day schools for practical instruction in the pruning of tree and bush fruits; apple-packing contests were held at 10 fairs; and the pupils of 24 fruit-packing schools made exhibits at 18 different fairs. A boys' and girls' crop competition was also held in connection with the farmers' institutes in British Columbia for the first time, upward of 175 entries being received. Each competitor was required to send a 20-pound exhibit from his plat to the Dominion exhibition held in Victoria and also keep a crop and financial statement. The boy and girl securing the highest total scores received, respectively, from the department of agriculture a pure-bred heifer calf and a high-grade sewing machine.

The department of agriculture of Manitoba is preparing to enlarge its extension work by introducing a system of field or district specialists in agriculture located in different parts of the Province.

Special instruction was given at the Manitoba Agricultural College during the winter for the purpose of fitting these men for their work. It is expected that they will not only provide technical assistance in extending approved methods of cultivation and farm management, but will also assist in improving the marketing facilities, administer the noxious weeds act, and by keeping in close touch with the 14 demonstration farms already established, and others to be established, will be able to advise in regard to the approved methods of land clearing.

The boys' and girls' clubs, organized in Manitoba, have this year increased more than threefold in number.

A second school of agriculture in the Province of New Brunswick, to be known as the Sussex Agricultural Institute, has been completed at an estimated cost of $28,500.

The summer rural science school for teachers, held for the first time under the supervision of the director of elementary agricultural education at Woodstock, N. B., in 1914, was attended by 68 teachers, 6 inspectors, and 1 normal-school instructor. Instruction was given in nature study, horticulture, agriculture, physical nature, farm mechanics, and rural domestic science, supplemented by a series of lectures on insects, field crops, soil improvement, and practical instruction in milk testing.

A feature of the Nova Scotia rural science school, held in Truro in July, 1914, was a model school fair, for which the teachers provided and arranged the exhibits. The latter included collections of grasses, weeds, and wild flowers, mounted insects, samples of chemical elements necessary to plant growth, a home canning outfit, samples of butter from the agricultural college, dairy apparatus, various fibers, samples of sugars, etc.

In the Province of Saskatchewan $6,500 of the grant under the agricultural instruction act is expended by the department of education for the introduction of agricultural and domestic-science courses into high schools and collegiate institutions and the training of teachers in agriculture at the provincial normal schools. The remainder of the money is about equally divided between the college of agriculture at Saskatoon and the provincial department of agriculture at Regina. The university will spend its grant almost wholly in salaries of instructors in research, teaching, and extension, the appointments made amounting during this year to $16,400. Instruction was given to 101 students in the regular course of the college of agriculture, to 12 men in the degree course, and to 10 registered in agriculture from other colleges of the university.

The department of education of the Province of Saskatchewan is arranging for the appointment of agricultural instructors at each of the normal schools, a part of whose duties will be the training

of teachers in school gardening. Experimental and permanent plats will be established in connection with each normal school. At the Provincial Normal School, Regina, approximately 10 acres have been set aside for a model rural school garden.

GREECE.

During 1914 the ministry of national economy of Greece expended more than $16,000 for repairing and equipping the model farm of Saloniki, which is to be designated the principal agricultural school in new Greece. This school, which was established 20 years ago under the Turkish régime, has three buildings for scholastic purposes (one of which contains a museum and also a chemical laboratory), a station for breeding purposes, etc. The Greek Government expects to complete the construction of a large new school building which was started before the Balkan wars. The farm is devoted to the growing of cotton, tobacco, sesame, sorghum, barley, oats, beets, and other plants and vegetables, and there is also a modern dairy and cheese house. Modern agricultural machinery and chemical fertilizers are used, and a nursery with about 100,000 trees of various kinds, including a large number of fruit trees, is expected to be of service in replanting the deforested sections of Macedonia. Improved methods of silk culture have given very satisfactory results during the past year. A farm viticulturist visits the various villages to give advice to vine growers.

The daily consular and trade reports announce that the Greek Government has established eight agricultural experiment stations, which are under the control of the ministry of agriculture, one of these being near Athens; an agricultural school known as Cassavetios, at Halmyrios, with 3 professors and about 35 pupils; and two model farms, one at Astros and the other at Trichonis.

LATIN AMERICA.

The establishment of a National Institute of Agriculture and Veterinary Science at Bogota, Colombia, with an experiment farm attached and an auxiliary school of agriculture and animal husbandry to be located elsewhere, was authorized in December, 1914. Besides the regular four-year course the institute will offer special normal courses in technical instruction and courses in horticulture, floriculture, arboriculture, and the cultivation and manufacture of raw materials for textiles. One scholarship will be granted by the Government to each department of the Republic and six scholarships at large will be awarded by the minister of agriculture and commerce.

The government of Cundinamarca, Colombia, has contracted with H. Charton, proprietor of vineyards of the municipality of Tocaima,

to establish an agricultural institute on his property. The school will begin operations with 12 pupils selected from the municipality. Marcel Berthaul, of Paris, has been appointed professor of agronomy in the University of Narino. The Colombian Government has also authorized the employment of four instructors of tropical agriculture and two veterinarians.

The Elidoro Villazon National Agronomic and Veterinary Institute at Cochabamba, Bolivia, is now well equipped with experimental grounds, laboratories, library, machinery, and apparatus and furnishes a four-year course of theoretical and practical instruction in agronomy and veterinary science. The scholastic year begins in March. A number of scholarships are available to needy students. Pedro Charuli is acting director of the school and a number of the professors are specialists from abroad.

Dr. Moises S. Bertoni, an experienced agronomist and botanist and director of the agricultural station at Asuncion, Paraguay, has been appointed chief of the bureau of agriculture of the Government of Paraguay. An agricultural school is being established at Ypacarai, with two instructors who have been educated abroad in charge of the several courses.

A three-year theoretical and practical course in agriculture is now being offered in the Peruvian National College of San Luis Gonzaga, at Ica. A viticultural experiment station has been in operation in the Moquegua valley, under the direction of Julio Solano. A new school is also to be established at Puno, the Peruvian port on Lake Titicaca, for native boys from 6 to 14 years of age. The instruction will be elementary and practical, with the aim of developing mining, agriculture, and other industries in this section.

ISLAND OF MAURITIUS.

A scheme for teaching nature study and manual training in the elementary schools of the island of Mauritius, together with the establishment of school gardens and workshops, has been formulated by the department of agriculture in conjunction with the director of public instruction.

Arrangements have also been made for the training of a limited number, not to exceed six, of young men in agricultural science, with special reference to the sugar industry, in the laboratories of the department of agriculture. They must agree to pursue for three years a course of study in the general principles of agriculture, agricultural botany and biology, agricultural chemistry, agricultural entomology, and meteorology. A diploma will be awarded and a research scholarship will be available once in every three years.

NEW ZEALAND.

The minister of agriculture has recently announced that it has been decided to establish a board of agriculture for New Zealand to consist of 12 members. Its duties will be to advise the minister of agriculture on any matters affecting agriculture that he may refer to it for consideration; to appoint special committees of agricultural experts to inspect the work of departmental institutions, such as the experimental farms and State agricultural colleges, and also to inquire into and report upon any urgent agricultural problems of the day; and to consider the policy of the department in regard to such matters as the collection of agricultural statistics, the dissemination of agricultural information, the control of noxious weeds, the prevention of stock diseases, the fostering of fruit growing and forestry, recommendations from agricultural conferences, rural education, better means of communication, and other measures intended to make rural industry more efficient and rural life more desirable.

SPAIN.

A Spanish railway in the Province of Soria, to improve agricultural conditions, has provided its stations with small agricultural museums supplied with various kinds of useful information, such as formulas for fertilizers and their use; methods of buying fertilizing material; addresses of houses selling machinery, seeds, plants, live stock, etc.; directions for organizing agricultural societies; the manner of soliciting appropriations from the Central Government; construction of district roads; and details of different industries which might be introduced with success in the Province. Experiment fields showing how to use fertilizers have been established near the different stations by the central experiment station service of Madrid and lectures given on their proper use. Demonstrations of agricultural machinery have been made by local agents of manufacturers. As a result Soria has been making noteworthy progress in agriculture.

WEST INDIES.

A school of agriculture has been started at Artemisa, Cuba, where pupils from the district schools will receive preparatory instruction in modern scientific farming. The ground, which has been donated to the school for agricultural uses, will be apportioned in small lots to individual students, and seeds and fertilizers will be furnished. The department of agriculture proposes to found similar schools at different places throughout the Republic. A tract of 100 acres near Camaguey has recently been purchased.

An agricultural school for boys over 12 years of age has been established at Las Mercedes plantation, near the city of San Jose,

Costa Rica, with the object of training practical farmers. It is under the direction of Prof. Gustavo L. Michaud, an experienced Costa Rican agronomist and educator. The instruction will be theoretical and practical, the latter including the use of agricultural machinery, elementary carpentering, blacksmithing, and bricklaying.

EUROPEAN AGRICULTURE.

In recent years the higher agricultural institutions in Europe have been made more strictly and fundamentally institutions of real university grade, through the improvement of their equipment and facilities, an increase in the size of farms, the assembling of collections of farm machinery, enlarging the scope and extent of the curriculum, with a more definite application to practical agriculture, and increasing the faculty. There is not in Europe entire unanimity as to the desirability of making the agricultural colleges departments of the universities.

As regards secondary agricultural schools a number of countries have a much more complete system than exists in the United States, and the tendency is to increase the number of schools and make them more efficient. They are still, however, largely for the peasant classes. In a general way these schools may be divided into two classes: (1) Those in which great stress is laid on theoretical instruction; and (2) those in which the emphasis is laid on practical instruction.

One of the developments along the line of elementary instruction in agriculture, to which much attention is now being given in European countries, is the continuation classes which are held on Saturdays or in the evenings. Attendance on these can to some extent be made compulsory by village authorities in Germany.

EDUCATIONAL WORK OF THE DEPARTMENT OF AGRICULTURE.

In accordance with the provisions of the act of Congress of March 4, 1915, making appropriations for the Department of Agriculture, the Secretary of Agriculture in a memorandum dated June 8 said:

> I hereby establish a States Relations Service in this department, which shall represent the Secretary of Agriculture in his relations with the State agricultural colleges and experiment stations under the acts of Congress of July 2, 1862, August 30, 1890, March 2, 1887, March 16, 1906, May 8, 1914, and acts supplementary thereto, and in carrying out the provision of acts of Congress making appropriations to this department for farmers' cooperative demonstration work, investigations relating to agricultural schools, farmers' institutes, the relative utility and economy of agricultural products used for food, clothing, and other uses in the home, and the maintenance of agricultural experiment stations in Alaska, Hawaii, Porto Rico, and Guam, and in such other matters as the Secretary of Agriculture shall designate from time to time.

The States Relation Service shall include the following offices: (1) The office of the director of the service, which shall include those officers and employees engaged in the general work and administration of the service; (2) the Office of Experiment Stations, including the work of the service relating to agricultural experiment stations; (3) the office of extension work in the South, including the farmers' cooperative demonstration work and the Smith-Lever agricultural extension work in 15 Southern States; (4) the office of extension work in the North and West, including the farmers' cooperative demonstration work and the Smith-Lever agricultural extension work in 33 Northern and Western States; and (5) the office of home economics, including investigations relative to foods, clothing, and household equipment and management.

The work of the service relating to agricultural instruction and to farmers' institutes and similar organizations shall be under the immediate direction of the director, and the work relating to farmers' institutes and similar organizations shall be carried on in close cooperation with the offices of extension work.

The States Relations Service will take under consideration matters relating to all the extension work carried on by the several bureaus and offices of the department and those connected with the administration of the Smith-Lever extension act. All plans for demonstration and extension work originating in any bureau or in any State should first be submitted to the States Relations Service, which will make recommendations regarding them to the secretary. Approved plans for demonstration and extension work by any bureau should not be put into operation in any State until they have been brought to the attention of the director of the States relations service and an opportunity has been given for arranging with the extension directors of the agricultural colleges regarding the execution of these plans in the States concerned.

The Chief of the Bureau of Plant Industry reports that the boys' and girls' clubs or junior extension in agriculture and home economics in the Northern and Western States has made marked progress during the past fiscal year. The enrollment of boys and girls in the various club projects has increased from 110,077 at the close of 1914 to 151,194 on June 30, 1915. Twenty-six of the 33 Northern and Western States are now conducting club work, cooperating with this department. Each of these States has a State leader cooperatively employed. Fifteen of the States have assistants in boys' and girls' club work who devote their entire time to handling instructions, visitations, and looking after the details of organization and follow-up work of the projects in the field.

Out of 330 county agents in the Northern and Western States, 225 have given definite time to the work in cooperation with the county superintendents and the educational forces of the county, and in every case county agents testify to the fact that the boys' and girls' club work is one of the important activities in the county and helps materially in getting the benefits of the colleges of agriculture and the department out to the adult farmers and farmers' wives. During the year 1,557 club members attended the midwinter short courses at the colleges of agriculture, and out of this number 968 had their expenses paid by the local people, institutions, or organizations as a recognition of their championships or achievements in club work.

All club members who have become champions in their States, districts, or counties having reached the standards of achievement set by State and Federal supervising officers are recognized as National All-Star members. Out of the 38 All-Star members reporting, 27 of them have been club members for two or three years or from the time of the organization of cooperative extension work with the boys and girls. Thirty-one of the 38 are in attendance at high schools, agricultural colleges, or other colleges. The following list will indicate some of the activities conducted during the year: Corn clubs, potato clubs, poultry clubs, garden and canning clubs, mother-daughter clubs, pork and crop clubs, cooking and bread-making clubs, and sewing clubs.

Altogether 7,909 clubs were conducted during the year. In the corn-club work 20 club members produced yields in excess of 120 bushels, 91 produced yields in excess of 100 bushels, 384 in excess of 80 bushels, and 863 in excess of 60 bushels out of a total of 1,974.

The object of the home demonstration work, including girl's club work in 15 Southern States, is to organize and conduct extension work for women and girls by employing and directing the work of women county agents for the purpose of disseminating information and conducting demonstrations in the homes in the rural sections of the South and instructing girls in home economics and kindred subjects. They conduct demonstrations in home gardens and poultry, organize women's clubs for demonstration and study, and give general instruction in home economics. They also organize girl's clubs in the teaching of gardening and canning and other subjects, and carry on the general work of extension in home economics.

The girls' demonstration work began with the canning clubs in 1910, when four counties in two States were organized. The enrollment for 1914 was 33,173. Of these club members 7,793 put up 6,091,237 pounds of tomatoes and other vegetables from their tenth-acre gardens—1,918,024 cans, jars, and other containers. They are estimated to be worth $284,880.81, and nearly $200,000 of this is profit. The average profit per member was $23.30. Special work has been done with peaches, berries, figs, scuppernongs, May haws, ajeritas, oranges, kumquats, and many other fruits of the South. Nearly 3,000 girls now belong to poultry clubs, and several hundred have been doing fine work in bread clubs. Many of the best-trained club members are succeeding now with their winter gardens. Club members have made uniform caps, aprons, and dresses, and thus have had good sewing lessons. In all of these activities the women on the farms have given active help.

The chief of the Bureau of Animal Industry reports that the object of the organization of boys' pig clubs is to stimulate an interest in swine production and to teach boys improved methods of raising,

fattening, and marketing hogs; to instill in the boys, while young, a love of animals which will result in their taking more interest in life upon the farm; and to furnish them at the same time with some work which will, in a practical way, give an insight into the business side of farm life.

This work is carried on in connection with the county demonstration agents in the States which desire such cooperation. Wherever possible the representative of this department gains the assistance of the county superintendent of schools, the teachers, and those persons who are in direct contact with boys and other young people.

During the calendar year of 1914 there were enrolled the following number of members in each of the States named: Louisiana, 3,500; Alabama, 1,900; and Georgia, 981. An exhibit of 185 hogs belonging to pig-club members was made at the State fair at Shreveport, La. This exhibit caused much comment because of its excellence. Exhibits were made at the two Georgia State fairs. A good exhibit of meat products made by ham and bacon club members was seen at these fairs. Pig-club work was started also in North Carolina, Kentucky, Indiana, and Nebraska.

The Forest Service has continued its direct assistance given teachers, educational institutions, and associations through the loan of photograph exhibits, lantern slides, and wood exhibits, and through the distribution of publications, maps, and wood samples, while most of the work of the section has been the planning and preparation of exhibits for expositions and fairs. Two new photograph exhibits were prepared and 1,326 lantern slides were added to those already available for educational use. Seven exhibits, consisting of 70 samples of commercially important woods with maps of their ranges and short statements of their characteristics and principal uses, with maps and charts showing regions supplying the principal wood products, etc., were prepared during the year and have since been in constant use by schools and libraries.

The Weather Bureau has been engaged in educational work with a number of institutions of learning throughout the country, and this work is assuming increasing importance. While the number of institutions at which this educational work is carried on has not been greatly augmented in recent years, there has nevertheless been steady growth in the number of students availing themselves of instruction in meteorology. The instruction given is usually in the form of lectures. The bureau is constantly in receipt of requests for cloud charts and copies of weather maps, which are employed by teachers in directing the attention of their pupils to the simpler and more evident weather phenomena.

EDUCATIONAL WORK OF THE OFFICE OF EXPERIMENT STATIONS.

During the year 1914–15 the Office of Experiment Stations continued to follow and record the progress of agricultural education throughout the world. Abstracts of important textbooks, manuals, and other publications relating to agricultural education, together with notes on the agricultural colleges and schools in this and other countries, were published monthly in the Experiment Station Record.

In cooperation with the State agricultural colleges, experiment stations, and State departments of education, the office began the preparation of a series of bulletins on Elementary Agriculture for Rural Schools. Such bulletins have already been prepared for the schools of Alabama, Maryland, and Wisconsin. Other publications completed during the year dealt with "Correlating Agriculture with the Public School Subjects in the Northern and in the Southern States;" "Exercises with Plants and Animals for Southern Rural Schools;" "Lessons on Cotton for the Rural Common Schools;" "School Credit for Home Work in Agriculture;" "Home Projects in Secondary Agriculture;" and "Judging Draft Horses and Dairy Cows as Subjects of Instruction in the Secondary Schools."

Beginning with January, 1915, five numbers of volume 1 of the Agricultural Education Monthly were issued. The monthly contains items of general interest pertaining to methods of teaching agriculture in the secondary schools and furnishes references and suggestions upon timely topics suitable for subject matter.

The teaching of vocational agriculture is limited at the present time by the number of teachers prepared to give such instruction. The need for teachers who can show how to farm as well as to direct a study of books and station literature is making a new demand upon land-grant colleges. The demand for county extension workers is also emphasized in the need for practical work in connection with the college course in agriculture. This matter is receiving the attention of the Association of American Agricultural Colleges and Experiment Stations, which is working upon this problem with the aid of the office.

The problem of making the teaching of agriculture in the high schools more practical has resolved itself largely in the problems connected with the use of land. This subject has been investigated by the office working in cooperation with a standing committee of the American Association for the Advancement of Agricultural Teaching.

Although emphasis has been placed upon practical work out of doors, the need for better methods in classroom instruction and laboratory methods has not been overlooked. There has been a demand

for suggestions regarding the use of illustrative material and other means of visualizing lessons in agriculture.

The office has prepared a large number of lantern slides especially for the use of teachers and extension workers.

One of the outgrowths of the more practical teaching of agriculture is the extension of the scope of the rural high school. The progressive teacher of agriculture no longer considers his work confined to the classroom, or limited to the students registered. In many schools the local extension service is organized in such a definite way that the high school stands in the same relation to the local community that the agricultural college does to the State. The committee on agriculture of the commission on the reorganization of secondary education of the National Education Association has assigned to the office the problem of working out the aims, methods, and materials to be utilized in high-school extension in agriculture.

During the past two years there has been a remarkable increase in the number of texts and references relating to agriculture. The quality of the publications has increased greatly as well, when viewed from the standpoint of the teacher. Much of the data published formerly in technical form by the agricultural experiment stations and the United States Department of Agriculture has never been published in a simple expository form suitable for the use of younger students as well as farmers. The office has undertaken the publishing of such material as may be of direct value for subject matter, at the same time suggesting methods of instruction.

For the convenience of agricultural colleges and other institutions seeking trained teachers and investigators, the office maintains a card directory of American teachers and investigators in agriculture.

CHAPTER XII.

HOME ECONOMICS.

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Contents.—Introduction—Government bulletins on home economics—Home economics in State colleges and universities—State normal schools—Summer schools—State supervision—State courses of study—Textbooks for home-economics teaching—Home economics in the public schools—Use of apartments or houses in public school teaching—Cafeterias as practice places for home-economics teaching—The rural school—Rural school luncheons and lessons in food preparation—Continuation schools and home economics for adult women—Home-economics education for colored students—Laws affecting home-economics instruction—Home-economics associations—Tendencies and developmens in home economics.

INTRODUCTION.

The most marked line of advancement in the teaching of home economics has been in the direction of careful and practical instruction in the administration of the affairs of the household. There has not been less thorough instruction in food preparation and related subjects, nor have the various phases of sewing and textile study been neglected, but the management of the entire household is now receiving thoughtful consideration.

Home economics departments are not all so fortunate as to have residences in which to instruct in home management and in housewifery. There has been some hesitancy among school officers because of the initial expense of a practice house. But as it is recognized that these houses are quite as necessary as are good laboratories and that the maintenance costs are not excessive, more departments are being thus supplied. These houses offer opportunities for experimental studies in household administration, make practice in home furnishing possible, and afford excellent places for studies in nutrition.

The practice house is as distinctly a legitimate part of the equipment for teaching home economics as the sewing machine, ironing board, or individual desk with its cooking utensils.

GOVERNMENT BULLETINS ON HOME ECONOMICS.

The most valuable contribution to home-economics literature during the year came from Prof. Benjamin F. Andrews, of Teachers College, Columbia University, New York. Dr. Andrews prepared for the Bureau of Education a series of four bulletins on "Education for the Home," which cover the entire field of recent progress in home economics. The first number of the series contains an introductory survey of the history, development, and present status of education for the home. A full discussion is given regarding the most desirable name to be given to the group of subjects relating to education for the home, of which the following is a portion:

> The qualifying words "home," "domestic," "house," "household," have all been used with various general terms as "science," "art," "economy," "economics," "arts," "technology," "engineering," "management," etc. Of the qualifying words the choice seems to lie between "home" and "household." Home emphasizes the social and personal elements more and lays less stress on the mechanical, technical, and administrative side. Household seems a more appropriate scientific term than home. Home making and household management indicate at bottom the vocational distinction between the services, position, responsibilities of the unpaid housewife or other member of the family and those of the employed manager of a household. Doubtless there is great need of accurate vocational terms, and home maker and household manager are two such terms. As to the general terms used—science, art, economy, economics, art, technology, engineering, management, and administration—some are academic names for knowledge to be imparted and some emphasize knowledge in use in a profession. The traditions of the schools favor academic words like science. The demand for vocational training properly asks for generic words that mean the vocation or profession, not the study, and professional terms will be used ultimately in higher technical schools.
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> The practical suggestions are these: To use the common general term "home economics" for the whole field of instruction, at least until a better one is found; discard the ambiguous terms "domestic science" and "domestic art"; use "household arts" in elementary schools and possibly in secondary schools—though in the latter a more vocational term, home making or household management, is more accurate; in academic high schools the term household science may temporarily be useful until the vocation of the girl who does not go to college is adequately recognized; in academic colleges home economics is probably the most useful term, although at present collegiate instruction in this field is often given in special courses, such as the economics of consumption, the economic position of women, the home as a social institution, food chemistry, sanitary chemistry; and in colleges the possibility of "euthenics" as a term is to be taken into account; in technical colleges and professional schools, the professional terms household management or administration, home making, household arts, technology, or engineering will be increasingly used as indicating the field of service, while terms like foods, shelter or housing, clothing, management, service, marketing, accounts, child care, house care, laundering, domestic relations, will ultimately indicate divisions of instruction, terms taken from the concrete situation in the household itself.

The aims of education for the home, methods of instruction, and cost of equipment are all fully discussed, and make available for

the first time material which heretofore has been scattered through many bulletins, pamphlets, and books. In Part II the laws of the States as they touch home economics education are brought together. The introductory statement for this material was as follow:

Authorization and requirement of education for the home in public schools.—Education for the home is specifically authorized as a subject of instruction in the schools of approximately three-fourths of the States. All of the New England States; all of the Middle States except Delaware; all of the Southern States except West Virginia, Georgia, Florida, and Alabama; all of the Central States except Missouri and South Dakota, and all of the Mountain and Pacific States except Wyoming and Colorado have in one way or another authorized the teaching of household subjects in their elementary school or high school or in both. Thirty States have authorized the teaching in elementary schools and 33 States in secondary schools. Formal recognition by the State government of household arts as a suitable subject of instruction has therefore taken place very generally throughout the whole country save in a block of adjoining Southern States, a similar block of Mountain States, and a few other scattering Commonwealths.

At the conclusion of Dr. Andrews's survey of legislation, this excellent program of education for the home is suggested:

There is presented herewith, in summary, a brief statement of points comprising a State program of education for the home as they may, with advantage, be expressed in its school legislation:

1. A requirement that household arts be taught in every elementary school, city and rural.

2. State supervision of household-arts education by an expert inspector, preferably an assistant attached to the office of the State superintendent of schools, who can give direction to the development of a progressive program.

3. Home economics included as a part of the normal-school preparation of every grade teacher and as a part of the course in all training classes for teachers, city and rural, so that household-arts teaching may be included in the grade work of the regular teacher.

4. A certificate for special teachers of household arts requiring not less than two years of professional training beyond the high school, and for supervisory teachers a three-year or, preferably, a full four-year course.

5. A State grant toward the salary of special teachers of household arts and supervisors of household arts, that is, of teachers with the specified preparation who devote full time to household teaching.

6. A system of supervision of household-arts teaching in rural schools, through a visiting teacher who gives special instruction and who aids the regular teacher in this special field; by a system of consolidation of rural schools; or by the Minnesota system of associating rural schools with a central school.

7. In secondary education encouragement of household-science teaching in all public high schools; first by State grants toward teachers' salaries, and ultimately by a requirement that the subject be offered at least as an elective.

8. The recognition of household arts and home making in the new program of vocational education by giving these subjects a place coordinate with training for industry, commerce, and agriculture.

9. Prevocational classes of the seventh and eighth grades in household arts and in other fields to hold pupils who now leave school, but not to encroach on fundamental education of a general character.

10. On the secondary level, distinct vocational training in household arts and in other fields—by day schools, by part-time continuation schools at daytime hours, or by evening classes to be done away with as soon as the part-time continuation school at daytime hours can be introduced. This vocational training will be given in special schools such as are illustrated by the county schools of agriculture and domestic economy in Wisconsin and elsewhere, the Garland School of Home Making in Boston, and the distinctly vocational courses in household arts in public high schools; but especially will practical vocational training be given in continuation classes in household arts and home making, in connection with the public schools, to reach three definite groups: (*a*) The housewife, home maker, and young woman living at home; (*b*) the wage-earning houseworker or "servant"; and (*c*) the wage-earning young woman in other employments who desires to improve her skill in home making; these classes will treat unit subjects, will meet at daytime hours, and for the wage earner will provide opportunity for such study on the employer's time.

11. Higher institutions, normal schools, technical institutes, and colleges will provide vocational instruction upon a higher level.

12. The program of extension education to reach the home makers of the present generation to be carried out both in city and country. In the city this involves lectures, day and evening classes under the public schools, and instruction by settlements, philanthropic societies, churches, and other agencies through classes, visiting housekeepers, home schools, or model flats, and other means. In the country the prime need is for movable schools of home making, and visiting advisory teachers of housekeeping, whose work as consultants may be developed in connection with the farm demonstration work in agriculture. Meanwhile women's institutes, home-making clubs, correspondence courses, housewives' bulletins, and similar agencies are utilized increasingly by agricultural colleges and local schools to reach the rural home.

There are many agencies contributing to the education for the home that are outside of school organizations. Some of these are the Young Women's Christian Association, Farmers' Institutes, the Grange county agents and county demonstrators, settlements, domestic education (otherwise known as visiting housekeepers), nurses, associations, and industrial organizations. A brief statement of the work undertaken by each of these may be found in the Andrews' bulletins, together with a summary of investigations undertaken by many other organizations interested in home betterment.

Later in this chapter mention will be made of the "home-teacher" law recently enacted in California. What had been done by charitable and philanthropic organizations is thus described in its bureau bulletins:

There was introduced a few years ago by the Society for Improving the Condition of the Poor in New York a type of home teaching in needy families which consists of sending to the home a trained dietitian to give instruction on food values and practical cookery when failure in household management seems to be the source of the difficulty. The plan has now been adopted in many communities and undertaken by different organizations. The Young Women's Christian Association of Cleveland, Ohio; the Associated Charities of Detroit; the North American Civic League for Emigrants, Buffalo; and certain philanthropic societies in Chicago and in Cambridge, Roxbury, and Boston, Mass., have undertaken similar work. From the original teaching of

practical food management, the work has broadened out until it covers the whole field of household management, including child care, sanitation, making of clothing, household expenditures and accounts; in fact, remedial instruction in every field of the household. The advantages of such work are obvious. It reaches the present generation without waiting for the children to get instruction in the schools. It reaches the needy families. It is eminently practical. Measured by results in terms of cost, it seems to be more than justifying itself.

The following prefatory note explains the plan and purpose of the third number of the Andrews series, which relates to home economic instruction in colleges and universities:

In this portion of the report there are presented statements showing how instruction in home economics is organized in various colleges and universities, such as the University of Chicago, with its department of household administration as a division of the university, and, in addition, in its school of education a department of home economics and household arts; the University of Missouri, with its department of home economics a part of its school of education, but offering work also for the degrees of A. B. and B. S. in agriculture; Elmira College, one of the early women's colleges, which now offers a vocational degree in the household field and accepts certain courses for the A. B. degree; the University of Wisconsin, in which the department is administratively related to the college of agriculture; Simmons College, Boston, an academic vocational college with household economics as one of its six vocational departments; Teachers College, Columbia University, which not only trains teachers of household arts, but in its technical "school of practical arts" trains household and institution managers, dietitians, and similar professional workers related to the household. The college course in home economics recommended by a committee of the agricultural colleges is also presented.

Outlines of typical individual courses, as given in different colleges and universities, are next presented under the following groupings: The home-economics movement, economic and social-science courses related to the household; natural science courses related to the household; courses in foods; courses in clothing, shelter, household management, and related courses. There are further presented data regarding college instruction in household arts received through a schedule of inquiry. The facts are assembled first by individual colleges; they are then discussed as to the conclusions, with explanatory illustrations, under such headings as the dates of introducing college instruction, degrees, courses, registration, summer courses, extension education, equipment, and other subjects.

The fourth bulletin of the series comprises complete lists of books and bulletins relating to home economics and a list of towns and cities where this subject is taught.

The following pages of this annual review of progress in home economics will be devoted in the main to a statement of the more recent developments that have occurred since the publication of this series of bulletins and the chapter by Prof. Andrews in the 1914 report.

HOME ECONOMICS IN STATE COLLEGES AND UNIVERSITIES.

Home economics is now a recognized course of study in all agricultural colleges to which women are admitted. Thirty-one State universities offer regular courses in home economics, and most of the private and denominational colleges and universities now offer similar instruction.

The University of Iowa, which established home-economics courses but two years ago, reports that the enrollment in the department reached 150 during the second year of its existence.

Indiana University has had a course in home economics for two years. Two hundred students are enrolled, and seniors have an opportunity for practice teaching in the Bloomington (Ind.) public schools.

The University of Minnesota maintains a practice house for senior students in which each young woman resides nine weeks, assuming during that time the various duties incident to the operation of a household.

The junior students in the University of Wisconsin have similar practice in a residence.

The University of Nebraska reports that—

> The course in home administration was strengthened last year by our opportunity to use a 10-room house on the campus. We had no money assigned to us and therefore had to operate with the furniture that could be spared from the dormitory and money derived from the fees and rent from three rooms.

The home-economics division of Ohio State University has been given the funds for a new building, which is now under construction. The following is a quotation received in a report from the above-mentioned division:

> In connection with the State agricultural commission, home-economics contests were conducted for girls over the State, and instructors were furnished for the judging of products prepared by contestants. One of the prizes offered was a week's instruction to be given by the department at Ohio State University the first week in November. Ninety-four girls were in attendance. Instruction and entertainment were provided by the members of the instructional force and students in the department. * * * An effort will be made to supply suggestive lessons and demonstrations to rural and village schools having no work in home economics and to encourage and standardize home work to be done by the pupils.

Home economics in the University of New Mexico is newly established, and the first class is now ready for work.

The course in the University of South Dakota reports:

> The department was organized just two years ago, and in that time has made a wonderful progress. * * * The following new courses have been added this year: Costume designing, millinery, and a course of demonstration lectures.

The commons at the University of Washington has afforded the students in food preparation an unusual opportunity to practice cooking in quantities. "All who have food work spend their practice time three and one-half days a week at the commons to get the connection between laboratory work and actual commercial work." Tea-room management is also offered. The woman's dormitory is under the direction of the home economics department. This will give an additional opportunity for training in institutional management. The same connection with actual conditions in clothing work has been arranged. Graduate courses in home economics were offered last year for the first time.

The University of Missouri has instituted a course in household problems and placed their clothing work on the same academic basis as the food has been in the past and still is.

Milwaukee-Downer College has added three new courses: Institutional management, evolution of the home, and a survey course in food study. The first two courses are open to home economics students only. The latter course is intended for students in the college of letters and science. The institution is also offering a home-maker's course for nonresident and mature persons.

The University of California has no home economics department or division, but offers in the various departments almost all the lines of work necessary to a course in home economics. The work is particularly strong in the chemistry of foods, nutrition, and dietetics. That which is usually known as domestic art does not find a place in the regular courses of the University of California, but noncredit courses are offered in the summer school maintained by the university.

The Kansas State Agricultural College organized within the past year an excellent course in "Problems of child welfare," and added a course in costume and design. A new venture for 1915–16 is a cafeteria, which is not only to feed students, but is to be used as a laboratory for those enrolling in the course in institutional cookery and institutional management.

In the North Dakota Agricultural College a purely theoretical course has been improved by making use of the dormitory and its dining room and kitchen as practice places for the students in institutional management.

The Oregon State Agricultural College gave a course in tea-room management, and used a dining room and kitchen in the Oregon building at the Panama-Pacific Exposition as a practice place.

During the past year the school of home economics of Simmons College has been affiliated with the Instructive District Nursing Association of Boston, and offers to members of the association courses in economical cookery and dietetics.

The Woman's College of Delaware was opened in the fall of 1914. A home economics course of four years' length was arranged, and 37 per cent of the students registered in this course.

The establishment of a junior college at Pocatello, Idaho, made advanced course in home economics possible in a region heretofore far removed from State institutions for higher education.

The newly established Woman's College at New London, Conn., has a course in nutrition which is planned to give work of college grade.

Not only have new courses been added in almost all State colleges and universities, but there has been greatly increased student enrollment in previously established courses. There is a marked tendency to inaugurate courses in institutional management and cafeteria management. Many teachers of home economics have been prepared within recent years, and there now appears to be a need of providing instruction for those who wish to enter other fields of employment allied to home economics. One or two universities are offering courses in journalism for home economics students. That women trained in home economics are needed in the field of journalism is most apparent, and many who might have drifted into the profession of teaching may now find a much more congenial occupation in writing.

The salaries of home economics teachers in colleges and universities are excellent, and the maintenance of these departments by the institions has been most liberal in the past years. Added teachers, new rooms, and new buildings all testify to the encouragement given to home economics instruction.

A few universities have made one year of high-school sewing and one year of food preparation prerequisites to the entrance into home economics courses. This is a tendency in the right direction, and doubtless will be followed by all leading schools within a few years. The lifting of the course resulting from a changed entrance requirement will make possible better class work and open up opportunities for inserting strong courses in economics, sociology, and political science, which are not less important than are well-developed courses in chemistry and biology.

STATE NORMAL SCHOOLS.

In addition to the State normal schools giving courses in home economics listed in 1914, courses are also offered in the State normal schools at East Radford, Va.; Shepherd College, Shepherdstown, W. Va.; Flagstaff, Ariz.; Weatherford, Okla.; Minot, N. Dak.; and Oswego, N. Y. This makes a total of 160 Sate normals offering courses in home economics. In September, 1914, the new course of

home economics in the State Normal School at Willimantic, Conn., began with a good attendance, and interest has grown throughout the year. A course of one term in sewing is required of all women students. The two years' normal course is elective. This marks the beginning of normal training for special teachers of home economics in the State of Connecticut.

The normal schools of Alabama are requiring general courses in home economics of all students. In the State Normal School at Florence, Ala., one term in addition to the general course is devoted to normal training.

In the Temple Normal School of Arizona a special two years' course for the training of teachers is offered. In the Northern Arizona Normal School at Flagstaff a general course running through three years has been established.

The Arkansas State Normal School requires courses in cooking and sewing in the preparation of all elementary teachers.

The State Normal School at San Jose, Cal., offers two distinct diplomas to the young women who are preparing to become home-economics teachers, an elementary and a secondary diploma. For the elementary diploma the fundamental courses in cooking, sewing, household chemistry, nutrition, household science, laundering, costume design, and education are required. For the secondary diploma the additional subjects are those which will give a broader viewpoint to the future high-school teacher, namely, experimental and institutional cookery, nutrition, home nursing, house decoration, millinery, sewing, textiles, social economics, and education.

All the normal schools of Maine give enough work in industrial education to enable their graduates to teach in elementary and rural schools. Only one normal school prepares special teachers. Home-economics teaching has received a great impetus during the past few years. Probably 80 per cent of the schools of the State are now giving some work in home economics. A bulletin on school lunches was recently published by the State supervisor. Three of the normal schools of Maine are carrying on school luncheons to meet the needs of the practice school and to supplement the practical training of the normal students.

The extension department of the State normal school at North Adams, Mass., sends out an excellent correspondence course in cooking and sewing for the use of the rural school teachers. Many of the rural teachers are taking advantage of this course.

The State normal school at Plymouth, N. H., has a very simple and inexpensive equipment for use in teaching home economics. It can be easily duplicated by a rural school with limited means. At the noon hour this equipment is put at the disposal of the students for use in the preparation of their lunches, and out of school hours it can

be used for other purposes. Thus it serves as a means for furthering the use of the school as a social center.

Three of the five State normals of Illinois are training special teachers of home economics for the schools of the State.

At least 18 normal schools are requiring one or two courses of home economics in the training of the rural school teachers. Some of these courses are specifically designated as "adapted to the needs of the rural school." As stated in the catalogue of the First District Normal School of Missouri, household arts for rural schools is "a course presenting simple problems in cookery, sewing, laundering, and cleaning that might be taught in a rural school. The preparation of noon lunches will be part of the work in this course." The course of household arts has been introduced into the State Normal School in Athens, Ga., because of the "increasing demand for teachers of domestic science and art and for leaders in canning clubs, sewing and cooking clubs, and other kinds of community work."

At the same time that short courses especially adapted to the needs of rural teachers are introduced in many of the normals, at least eight normal schools or State colleges for teachers are offering opportunities for advanced study leading to a degree to those who enter a four years' college course, or who add two years to their normal training.

SUMMER SCHOOLS.

The Bureau of Education received announcements from 192 schools that were offering courses in home economics during the summer of 1914. In 1915 the number reporting had increased to 230. This serves to show the growing effort that is being made to awaken an interest in education for the home in the minds of young women who have not the opportunity or the time to pursue courses of study during the regular school year.

Especially commendable are those courses which are planned to meet the needs of the rural teacher. Several of the normal schools and a few of the larger colleges and universities have offered such courses during the year 1915. The summer schools have awakened to the splendid opportunity they have to help the rural teachers who wish or who are required to give courses in home economics.

Simmons College in Boston, Mass., while offering no specific course for rural teachers, included among its course of free lectures during the summer term a series covering the following subjects: "The demand for rural extension; the qualifications and preparation of rural workers; canning clubs; commercial packing; the importance of quality and standards; the financial side of canning; the community worker and her opportunities."

In the summer school at Amherst, Mass., a course of five lectures and three demonstrations a week for four weeks was given. The course was entitled "Home Economics for Rural and Small Village Schools." The report of the attendance is interesting:

There were nine who took the course at Amherst regularly, with three visitors in attendance at the lectures. All of the nine, with one exception, were from very small villages or the country. Six were teachers. The teachers would use their special home economics training in connection with their other work. All took the course with the idea of making the application wherever possible and when opportunity offered. In every recitation the thought was kept in mind that young girls were being taught who had not the opportunity of specialized training. Suggestions were made along correlation lines. Much emphasis was placed on the direct application to home work, so that each girl would realize it was a real part of her life, the point being made that all work that was accomplished at school should be repeated in the home, and visits made to that home by the teacher, to get in touch with the home conditions, to stimulate interest on the part of the parents, to encourage the girl to continue the work even under adverse circumstances.

A rural school exhibit, which was prepared by the teachers of the department, showing what may be obtained for less than $25, was discussed and its use practically demonstrated.

At Teachers College, Columbia University, New York City, one of the courses offered in the summer school was entitled, "Teaching and supervision of household arts in rural schools." A class of 25 reported for this work and was made up of those who were interested in the consolidated rural high school, in the one-room school and its problems, and in the supervision of rural schools, extension work, etc. The subjects discussed during the course extended beyond the teaching of home economics in the rural school and became a consideration of household arts for farmers' wives and daughters, opening up a splendid field for study and discussion.

A course entitled "Cooking for Rural Schools" was given at George Peabody College for Teachers, Nashville, Tenn., during the summer quarter, 1915. The term's work ran through five and one-half weeks, the class meeting five times a week for a period of two hours.

Teachers in rural schools and in consolidated county schools, together with young women not yet experienced in teaching, made up the class.

The study covered:

1. Cooking lessons with simple dishes, using especially those which can or should be easily procured in the country. Each lesson included a number of different ways of using or preparing the food, as we had time for only one lesson on eggs, meats, fruits, etc. The underlying principles of their preparation were studied with each.

2. A brief study of the general principles of teaching, especially as applied to household arts.

3. Discussion and application of the subject to rural communities, considering (1) means of supplying the materials by (*a*) donation from family of pupils, (*b*) in part from schools gardens, (*c*) bought by money earned by sales, or a daily luncheon sold to scholars, (*d*) sum supplied by school board, or assessment; (2) equipment—(*a*) use of some home kitchen, (*b*) portable equipment for several neighboring schools, (*c*) simple equipments ranging from $5 to $15 and up; (3) correlation with work in home and school.

The rural school of activities, conducted in connection with Peabody summer session, offered opportunity for observation. Here the class saw lessons in cooking conducted in the ungraded school.

STATE SUPERVISION.

Special State supervision of home-economics teaching is reported in 15 States. In five States a specially appointed home-economics supervisor or specialist has this in charge. In two States the work is looked after by the regular high-school inspector, while in one State it is in charge of the normal-training inspector. In two States the work is in charge of the commissioner or supervisor of vocational and industrial education. Four States report that the work is in charge of the State superintendent of public instruction without reference to the particular system of supervision.

The State superintendent of public instruction of Arkansas reports a supervisor in charge of the home economics of the negro schools of 16 counties. Sixteen negro county agents work under the supervisor. A course of study has been outlined and is followed closely.

STATE COURSES OF STUDY.

Twenty-three States report an outline of lessons in home economics for use in the State. A State manual of study for the public elementary schools of Alabama contains an outline for lessons in cooking and suggestions for the teaching of sewing in the grades, with lists of equipment and references for domestic science teachers in the grades. In California each county or city board of education prescribes its own course of study in home economics. An outline for a course of lessons in home economics has been prepared for the common schools of Illinois. This is made use of particularly in the rural schools. The domestic science section of the high-school conference of Illinois has completed its work on a comprehensive outline for lessons in the fifth, sixth, seventh, and eighth grades, thus taking a step in helping to unify the courses offered in home economics below the high school, as their work of previous years has tended to unify the home-economics courses in the high schools of the State.

The course of study published for the State of Indiana is particularly full and complete. It covers three distinct lines of work,

namely, (1) cooking and the study of foods, (2) sewing and the study of textiles, and (3) planning, care, furnishing, and upkeep of the house. In providing these three lines of work it is the intent of the department that the respective county superintendents shall cooperate with their teachers in the selection of one line of work to be given in the seventh and eighth grades of any particular school, township, or county, and this line of work followed throughout the year. Lessons are outlined by months and weeks and are issued in the form of bimonthly bulletins.

In Iowa 160 high schools give normal training in home economics. An outline of lessons is provided and a normal-training inspector supervises the courses.

A manual for the normal and industrial training courses in the Kansas high schools contains courses of study for both domestic science and art that are particularly helpful to the teacher, as equipment, list of dealers, bibliography, and various suggestions for work are given.

An interesting State course of study for the State elementary schools has been issued in Kentucky. The household arts are given a place on the program of every one of the eight grades. A plan for introducing cooking into country schools is also submitted.

Louisiana issued an outline on home economics for the public schools of the State September, 1914. This outline gives the rules for State aid and the organization of the department, outlines the qualifications and duties of the teacher, and a course of study for approved departments. The course includes cooking, sewing, and household management. A course of study for the four-room schools of the State is also given. Equipment, books, bulletins, magazines for reference and supplementary reading, and educational exhibits are listed.

Mississippi has a course of study worked out by the State home economics association now ready for publication. North Carolina reports a course in process of preparation. North Dakota has had syllabi of courses in domestic science and art compiled by a special committee. The teachers of the State can secure these from the high-school examiner. Two courses in both domestic science and art are outlined. Five double periods per week for 36 weeks constitute a credit.

Oklahoma has issued a new outline in home economics designed to meet the requirements of the rural schools and the schools in villages and small towns. The new law which permits the State superintendent to issue teachers' certificates to graduates of certain high schools requires that these schools maintain departments in home economics in order to qualify as normal-training high schools.

A State course of study outlining a course in home economics has just been published in Oregon. The South Carolina Home Economics Association has been working on plans for home economics courses for the schools of the State and is looking forward to securing a State supervisor of home economics.

The course of study for Wisconsin places special emphasis on the reporting of home work. A weekly lesson in hygiene is included in the home economics outline. Wyoming includes a course in sanitation in its outline for teaching home economics in the rural schools.

A course of study for use in the elementary schools of the island of Porto Rico has been prepared by the supervisor of home economics under the guidance and direction of the Commissioner of Education. It has been prepared as a "working text" for the teachers of home economics, and contains recipes, directions for sewing, and lists of reference books on both sewing and cooking. Supplementary bulletins are sent out during the year. Because of the peculiar needs of the homes of the island, the suggestions in the course of study and the bulletins are especially helpful to the new teacher unacquainted with conditions. They are also designed to aid the Porto Rican teacher who has had but limited training. Interesting reports from the students express their appreciation of what they have learned that enables them to help their mothers at home, to serve as housekeepers, to earn money by sewing, to prepare food for the sick of their family, and to distribute their income wisely.

TEXTBOOKS FOR HOME-ECONOMICS TEACHING.

In addition to the printed outlines and bulletins on home economics subjects published by the departments of education or the State institutions of the various States, there has been an increase in the number of helpful textbooks prepared for use in home-economics teaching. At the present time the market can supply very satisfactory textbooks for the study of foods (their history, kinds, manufacture, chemistry, cooking, and serving), sewing, dressmaking, textiles, household physics, home sanitation, care of the house, house furnishing, and laundering. The use of prepared outlines and texts tends toward improved conditions for teaching and the abolition of the tedious method of note-taking that obtained in the early days of home-economics courses from the university down through the common schools.

HOME ECONOMICS IN THE PUBLIC SCHOOLS.

The teaching of home economics in public schools has extended so rapidly that it has become necessary to have special supervisors in cities to superintend this type of instruction. An approved method

of supervision is one in which one supervisor has the responsibility of all home-economics instruction in the grades and also in the high schools, and if the size of the city makes it necessary, special assistant supervisors are delegated to superintend different phases of the work, such as sewing, cooking, and housekeeping. When such supervision does not exist the quality of the work varies directly with the personal qualifications of the individual teacher and no uniformity can be expected. A smoother working organization is attained if one supervisor has charge over all phases of home-economics instruction.

In large cities with a mixed population, it does not seem to be desirable that all students receive exactly the same lessons. The effort to adjust home-economics instruction to the actual needs of the particular student or group of students is marked.

An interesting venture in home education for girls of secondary-school grade was established in San Francisco during the year under the name of the Lux School. The preparation for home making dominates all work given in the Lux School. The school is limited to 250 students. Instruction is given in housekeeping, food preparation, sewing, laundering, English, art, mathematics, and history. This school is a vocational school where home making is the vocation for which the students are prepared. It is just as free as any city public school and is open to students from San Francisco and near-by cities.

Food preparation was introduced for the first time in the Portland (Oreg.) grammar schools in the fall of 1914. Several experiments in methods of teaching this subject and also that of housewifery were started. One of these is known as the Vernon Home. The Vernon Home for home economics teaching is a residence of about the type used in the community. It is furnished inexpensively, and the selection of furniture and other household equipment afforded unusual opportunities for practical lessons. The care of the home from cellar to attic has rested upon the students. Daily luncheons are served, food is prepared for sale, and the care of a small garden is an aid in teaching thrift.

The Minneapolis new trade school for girls started in February, 1915. One-half day is spent in trade and one-half day in academic work. A store is maintained, which disposes of the sewing, millinery, and some of the food products. A course in salesmanship is taught and the store becomes a practice place. The school maintains a cafeteria, and the classes have special training in this work. Meals are served, special dinners are planned and served either in the school or at private residences, and food is cooked in quantity upon special orders. A tea room, also, is operated by the girls. Besides the special courses in sewing, millinery, salesmanship, and cafeteria management, there is a general course in home making. All except

the latter are expected to prepare the students for wage-earning positions. These students are selected by the principals in the different parts of the city according to their need for this type of work and may come in at the request of the parents. The school owns a small store with rooms above and these rooms are to be converted next year into an apartment. General housekeeping will be taught in these rooms and one will be equipped for a day nursery, that the care of children may be a part of the training.

Significant of the progress of home economics as a recognized vocational subject is the report from Pennsylvania. The bureau of vocational education in Pennsylvania has adopted the policy of preparing "the girl for the activities of the home on a sound pedagogic and economic principle," and because the endeavor is made to adapt the school to the community, several types of work have been developed. The three all-day household-arts schools or departments and eight evening household-arts schools that had been established prior to July 6, 1914, have been increased to four all-day household-arts schools or departments, 14 evening household-arts schools, and three continuation household-arts classes. The last-named was a new type of household-arts school for adults developed during the year. Another interesting feature of the work was the employment by the mining institutes of Nanticoke of a supervisor to visit homes and render assistance to housewives.

In Altoona over 500 girls were enrolled in the dressmaking and millinery courses, and the entire Central Grammar School was given over to the work. More applied for cooking than could be accommodated. There were 12 teachers in charge. The teaching force was recruited from teachers employed during the day and practical seamstresses, milliners, and shopmen (for the boys) resident in Altoona.

The expense of installation of a new equipment in the high school at Middlebury, Vt., was reduced by the practical lessons in housewifery given the girls. The work included the finishing of the wooden tops and sides of the desks and cupboards with a stain and enameling the gas pipes.

USE OF APARTMENTS OR HOUSES IN PUBLIC SCHOOL TEACHING.

The increasing use of a house or apartment for teaching practical home-making is emphasized in the many reports reaching the bureau. To make the conditions under which home economics instruction is given as nearly like the conditions ideal for a home as possible is the dominating motive in these departments. It marks a new spirit in teaching and one that promises to be of inestimable value to the future homes in these communities.

In Erie a residence was remodeled for the use of the household-arts department. The kitchen, sewing room, and laundry were located on the first floor, and on the second are rooms that are to be used for housekeeping purposes. The old Erie Academy was used as a center for industrial and household-arts work, with shops on the first floor, cooking department on the second, and sewing and drawing on the third.

One double period of housekeeping is required of every fourth-grade girl in the "neighborhood schools" of Los Angeles, and of every fifth-grade girl in the ordinary schools. This housekeeping consists of the care of a house when a cottage is connected with the schools, the washing of windows, cleaning floors, making beds, and cleaning woodwork; caring for household linen, i. e., laundering; and similar tasks. Where no dwelling is supplied certain rooms are cared for in the regular buildings. These may be the cooking-class room, the small diningroom, and the principal's office.

In the Borough of the Bronx, New York City, Public School No. 4 is making use of a small flat or model apartment for the teaching of realistic home making to girls who have finished the seventh and eighth grades in school. This is a new venture in New York City public-school work.

In Washington, D. C., classrooms have been divided by partial partitions and "apartments" made for practice housekeeping, and in these small rooms the girls will cook and sew and carry on all household operations.

Lyndon Institute, Lyndon Center, Vt., offers a special one-year course in home economics designed chiefly as a preparation for home making. It is open to girls having one year of work beyond grammar school. Lessons are given in cooking, sewing, laundering, home nursing, and housewifery. One term each of household chemistry and English are included in the course. The students taking the course have full charge of the work in the "Home Cottage" in which they live. This work is under the direct supervision of two instructors.

A 'teachers' cottage is used for the lessons in housewifery in the State Normal School at Keene, N. H.

In the prevocational school of New Britain, Conn., seventh and eighth grade girls are given a practical arts course designed to prepare them for the duties of home making and housekeeping and at the same time to prepare them for the home-making course or the trade course in the vocational high school. A suite of model living rooms is maintained as an object lesson in furnishing and care.

CAFETERIAS AS PRACTICE PLACES FOR HOME ECONOMICS TEACHING.

There is a growing tendency to place the cafeterias in public schools under the direction of the home economics supervisor and use these as part of the equipment for practical food studies. There has been a discontent among teachers of food preparation with the small-quantity cookery, yet larger quantities could not be used because of the excessive cost incurred. The cafeteria and the noon lunch for teachers make possible the handling of foods in quantities, and by these means speed and efficiency may be acquired by the students. All cafeterias in the schools of Tacoma, Wash., are in charge of the home economics supervisor, and in these cafeterias every third-term high-school girl has three weeks of practice in large-quantity cookery. Each girl also has three weeks' experience in preparing noon lunches for the teachers.

Quantity cooking is taught in the eighth grade of the Los Angeles schools. After five months of practice three girls take in charge the luncheon for six teachers. They prepare these repeatedly until they become expert; the price of the luncheon must not exceed 15 cents. The rest of the class prepare and serve cafeteria foods in quantities for from 20 to 70 persons.

Oakland, Cal., school cafeterias are under the direction of the home economics supervisor, but not connected with domestic science class work. It is expected that they will articulate later.

In Philadelphia the board of education has recently made provision to try out a plan to establish lunch rooms that are to be self-supporting in not to exceed 25 elementary schools. This action has taken place in response to recommendations made by the school-lunch committee of the Home and School League. As a result of work begun five years ago the Home and School League has been carrying on penny lunches in nine elementary schools. In addition to the recess lunches, noon lunches costing 3 and 5 cents and a 9.30 breakfast have been served in some of the schools. The cost per child of these lunches had decreased from 2.46 cents per child in 1912–13 to less than 1 cent per child in 1914–15.

While the penny lunch in Philadelphia has not been connected with the home-economics department in the public schools, those in charge of the work have given it careful supervision to insure its educational value by giving children the right ideas about food and its care. In a majority of the schools the cooperation of the school has been sought by securing a teacher to aid in the supervision of the work and children to help in selling the foods.

Home-economics students in the normal department of Drexel Institute have worked out food value of recipes for the penny lunch as part of their prescribed work and, along with students of the house-

keepers' section, have done volunteer work in the schools. This has been counted as regular practice field work in the course. The chemistry department of the institute has cooperated by making analysis of the lunch products.

An intensely interesting part of the work in the Lucy Flower School of Chicago is that which is done in connection with the cafeteria and adjoining lunch room. The cafeteria is operated by a group of girls who purchase the materials, plan and oversee the preparation and service of the food, and keep all records connected with this service. At the end of the term the operations must show a slight profit; this profit is then invested in some labor-saving device for the kitchen. The girl in charge for a certain week purchases all materials in the market in whatever part of town she wishes to trade. This experience in marketing is of great value. A second lunch room is maintained for the children of the seventh and eighth grades, and here also the responsibility rests upon one of the girls in training.

In December, 1914, a term in school-lunch preparation was introduced into the senior year of the high-school home economics course in the training school of the Illinois State Normal University at Normal, Ill. A class of seven girls, in charge of two student teachers, prepared a lunch daily for from 60 to 90 people. The lesson period covered an hour and three-quarters, at the end of which time the lunch was served in cafeteria style. The work of washing dishes was taken care of by students who were paid by the hour, but all of the preliminary work of planning, cooking, and serving was taken care of by the members of the class.

THE RURAL SCHOOL.

Methods of teaching home economics in the rural schools have been receiving more attention than formerly. The State courses of study have covered this problem in some cases. In many States separate bulletins on the question of home economics in the rural school have been issued by other agencies, i. e., the State agricultural college, the State normal school, or the State university. Examples of excellent correspondence courses on detailed lessons are those that have been issued by the University of Minnesota, the University of West Virginia, and the State Normal School at North Adams, Mass.

Alabama reports that home economics occurs daily throughout the week on the programs of the teachers' institutes held during the summer in every county. The manual for county institute instructors contains a series of four lessons outlining work in foods, cookery, canning, and sewing that could be used in the rural schools.

Iowa is meeting the situation by inaugurating a correspondence course for rural teachers. Indiana held summer schools at various colleges and universities in order that rural teachers should be prepared for the work.

Kansas State Agricultural College has arranged to give a course for rural teachers at teachers' institutes desiring such work. Five lectures are to be provided to give instruction in the preparation and serving of hot lunches, elementary cooking, and sewing.

In Webster County, Ky., an experiment is being tried to solve the difficult problem of teaching domestic science in rural schools that are without trained teachers. A wagon containing a complete kitchen and dining room outfit has been built and equipped to travel from school to school. An expert teacher is in charge to give lessons and lectures to the pupils and their mothers and older sisters. Twelve schools were visited during the spring, the wagon remaining from one to three weeks at each school.

In Georgia an extension worker has been employed to visit the rural schools for the purpose of helping to install home economics courses, to aid in the introduction of a hot dish for lunch, to organize mothers' clubs, to teach home economics at county institutes, and to conduct work of any sort that may lead to community betterment.

There is an apparent desire among teachers of home economics to establish closer relationships with the pupils' homes. Realizing that without a knowledge of home conditions they can not best serve their community, they are taking various means of acquiring this knowledge. One common and easy method is that of inviting the mothers to luncheons prepared by the girls, and another is by offering special courses for the mothers.

Home and school cooperation has been established by unusual methods in Seattle, Wash. Every girl is entered in a contest which extends through many weeks. Her work is done at home, and all honors gained belong to the school, not to her. As a result of this work, 6,000 garments were made by the girls of the eighth grade and 50,000 loaves of bread were baked during the month of April. Of more value than the garments or the loaves was the interest aroused in the children and their school work throughout the city.

RURAL SCHOOL LUNCHEONS AND LESSONS IN FOOD PREPARATION.

One of the most effective methods of instructing in food preparation in rural schools is by means of a hot noonday lunch. Little equipment is needed; most of the practice and instruction may be given during the morning recess period; the necessary cleaning up can be done at noon, and the lunch itself is not only good for the children but aids in training in courtesy and good manners.

This noonday lunch was prepared and served by some country teachers as long ago as 1880, but only recently has its possibilities been realized. In district No. 65, Texas Ridge, Idaho, a rural teacher converted a square tin oil can into a stovepipe oven, and with this and the flat top of the heating stove succeeded in preparing and serving hot lunches for the small school. In another district the teacher's desk became the cooking table, and the dish washing was done on the tops of the school desks, while in yet another rural school in Idaho a small addition to the schoolhouse was built. In this was placed an oil stove, and planks upon a rough frame became the kitchen table.

Sewing has been taught at recess and noontime in one Oregon school, and the children went to the home of the teacher for instruction in the use of the machine.

The teachers' houses which are being provided in many regions of Tennessee and of the State of Washington offer further possibilities for practical teaching of home economics in the rural schools.

CONTINUATION SCHOOLS AND HOME ECONOMICS FOR ADULT WOMEN.

As a result of the summer schools held in Pennsylvania for the training of teachers for continuation schools, the director of industrial education concludes that the summer schools should be continued, and that the scope should be extended to include professional work for manual-training and domestic-science teachers.

Pittsburgh, Pa., started a course of training for housemaids in July. This is directed by the supervisor of home economics in the public schools and of the nature of a continuation school.

Brazil, Ind., " dedicated its new home-making school in September, 1914. This consists of a 10-room house especially fitted up for the vocational home-making work."

Worcester (Mass.) Trade School inaugurated a course in cooking in 1914. This is distinctly a trade course and does not displace the three-hour course in food preparation which had been required as a part of the general training for all girls.

Kenosha, Wis., has a most successful continuation school where all working girls under 16 years of age are required to attend one-half day each week. The instruction consists of the most practical lessons in cooking and sewing and in the service of meals.

During the past summer classes in vocational training for girls just out of the grammar school have been carried on at the Elizabeth Peabody House, Boston, under the direction of the woman's department of the New England section of the National Civic Federation. The training consisted of household and laundry work, cleaning, cooking, sewing and mending, chamber work, the preparation and

serving of meals, color and design, and business ethics. The committee reports that nearly all the girls in the various classes are going back to school in September, some to the high school and others to trade schools, where they may be fitted for specific lines of work.

Nasson Institute, located at Springvale, Me., is a vocational school for young women offering to high-school graduates a full 2-year program in home economics or secretarial studies. It has just completed its fourth year of work, and statistics show a steady increase in its attendance. The home-economics course is planned with special reference to the needs of high-school graduates who wish to undertake the teaching of cooking and sewing in public schools, or to intelligently plan their own homes. The course is also regarded as preliminary training for those who wish to enter hospitals, lunch rooms, tea rooms, and related lines of work. The technical work includes courses in cooking, sewing, household administration, and household science. Certain academic subjects, as English, hygiene, history, education, and art, are also included in the course. High standards are maintained in the execution of the technical work.

In Ellsworth, Pa., a continuation school has been conducted for foreign mothers, and weekly instruction has been given in English, cooking, sewing, and care of infants.

Indiana State University offered a special teacher's training course, beginning July 5, 1915, for women cooks, milliners, and dressmakers. Through the courtesy of the Indianapolis public schools, rooms and equipment were made available at the Shortridge High School, the work being given in Indianapolis in order to place the opportunity within the reach of as large a group of trade workers as possible. The class met for 3-hour sessions daily, five days per week for two weeks. The work included a limited amount of attention to practical activities; methods of organizing and presenting teaching material; methods of handling administrative details; demonstration lessons, criticism, discussion. The course formed a part of the general program for vocational education, being developed by Prof. Robert J. Leonard, head of the department of industrial education of the university faculty.

Kansas City, Mo., enrolled in the Hamilton Vacation School 50 girls and women in classes in sewing. This was the first time the work was offered and was under the direction of the instructor of domestic science.

The following report tells of the work that has been done in the evening schools in Rochester, N. Y.:

> During the past year the enrollment in the home-economics courses was 1,825. We are also conducting afternoon health courses. These "Live a Little Longer" health courses, as they are called, have been given in five different schools. The enrollment for this year was 112 and the average attendance 94.

We also have continuation agreements with some of the factories by which girls who are under 16 and who are employed are required to attend school the forenoons of every other week for instruction in the household arts. Thirty of these girls have been placed with the German American Button Co.

Adult education in home economics is being encouraged in many ways in the State of California and especially in Los Angeles. A unique method of instructing is practiced in several schools of this latter city. Many poor mothers have inadequate laundry facilities in their own homes; so the laundry equipment at the school is placed at their disposal. When they accept this offer they obligate themselves to do the work in the manner taught. The Lux School in San Francisco uses one-half of its large income in the maintenance of night schools and afternoon settlement classes.

In Portland, Oreg., 175 women enrolled in night classes the fall semester of 1914, and 75 others entered classes at mid year. Afternoon classes have proved most satisfactory in this city and are managed without fees. These classes are organized for courses of 10 lessons on some particular food problem, and each series of lessons is complete in itself. In some instances the women bring the materials; in others the school furnishes the materials and the women purchase the articles after cooking. The recipes are prepared in family size and contribute to the actual meal at home, at the same time forming the basis of the lesson.

Many of the cotton mills of the South employ women to visit the homes of their employees and give instruction in food preparation, sanitation, and general housekeeping. The mill owners find that workmen from good homes render better service, with fewer days of illness, than those who come from ill-kept and insanitary houses.

The Iowa agricultural college maintains a course in home making for women who can not enter regular collegiate classes. In a similar course in the University of Minnesota 300 were enrolled in the winter of 1914–15; while 170 women, all over 20 years of age, attended a home-making one-year course in the Kansas agricultural college. Similar courses are meeting with favor in North Dakota and Oregon.

A particularly interesting piece of work for adult women was done in West Virginia. The teacher in home economics reports her work as follows:

Early in the fall term I succeeded in finding three groups of women who were interested in the work I wished to give them. Two of the groups were at points so situated that they could be visited on the same day, thus making it possible for me to meet a group at one point at 10 in the morning and at the other point at 2 in the afternoon. I visited these points every two weeks, going to the third point on the intervening Friday. For the spring term two new points have been selected, and work is given there every Thursday afternoon and every Friday of each week. This was necessary in order to give the women the course of 11 lessons I had planned.

At one of the points visited during the fall and winter terms, the club met on the Fridays intervening between my visits to them. They emphasized the social side then and discussed various topics. A few I now recall are: "Some places where one could buy cheapest," "An exchange of ideas in Christmas gift making." One day all had their knitting or crocheting, and those who did not know how were supposed to learn that day. On another day each woman had to tell how she used up left-over material, and I suppose my work came in for its share of discussion. On these days light refreshments were served by the lady entertaining.

To meet the women in their homes makes the work very informal, and I felt I got better acquainted with the women in this way. Then, too, it meets a social need in the rural community which can not be found in the hall or public-school building.

This movement for instituting classes for women is becoming general. At the present time a majority of the towns in which home economics is taught in the schools offer opportunities to women for the study of food problems.

The operation of the Smith-Lever law has brought home-economics instruction within the reach of most rural women either by correspondence or by short courses. The act has made possible the providing of much valuable material for free distribution.

Boys and men are being given courses in camp cookery in public schools and in colleges. The instruction does not end with mere recipes and directions. Food talks lead to others on camp sanitation, and these are but the entering wedges for further instruction in home betterment and improved conditions of living. In a Minneapolis grammar school 100 boys have attended food-preparation classes throughout the winter, while in many other cities special classes have been organized for the Boy Scouts.

In the Oregon Agricultural College all men in forestry and agriculture may and do elect camp cookery, which carries with it one college credit. Laboratory instruction and practice is first given, and afterwards the work is done in the open, and camp sanitation and fire building are taught. Lectures on food values are given throughout the course.

HOME-ECONOMICS EDUCATION FOR COLORED STUDENTS.

In 13 land-grant colleges for colored students either cooking or sewing is taught. Usually the equipment is good and instruction quite up to the average of such teaching. If the instruction in food preparation could be given under more nearly ideal home conditions, the benefit would be much greater. At present the laboratories are so entirely different, in every respect, from the kitchens with which the students are familiar that it is difficult for the students to apply the methods learned.

In some cases the food-preparation lessons do not tend to improve the food conditions in the dormitory. This criticism can be made

concerning food service in many other schools besides those for the colored and is one that should not be merited. The real test of the efficiency of home-economics instruction is the effect that such teaching has upon the personal character and home life of the pupil.

Sewing is often better taught in colored schools than is food preparation. This is in part due to the fact that the making of garments appeals to the natural craving of the student for improved personal appearance, and partly because many colored schools have little money for teaching and must of necessity limit their lines of instruction. In some of the stronger schools for the colored youth the instruction in food preparation is both thorough and practical, and the dormitories are used as practice houses in lessons for good housekeeping.

Home economics often appears in the programs of denominational schools for the colored, but sometimes when there is but a limited fund for the employment of teachers this type of instruction is sacrificed for Greek or Latin. There is a great need for colored teachers who are trained in home economics and who also thoroughly understand the home life of the rural Negro of the Southern States and are willing to teach these subjects in a practical and effective manner.

LAWS AFFECTING HOME-ECONOMICS INSTRUCTION.

The operation of the Smith-Lever law has greatly affected instruction in home economics for adults and for girls in rural districts. It has also created a demand for well-trained home-economics teachers of a somewhat different type than that demanded for public-school positions. There is a need for courses in colleges arranged with especial reference to the peculiar qualifications requisite for extension teaching.

The possibility of the passage of the Smith-Hughes bill has created much discussion among teachers and those interested in home economics, and, with few exceptions, the passage of such a measure is anticipated with approval. The greatest problems that have arisen concerning the teaching of home economics have been those resulting from laws which made the teaching of domestic science obligatory in the seventh and eigth grades of all schools in the State. As interpreted this law in Indiana necessitated teaching some phase of home economics in every one of 6,000 one-room schools. The instruction must of necessity be given by 6,000 teachers almost wholly unacquainted with the subject. To give these teachers the requisite information is one of the insistent demands now being made upon departments of home economics in normals, colleges, and universities.

Idaho requires that home economics be taught in all rural high schools, and four such schools have already complied with this law.

Louisiana grants $400 State aid annually to each approved department of home economics. Not less than $100 of this money must be expended for supplies, and the home-economics library must be increased by the purchase of $15 worth of books each year.

California enacted a law at the last session of the legislature authorizing the employment of "home teachers" not exceeding 1 for every 500 students in daily attendance at school. Among other duties devolving upon this home teacher will be "to instruct in the sanitation, purchase, preparation, and use of food and clothing."

California changed the mode of certification of teachers of home economics. Such authority is now vested in a State board connected with the office of State superintendent of schools.

Nebraska enacted a law providing for a two-years' course in home economics in the State normal schools, this course to be arranged with special reference to the needs of rural teachers.

HOME-ECONOMICS ASSOCIATIONS.

State associations of home-economics teachers are reported in 18 States. Most of these are independent organizations. A few are sectional divisions of larger State teachers' associations. A tendency to direct attention to specific problems is apparent in the programs of the associations. In many States the associations have already established their places as educational factors. The formation of each new State association may be interpreted as the result of a wide-awake interest in the State and a desire on the part of home-economics teachers to unite in an effort to secure better conditions in the schools.

A home economics section has been organized in the Central Association of Science and Mathematics Teachers, and held its first meeting November 27 in Chicago, with an attendance of 200. Discussion of subject matter to be included in home economics courses and methods of teaching occupied the time of the two sessions. Exhibits of interest had been installed by the local committee.

The seventh annual meeting of the American Association of Home Economics held in Cleveland June 30 to July 3, 1914, was marked by the adoption of a new constitution and the appointment of a paid secretary. Three meetings for the summer of 1915 were held, as follows: The institution economics section at Lake Placid in June; the annual meeting of the association at the University of Seattle in Washington, August 18–21; and a second meeting in connection with the National Education Association a week later. During the winter and early spring of 1915 the executive secretary of the association made a three months' trip, covering nearly 10,000 miles and visiting 40 schools in 17 States. Lectures and demonstrations formed the chief features of her visit.

TENDENCIES AND DEVELOPMENTS IN HOME ECONOMICS.

With the more adequate instruction now being administered in high schools, most young women entering college have had an opportunity to pursue one or more courses in home economics. Some special provision has had to be made for these students. In many institutions the high-school training has exempted them from certain college work; in other schools the courses carried in high school were ignored, and those who had studied home economics began all over again with those who had received no training. Neither of these arrangements has proved satisfactory. If high-school work may be substituted for college work then the college work is not above high-school grade. This is too often true. On the other hand, if the girl who has had training is no better prepared than the one who has not studied home economics in the high school, then the high-school work is valueless, and the colleges and universities where the high-school teachers have been trained have failed in the preparation given these teachers. Therefore there is a decided movement favoring the establishment of certain high-school courses in home economics as prerequisites for college credit in that subject.

The use of the cottage or apartment as a place for teaching home economics is generally approved and the question of initial expense is the chief retarding factor to the extension of this type of equipment.

Many normal schools are requiring a minimum course of home economics for all students because of the rapid growth of this subject in the rural-school programs.

The penny lunch for children in the poorer city districts, the hot lunch for rural schools, the cafeteria for high-school students, and the teachers' luncheons are all being used as means of teaching more efficient food preparation.

The development of trade courses in the industries allied to those of the home has been rapid, and the paralleling of these courses with those of home making, in order that the wage-earning woman may be able also to administer her own household, is of particular interest.

In colleges and universities more encouragement is now given to the young woman who wishes preparation in wage-earning occupations other than that of teaching, with the result that courses are offered in tea-room management, cafeteria management, hospital dietetics, and institutional management.

A better class of popular material on home-economics subjects will be available for magazines and newspapers with the further development of courses in journalism for students in home-economics departments.

The cooperation of the National Federation of Women's Clubs and similar organizations in progressive movements for education for the home gives assurance of continued encouragement and support.

CHAPTER XIII.

EDUCATION FOR SOCIAL WORK.[1]

By Edith Abbott, of Hull House, Chicago,

Associate Director of the Chicago School of Civics and Philanthropy.

The most recently organized professional schools are those that prepare for what is somewhat vaguely called "social work." No attempt will be made here to enter upon a discussion of the vexed that prepare for what is somewhat vaguely called "social work." No attempt will be made here to enter upon a discussion of the vexed question of whether or not "social work" is a profession.[2] The schools of philanthropy are organized on the assumption that social work is a profession for which the necessary training can best be given in a specially organized school of professional character.

Social workers, however, have pointed out that the organization of professional schools is an almost necessary factor in determining the professional character of their work. Thus, in 1897, Miss Mary E. Richmond said, in urging upon the National Conference of Charities and Correction the establishment of a "Training School in Applied Philanthropy": "Some will think that a training school is impracticable until we have acquired a professional standard. Others will think that we can never acquire a professional standard until we have the school. The latter is my own view."[3] And, more recently, at the National Conference of Charities, which met in Baltimore in May, 1915, the report of the chairman of the committee on education for social work contained the following significant statement:

> No organized activity can claim professional standing until it rests upon scientific knowledge and has developed definite methods of using that knowledge to reach its goal. When technical processes within a profession have become established, those who seek to enter it must not only work toward its particular goal of achievement; they must master those processes first. These processes change continually in any profession. The treatment of the sick to-day in many

[1] In the preparation of this report the author is indebted to an unpublished report on the organization of professional schools for training social workers, prepared for a committee of the trustees of the Chicago School of Civics and Philanthropy by Dr. Sophonisba P. Breckinridge, dean of the school.

[2] A most important discussion of this subject will be found in the forthcoming report of the Baltimore sessions of the National Conference of Charities and Correction. The report will include papers by Mr. Porter Lee, of the New York School of Philanthropy, chairman of the conference committee on education for social work, and by Mr. Abraham Flexner, of New York, and Prof. Felix Frankfurter, of the Harvard Law School.

[3] Rep. Nat. Conf. of Charities and Correction, 1897, p. 182.

respects has little in common with the treatment of 100 years ago. From day to day and from year to year, however, the change is slight, and it is through the mastery of established processes first that the development of new processes becomes possible. In other words the technical skill of the practitioner, as Dr. Flexner has pointed out, is one of the bases of any profession.

The committee respectfully suggests that the development of training methods which will give it this technical basis is the chief problem facing social work. This report is designed to emphasize the importance of this technical basis and to indicate its nature.[1]

An account of recent progress in the training of social workers means in effect an account of the history of the professional training schools for social workers in this country, since the oldest of these schools has a history of little more than a decade. This is not because social work, or social service, has been recently developed. Social work is new only in its professional aspects. Agencies, public and private, for the service of the destitute go back many hundred years in the history of England, and in this country they are as old as the colonies that were planted by Englishmen on the New England coast. But in the last decade of the nineteenth century the great increase in the number of permanent salaried positions in social work for properly qualified young men and women has given to such service a professional character that was lacking in the old days of more or less casual volunteer work. With the multiplication of agencies to serve the dependent groups in the community, the destitute, unemployed, sick, aged, the various groups mentally and physically defective, and with the increase in the number of organizations designed to promote social and civic reforms there has come a pressing demand for persons properly equipped to carry on this work.

As social work came to be regarded as a profession, a discussion of the best methods of preparing those who were about to enter it became inevitable. It is interesting that the idea of special schools for training social workers came not from members of the educational group, but from intelligent and far-seeing persons already engaged in work in the social field. As early as 1893 a special section of the International Congress of Charities, which met in Chicago during the World's Fair, was devoted to the subject of instruction

[1] Porter R. Lee, *The Professional Basis of Social Work.*

Attention should also be called to the following statement from the last yearbook of the New York School of Philanthropy:

"Within recent years social work has come to be a profession, in the sense of an occupation, with certain standards, requirements, technique, history—even certain traditions and ethics—and one in which a well-prepared person may earn a livelihood.

"The profession of social work has a history; it has certain standards, requirements, and technique, and it has certain traditions and ethics. Its history has yet to be adequately recorded; its standards and requirements are constantly advancing and expanding; its technique has been formulated at only a few points; its traditions are largely neglected, and its ethics unconscious. In other words, it is a profession still in the making, with stimulating possibilities. At the same time there is a background of experience, a foundation of thoughtful observation and painstaking practice, from which to go forward."

in "social science."[1] At this meeting, in a most significant paper on "The Need of Training Schools for a New Profession," Miss Dawes, of Massachusetts, explained the fact that the difficulty of securing trained workers was a "difficulty inseparable from the growth and extension of the method of scientific charity," and she pointed out the need of a new course of study "in some established institution or in an institution by itself or by the old-fashioned method never yet improved upon for actual development, the method of experimental training as the personal assistant of some skilled worker," in which it should be possible for those who wished to take up charitable work "to find some place of studying it as a profession." It is important to note that Miss Dawes did not have in mind merely training by means of study classes and lecture courses; she pointed out that "some more immediately practical experience of the work likely to be required should also be given, some laboratory practice in the science of charity, if we may so speak." Reference has already been made to the more definite statement of the pressing need of such schools made in 1897 by Miss Mary E. Richmond, the present director of the charity organization department of the Russell Sage Foundation, in a paper read at the National Conference of Charities and Correction, which met that year in Toronto.

In the following year the first venture in the new field was made. In the summer of 1898 a training class was organized by the New York Charity Organization Society, which became, in 1901, the Summer School for Philanthropic Workers and, in 1904, the New York School of Philanthropy. Thus the first suggestion of such a school came not from the colleges or universities, but from the members of the International and the National Conference of Charities, and the first professional classes were organized, not by an educational institution, but by the directors and staff of a private charitable agency. It has seemed worth while to emphasize the fact that, whatever the future relations between the professional schools of philanthropy and the universities may be, the schools owe their existence to the scientific interest of the social workers in their own profession and the schools were really organized to meet the needs of the social field by the active workers in the field, who knew the urgency of its demands.

A valuable account of these first suggestions and experiments that led the way toward the establishment of training schools for the new profession was prepared in 1903 by Dr. Jeffrey R. Brackett for his little book on "Supervision and Education in Charity." Two admirable chapters of this book[2] deal not only with the work done by

[1] See Rep. of International Congress of Charities, seventh section, Chicago, 1893.

[2] Jeffrey R. Brackett, *Supervision and Education in Charity* (New York: Macmillan, 1903). See Ch. VII, "Instruction in Educational institutions," and Ch. VIII, "Training for Work." Dr. Brackett was president of the department of charities and correction of Baltimore, and became the first director of the Boston School for Social Workers.

colleges and universities in the organization of courses covering the field of charities and correction, but also with the work done by the social agencies themselves in training their new workers and the initial purposes and experiments of the pioneer school. The Boston Associated Charities, for example, under the leadership of Miss Zilpha D. Smith, who became associate director of the Boston School for Social Workers upon its organization, had established the "requirement of a certain period of instruction and training by the general secretary and an experienced agent" for those who wished positions with the organization.[1]

Before the organization of the professional school the social worker was either trained through the system of apprenticeship alone or he learned from his own mistakes. Thus the training of social workers resembled the early methods of education in the older professions of law and medicine. Like social workers, "doctors," we are told, "have after a fashion been made by experience, i. e., their patients paid the price." Mr. Abraham Flexner shudders at the cost of early medical education, for, he says: "The early patients of the rapidly made doctors must have played an unduly large part in their training." In much the same way the poor upon whom the social workers learned "what not to do" often paid heavy costs in suffering or demoralization.

Eleven years have passed since the first professional school of philanthropy completed its first full year of training. These years have been marked by growth in many ways. There are now five of these schools, three of which offer two years of work. The history of their organization can be briefly stated. The example of New York in founding the first school for social workers was quickly followed by Chicago and Boston. In Chicago the settlements took the lead in this work, as the Charity Organization Society had done in New York City. In 1903 Dr. Graham Taylor, of Chicago Commons, and Miss Julia C. Lathrop, of Hull House, in cooperation with the extension department of the University of Chicago, organized lecture courses in practical work, which became in the following year the Chicago Institute of Social Science, and in 1907 the Chicago School of Civics and Philanthropy. In 1904 the Boston School for Social Workers was organized, under the joint auspices of Harvard University and Simmons College. In St. Louis a School of Social Economy, which originated as a series of round-table meetings for local social workers, was organized in 1905; it was affiliated at one time with the University of Missouri and later with Washington University. Similarly, in Philadelphia, courses of lectures on the practical aspects of social work became in 1910 a fully organized training school, which is now called the Pennsylvania School for Social

[1] See Brackett, op. cit., p. 192.

Service.[1] During the academic year 1913–14 there were, in round numbers, 900 students registered at these schools and 167 students received certificates of graduation.

These years of growth have been marked also by great improvements in the organization of the courses within the schools. In the beginning the lectures were given by persons engaged in practical social work; to-day the five schools all have staff lecturers giving all their time and thought to the work of teaching and to the problems of school organization. In this respect again, the lines of development have resembled those of the older professional schools of law and medicine in which the teachers were in the beginning successful practicing lawyers and doctors. In the newer, as in the older professional school, the organization of a real faculty group has been one of the great steps forward.

Two events that have had much to do with the successful growth of these schools should be noted. The first is the series of grants of money made by the Russell Sage Foundation, which was organized and endowed for "the improvement of social and living conditions in the United States." In the autumn of 1907 the trustees of the Sage Foundation made what might be called substantial "grants in aid" to the four professional schools of philanthropy then organized—those in New York, Chicago, Boston, and St. Louis. The grants to the schools were in the first instance specifically given for organizing departments of social investigation, no doubt in the belief that the work of investigating and studying adverse social conditions might be in some measure delegated by the foundation to the schools of philanthropy. The Russell Sage Foundation "grants" meant for all the schools the appointment of additional members of the faculty, and through the facilities for granting studentships, fellowships, or scholarships to promising university-trained men and women, an improvement in the quality of the student body.

Another fact of importance in the recent growth of the schools was the generous endowment of the New York School of Philanthropy during the year 1909–10 by the will of the late John S. Kennedy, of New York, by which the school was assured of an income from a sum which will ultimately amount to more than a million dollars. The endowment of one of the professional schools, giving it an assured position of permanency and growth, has been of assistance to all the other schools in sustaining the growing public confidence in the importance of their work and the necessity for providing them with the equipment needed to do that work well. In general, it may

[1] No mention is made here of at least two sectarian institutions which should perhaps be regarded as training schools. The School of Sociology of the Loyola University (Catholic) in Chicago is not included because it still seems to belong rather with work of the universities referred to on p. —, and the Training School for Jewish Workers in New York is not mentioned because it is still in the formative stage.

be said that whatever has made it possible for any one of the schools to improve the character of its work has reacted favorably upon all the schools by setting a new and higher standard to which the level of work in each school must be raised.

Notable progress has been made, too, in the past decade in the organization of the curriculum of the professional schools of philanthropy. Since the purpose of all these schools is identical, viz, to provide instruction and training for those who wish to enter the profession of social work, the curriculum is much the same in all the schools. It consists in general of lecture courses and class work, inspection visits to social institutions in or near the various cities in which the schools are located, and most important of all, field-work or practice work with some social agency. The lecture courses and classes of the schools differ from the courses in applied sociology offered in many of the universities in that the courses in the professional schools deal with practice rather than with theory; they are courses in social treatment rather than courses describing social conditions. Students who have had, in the college or university, courses dealing with the causes of poverty or with social politics or similar subjects may have learned why social work is being done. The courses in the school of philanthropy endeavor to teach how it is done or how it ought to be done. In discussing whether or not there had been evolved such a body of technique in the field of social treatment as to give content to such courses as are offered at the schools, Mr. Porter Lee made the following statement at the Baltimore conference:

> Technical processes are always derived from experience. Standard methods in any form of work were experiments at one time. Repeated over and over, now unconsciously, now consciously, their universal validity is finally recognized. By studying their experience, case workers dealing with the socially disabled have established some elementary principles. They have learned that there are certain methods which are more likely than others to yield the information necessary to an understanding of the disabilities of their clients. They have learned also that, given this knowledge, certain combinations of education, medical treatment, personal influence, opportunities for self-maintenance, restraint, or relief are likely to lead to the removal of those disabilities to a greater or less degree. They are learning that certain of their clients can never be improved by any of the methods now known to us.

Dr. Brackett, of the Boston School for Social Workers, in discussing "The Curriculum of the Professional School of Social Work" at the recent meeting of the National Conference of Charities and Correction[1] stated that "while teaching many facts," the object of the professional school was "rather to teach methods, to put tools into the students' hands;" the student, as a result of his

[1] See No. 48, Reprints of Reports and Addresses of the National Conference of Charities and Correction, 1915 Meeting at Baltimore, "The Curriculum of the Professional School of Social Work," by Jeffrey R. Brackett, director, School for Social Workers, Boston.

school work, should be able "to appreciate the value of technique in 'case work,' in any part of the field, with its necessary relation to measures for improving general conditions and advancing useful knowledge. That means to understand the scientific method of work, the getting of principles from thoughtful practice; where the test of usefulness of laws or of little acts, one man with another, is in the needs and possibilities of human beings concerned." Finally, the student should be enabled during the year "to get some definite training both in work with needy families and in group organization and neighborhood activities."

The most characteristic feature of the school curriculum, the feature that has most sharply differentiated the work of the school of philanthropy from that of the department of sociology in the university, has been the organization of field work, and upon this a growing emphasis has been laid. Field work in this sense has come to mean a system of social apprenticeship. From the first, the professional schools have realized that social work could not be undertaken without actual practice work in the office of a good social agency; that students could learn how to do only by doing under expert supervision. Comparison may be made between the field work of the school of philanthropy and the clinical experience furnished by the good medical school. Certainly the stress laid upon clinical practice for the medical student resembles the emphasis upon field work in the training of the social worker. Indeed, the analogy with the training of the medical student is in some respects a very interesting one. Dr. Cabot is quoted as having said:

> Learning medicine is not fundamentally different from learning anything else. If one had 100 hours in which to learn to ride a horse or to speak in public, one might spend, perhaps, 1 hour (in divided doses) in being told how to do it, 4 hours in watching a teacher do it, and the remaining 95 hours in practice, at first with close supervision, later under general oversight.[1]

Without field work our schools would be in much the same position as the medical schools in the earlier stage described by Mr. Abraham Flexner in his admirable and frequently quoted report on Medical Education in The United States. At one time "medical education consisted largely in getting by heart a prearranged system of correspondences, an array of symptoms so set off against a parallel array of doses that if the student noticed the one, he had only to write down the other." Now, in contrast to this more primitive condition, we are told that:

> On the pedagogic side, modern medicine, like all scientific teaching, is characterized by activity. The student no longer merely watches, listens, memorizes; he does. His own activities in the laboratory and in the clinic are the

[1] Quoted in Flexner: *Medical Education in the United States and Canada;* a report to the Carnegie Foundation for the Advancement of Teaching (New York, 1910).

main factors in his instruction and discipline. An education in medicine nowadays involves both learning and learning *how;* the student can not effectively know, unless he knows how.[1]

One additional quotation from Mr. Flexner's report serves to emphasize the necessity for practice work in connection with the training of the social worker by analogy with the training of the medical student. Mr. Flexner points out:

> There comes a time in a physician's development when any opportunity to look on is helpful; but only after he is trained; his training he can not get by looking on. That he gets by *doing*—in the medical school, if he can, otherwise in his early practice, which in that case furnishes his clinical schooling without a teacher to keep the beginner straight and to safeguard the welfare of the patient.[2]

In attempting to explain more concretely what has come to be known as field work in the curriculum of the professional school, it must be understood that as the term "social work" is used to describe widely varying activities, so the term "field work" has come to describe widely different kinds of practice work. The most important of these is the apprenticeship with case-work agencies, since the technique of case treatment is fundamentally necessary for almost every social worker; but other kinds of field work that are essential as training for more specialized work are (1) work with some governmental or quasi governmental agency, such as an efficiency bureau or a bureau of sanitary inspection, for those who wish to enter more specifically civic work; (2) participation in the recreational work of settlements or other neighborhood centers; (3) investigational work for those who wish the necessary technical training in methods of social inquiry.

Mr. Flexner's account of the interrelation between the medical school and the good clinic serves to illustrate the ideals which the schools of philanthropy and the social agencies of their respective cities have in mind in arranging "field work" for students. The student in these medical clinics, in the words of Mr. Flexner, "gets by assignment a succession of cases, for a full report upon each of which he is responsible; he must take the history, conduct the physical examination, do the microscopical and other clinical laboratory work, propound a diagnosis, suggest the treatment." That is:

> The student is a physician practicing the technique, which, it is to be hoped, may become his fixed professional habit; learning through experience, as indeed he will continue to learn long after he has left school—a controlled, systematized, criticized experience, however, not the blundering helpless "experience" upon which the student hitherto relied for a slow and costly initiation into the art of medicine.

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[1] Op. cit., pp. 21, 53.

[2] Op. cit., p. 100.

The numerous difficulties in the way of providing the necessary field work should not be overlooked.[1] The medical schools overcame the difficulties in the way of providing proper hospital facilities by establishing hospital stations of their own. It may be that the time will come when we shall find social agencies connected with the schools of philanthropy designed on the one hand to render social service in the community and on the other hand to provide "clinical" facilities for the students of the school with which they are connected. And, as a matter of fact, facilities for investigational practice work are organized and supervised by at least one of the schools at the present time.

If the importance of "field work" in the curriculum is accepted, there would seem to be a definite limit to the number of schools that can be properly organized, a limit that would be determined by the number of cities in which good field work could be found. Professional training schools for social work should be established only in cities where good social work is done. The establishment of such schools will in all probability be confined, of necessity, to a few large cities, and will probably make impossible the development of such schools in connection with universities or colleges situated in the country or in small towns. As a way out of this difficulty, it has been proposed to have the student proceed to a term of nonresident work which is to be devoted to field work in some city after the classroom work has been completed in the university—a plan of more than doubtful value, since the importance of correlation between field work and class work is regarded as essential, if the student is to derive proper training from either.[2]

Of the third feature of the curriculum of these schools, the so-called inspection visits, little need be said. Such visits should not be confused with field work. They are purely observational and informational, and from them the student gains none of the actual experience in doing under expert supervision, which is the invaluable asset of properly organized field work.

In connection with the general subject of the curriculum in the professional schools, attention should be called to the very recent organization of special courses to meet the needs of highly specialized groups of workers. This is especially significant since it is due in part to the efforts to define the term "social work" with greater ac-

[1] For a discussion of these difficulties and other aspects of the field work of the schools, see papers by Miss Zilpha Smith and by the present writer in reports of the National Conference of Charities and Correction (Baltimore, 1915).

[2] Attention may be called to somewhat similar arguments against the establishment of medical schools where proper clinical facilities are not available. "The argument advanced for the retention of medical schools in places where good clinical instruction is impossible," says Dr. Henry S. Pritchett, "is directly against the public interest." Introduction to Carnegie report on "Medical Education in the United States," p. xvi.

curacy, to differentiate the various types of service included under a rather nebulous title. Thus the New York school has a special training course for nurses in connection with one of the New York hospitals, the Chicago school has a special course for public-health nurses which provides for field work with the various public-health nursing agencies in that city, and the Chicago school has also undertaken to meet the needs of its large recreation centers by providing a special training course for playground workers, offering not only lecture courses at the school but technical classes in gymnastics, games, and folk dancing at the Hull House Gymnasium and practice work in the various settlements and public recreation centers. Another special course formerly offered both in the Chicago and New York schools was the training course for attendants in institutions for the insane—an attempt to instruct attendants in the modern methods of reeducating the insane and to raise the standards of care in public institutions. This course has been temporarily discontiued in both schools, but it is expected that it will be offered again in Chicago in the summer term of 1916 in cooperation with the Illinois Society for Mental Hygiene. What is perhaps a more important attempt at specialization is carried on both in the New York and Boston schools in a second-year course open only to students who have already had a year of work in some one of the professional schools. During this second year the student already equipped with a general knowledge of the social problem may concentrate on the work that he has decided to enter, such as charity-organization work, work for children, hospital social-service work, etc.

Other recent lines of development of the work of the professional schools that should not be overlooked are the extension courses offered in the evenings or late afternoons to those already engaged in social work. These courses have been most largely developed by the New York and Chicago schools, both of which also offer courses during the summer. The summer work of the New York school has recently taken the form of a series of "institutes" for those already engaged in social work, while the Chicago school offers a summer session with credit courses and field work that has been largely patronized not only by social workers but by teachers and others who are unable to attend the regular school sessions.

No attempt will be made in this report to discuss the progress that has been made in universities and colleges in increasing the number of courses in applied sociology. It may be noted that in general such courses are not professional in character. Two of the professional-training schools under discussion have university affiliation, the New York School of Philanthropy with Columbia, and the Boston School of Social Workers with Harvard University and Simmons College. In both cases, however, the "affiliation" is of such character that the

schools retain entire control over their own work. Two other schools, those of Chicago and St. Louis, which were at one time affiliated with neighboring universities, have withdrawn from this relationship. Prof. Felix Frankfurter, of the Harvard Law School, in discussing this subject at the last National Conference of Charities, stated emphatically his belief in the necessity of bringing all the schools into some kind of university relationship. While the future development of the schools in this direction can not easily be foreseen, certain differences between the work that the schools are doing now and the work that is done by the universities may be noted. In general the schools of philanthropy are professional schools of graduate rank.[1] The percentage of students who already hold college or university degrees has steadily risen in all the schools, until in some of them approximately two-thirds of the students belong in this group. The courses in applied sociology developed by the universities are designed almost exclusively for undergraduates, and the question must be faced, both by the schools and the universities, as to whether training of the kind developed in the schools is suitable for undergraduate students. For many kinds of social work a degree of maturity greater than that possessed by the vast majority of recent college graduates is requisite. With regard to the relationship between the professional schools and the graduate schools of the university, it may be pointed out that there are difficulties, grave but perhaps not insuperable, in the way of adjusting the curriculum of the professional school to the requirements, for example, for a master of arts

[1] The Yearbook of the New York School of Philanthropy for 1914–15, for example, makes the following statement:

"The School of Philanthropy is primarily a professional training school of graduate rank for civic and social work."

The catalogue of the Chicago School of Civics and Philanthropy for the year 1914–15 contains a somewhat detailed statement of the status of the school in relation to the work done in the universities:

"The Chicago School of Civics and Philanthropy is not identified with any university. Representatives of several university faculties are trustees of the school. The work done is often recognized by various universities and credit given on application; the standard maintained is, however, rather that of the professional than of the graduate department, and the methods attempted are those applied in courses of law and medicine rather than in the theoretical and general work in economics and sociology. These methods, as has been shown, involve the combined use of the lecture upon methods of work, the classroom discussion of special problems, and practical work under the direction of efficient social agencies.

"Our social exchange, however, is frequently embarrassed by applications for positions in social work from students who believe they have had training for such work through graduate courses in economics and sociology. Such students may have had courses or seminars which deal with the causes of poverty, the labor movement, phases of modern industry, or theories of social reform. They have not had, however, any experience either in the field or in the office. They may have learned why social work is being done; they have not learned how to do it; and it is therefore impossible to recommend them for positions which require the skilled and delicate treatment of difficult situations when their fitness for such work has never been tested. Obviously, the distinction should be carefully drawn by the college student who anticipates entering the field of social service between graduate study leading to the advanced degree on the one hand and the professional school of philanthropy with its carefully arranged system of social apprenticeship on the other."

degree. The question of credit for field work in its present somewhat unstandardized condition is perhaps the greatest difficulty. At present, it may be said, the schools of philanthropy are rendering a unique service. They are not duplicating university courses in their classrooms, and in their attempt to organize and standardize the practice work that is called "field work" they are engaged in experimental work which can best be carried on outside of the more rigid and formal requirements demanded by a system of university credits for university degrees.

An account of recent progress in education for social work would be seriously incomplete without some notice of the fact that the movement toward the organization of training schools for social work has not been confined to America.[1] Schools of this kind are, in fact, quite as numerous in Great Britain as in the United States. As early as 1903 the Charity Organization Society of London, together with the Women's University Settlement in the same city, started a scheme of training which afterwards developed into the London School of Sociology, with headquarters at Denison House, where the offices of the Charity Organization Society are located. This "School of sociology" has since been incorporated with the London School of Economics, which is a branch of the University of London. A recent bulletin on "Training for social work," issued by the London School of Economics, contains the following statement of the reasons for the establishment of the school:

> The present century has witnessed a remarkable change in the whole field of social work and administration. First, and most obviously, there has been a very great increase in the number and variety of appointments requiring specialized administrators to fill them; and this has been accompanied by an equally rapid rise in the standard of efficiency called for on the part of the administrators. New forms of government service have risen, involving direct personal dealing with large numbers of individuals, the value of which is entirely dependent upon the understanding, knowledge, and judgment of the re-administrators. New forms of government service have arisen, involving direct increase the well-being of employees; here, too, especially qualified superintendents are found to be necessary in order to insure success. Meanwhile old departments of philanthropic or charitable effort are revising their methods and increasing their effectiveness by making their work far more thorough and consistent, and this again is found to necessitate the employment of trained organizers or assistants.
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> In the second place, the workers themselves are now recognizing the importance of attaining and preserving a high standard of competence. They desire to be qualified for their admittedly difficult work by education, training, and experience. In some cases groups of specialized administrators have already formed themselves into associations, similar to those existing in the older professions, for the maintenance of a high standard in their work. The Hospital Almoners and the Welfare Secretaries in factories are examples of this new

[1] It has not been possible, unfortunately, to give an account of the Canadian experiments in establishing professional schools, notably those in connection with the University of Toronto and the University of Winnipeg.

movement. In other cases the individual workers now devote part of their spare time to increasing their knowledge by attendance at lectures and conferences. But the most marked sign of the new demand for training is the fact that a very large number of would-be social workers now realize that a definite preparation is needed before they can be qualified to begin work. They ask for opportunities of training; and they are prepared to devote one or more years to their special education. This demand is by no means confined to those who aim at becoming salaried officers; it is equally marked on the part of many volunteer workers who recognize that their standard of work must be equally high.

In 1905 a similar enterprise was instituted in Liverpool under the auspices of the Charity Organization Society, the Victoria Settlement, and the University of Liverpool. The example of Liverpool was followed in Birmingham, where the University of Birmingham cooperates with the Women's University Settlement and the warden of the settlement supervises the practice work and the so-called "visits of observation." More recently, similar schools of social study have been organized in Glasgow, Leeds, and Bristol, all joint undertakings of the universities and the settlements in these cities.

These schools differ in their relation to the respective universities and in their methods of work, but their general aim is described by Miss E. Macadam, director of studies in the Liverpool School of Training, as threefold:[1]

1. They train workers for voluntary or salaried social workers and grant a diploma to those candidates who reach a certain degree of proficiency.
2. They provide instruction in social questions for those who, in the course of their profession or as voluntary workers for charities or merely as interested citizens, come into contact with the problems of poverty.
3. They act as centers for investigation into social conditions in towns where this need is not otherwise provided for.

In general the English training schools for social work differ from the American schools in the close relation that exists between the English schools and the universities. The difference seems to be due to the fact that the American schools demand a university degree or its equivalent as a condition of admission, whereas the students in the English schools seem to be largely undergraduates who are carrying university courses in economics, industrial history, and similar subjects along with the more specialized technical courses.

A few attempts to establish similar schools have been made on the Continent of Europe. One of the oldest of these is a School of Social Work (School voor Maatschappelijk Werk), which was opened in Amsterdam in 1899. This school was compelled by lack of resources to suspend operations during the year 1903–4, but reopened in 1904 and now occupies an attractive and dignified building

[1] See Macadam: *"The University and Training for Social Work,"* Hibbert Journal, vol. 12, p. 286.

erected for its especial use and adapted to its needs. The work of this school, however, does not seem to be of university grade, and the students seem to be very young and less mature certainly than even the undergraduate students in American universities. This Dutch school is a school exclusively for women, as are the schools for social work that have been established in Germany, a circumstance which is perhaps due to the greater difficulties in the way of university training for women in these countries than in the United States or Great Britain.

The most important of the German schools is the "Soziale Frauenschule," of Berlin, organized in 1908, with Fräulein Dr. Alice Saloman, well known in America through her connection with the International Council of Women, as its "Direktorin." Similar "Soziale Frauenschulen" have been established in Hanover (Christlich Soziales Frauenseminar), in Heidelberg (Katholische Soziale Frauenschule), in Augsburg (Christliches Frauenseminar für Soziale Berufsarbeit), in Frankfort on the Main (Frauen Seminar für Sociale Berufsarbeit), and a second school has been established in Berlin (Frauenschule der Innern Mission). The names of the schools indicate their sectarian affiliations in many cases. In general the German schools seem not to be connected with the universities, as are the schools in England, and they seem to be much more elementary in character than the American schools.

In conclusion, a brief summary may be made of the most important indications of progress in education for social work within the past decade. The number of professional training schools for such work in the United States has increased from three to five; all the schools have improved greatly in material equipment; some of them now have excellent libraries, and two of the schools are housed in buildings exclusively devoted to school purposes; one of the schools is already provided with a large endowment, and the budgets of the other schools have become more adequate to their needs. More important signs of progress are the improvements in school organization and administration, the increase in the number of permanent staff lecturers, the solidifying of the curriculum, the gradual standardization of the requirements for field work. Largely as a result of the increased resources of the schools, there has been a great increase in the number quirements for field work. Largely as a result of the improved facilities of the school, there has been a great increase in the number of students and a still greater improvement in the "grade" of student as evidenced by the rising standards of entrance requirements in most if not all of the schools. A further indication of progress is to be found in the contributions that have been made by the schools to the literature of social work and social investigation. Several of the publications of the Russell Sage Foundation have come from the

schools, and some of the schools have themselves undertaken the publication of studies in the social field. There remain to be noted the lengthening of the school curriculum from one to two years in three of the schools and the development of special courses to meet the needs of special and highly differentiated groups of social workers.

As to that hoped-for result of the training schools for social work forecast so long ago by Miss Richmond in her paper at the Toronto conference (the progressive reaction of the improved professional standards of the schools upon the work of social service), it is as yet too early to speak. It is, however, obvious that, as a result not only of the training given in the schools, but through the process of selection that is exercised through the agency of the schools,[1] the selection of new workers who have met the tests provided during the year's period of training, there will be a gradual improvement in the character and quality of social work. Any improvement, however gradual in the body of social workers, must in the long run improve the character of social work. Speaking at the last National Conference of Charities, Mr. Porter R. Lee, whose rare experience combines that of superintendent of a large charity organization society and of staff lecturer in the New York School of Philanthropy, presented an admirable statement of this fact:

> It may not be amiss to point out that it rests largely with social workers themselves whether their calling shall rise to the plane of a profession or sink to the level of a trade * * *. The collection and interpretation of facts in a large body of knowledge is the foundation of any profession * * *. Social work will still grow from an occupation to a profession just as rapidly as its practitioners develop this body of knowledge out of their experience and acquire the power to apply it. When this committee[2] considers on the one hand how easily social workers assume the mantle of expertness, and on the other how long and how painstaking is the process by which the older professions have come to authoritative leadership, they could wish for social workers of this generation, as part of their endowment, nothing more earnestly than the spirit of humility in the face of their unparalleled opportunity.

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[1] See the report of the committee on "Securing and Training Social Workers," presented at the Boston meeting of the National Conference of Charities, in which Miss Breckinridge, of Chicago, as chairman of the committee, made the following statement:

"There is, too, reasonable unanimity as to one function which these schools may serve—that of selection. The 'conscientious elimination of the incompetent and the unfit' is a task of no mean importance when the object of our service may so easily become the victim of our blunders."

[2] The committee referred to was the committee on education for social work, of which Mr. Lee was chairman, see p. 350.

CHAPTER XIV.

HOME EDUCATION.

By Ellen C. Lombard,

Secretary, Home Education Division, Bureau of Education.

Contents.—The problems—Home making promoted by the Government—Home education in the Territories and dependencies—Home education promoted by organizations.

THE PROBLEMS.

A survey of the field of home education reveals evidences of significant progress. While for many years various agencies outside of schools have been at work creating public sentiment in the interest of conscious and intelligent home making, it is particularly during the past year that more concerted and organized effort has been made.

According to the Census of 1910 more than 9,400,000 women over 15 years of age, or nearly one-tenth of the whole population of the United States, are home makers in the rural districts or open country.

With the growing consciousness that the home is the most important factor in the life of the Nation comes the realization of the necessity for promoting the highest ideals in home making. The interest of the people has been noticeably quickened with a desire for more knowledge of home making, which includes not only building, furnishing, sanitation, cooking, and the inner activities of the home, but also the more important office of parenthood and child nurture. Some of the factors creating this interest are the various agencies engaged in studying the real conditions and the human needs of the people. For years forces have been at work in the interest of the home in towns and cities where there are good roads, material conveniences and comforts, and where there is adequate opportunity for social life, recreation and entertainment, church life, good schools for children, and access to libraries. Until recently, however, little attention has been paid to the homes in small rural districts and in the open country.

There are at present two great problems in home education demanding the attention of every educational and philanthropic agency.

The problem which has claimed especial attention is that of extending the interests, opportunities, and educational advantages of

the farmers' wives who live in remote localities under conditions of hardship and privation. These women have been for the most part uncomplaining. The constant flow of population from the rural districts into the large towns and cities in order to secure greater social, educational, and recreational advantages has, however, compelled attention to the actual conditions of life in the open country.

Efforts are being made to release women from the drudgery incident to most farm life by the introduction of labor and time-saving devices into the homes and making the water supply more available. Even with these advantages there must be some provision made for the social, recreational, and cultural life of the women to occupy the extra time secured by the release from so much drudgery. In order to secure such opportunities, the cooperation of every educational and philanthrophic agency outside of schools in large centers is imperative.

The second great problem in home education, and one of no less importance, concerns the immigrants who have poured into the United States seeking to make homes and to becomes citizens.

During the past five years 506,026 married women have come from foreign countries to make their homes here. As it is partly to these women that the country will turn for its strength in future generations, every agency must be enlisted in developing in them as rapidly as possible the highest ideals of womanhood and manhood, the love of home and home making, and the conservation of child life through better knowledge of how to train and care for children. This process of development will be slow, since it must first overcome superstitions and traditions which have been an active force for centuries. The schools are doing much through the children, but the women must look to outside agencies for their help. The Bureau of Immigration is working on this problem and interest has been aroused during the year.

HOME MAKING PROMOTED BY THE GOVERNMENT.

INTERIOR DEPARTMENT, BUREAU OF EDUCATION.

Through the home education division of the Bureau of Education, in cooperation with the National Congress of Mothers, the Department of the Interior has succeeded in reaching thousands of homes during the year. Mothers of little children have received Dr. L. Emmett Holt's pamphlet "Save the Babies," which deals in simple language with the care and feeding of both mother and child. These pamphlets were secured through the cooperation of the American Medical Association. The Public Health Service has cooperated by furnishing thousands of pamphlets on "The Care of the Baby" for distribution. Many circulars have been distributed on "The

Care of the Baby in Hot Weather," as well as a pamphlet on the "Duty of Parents to Children in Regard to Sex" and a pamphlet on "How to Organize," which were supplied by the National Congress of Mothers. These pamphlets have reached largely the women in the rural districts.

One important phase of the work is the organization of women into clubs in the interest of child welfare and home making. For this work the National Congress of Mothers and Parent-Teacher Associations has given practical aid through its National and State officers, who work in close cooperation by means of field workers and through literature. A pamphlet entitled "1,000 Good Books for Children" has been issued to assist parents in the selection of children's reading.

The National Reading Circle was formed for the purpose of stimulating a desire for good reading and to further home education. During the year 2,000 men and women, boys, and girls have been enrolled. In order to make the books on the lists of the reading courses available to readers, libraries have placed additional sets of such volumes on their shelves and some of the State library commissions have agreed to enter into a cooperative arrangement to place these sets of books in some of the small communities.

BUREAU OF MINES.

The department is working in the interest of the home through its Bureau of Mines in its campaign for health and its work of life saving. Several hundred women have been trained to give first aid to the injured. During the past year attention has been given to the sanitation of the homes, to elimination of smoke, and the right way to burn coal in order to secure the best results.

RECLAMATION SERVICE.

Success has attended the efforts of the Department of the Interior, through its Reclamation Service, to reach the homes and help the women on the projects to work for improved conditions in the homes and to inaugurate clubs for study. Clubs have been formed in South Dakota, Idaho, New Mexico, Colorado, Montana, Oregon, Nebraska, Washington, California, Utah, and Nevada. The *Reclamation Record*, the organ of the Reclamation Service, has been an important factor in reaching these people. One section of this periodical is devoted to project women and their interests. The women are encouraged to send inquiries and a statement of their needs, or any matter of interest to all, for publication. The *Record* acts as a clearing house for information.

OFFICE OF INDIAN AFFAIRS.

It is well demonstrated that the "Indian home must be the real basis for the civilization of the American Indian." Four distinct activities are carried on by the department through its Indian Office in the promotion of bettering home conditions. First, through the children who are in school; second, through the farmer on the farm; third, through the medical service; fourth, through the work of the field matron.

The field matron comes into closest contact with the mothers. She instructs them to care for themselves and their little children; to give the children proper food. She teaches them how to care for their houses and the value of ventilation, sunshine, and cleanliness. She exerts a definite moral influence in advising the mothers.

DEPARTMENT OF AGRICULTURE.

A significant movement was inaugurated by the Department of Agriculture during the year, when it sent out an inquiry to about 55,000 farm women asking how the department could best meet their needs. The answers have been classified and published under four heads: Domestic, educational, economic, and social and labor needs of farm women.

In The American Farm Woman as She Sees Herself, a circular of the Department of Agriculture, Edward B. Mitchell says:

> What the farm women want for their children they want for themselves as well, but since they can no longer go to school they ask that the school be brought to them. * * * The farmers look to educational extension not only to help them in their work, but to aid them in finding pleasure outside of their work. Courses of reading have been planned by the Government with circulating libraries to render the necessary books accessible to all. In general, there can be no doubt of the sincerity and prevalence of the yearning for a culture that will open their eyes to the beauty and joy of life.

The Smith-Lever bill has made it possible for an extension of work into rural homes. The assignment for this work for 1915 was $542,000.

The department, through its States Relation Service, has formed mother-daughter home canning clubs for the purpose of cultivating closer cooperation between mother and daughter in home interests and activities. The department has sent field workers into the homes, where they have assisted in the construction of labor and time-saving appliances for the housewives, as well as forming groups for consideration of topics in interest of the home.

DEPARTMENT OF LABOR.

Through its Children's Bureau the department is working for the education of mothers and the health of children.

Bulletins have been published on prenatal care and infant care; phases of community effort to protect the lives and rights of children; mothers' pensions; the New Zealand Society for the Health of Women and Children; birth registration; baby-saving campaigns; and child-welfare exhibits.

The bureau has conducted at the Panama-Pacific Exposition a children's health conference, to which parents bring their children for physical examination and advice upon hygiene and general care.

DEPARTMENT OF COMMERCE.

The circular on "Measurements for the Household," just issued by the Department of Commerce through its Bureau of Standards, is a valuable contribution to the work of home education. It deals in a practical way with household measuring, appliances, their use, State laws, measuring in purchasing commodities, methods of checking certain commodities, household thermometers and their use, refrigeration, heat in the household, light, electricity, gas, humidity and atmospheric pressure, density of liquids, time, and kitchen.

TREASURY DEPARTMENT.

Through its Public Health Service the department has contributed much to the well-being of the home. Investigation to discover and exterminate menaces to the health of the people have been carried on. Extermination of infected rats and squirrels and the elimination of breeding places for mosquitoes are among the important activities that have characterized the work of the service in the direction of home betterment. Recent supplements to the Public Health Reports of particular interest to home makers include "Shower Baths for Country Houses," by Carroll Fox; "The Care of the Baby" and "Summer Care of Infants," by W. C. Rucker and C. C. Pierce.

HOME EDUCATION IN THE TERRITORIES AND DEPENDENCIES.

Another problem with which this country has yet to deal is its territorial responsibility in regard to home education. Some of these problems have already been touched upon by the Government through its educational, medical, and military representatives and their coworkers. There are still islands needing a careful study of living conditions and some plan of work for home education. Considerable work has been done in Alaska by the Department of the Interior and in the Philippine Islands by the Department of War. Steps have been taken to get in touch with the needs of Porto Rico.

ALASKA.

Despite unfavorable conditions under which the natives of Alaska live and their migratory habits, the homes are receiving attention. Throughout the Alaska School Service of the Bureau of Education every teacher is a social worker, who, in addition to performing the routine work of the schoolroom, strives in every possible way to promote the physical, moral, and industrial welfare of the natives, adults as well as children. In the native villages the teachers and nurses endeavor to establish proper sanitary conditions by inspecting the houses, by insisting upon the proper disposal of garbage, and by giving instruction in sanitary methods of living. Natives are encouraged to replace their filthy huts by neat, well-ventilated houses. In some sections the natives have been taught to raise vegetables, which are a healthful addition to their usual diet of fish and meat.

At Hydaburg, mothers have been taught to care for their children properly. The homes of the Bristol Bay Eskimos, who are primitive people, are overcrowded and have no ventilation. The insanitary conditions induce disease. The lack of timber for houses makes building impossible.

Instructions have been given at Nulato in bread making and soup making and suggestions for scrubbing, cleaning, and placing of disinfectants.

Children play school at home in Atka Island. It is their favorite pastime. They are taught sewing and the mothers are shown how to use more care in finishing garments. They are also taught to use buttons and to cut by pattern. They make excellent yeast bread, cake, pies, and cookies. Efforts have been made to get them to use more rice and beans, and to teach them several ways of cooking each food. Natives have just learned to cook with milk. Washing and scrubbing floors is an everyday occurrence. The houses are aired each day, and some of the natives sleep with open windows.

Boys and girls learn sewing and assist in daily home duties, cooking and washing clothes as well as cleaning. Sewing and the making of patterns for fur coats are taught at Deering. Laundry work is difficult on account of the lack of fuel and soap.

The women of Eagle all use sewing machines and depend upon cutting and making their own clothing. They keep their cabins clean and use disinfectants on floors. The homes all have vents in the roofs which are screened, and they keep their windows open.

At Hoonah women have learned to can fruit in glass jars. The houses are clean, and cleanliness is increasing.

At Metlakahtla the teacher visited homes, encouraging the people to make their houses sanitary and cozy. A Mothers' Sewing Circle, organized by the teacher, possesses clubrooms, where members could meet to sew or for social pleasure and discussion of ways and means

of improving their homes. There is marked improvement in cleanliness of houses.

At Noatak nearly all the women have sewing machines.

At Sinuk the houses are not dirty. There is perceptible progress in housekeeping. Ventilation and cleanliness are improving.

Most of the Indian housewives at Fort Yukon make it a business to scrub floors and keep cabins clean. They know how to wash clothes and some keep their children clean.

At Kotzebue a woman's club meets, and the women are taught care of the baby, etc. Requests are made by mothers for baths and clean clothes. The teachers and doctors work in the homes as well as in the schools.

PORTO RICO.

The need of home education in Porto Rico is evidenced by a survey of home conditions recently made by a special investigator for the Bureau of Education. She reports insanitary conditions in housing, inadequate space in the one-room shacks where families must live, disease, and immorality, due to crowded conditions in the poorer sections of the towns. Mothers are often called upon to support their children by washing, cooking, working in factories and tobacco fields, picking coffee, lace making, and hat making. This gives the women little time for home making, even for housekeeping, and no time to train and care for their children. The need of simple instruction in selection and preparation of proper food, especially for the babies, is evidenced by the unhealthy condition of the children. The death rate of children under 1 year in 1914 was 28.7 per cent. Steps have already been taken to bring the women together in small groups. This will have to be directed largely by the teachers.

PHILIPPINE ISLANDS.

Government agencies in the Philippines, such as the bureau of education, the bureau of health, and the bureau of agriculture, have been actively engaged in improving and building up home life. There is the closest relation between the home and the school. The bureau of education, cooperating with the bureau of agriculture, has been instrumental in the establishment and supervision of thousands of home gardens. The bureau of health has placed circulars in the homes of the people regarding diseases and epidemics.

A bulletin on "Housekeeping," by Alice M. Fuller, has just been published. In addition to housekeeping activities this bulletin contains interesting and valuable chapters on hygiene, home sanitation, the care of the baby, marriage, and home life.

HOME EDUCATION PROMOTED BY ORGANIZATIONS.

NATIONAL CONGRESS OF MOTHERS AND PARENT-TEACHER ASSOCIATIONS.

During the year the National Congress of Mothers has been interested in the advocacy of sane and practical labor laws for children and for the rational guidance of erring children. The problem of the erring child has been discussed at many of the conferences.

The promotion of organizations in small communities has been extended through cooperation with the Home Education Division of the Bureau of Education. The home and school have become more closely associated through the organization of parents and teachers.

In its work for home education the National Congress of Mothers has held important conferences. The Cincinnati conference was held in February in connection with the Department of Superintendence of the National Education Association, at which the United States Commissioner of Education presided. This meeting was attended by an enthusiastic body of workers. Another conference was held in February in Erie, Pa.

Several conferences were held in connection with the Mothers' Crusade, a transcontinental tour which took place during May and June. The crusade was under the leadership of the president of the congress, who is also director of the Home Education Division of the Bureau of Education. Meetings were held at Kenosha, Wis., Chicago, St. Paul, Bismarck, N. Dak., Butte, Mont., Seattle, Wash., Portland, Oreg., San Francisco, Los Angeles, San Diego, Phoenix, Ariz., Albuqueque, N. Mex., Pueblo, Colo, Mitchell, S. Dak. State conferences have been held during the year.

A section of the Mothers' Congress was presided over by the Commissioner of Education at the annual meeting of the National Education Association in Oakland., Cal., in August. Home education, closer cooperation between the home and the school, and the problem of the erring child were characteristic topics for discussion at these conferences.

The activities of State and local organizations include child welfare, exhibits, and baby-saving campaigns. Special progress in child welfare and home making is reported in Maryland, Montana, North Dakota, South Dakota, and New Mexico. The development of child-welfare circles has been noteworthy. During the year 53 circles have been organized in Pittsburgh and Western Pennsylvania, with about 2,500 members. These circles are composed of women who are interested in child study and the organization of mothers, and the work is carried on primarily for the purpose of developing leaders. The circles take part in community activities such as:

Directing a summer playground and gardens for children, establishing manual-training classes, establishing and furnishing kindergartens, etc.

GENERAL FEDERATION OF WOMEN'S CLUBS.

Through its department of household economics, the Federation of Women's Clubs promotes home education. The purpose of the department is to emphasize the truth "that the women's club movement is not blazing and beating a path that leads away from the home, but is steadily giving to the home better knowledge and higher ideals."

The department of legislation, in furthering the interests of the home, has been active in promoting reforms in the property rights of women. Efforts have been made to secure legislation regarding the custody of children, uniform marriage and divorce laws, etc.

Much work has been accomplished by churches, settlements, hospitals, the Young Women's Christian Association, and other organizations in promoting home education.

CHAPTER XV.

ART EDUCATION.[1]

By Charles Fabens Kelley,
Professor of Art, Ohio State University.

Contents.—Present condition of art education in the United States—Professional art schools—Public schools—Colleges and universities—Special events of the year.

PRESENT CONDITION OF ART EDUCATION IN THE UNITED STATES.

Viewing the situation as a whole and comparing results with those obtained in European countries, there seems to be little cause for congratulation on the present condition of art education in the United States. Certain features, to be sure, are admirable, but art education in its development has lagged conspicuously behind other subjects of universal interest. Evidently there does not exist a consensus of opinion as to what constitutes art teaching in schools, colleges, and universities.

PROFESSIONAL ART SCHOOLS.[2]

The curricula of the professional art schools have varied little in a number of years, except for the introduction of crafts work. All offer courses in drawing, painting in water color and oils, design, a course in perspective and artistic anatomy, and most of them courses in crafts work and illustration. The statements of their catalogues do not vary to any great extent; nor does the appearance of the reproductions of students' work generally contained in these publications.

Although many of the academic art schools exist in connection with art museums, there is too little attempt to familiarize the students, in any systematic way, with the contents of the museums in which they work, and intelligent study of the history and development of art is too often conspicuous by its absence. As these schools, though of course founded for idealistic reasons, are commercial institutions, it is necessary for them to have low entrance requirements,

[1] The discussion will be limited to the study of drawing, painting, design, and the history and appreciation of the fine arts. Professional schools of architecture will not be included, nor will curricula offered under the captions of "manual arts" or "practical arts."

[2] See Rep. of Commr. of Educ., 1914, vol. 1, p. 375.

or even, in some cases, none at all. The catalogues of these schools make a feature of the individual attention given to each student. In the heterogeneous mass of students found in the ordinary art school, proficient ones will probably receive a fair amount of personal supervision, but it is impossible to give individual attention to large numbers of students, particularly when the faculties are not larger than those announced in the bulletins. There seems to be no machinery for eliminating the incompetent, who often do themselves permanent injury by persisting in a course unsuited to their needs and ability. The continued presence of such students is also a great drawback to the advancement of others.

Some of the universities of the country claim to conduct regular "academic" art schools, but they will be discussed under the caption of colleges and universities.

PUBLIC SCHOOLS.

Nearly all public schools attempt to teach some form of the fine arts. In many cases the teaching is restricted to drawing, but frequently very highly specialized and diversified work is found.

Broadly speaking, a relatively higher efficiency is maintained in the public schools than in the colleges and universities. This is true in spite of the fact that training usually considered entirely inadequate for the teaching of such subjects as English, history, geography, etc., is often considered quite sufficient for equipping a first-rate teacher of drawing. It is therefore not the fault of the teacher that bad work in drawing and kindred branches persists, but rather the absence of any standards of true value.

The greater degree of systematization necessitated by the employment of "unskilled labor" has given results, in exhibitions at least, that compare favorably with the work of more highly trained teachers who lack such definite schedules. This explains why several series of rather well-prepared drawing books are directly responsible for a large part of the art work in the public schools of the United States.

Wherever special teachers of drawing do not give all the instruction, the success of the work depends almost entirely upon the ability of the supervisors of drawing and the degree in which they are able to enlist the support of their subordinates. The very lack of special training on the part of drawing teachers in the elementary grades makes it necessary that they have carefully worked-out syllabi to follow, and it is therefore impossible to secure much flexibility of treatment.

In the high schools there are generally special teachers of drawing, some of whom teach another subject also, and they are usually better equipped.

The schools have analyzed the difficulty and are correcting it as fast as circumstances permit, and already in many large cities the training requirements for teachers of art are as rigorous as they would be for any other department of education.

Drawing, color work and design, as well as a certain amount of history and appreciation of art, are taught successfully and conscientiously in the public schools of many cities of the United States, and the standards are usually high, so far as the secondary schools are concerned. In many cases the fact, first grasped by the advertising experts, that beauty has a commercial value, has been directly responsible for the amount of support these art courses have received. The enthusiasm with which students have generally followed such courses has also contributed largely to their popularity. There is always a great deal to show at the end of the year and tangible evidences of the student's progress are constantly available. It is to be feared that this is one of the great weaknesses of the system, wherever results have been overemphasized, though such overemphasis is insidious. The desire to make pretty things which have been designed in art courses, and to carry them away as gifts, is an element which has entered largely into the development of many of our supposedly most successful art courses, to their great detriment. There has unfortunately been a marked impatience with any except final processes, and preliminary steps were hurried through to the lasting handicap of the student. The teacher, through a not entirely unpraiseworthy desire to have her class make a creditable showing, has often done a large part of the educationally most important work for the student, with the result that the finished products are not really representative of the student's power and ability.

Courses treating of art in the home, given in high schools in connection with home economics or domestic art, have developed wide differences in content and scope. Some seem to aim to give a grasp of the underlying principles of the fine arts while others confine their attention to fancy needlework and tooled leather. Whatever the content of these courses, they have been a wholesome stimulus in arousing in the pupil the desire to obtain some understanding of the beautiful, most conspicuous by its absence in many households.

In some schools the study of pictures is carried on in connection with language work, thus serving a double purpose. The principal difficulty encountered here is that in many cases the teaching and discussion are conducted by the teacher of English, who lays too great an emphasis upon the literary value of a picture (not often commensurate with its artistic merits) since she has not had the training necessary for the perception and explanation of matters of greater interest and importance.

A really great informing influence might be made of the practice of decorating school buildings with casts and pictures of high standard. Too often these pictures and casts are placed in position and then allowed to accumulate the dust of neglect by a faculty which might be using them advantageously in the regular school work. In the past 25 years the average school building has become an object of some beauty and interest in marked contrast to the earlier buildings. This greater attention now paid to appearances can not fail to react favorably upon the children, giving them a more vital interest in the application of general art principles.

COLLEGES AND UNIVERSITIES.

Although art courses in the schools vary widely with the locality, there is not nearly the great divergency in curricula that is so conspicuous in all the institutions of higher learning. It may not be an exaggeration to say that, in so far as the institutions which claim to have distinct art departments are concerned, no two of the larger colleges and universities regard art in the same light.

Several universities announce regular art schools in which students may work with more or less freedom from the too severe mental discipline imposed upon those registered in other courses. The two most highly developed schools of this nature seem to be at Yale and Syracuse. Both state in their catalogues that the purpose of the school is that of a regular school of fine arts, but there are very distinct differences in the way the courses have been worked out.

At Yale there are no entrance requirements except that the applicant must be 16 years of age or over and have a certain amount of proficiency in drawing. Preparatory classes in drawing are maintained for those who do not possess the requisite proficiency.

The Yale catalogue says:

> The department of fine arts of Yale University occupies a position in many ways unique among the art schools of America. It offers, by reason of its relations with the other departments of the university, extraordinary advantages, both to professional students and to the undergraduates; and is enabled, by its position, to influence the university life and thought through the lectures and courses open to students in other departments, while at the same time opening to the student of art the possibility of finding himself part of a larger cultivation to which his own activities may be intelligently related.

Yale possesses one of the finest collections of Italian primitives in America, and this, with other collections and objects of interest, is open to the art student.

It is noteworthy that the art student at Yale is not required to take any courses outside of the art school, and the school offers no regular instruction in the history and appreciation of the fine arts. A student may conceivably graduate from the school of fine arts with

honors, without ever having studied the subject of art history, or taken any course outside the academic art work. A course of 30 or more lectures on the history of the fine arts, extending over a period of three years, and given by various authorities on the subject, was started in 1913–14, but no university credit is given for this course, and the students are not required to take it. At the end of three years a certificate is given.

The school also offers a fourth, the senior year, in which work of a more professional nature is undertaken, and desires to emphasize the extraordinary value of this fourth year work, offering as it does a possibility for training and a preparation for the full professional career rarely, if ever before, given to students of art.

Even the completion of this course does not lead to a degree, but upon its "successful completion" a special certificate is given. It—

is open only to those who by reason of the high standard of their work are fitted in the judgment of the faculty to avail themselves of its special privileges. * * * The degree of bachelor of fine arts is conferred by Yale University, on the recommendation of the faculty of the school of fine arts, upon students of each of the three departments of the school, namely: Painting, sculpture, and architecture, and is awarded at the university commencement to candidates for this distinction who show exceptional merit in the work presented and in the thesis offered for the judgment of the faculty.

Candidates are required to submit representative work * * * together with a thesis on some subject relative to the fine arts, and acceptable to the faculty.

Five years of work or its equivalent are necessary for candidates for this degree.

The Syracuse statement of admission requirements follows:[1]

Candidates * * * are required to show by examinations or by certificates from preparatory institutions of recognized standing that they have studied with satisfactory proficiency the following subjects, viz: English grammar, geography, arithmetic, American history, together with a minimum of two years of high-school work. In addition to the above, a year of systematic study in drawing is required.

The introduction to the bulletin says:

The incorporation of a full university course in painting offers a unique opportunity for the broadest foundation in art, for along with the practical work of training the eye and hand, the intellectual side of the student is stimulated by the study of languages, history, history of art, and esthetics, resulting in a breadth of view which renders him capable of the highest efforts in his chosen line.

In addition to the technical courses the student is required to take, in the four-year painting course, 2 hours of English, 12 hours of French, 2 hours of ancient history, 2 hours of modern history, 5 hours of art history, and 1 hour of esthetics. After a four-year

[1] Bulletin of Syracuse University, Vol. XV, No. 5, p. 155.

painting course such as outlined, the student is given a degree of bachelor of painting (B. P.). A course in design is also offered, which lasts for three years and is almost entirely technical in nature. The student is required to take four courses in the history of art, but all his other courses are technical. A certificate is given at the end of three years, but no diploma.

A course in normal art is offered in the teacher's college by a separate faculty, its object being to train teachers in drawing and manual arts for elementary schools. At the end of three years a certificate is given, and at the end of four years a degree of bachelor of pedagogy in art.

The schools at Syracuse and Yale are accorded perhaps more recognition in their own universities than are schools with avowedly similar objects and ideals in other educational institutions of the country. For this reason they have been discussed in some detail, since they represent two quite different ways of solving the same problem.

Other schools of art in various colleges and universities are conducted in a somewhat similar way, though without the same financial support.

Elsewhere the situation is different. Drake University, Iowa, has an "Institute of Fine Arts," consisting of a conservatory of music, a school of dramatic art, and a school of drawing and painting. In this school a general art course is offered, a normal art course, an arts and crafts course, and a china-painting course. Students who enter the course in normal art (which extends over two years) must have had a high-school education or its equivalent. Students may enter the other courses at any time, and the "advancement depends entirely upon the ability of the student." In the normal course, English composition, Biblical literature, psychology, and the history of education are required, but no nontechnical work is required of the students in the other courses. The faculty consists of one assistant professor and an instructor.

The University of Nebraska has a school of fine arts and offers a degree of bachelor of fine arts in drawing and painting. Regular university students in the college of arts and sciences are permitted to elect the fine arts as the major for their degree of B. A. Students registered in the fine arts course are required to take 4 hours of rhetoric, 20 hours of a foreign language (for which, by permission of the director, history or literature may be substituted), 6 hours of art history, 10 hours of esthetics, 6 hours of zoology, and 4 hours of physical education.

Newcomb Memorial College for Women, of the Tulane University of Lousiana, has an art school which in many ways is unique and has become a real influence in the development of art industry in New

Orleans. The Newcomb art school offers courses in drawing, painting, and design, with rather more of the history of art than is ordinarily found in professional art schools.[1] The special emphasis seems, however, to be laid upon the crafts; these are prosecuted more successfully here than in other art schools under university supervision. The crafts have been deliberately emphasized in an effort to enlist the sympathies of New Orleans people in productive art industries and to enable the students to earn a living upon leaving the school without being compelled to teach unless they should desire to specialize in the pedagogic side of art work. The bulletin says: "The aim of the school is to furnish opportunity for professional study in pictorial and decorative art and to prepare teachers of art." For entrance to all the courses a four-year high-school course or its equivalent is required. The courses of study are as follows:

Regular course leading to a diploma in art.
Regular course leading to the degree of bachelor of arts in education.
Regular course leading to degree of bachelor of arts in education, in which the art elective is shared by the elective in music.
Regular course elective in the college, counting toward the degree of bachelor of arts.
Regular course required of students in household economy.
Special courses in studio work.

The only nontechnical courses required of the candidates for the art diploma are English, French, or German and the history of art.

The crafts work must necessarily be mentioned in some detail here, since it has given the school its reputation. It is highly specialized in pottery, needlework, and metal work. The students of the school maintain a salesroom in one of the school buildings, as all the work done in the crafts courses is intended to be sold. The results of this business venture have been most successful, and the school is now advertising commercially the products of its students.

Although there are many schools in the country under private auspices devoted to the training of commercial designers in one field or another, the Newcomb plant is practically unique as a university enterprise. It has successfully solved a difficult problem.

The San Francisco Institute of Art maintains a regular art school under the direction of the San Francisco Art Association, which, in turn, is affiliated with the University of California, and, consequently, the name of the president of the university appears at the head of the faculty list of the art association. Students of the institute who pass satisfactory examinations in painting, drawing, modeling, composition, perspective, and anatomy are given a certificate of proficiency by the university. The school has no entrance requirements.[2]

[1] Bulletin of the Tulane University of Louisiana, series 16, No. 6.
[2] University of California Bulletin, 3d series, Vol. VIII, No. 5, pt. 6.

The St. Louis School of Fine Arts is conducted under the charter of Washington University, but the university has separate departments of drawing and the history of art, in no way connected with the school, and seems to consider that there is no duplication of effort.[1]

The University of Kansas, Lawrence, Kans., has a school of fine arts offering courses in drawing ad painting. It gives a teacher's certificate at the end of a two years' course, but requires four years for the degree of bachelor of painting.[2]

This is characteristic of many of the art departments in colleges and universities throughout the country. "The instructors in the school of fine arts receive compensation from the State only for the work of the last year." The tuition fees of the students pay the remainder.

Brown University, Providence, R. I., has an arrangement with the Rhode Island School of Design whereby students take two courses in free-hand drawing at the design school, for which they receive university credit. All courses in the history of art are offered by the art department of the university.

The University of Cincinnati has an arrangement with the Art Academy of Cincinnati by which—

> students from the university may elect the courses stated in the catalogue in drawing, modeling, and carving, not more than 6 hours' work in any one semester, and receive credit therefor on the books of the university, provided these courses have been duly entered on the election blank and the proper certificate from the director of the school is presented on their satisfactory completion. Not more than 12 hours' work in the art academy will be credited for the degree of bachelor of arts.[3]

In its teachers' college the university also offers special courses for teachers of art, most of which are given at one of the city high schools. The catalogue says:

> The purpose of this course is to prepare students for positions as teachers of art or supervisors of art instruction in public or private schools. Admission presupposes (*a*) the satisfactory completion of an approved curriculum in a secondary school, and (*b*) an amount of work in art of approved quality equivalent to that represented by two years of study in the Art Academy of Concinnati * * *. The course is two years in length, during which the student's time is divided about equally between the professional program of the college for teachers and studies in art at the Art Academy of Cincinnati.

Western Reserve University, Cleveland, Ohio, offers a five-year course in connection with the Cleveland School of Fine Arts, which leads to a degree of A. B.[4]

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[1] Publications of Washington University, Series II, Vol. XIII, No. II, pp. 73, 105.
[2] Bulletin of the University of Kansas, vol. 16, No. 8, p. 35.
[3] University of Cincinnati Record, Vol. XI, No. 1, p. 101.
[4] Western Reserve University Bulletins, Vol. XVIII, No. 1, p. 112.

Students of the Cleveland School of Art who fulfill the requirements for the diploma of the Cleveland School of Art and who complete as much as one full year of work in the college for women may receive a certificate to that effect from the college for women.

The degree of bachelor of science and the diploma of the Cleveland School of Art will be granted to students who have completed three years' work in the college for women and three years' work in the Cleveland School of Art.

Regular students, girls, of the Cleveland School of Art, may take up work for which they are prepared at the college for women under an exchange arrangement.[1]

It will be seen that a considerable number of colleges and universities believe in allowing credit for a certain amount of "art-school" work, done under their own auspices or those of affiliated organizations. Where the art work in colleges and universities is given in a department of fine arts rather than in the more professional and separate school, one might expect to find a greater unanimity of purpose and some consensus of opinion as to its function, at least as definite as would be held by a group of English departments, or departments of economics or history. Such, however, is far from being the real state of affairs.

Ten years ago a much greater divergence of opinion as to the scope and functions of art departments existed than does to-day, and, although considerable progress has been made, it is yet difficult to see the principle behind the individual case. There are two extremes—on the one hand, it is contended that no technical work should be credited toward a B. A. degree; on the other hand, it is claimed that work should be almost entirely technical and should all be counted for a degree. The question really is, therefore, whether any art work is worthy of recognition with other cultural subjects as counting toward a B. A. degree. If so, what sort of courses should be allowed for credit? and if not, whether such courses should be offered by the university and the students allowed to take them without credit. In the discussion of these and kindred topics the colleges and universities have lagged far behind the public schools, which in the Eastern Art and Manual Training Teachers' Association and the Western Drawing and Manual Training Association have done a vast amount of good. Enterprising book firms with drawing and "applied arts" books on their lists have in some cases even conducted summer schools for teachers, and at any large gathering of teachers, noticeably at the meetings of the eastern and western drawing and manual-training teachers' associations, they have had energetic representatives. Even this commercial cohesion has been lacking among the colleges and universities, and until the past two or three years there has seemed to be little disposition on the part of the majority of college art departments to "get together." The single means to this end is the College Art Association.

[1] Circular of Cleveland School of Art, 1915–16, p. 9.

The College Art Association of America was started as a committee of the Western Drawing and Manual Training Association in 1910. In 1911 it became a separate organization and adopted a constitution. Its aim has been to supply the cohesion between college art departments that had been so sadly lacking, and it is rapidly becoming representative, influential, and helpful. In 1915 it adopted "Art and Archæology" as its official publication. The association now includes over 50 of the best-known institutions of the country on its membership list, though even yet there are some very conspicuous absences. In many cases the secretary has been unable to elicit any response to personal letters, though the institution is admittedly the only thing of its kind in the country and is conceded to be doing a very necessary and heretofore neglected work. For this neglect there are perhaps several reasons. One is that university ideals, so far as art departments are concerned, are in a comparatively undeveloped state. Again, much loose thinking about art and correlated subjects has been tolerated by American educators, and the subject has suffered as much from misplaced enthusiasm as it has from neglect. In some institutions the art department receives a dollar for dollar consideration with other departments, but in others, among them the largest institutions in the country, where courses offered by the art department are required for students majoring in other departments, the art department is frequently the last to receive recognition in the budget.

A conspicuous exception is the University of Montana, which offers five undergraduate courses in the history of art, and two graduate courses—a course in appreciation and a course in esthetic principles; ten technical courses in drawing and painting, with two teachers' courses; four courses in design and two in crafts work. Students may elect the fine arts as a major, taking 35 hours distributed over the three branches of history, representation, and design. There is no attempt to teach the subject professionally, as in a regular art school, but it is offered as are the courses in language and literature, and receives the same recognition.[1]

This is in decided contrast to the situation at the University of Illinois, where a student may count but 12 hours of work in the art department for a degree, and the possibility of majoring in the fine arts is remote.

In some institutions drawing and water color were introduced several years ago, because it was thought that a knowledge of the processes would be of value to students of engineering, zoology, and botany who were occasionally called upon to make graphic representations of their work, and when these courses were added they were usually announced in the catalogue under the heading of "Art

[1] University of Montana Bulletin, Whole No. 108, Series 20, pp. 88–89.

Department." Those in charge of such courses attempted to give the students some insight into the spiritualizing qualities of the fine arts, but without much success under the circumstances.

With the rise and rapid growth of departments of domestic science there has come a demand, insistent, though formless, for the "humanizing influence" of art. Students of household affairs are frequently required to take two or three art courses before they receive their diplomas. Often the courses consist of learning embroidery patterns and fancy stitches. In other cases no attempt is made to show the student why she is registered in such courses, and the work is done in bewilderment, without a pretense of cooperation on the part either of the instructor or the student.

It will not be too harsh to say that wherever an art department has been founded without an earnest desire for something beside the most grossly tangible results, it has not yet recovered from the severe handicap. There are many such departments.

Many times public-spirited members of the faculties of institutions without art departments have prepared lecture courses on the cultural side of the fine arts, and the college or university has published these in its bulletins as "Courses in the fine arts" under a separate caption. It is doubtful if any of these instructors have received financial recognition for such work, though reference to it is frequently found among the cultural influences of university and college life. The best that can generally be said about such courses is that they are prompted by a worthy enthusiasm. Many of such "art" courses are offered by professors of Greek or Latin, who have become interested in the subject through their studies in philology and archæology, but have had no special training in art criticism.

In regular college art departments the faculties of Harvard and Princeton have perhaps taken the lead in the matter of according full recognition to the fine arts. The Harvard courses are carefully balanced between the technical and nontechnical; students are required to take both when majoring in the fine arts. Princeton is strongly archæological in its tendencies, so strongly so in fact as to question vigorously in public discussions the propriety of allowing the undergraduate to obtain any technical knowledge from his alma mater.

If the academic art school under university care is considered as one extreme, Princeton represents the other, and Harvard occupies almost middle ground. It may therefore be profitable to consider the Harvard and Princeton courses more in detail.[1]

Each member of the Princeton faculty is professor or assistant professor (as the case may be) in "art and archæology." No at-

[1] In both cases architecture is classed with the fine arts, but will not be discussed in detail since it has not been taken up in this paper. See Harvard and Princeton bulletins.

tempt is made to differentiate the two subjects. One of the courses is announced as follows:

301. Ancient Art. A general outline of the history of ancient sculpture, painting, and the minor arts. Lectures and required reading. In this course the preceptorial reading consists of Maspero, *Art in Egypt;* Babelon, *Manual of Oriental Antiquities;* Fowler and Wheeler, *Greek Archæology;* Perrot and Chipiez, *Histoire de l'Art dans l'Antiquité,* Vols. VI–IX. A thesis is required of candidates for final special honors on one of the following subjects: Minoan and Mycenæan painting; Minoan and Mycenæan metal work; vase paintings, with scenes from epic story; the work of Praxiteles; types of Greek coins; comparative study of Greek and Roman portraits; 3 hours a week, one term.

Other courses described in the same fashion are: Mediæval art, ancient architecture, mediæval architecture, Italian sculpture, Greek sculpture, the revival of painting in Italy, northern painting, and elements of architecture. Some of these are also listed as graduate courses. The graduate announcement of titles of courses is:

For 1914–15, Italian sculpture from the fourth to the eleventh century, Italian sculpture from the eleventh to the fifteenth century, two courses on Christian architecture, renaissance architecture, Giotto and his associates; Giorgione, Palma Vecchio, and Titian; early Christian archæology, Romanesque and Gothic sculpture, Greek archæology, art commentary on Greek literature.

For the years 1915–16 and 1916–17 other courses will be substituted as occasion requires according to the following provisional schedule:

Given in 1915–16.—Italian sculpture of the fifteenth century, Italian sculpture of the sixteenth century, two courses on Christian architecture, Sienese painters of the thirteenth and fourteenth centuries, Leonardo da Vinci, Christian symbolism and iconography, classical numismatics, Etruscan art; Olympia, Delphi, Epidaurus.

Given in 1916–17.—Theories of art, Christian architecture, renaissance architecture, Masaccio and the Florentine realists, early Flemish painting, mediæval illumination, Byzantine art, Greek archæology, Greek painting.

It is not expected that all these courses will be elected; consequently the courses given depend, in the graduate school, upon the choice of the student from the list offered, though this does not appear in the catalogue.

The schools of architecture, landscape architecture, and the department of fine arts are organized at Harvard into a "division of fine arts," an executive body, one of whose members acts as chairman. Though the school of architecture at Cambridge is a graduate school, all the announcements of courses in the schools and departments named appear together in one bulletin, excepting technical courses in architecture, although two of the elementary courses are included. All the courses appearing in the fine arts bulletin, technical and nontechnical, are counted toward the A. B. degree. This is explained in the introduction to the bulletin:

The instruction provided by the division of fine arts is intended to afford a basis for a comprehensive knowledge of the history and principles of the fine

arts from ancient times to the present day, to provide a certain amount of training in drawing and painting, and to offer to students who intend to enter the schools of architecture and landscape architecture an opportunity to begin their training as undergraduates. For this reason several courses which are announced by the faculties of these two schools are also listed as courses in fine arts. Most of these courses are not highly technical in character, and may profitably be taken by students who do not look forward to a professional career.

The first course announced as "primarily for undergraduates" is as follows:

Fine arts 1a. Principles of drawing and painting, with elementary practice.—This is a general introductory course in drawing and painting; it is required for admission to more advanced courses in drawing and painting.

The course aims to give an understanding of the general principles of drawing and painting, together with some training in their practice, the language of drawing and painting being considered on the one hand as a useful means of expression in many different pursuits, and its practice, on the other, as almost indispensable for an understanding and appreciation of nature and of works of art. The exercises performed by each student are planned to give training in the observation of form and of tone relations in nature, as well as practice in the methods of drawing and of water-color painting. These exercises include delineation, form drawing, color-value drawing, and complete painting from objects, and also copying examples of figure and landscape drawing by the great masters. The characteristics of the chief schools of painting are briefly considered. The course consists of lectures with supplementary exercises.

There are two lectures a week, attendance being required; also two regular hours each week for drawing, in addition to work in outside hours. The course lasts through the year.

There is also offered a half course in drawing for students who wish only an elementary training in the subject and do not intend to take the more advanced courses. This meets five hours a week for the half year.

Two half courses of a general introductory nature are offered in the history of art, with two lectures and a section meeting each week. One is given in the first and the other in the second half year, so that at the end of the year the student has some acquaintance with the art development of the world, though necessarily not a very intimate one. With the courses just mentioned as introductory, there are then offered the following:

Principles of landscape architecture; free-hand drawing (first and second courses); advanced drawing and painting; perspective, technical, and historical development of the ancient and early mediaeval styles of architecture; history of Greek sculpture; technical and historical development of the Gothic styles of architecture; technical and historical development of renaissance and modern architecture; history of mediaeval sculpture; history of renaissance sculpture; the central Italian painters of the renaissance; Venetian painting; the history of the printed book; the history and principles of engraving; the methods and processes of Italian painting; history of Florentine painting; history and principles of landscape painting; history of Flemish painting; the history of

Japanese art, with some consideration of the art of China; the theory of design; advanced practice in drawing and painting; the art and culture of Italy in the Middles Ages and the Renaissance; the art and culture of Spain; and two technical courses—principles of architectural design and their application and elementary architectural design. There are also offered by the German department, primarily for graduates, two courses—German religious sculpture in the Middle Ages and the conflict between mysticism and naturalism in Flemish and German painting from the Van Eycks to Dürer.

Although no special graduate announcement is made, the following notice appears in the bulletin:

Courses of special study. In addition to these courses competent graduate students are afforded opportunities for advanced study in special fields as follows: History of engraving, advanced practice in drawing and painting, history of architecture, history of Greek art, history of Italian art, history of painting, history of Spanish art.

The bulletin also calls the attention of students to a number of courses in archæology which, it is said, may be of interest, but they are apparently not considered as a legitimate part of the curriculum of the division of fine arts.

While in one way Harvard seems to occupy middle ground between the Princeton attitude and the professional art school, in another way she is directly opposed to the Princeton point of view, since she claims that some technical knowledge is absolutely essential to the understanding of the fine arts, and Princeton maintains with equal sincerity that such knowledge is nonessential.

The only institution of high reputation which is following in Princeton's footsteps is Johns Hopkins. A number of institutions are adopting the Harvard plan, though none of them have as yet developed it in such detail. The breadth of scope of Harvard's courses may be accounted for in some measure by the proximity of the Boston Museum of Fine Arts, and also to the fact that Harvard herself possesses a very good small museum and some excellent collections.

The respect with which the departments are treated at Princeton and Harvard may be gathered from the fact that most of the faculty are of professorial rank in both places. Elsewhere, as already noted, the situation of the art departments is not so secure. It may be interesting to note in this connection that, according to a statement of the chairman of the division of fine arts at Cambridge, there has never been the slightest disposition on the part of the university faculty to question the advisability of allowing credit for all courses, technical or nontechnical, that have been offered in the art department.

The size or the resources of an institution are no criteria of the number or character of the art courses offered, and so far as the character is concerned this is particularly true of the courses in the

history of art. A few examples will make this clear. Wisconsin has no art department, but a professor of Greek offers one course in the history of art.[1] The University of Rochester, Rochester, N. Y., has a regularly constituted department of the history of art, with a professor who offers four courses.[2] The University of Iowa announces a department of the history of art, the faculty of which consists of a professor of "Greek and archæology," who offers three courses in the history of art.[3] At Western Reserve University, Cleveland, Ohio, a professor of Greek offers five courses in art history.[4] At Leland Stanford Junior University, California, though there is a department of graphic art, the history courses are offered by a professor of Latin.[5] At Amherst College, Amherst, Mass., the professor of Greek offers one course in Greek art.[6] At Oberlin College the professor of Greek literature and archæology offers four courses in the history of art, covering late as well as early periods.[7] At Ohio University, Athens, Ohio, it is stated that there are "two strong art departments." One of these is the Normal Art Department, with three instructors, offering eight courses, three of which are in handwork. The other "Department of drawing and painting" has one instructor and (in the catalogue) no definitely formulated course.[8]

This necessarily slight statement of courses found here and there under all sorts of conditions will be sufficient to indicate that, in the opinion of the vast majority of college art teachers, there are no regularly established traditions regarding the functions of art departments or the training and scope of work of instructors offering courses in art.

Equally illuminating are the statements of many drawing departments that are divided between mechanical representation and freehand drawing and water color. In most cases in such departments all members of professorial rank are those offering the mechanical work, while the more artistic branches are consigned to instructors and assistants. It is obviously impossible to expect work of high standard in any line where academic recognition is not equally accorded.

Equally various are the offerings of the women's colleges. Among some of the smaller ones the art departments show a decided leaning toward china painting, but this is generally among institutions

[1] Bulletin of the University of Wisconsin, general series, No. 539, p. 189.
[2] University Bulletin, Series XI, No. 1, pp. 123–125.
[3] Bulletin of the State University of Iowa, new series, No. 96, pp. 215–217.
[4] Western Reserve University Bulletins, Vol. XVIII, No. 1, pp. 62, 113, 167.
[5] Leland Stanford Junior University Bulletin, second series, No. 81, pp. 94, 98.
[6] Amherst College Bulletin, vol. 4, No. 1, p. 61.
[7] Bulletin of Oberlin College, new series, No. 108, p. 161.
[8] Ohio University Bulletin, new series, Vol. XII, No. 3, pp. 96, 140, 141.

whose diplomas would not admit to the graduate courses in a first-class university. In the larger and better known some exceptionally good work is done.

At Vassar College, Poughkeepsie, N. Y., the art department offers six courses, all nontechnical and as rigidly archæological as are the Princeton courses.[1] The institution is fortunate in having recently acquired a very expensive and finely-equipped memorial building for the exclusive use of the art department.

Wellesley College, Wellesley, Mass., has made an effort to train assistants for art museums, and has done some efficient work in this line for the past few years, though no announcement of such courses appears in the present catalogue. It is to be hoped that the work will not be discontinued. All students in the art department are encouraged to take representation as well as history courses, though no design is offered.[2]

Mount Holyoke College, Massachusetts, has a department of art and archæology, but in the announcement of courses a clear distinction is made between the two types. All the archæological courses are announced as such. In the history courses a unique practice exists. The students are allowed an option of studying the subject from the critical or the technical standpoint, enabling them to follow their peculiar bent. Two courses, "Masterpieces of ancient art" and "Masterpieces of mediæval and renaissance art," are offered for seniors who have taken no other courses in the department. Courses of such nature would be a valuable addition to the curriculum of any art department.[3]

At Smith College, Northampton, Mass., the work is well balanced between technical and nontechnical courses, although the catalogue makes a rather puzzling distinction by classing them as "practical" and "theoretical and historical" courses.[4] Another instance of the same sort may be found at the University of Illinois, where a department exists under the title of "Art and design."

So far as can be learned, the University of Indiana is the only institution that offers a correspondence course in the history of art. This course is announced by the extension division as follows:

> The department of fine arts offers the following course in the development of painting. The aim of this course is to familiarize the student with the general development and the trend of the art of painting, and to acquaint him with a small number of the greatest artists through the study and examination of a small group of the works of each. It is in no sense meant to cover the whole history of art or to treat completely the work of any individual artist.
>
> CA. Six centuries of painting. A review of the most important movements and changes that have taken place in the history of art, as shown by the works

[1] Vassar College Bulletin. Vol. IV, No. 4, pp. 55–56.
[2] Wellesley College Bulletin, series 4, No. 1, pp. 54–58.
[3] Mount Holyoke College Bulletin, series, 8, No. 3, pp. 39–42.
[4] Bulletin of Smith College, series 9, No. 1, pp. 44–46.

of 24 of the most famous painters of the world from A. D. 1300 to 1900. Giotto, Masaccio, Raphael, Leonardo da Vinci, John Bellini, Titian, Tintoret, Dürer, Holbein, John van Eyck, Rembrandt, Claude Lorrain, Rubens, Watteau, Velasquez, Millet, Manet, Ruisdall, Puvis de Chavannes, Reynolds, Constable, Turner, Burne-Jones, Watts. Twenty-four lessons.

Wherever extension courses are given, such courses as that just outlined should be included.[1]

Almost all the summer schools of colleges and universities offer art work, in many cases without prerequisites. A good many teachers take these courses as a sort of minor subject, so that they may apply for positions where they might be forced to teach drawing as a side issue.

In considering broadly the art education of the country, it appears that there is little cause for congratulation. Its possibilities are great, but nothing will be gained by refusing not only to face the situation squarely, but to admit facts that are set down in black and white in multitudes of catalogues and announcements. The standards of art education in America are lower than the standards of the majority of other subjects. This does not mean that all the art work done is of negligible quality, but rather that the average is low, and this is all the more a cause for regret when the excellent quality of the work of some institutions is taken into account.

What is particularly needed by the teachers in grade schools is more specific training in drawing, if they are to teach that subject, and some latitude in the way they handle their courses. In many cases all enthusiasm is eliminated by the overconscientious supervisor who feels that he must direct every slightest effort of the teacher along artistic lines, instead of defining the principles clearly and allowing her to develop them with some degree of spontaneity. Of course, when dealing with teachers who have had very little training, this is a difficult proposition.

The higher things connected with art require greater emphasis to counteract the persistent effort to drag everything down to a commercial basis. It will therefore be well to do more systematic work along the lines of understanding and appreciation of the masterpieces of art than to relate all the courses to something that can be sold, or given away, or shown with pride as one's own creation. In spite of evident weaknesses, the drawing and art work in the lower schools has much more unanimity of purpose than in higher institutions.

Colleges and universities have the greatest reforms to accomplish where art interests are concerned. All that is necessary is to decide squarely that the fine arts, if taught in any institution, shall be considered of equal importance with the other subjects offered. In the

[1] It might be well in this connection to mention the advertisements of schools which make extravagant claims of teaching cartooning and sometimes other branches of art by mail. Some of the institutions thus advertising have been successfully prosecuted by the Government as having used the mails in a scheme to defraud.

majority of cases at present this is emphatically not so. Many universities have not given the attention to art that they have to other subjects. Distance from art museums deprives them, to be sure, of a source of great inspiration and assistance, but this is not a sufficient excuse for the atrophied condition of art departments in many places.

Another weakness is the fact that art is not considered important except for its bearing on other subjects. It is recognized that the college student must have some knowledge and control of English in order to use it intelligently in the pursuit of other branches, but it is likewise conceded that English literature has a value of its own. It perhaps will not be too great a lowering of academic standards to look forward to the day when art will be placed upon the same basis.

The attitude of the students themselves toward the study of art is one of the bright spots on the horizon. Many of them intend to follow highly specialized engineering, agricultural, or scientific lines of work, yet they frequently come to the art department eager for a glimpse into something that they feel is very much worth while. It is to be regretted that not all departments of art can give them what they feel they need. Sometimes they merely lose their ideals. It is not hard for a student to know whether he is getting something worth while or not, and wherever courses of merit are offered there is never any difficulty as to the attendance.

Reasoning by analogy it would seem as if Harvard and other institutions offering the same types of courses occupy the most logical position of all. One institution with a marked archaeological tendency requires its students to do some drawing in learning to appreciate and understand architecture, but does not perceive the necessity of any technical study whatever for the understanding of other branches of the fine arts. This would seem to be an illogical position, only to be maintained by those who contend that there is no reason in art.

In the discussion of the College Art Association concerning the advisability of certain types of courses, there have been many members who have vigorously opposed the teaching of technical branches of the fine arts, and maintained that not the slightest technical knowledge was necessary for intelligent criticism (at least so far as the fine arts were concerned), but it is worthy of note that none of the speakers urging this point of view had had any training in the technique of drawing and painting.

A committee of the College Art Association was formed to consider what might be termed a standard minimum course in a college department of fine arts, but the presentation of its report aroused much antagonism. It was modeled somewhat along the Harvard lines, but it was impossible to come to any agreement about it, since

the teachers of technique, who were prepared to admit the usefulness of a knowledge of art history, could not persuade the other extremists to concede the cultural possibilities of a study of the technique of drawing and painting. The association has consequently postponed indefinitely the consideration of standard art courses.

In only two universities are courses offered in the history of the art of China and Japan. It is practically impossible to secure anyone in university work who has anything like an adequate knowledge of the subject; nevertheless it is necessary that some start be made in order that it eventually shall receive the attention and recognition that it deserves. Harvard and Ohio State University each offer a course on Chinese and Japanese art.

In speaking of art education in the United States it would be unfair not to mention the good work that is done by the art museums of the country in a sincere desire to be of greater usefulness and to educate the public with respect to their collections. The Art Institute of Chicago, by a number of constantly changing exhibitions and Sunday afternoon and evening concerts, has succeeded in attracting by far the greatest number. Whether they are attracted more by the collections or the music is not as yet clear to the boards of administration of other museums which are contemplating the advisability of doing the same sort of thing. At any rate it is a good work and helps people to form the habit of using art museums.

SPECIAL EVENTS OF THE YEAR.

The College Art Association, at the spring meeting in Buffalo, changed its name to the College Art Association of America. The sessions were devoted to papers on subjects connected with the teaching of art and the principles underlying courses given or proposed. A tentative list of books essential to a library for college art courses was presented for discussion and was referred to a new committee for revision and expansion. One session was given up to source material, its care, and uses. At the suggestion of the association the president has compiled a list of dealers in different parts of the world who make a specialty of photographs of subjects connected with the fine arts, and it has since been sent to all the members. The association voted to adopt Art and Archæology as its official organ for one year.

Very encouraging for the progress of art education is the fact that the American Federation of Arts chose "Art education" as the general topic for its last meeting. The subject was handled rather cautiously and the value of the meeting consisted perhaps more in that a discussion of the sort was considered timely than in any re-

sults of a far-reaching nature. The need of art education was emphasized, but little constructive work was done.

The federation has done and is doing a great deal, in a general way, for art education. It sends out exhibits of paintings and other art works to its chapters all over the country and circulates lectures, typewritten and illustrated by lantern slides. It also publishes a nontechnical magazine, Art and Progress, and the American Art Annual, a compilation of items of special interest to those in art work.

A very important organization, the Art Alliance of America, was formed last year, and as it supplements directly the work of institutions, training students for an artistic career, a statement of its aims may not be out of place. It was founded by a group of public-spirited men and women connected directly or indirectly with the fine arts.

The constitution states the purposes of the organization as follows:

1. To promote cooperation between artists, art students, artisans, publishers, manufacturers, advertisers, and all others who are engaged in artistic activities.
2. With the assistance of experts to aid, direct, and advise art students, artisans, and artists in their studies and pursuits.
3. To provide a general registry for artists, art students, artisans, and employers.
4. To provide a department of information.
5. To hold exhibitions.
6. To publish information relating to the objects of the alliance.

The alliance has already proved its usefulness. No commissions of any kind are charged.

The last report of the Western Drawing and Manual Training Association contains a number of very well-written papers relating for the most part to the interrelations of manual training with art work. A committee was appointed to consider the advisability of changing the name of the association, so as to include and recognize the growing membership in household arts.

The latest report of the Eastern Art and Manual Training Teachers' Association is devoted largely to discussion of the same subject and also contains a paper on the necessity for "State aid for industrial art education." In a paper on the "Modern art school" Frank Forrest Frederick declared:

I do not believe that there will be much development in American art until through some evolution of public opinion or drastic action upon the part of educational authorities our art schools are reorganized and conducted more like other educational institutions.

CHAPTER XVI.

KINDERGARTEN EDUCATION.

By ALMIRA M. WINCHESTER,

Specialist in Kindergarten Practice, Bureau of Education.

CONTENTS.—Kindergarten conventions of the year—Kindergarten courses in summer schools—The kindergarten and educational experimentation—The kindergarten and the elementary school—Kindergarten training schools—Kindergarten propaganda—Legislation—Other items.

Public kindergartens were maintained in 1,105 cities and villages during 1914–15. The number of separate kindergartens (both public and private) increased from 8,825 to 9,650 during the year, the number of children enrolled from 465,868 to 486,842, and the number of teachers from 10,569 to 10,886.[1]

KINDERGARTEN CONVENTIONS OF THE YEAR.

Three meetings of national and international importance have taken place during 1915: The International Kindergarten Union with the Department of Superintendence at Cincinnati, Ohio, February 22 to 27; the Kindergarten section of the National Education Association at Oakland, Cal., August 17; and the International Kindergarten Union convention at San Francisco, Cal., August 17 to 22.

A better understanding between kindergartners and school superintendents is undoubtedly growing. This was made evident by the main theme selected for discussion at the Cincinnati meeting, "Correlation of the kindergarten with the public-school system"; by the representive group of speakers who dealt with the subject; and by the fact that Lucy Wheelock, chairman of the International Kindergarten Union committee on cooperation with the National Education Association, was elected second vice president of the department of superintendence.

The subtopic "How may kindergarten practice be improved?" was taken up from three standpoints: That of the superintendent; that of the primary teacher; and that of the student of education. Miss Wheelock presided over the meeting and presented the following speakers: Carroll G. Pearse, president of the State Normal School

[1] Approximate; subject to slight revision on the basis of complete returns.

at Milwaukee, Wis.; Franklin B. Dyer, superintendent of schools, Boston, Mass.; Annie E. Moore, Teachers College, New York, N. Y.; Andrew W. Edson, associate city superintendent of schools, New York, N. Y.; William M. Davidson, superintendent of schools, Pittsburgh, Pa.; Mrs. Alice O'Grady Moulton, Chicago Normal College, Chicago, Ill.; Charles H. Judd, director of the school of education, University of Chicago, Chicago, Ill.; and Randall J. Condon, superintendent of schools, Cincinnati, Ohio. Much of the discussion dwelt insistently upon primary-grade practice, as it is and as it should be.

Another urgent note sounded throughout the addresses was that of the obvious need for kindergarten and primary teachers to acquire a better knowledge of each other's materials, methods, and ideals. Supt. Condon declared:

> The kindergartner should know what the primary teacher expects to do and how she is to do it; the primary teacher should know what the kindergartner does and why she does it. While the kindergartner should take into account the work of the primary school and should without doubt modify her work to some extent from that point of view, yet we must strongly oppose any movement which tends to make the kindergarten simply a preparation for the first grade. In the largest sense it is distinctly such a preparation, but the kindergarten has its own life to live, its own function to perform, its own work to accomplish, and it must be left reasonably free to do that work in its own way.

Supt. Condon emphasized the fact that if the kindergarten does its work well it will afford not only a valuable preparation for the first grade but for all subsequent grades:

> The kindergarten should be considered the foundation upon which all the other grades build. There should be a kindergarten in every elementary school. It should be taken for granted that this is the way a child is to begin his school. The kindergarten should modulate from the home to the school in the most natural and helpful manner, and in addition it should begin that educational development which has a beginning but no ending. While the kindergarten has its own field and methods and should be reasonably free to live its own life, it does not exist for itself alone, but as a part of a system of education that is incomplete without it. As such the kindergartner and the primary teacher should clearly and sympathetically understand the other's point of view, to the end that both by working together at the common task may so unite the kindergarten and the elementary school that the practice of the one may help the other.

Mr. Edson, enlarging upon the theme of including elementary training in kindergarten preparatory courses, made the pregnant suggestion that the kindergarten teacher be allowed to go with her children into the primary grade for a year and then return to the kindergarten to receive a new group of beginners.

In his address on "Expanding the work of the kindergarten," Dr. Judd discussed the principles of sensory training and social training, and argued that there was no valid reason why some chil-

dren should not be introduced to reading and writing in the kindergarten. He declared:

> Many a child reaches in the kindergarten the stage of maturity where he wants to do what he sees his elders doing. It would be a mistake at this early age to make him write if he does not manifest an interest in writing; on the other hand, it is a fundamental mistake to keep him from writing if he wants to try.
>
> Many a child reaches the stage before 6 years of age where he wants to write his name. He wants to know the mystery of words. Why not satisfy him? He will be using his senses, and at the same time he will be learning one of the most important lessons of social life. We introduce him to the social art of speech; why not take the next step?

On the other hand, Dr. Judd reiterated that the kindergarten age is not the age for systematic instruction of all children in reading and writing:

> There are some children who are slower in interesting themselves in social examples. The kindergarten is right in cultivating in such children only the simpler social arts of oral speech. My plea is for such a change in the administration of the kindergarten that there shall be no rigid exclusion of any of the social arts which fit the needs of the children.

Miss Moore urged that kindergarten teachers investigate their own plans of procedure, then work out their own standards and tests and insist that these be applied in all future evaluations of the kindergarten.

The entire discussion was characterized by a sincere, vigorous effort to offer constructive criticism of kindergarten practice. The spirit of the meeting was charged with a sense of going forward to meet new opportunities. One such opportunity was immediately actualized in the form of a proposal from the National Education Association committee on economy of time in education that a committee from the International Kindergarten Union be appointed to cooperate in the study of the causes of waste in education and the allied question of determining minimum essentials in the elementary school.[1]

Several factors united to invest the meetings in Oakland and San Francisco with peculiar interest and pleasure. Education, with 129 distinctive congresses and conferences, was made the most prominent feature of the official series of congresses which formed an essential part of the Panama-Pacific International Exposition. The tangible evidences of international fellowship and cooperation were also fruitful in suggestiveness for closer relationships and reciprocal service. Again, it was possible for the kindergarten section of the National Education Association and the International Kindergarten Union to join forces and thus multiply the strength of the two organizations; and yet another pleasant circumstance was the constant reminder of

[1] See also p. 400.

the part played by California in the history of the kindergarten movement. It was inevitable that those in attendance at Oakland and San Francisco should be thinking of the names of Emma Marwedel, Mrs. Sarah B. Cooper, Kate Douglas Wiggin, Nora Archibald Smith, Mrs. Leland Stanford, Mrs. Phoebe Hearst, and others who have been so closely identified with the growth of the kindergarten; as well as of the Silver Street kindergarten of San Francisco, which, through the pathetic little "Story of Patsy," has secured for the kindergarten a permanent place in literature.

Anna M. Stovall, chairman of the kindergarten section of the National Education Association, presided over the meeting of that section. The program included addresses dealing with the kindergarten in its own interior concerns (industrial arts, child study); the kindergarten in its wider relations (legislative enactments, elementary practice); and the kindergarten as a factor in the establishment of a new international spirit.

The speakers were men and women of note and came from outside as well as inside the ranks of kindergarten workers. The place of industrial arts in the kindergarten was ably argued by Catherine R. Watkins, of Washington, D. C., and Marian Barbour, of Los Angeles, Cal. Various aspects of child study were interestingly presented by Dr. Maria Montessori, of Rome, Italy; Elizabeth Ross Shaw, of Evanston, Ill.; and Gail Harrison, of San Francisco, Cal. The recent legislative activities in California were recounted in detail by Mrs. H. N. Rowell, of Berkeley, and Lillian Clark, of Los Angeles. The relation of the kindergarten to the elementary school was discussed in a four-fold aspect by State Supt. Mary C. C. Bradford, of Denver, Colo.; State Supt. Josephine C. Preston, of Olympia, Wash.; Lillian B. Poor, of Boston, Mass., and Supt. C. E. Chadsey, of Detroit, Mich. The relation of "Child education to a new internationalism" was set forth in three illuminating addresses, one by Mrs. May Wright Sewall, of San Francisco, one by Mrs. Marion P. Thomas, of Chicago, and a third by Supt. Francis, of Los Angeles.

A significant feature of the discussions was the use of general educational terms in place of specific ones intelligible only to kindergarten teachers. This closer approach as regards nomenclature was frequently commented upon during the meetings as indicative of the increasing number of points of contact between the kindergarten and the elementary school.

The same characteristic features outlined above were noticeable throughout the sessions of the International Kindergarten Union in San Francisco. The conviction grew stronger with the succeeding meetings that the practice of the kindergarten is coming more and more to parallel its theory.

In a brief sketch of the history of the organization, Mrs. Page, president of the International Kindergarten Union, emphasized the growth in numbers, the development of important educational activities, the affiliation with other great federated bodies, and the growth in international relationships. The original membership numbered about 30 individuals; now, at the opening of the twenty-second year, the membership approximates 19,000 persons belonging to nearly 140 branch societies, scattered through the United States and foreign countries. According to Mrs. Page—

> Twenty-two standing committees represent some of the expert working bodies of the organization, and their activities range from the investigation of educational matters through propaganda work to the training of teachers and the vital questions of child-study, health, sanitation and hygiene, graphic arts, literature, music, administration, organization, finance, publication, etc.

Recently there have been established relations with the National Education Association, the General Federation of Women's Clubs, the Council of National Organizations of Women, and the Woman's Peace Party.

From many foreign lands come reports of the expansion of kindergarten activities. Kindergartens for little children and training schools for young women are conducted in Hawaii, Japan, China, India, Persia, Turkey, Arabia, and portions of Africa, as well as Russia, Norway, Sweden, Finland, and other countries of Europe.

Reports from the field at large and from committees confirmed the impression that a great deal of quiet, persistent activity is going forward. The papers and discussions were forceful, thoughtful examinations of practice and theory. The subjects under consideration were the training of kindergarten teachers, kindergarten work in its relation to health, the kindergarten curriculum, and the relation of kindergarten to elementary education. A fitting climax was reached at the closing session of the convention in the program to promote peace.

KINDERGARTEN COURSES IN SUMMER SCHOOLS.

The notable points connected with the kindergarten in the summer schools of 1915 are the many normal schools, colleges, and universities which offered courses in kindergarten or kindergarten-primary work, the large number of teachers taking advantage of these courses, and the interesting character of the courses themselves. Over 30 institutions attracted students from various parts of the country and sent them back enriched and refreshed for the work of the new school year. At some institutions observation and practice classes were conducted by experienced kindergartners, and the schedules were adapted to summer conditions. At the University of California the work of the practice class was carried on entirely

out of doors. The activities illustrated the use of standard materials with certain modifications of the exercises such as to fit them to American child conditions. The happy freedom and joyousness of the children at work and at play made the "garden under the trees" at all times the center of attraction for a large number of casual visitors as well as for the students who were taking the courses in theory and practice.

The important part to be played by the summer session in kindergarten work, especially in the Southern States, is indicated in a statement by Grace Mix, of the kindergarten department of the State Normal School at Farmville, Va.[1] After pointing out that the Summer School of the South at Knoxville, Tenn., was among the first to introduce a summer course in kindergarten methods and a demonstration kindergarten; that the University of Virginia has followed its example, and that the newly reorganized George Peabody College for Teachers at Nashville, Tenn., established a kindergarten as a feature of its first summer session, Miss Mix declares:

> The value of these summer school kindergartens, under the auspices of some of our leading colleges and universities in the South, is making itself felt slowly but effectively.
>
> The kindergarten in the summer school gives the opportunity for observation which is lacking in many parts of the South. It presents to the primary teacher a study of conditions of work with materials somewhat different from those she uses, but with children very nearly the age of those she teaches. A good demonstration kindergarten suggests to her methods which may be available with older children, and its atmosphere, which develops in little children attention to the task in hand and helpful fellowship in work and play, often inspires in her a desire to know more of the educational principles upon which it is founded. * * *
>
> The courses in theory connected with these departments are designed not simply to train kindergartners but to show to other teachers that the basis of the kindergarten is in educational principles which are common to it and the rest of the school.
>
> Even though the immediate result of the kindergarten work at the summer school may not be new kindergarten legislation or an increased number of kindergartens in the State, right ideas about the kindergarten are disseminated and an ideal in regard to it established in the minds of teachers of other departments. In view of the fact that many unworthy imitations of the kindergarten are scattered over the land, and untrained or ill-prepared teachers have taken its name in vain, it is of great value to present standards like those found in the summer school kindergartens to correct wrong impressions and give a real dignity and force to the name "kindergarten."

Kindergarten courses, especially planned to fill the needs of primary teachers, were given at the State normal schools in Emporia, Kans., Marquette, Mich., Peru, Nebr., and Harrisonburg, Va. The State normal school in Milwaukee, Wis., offered kindergarten work during its summer session for the first time. The work included a

[1] Kindergarten Review, October, 1915.

demonstration kindergarten; a course for kindergartners of experience on problems of the kindergarten; and a course in games, dramatization, and music; also a course for primary teachers, entitled "A survey of the kindergarten." At the University of Montana, Missoula, Mont., a class of small children using both Montessori and kindergarten materials was regarded as a laboratory for the demonstration of methods suggested in a course on "The education of childhood and youth"—a course which covered "the educability of childhood; some agencies for the education of the children; the kindergarten, its nature and values; the Montessori system; the exceptional home; the elementary and secondary grades." The National Kindergarten College of Chicago, Ill., recognized the growing demand for playground directors by including a course in playground work in its usual summer session offerings. At Teachers College, Columbia University, New York City, there were courses given to kindergartners and primary teachers with a view to relating the work of the two more effectively. A playground where the children built various kinds of houses, using dry-goods boxes as a basis, was an interesting feature of the summer session. The various houses grew into a sort of village life. The children were nearly all above kindergarten age, but their play was directed by one of the Teachers' College kindergartners. A significant type of work was done in the department of childhood, school of education, University of Pittsburgh.

In several schools offering courses for primary teachers only, handwork, story-telling, and games and other kinds of educational material derived from the kindergarten were accorded a prominent place.

THE KINDERGARTEN AND EDUCATIONAL EXPERIMENTATION.

The attention given to kindergarten principles in recent educational experiments reflects the new scientific interest in Froebelian theories. Practically all the schools described in the book by John Dewey and Evelyn Dewey on "Schools of To-morrow"[1] definitely involve the basic principles of kindergarten education. As the authors declare in the chapter on "Play":

> Schools all over the county are at present making use of the child's instinct for play by using organized games, toy making, or other construction based on play motives as part of the regular curriculum. This is in line with the vitilization of the curriculum that is going on in the higher grades by making use of the environment of the child outside the school room. If the most telling lessons can be given children through bringing into the school their occupations in their free hours, it is only natural to use play as a large share of the work for the youngest pupil.

[1] Schools of To-morrow," by John Dewey and Evelyn Dewey. New York, E. P. Dutton. 1915.

An interesting experiment in the education of young children, of special significance to kindergartners, is the Demonstration Play School which held its third summer session at the University of California, Berkeley, in 1915. This school represents "an effort to solve the problems of elementary education by harmonizing the child's extra-home educational experiences through combining, in one institution, the functions of the play-center and the functions of the school." Hence the term "Play School."

For the little children the plan absorbs naturally what is sound in the results of educational experience since Froebel's time, and extends the process to the tender years of infancy. For the larger children, it brings together in a practical school scheme, and extends down the scale of years, the valuable results and the ideals which initiated them in many recent educational efforts, namely, the "outdoor school," the vacation school, gardening, manual training, organized excursions, camps, activities of the Boy Scouts and Campfire Girls, "training for citizenship," intensive individual development, etc.

The play school organizes the children into four groups: Those 4 and 5 years old; 6 and 7; 8 and 9; and 10 to 13. The activities take place wholly out of doors, and the trees are utilized as play apparatus in conjunction with ladders, fences, acting bars, wooden boxes, building blocks, and other objects to which children naturally incline in undirected play.

In the words of the special bulletin of the University of California describing the school:

The plan correlates and gives a balanced relationship between physical education, moral education, and cultural education. It lays the real foundation for vocational training and guidance. Above all, it establishes in school practice one of the more recent educational discoveries—the necessity of leadership in play from infancy to maturity and the educational superiority of leadership in play to instruction in work. It bridges the gap between play and work.

Therefore the play school may be defined as an outdoor school and play-center combined, where the teacher's interest is centered in the children and their activities, not merely in subjects of study, where the educational efforts, including the moral and social, are put on a basis of practical living experience radiating into the whole environment, and where children are considered both as free, active agents, and as immature social creatures requiring aid, social control, and discipline. Instead of teaching subjects, it organizes activities out of which subjects develop as they developed in racial history. The activities organized are the natural, more or less distinct phases of the child's complete life. The usual school subjects develop as phases of these activities.[1]

Any experiment based upon these underlying ideas will be earnestly watched by those who know Froebel's theory and practice and who recall his Helba project.

[1] University of California Publications (Education), vol. 5, No. 2, pp. 241–288 (July 30, 1914).

THE KINDERGARTEN AND THE ELEMENTARY SCHOOL.

Interest in the various efforts to coordinate the kindergarten and the work of the primary grades suffers no abatement. Reference has already been made to the prominent place occupied by kindergarten-primary relations on the programs of the Cincinnati, Oakland, and San Francisco meetings; also to the appointment of a committee to study economy of time in education.

Another discussion is found in a bulletin recently published by the Bureau of Education entitled, "Adjustment between kindergarten and first grade." It is a study based upon replies from primary teachers and supervisors, from kindergarten teachers and supervisors, and from superintendents and principals, to a letter sent out by the Commissioner of Education asking what advantage kindergarten-trained children possess over nonkindergarten children and what adjustments need to be made between the kindergarten and the lowest primary grades in order that there may be a closer relation between the two. Miss Luella Palmer, assistant director of kindergartens, New York City, who prepared the material for publication, calls attention to the fact that "the answers to these general questions could not be made the basis for a scientific statistical study, but any concensus of opinion would show wherein the ideals of the kindergarten and the first grade were in accord and what values the primary teacher appreciates in the kindergarten training. Whatever figures are used in the study Miss Palmer regards as merely pointing "the direction for thorough investigation and further experiment in the matter of adjustment."

In summing up the "evidence," Miss Palmer finds that there is on the part of superintendents, principals, primary teachers, and kindergartners a desire for the better coordination of the kindergarten and first grades. The one thing needful to make this an accomplished fact is, as several kindergartners stated, a clearer understanding of the little child, his point of view, and his development. "It is necessary to know the interests and powers that continue to develop gradually and the rate of development during the years from four to eight. We must know what interests are gradually superseded and what other interests are coming into prominence and need to be introduced in the first grade."

Reports from various sections of the country afford ample evidence of measures taken, of plans tried out, with the object of furthering the close coordination of the two departments of education. Mention should be made of the work of the committee on investigation of the International Kindergarten Union, which is making intensive studies of kindergarten practice in various cities of the United States, in order to find a basis for standards of judgment as to the value of

kindergarten training for little children. The cooperating committee on economy of time in education has also begun active work. Its chairman, Miss Annie E. Moore, of Teachers' College, Columbia University, says:

> Studies and investigations made by the National Education Association committee on economy of time in education have dealt with the elementary school period not including the kindergarten. It is now proposed that the cooperating committee from the International Kindergarten Union attack the question of waste, which is generally believed to exist at the juncture of the kindergarten and first grade. It is our purpose to try to determine whether this "general belief" is justified, by furnishing data showing the results of a year or two years in the kindergarten, and also tabulated facts calculated to reveal to what extent these acquisitions are recognized when pupils are promoted to first grade.
>
> It is desired that these investigations shall be made in the most scientific manner possible, and this will be conducted very largely by graduate students in education in universities and training schools. * * * A small beginning will be made at certain centers in September and October of this year, and more extensive investigations will be conducted about the time of the mid-year promotions, 1915–16.

Courses for primary teachers at the summer schools have already been mentioned. While these courses included instruction in the handwork, stories, and games, less emphasis was placed upon the *devices* and more emphasis placed upon the *principles* underlying the devices. Not only in summer sessions, but also in the regular terms of many schools, provision is now made for the preparation of teachers to teach in the kindergarten and the first three grades. Several States, among them, Minnesota, Missouri, New Jersey, Rhode Island, Wisconsin, grant certificates to teach in kindergarten or primary to graduates of the two-year kindergarten course in the normal schools.

Philadelphia gives a kindergarten and a grade certificate to students who complete three years' work in the Philadelphia normal school, and this year a new plan goes into operation in accordance with a resolution adopted by the board of education, July, 1915:

> *Resolved*, That in order that the plan of holding a kindergarten in the morning and a part-time first-grade class in the afternoon, in the same classroom, to be taught by the same teacher, be given a trial, the superintendent of schools is hereby authorized to try the plan with not more than five (5) classes, the teachers thus employed to receive $1,100 per year.

The teacher must hold both certificates.

The Boston normal school has lengthened its course to three years and prepares teachers for both kindergarten and work in the first three grades.

The board of education of New York City has adopted a by-law making kindergartners eligible to teach in grades 1A to 6B. In view of that fact, the Public School Kindergarten Association of New York City has decided to concentrate upon primary methods in

planning its lectures for the coming season, and a course on this topic has been arranged, to be conducted by I. Edwin Goldwasser, district superintendent of schools, New York City. Announcement is made that those who complete the course satisfactorily will receive certificates for a 15-hour course in primary methods.

In Washington, D. C., a successful scheme of reciprocity was carried out during the year. The supervisor of primary grades and the supervisor of kindergartens arranged for a series of visits of kindergartners to primary rooms and primary teachers to kindergarten rooms, in order that each set of teachers might see the actual work performed by the other set. These visits were followed by conferences, where questions were asked and answered and suggestions offered and accepted.

A decided advance is noticeable in the number of kindergarten and primary teachers who are taking graduate work in child study and allied subjects. Intensive study of what the kindergarten really is and its real relation to the little child is resulting in renewed insight and fresh creative impulse on the part of the kindergartners.

It is also not without significance that a kindergartner, for several years supervisor of kindergartens and primary grades in the schools of Los Angeles, Cal., was this year elected to the post of assistant superintendent of schools in that city. Miss Fulmer says of her new responsibility: "The same great educational principles are at work all through the entire school, from the kindergarten up."

KINDERGARTEN TRAINING SCHOOLS.

For the past few years there has been a growing consciousness of the need of reorganizing kindergarten training courses. There has been a readiness on the part of kindergarten training teachers to listen patiently to adverse criticisms and even to administer self-judgment with a view to strengthening the weak places when discovered. When constructive criticism, either from within or without the ranks of the kindergartners, has been offered it has met with ready response. Willingness to experiment with materials and methods, and open-mindedness in regard to other systems of education, are evident.

A recent discussion of the subject at the conference of training teachers and supervisors in connection with the International Kindergarten Union convention at San Francisco was fruitful in practical suggestions, and pointed the way to present and future lines of advance. The topic was an interrogative—"How may the theory and practice work of students in kindergarten training schools be adjusted to gain a balanced training such as will result in: (a) Wider culture; (b) intelligent insight; (c) practical efficiency? Papers had been prepared by Dr. H. H. Horne of New York University, Dean

Will Grant Chambers of the University of Pittsburgh, and Helen L. Gordon of the Wilson Normal School, Washington, D. C. A résumé of the three papers was presented by Gail Harrison of the State normal school, San Francisco, Cal. Miss Gordon's comprehensive discussion of the practical phases of the problem evoked great interest and stimulated thoughtful questions. A few paragraphs will indicate the nature of the discussion:

> Since the training of kindergarten teachers is primarily a vocational training, its main purpose is necessarily practical efficiency. This paper will consider how this may be best secured by the proper balancing and correlation of cultural and theoretical subjects with practical experience in teaching. * * *
>
> Practical efficiency in teaching can be secured first and foremost by experience in teaching, but unless this is rationalized by "insight" and inspired by "culture" it will be worse than useless. We are increasing in our training, and justifiably, the amount of practical experience in teaching; year by year we add to our curriculum, also justifiably, if time permits, such subjects as sociology and primary methods to give greater intellectual insight. This so crowds our two-year course that much of the purely inspirational work is omitted. Year by year we gain in insight; our kindergartens may be better than of old in consequence of our greater knowledge, but there is no proportionate spiritual gain. Our greatest discouragement comes from the lack in many of our graduates of what may be called the "missionary spirit," the spirit which we of the second and third generation revere in the pioneers who have made and are still making our own work possible. Before, then, we can become practically efficient, we must have, more than all else, something of their devotion and depth of purpose.
>
> Yet, with the very great emphasis given to-day to the functional aspects of education and life, there is a tendency to eliminate from a training course certain inspirational elements which have a very direct and practical value. In attempting to "psychologize" education we are neglecting to "philosophize" it. Philosophy and great literature are pushed aside or minimized to make room for the scientific and the practical, for child study at too close range. Genuine enthusiasm for one's work will do much more toward producing practical efficiency than insight or even experience. It is the vision that leads us on and much of that comes through a recognition of the values of life, through culture. For efficiency is primarily and absolutely dependent upon character, personality, buoyancy, a touch of idealism, of faith in the child and the universe, upon devotion to work, belief in it, and an ever-deepening and greatening sense of individual responsibility. We can secure efficiency only by sufficient emphasis on the cultural aspects of our curricula.

The analysis of the subject matter was very carefully set forth, and five groups of subjects were classified under the following heads: (1) Subject matter of the kindergarten; (2) child nature, its development; (3) subjects given mainly for technique of student; (4) subjects given mainly for social and inspirational values; (5) principles of education. The ground to be covered in each study and the aims or values were outlined; the place and importance of practice teaching in a well-organized curriculum were emphasized; and the following summary of subjects and the time that should be devoted to each concluded the paper:

Suggested two and three year courses.

[Thirty-six weeks in a year; 5 days in a week; 6 periods in a day; 40 minutes in a period. Total number of periods in two years, 2,160; in three years, 3,240.]

Subjects.	Periods during a 2-year course.	Periods during a 3-year course.
Gifts, handwork	144	144
Games	60	90
Stories	72	90
Music, vocal	36	36
Music, instrumental	36	36
Nature study	36	36
Gardening	.....	9
Curriculum (program)	72	72
Psychology, child study	108	144
Mother play	72	72
Physiology, hygiene	36	45
Biology	.....	18
Art	72	90
Manual training	.....	12
Reading (oral expression)	72	90
English (composition, spelling)	108	108
Penmanship	.....	12
Logic	.....	12
Physical culture	12	36
Literature (great literature and Bible study)	60	72
Sociology and child welfare	18	24
Ethics	18	18
Art and musical appreciation	18	36
History of education, pedagogy, Froebelian, and general	108	144
Primary methods	36	45
Periods for study, excursions, etc	90	113
Observation (twice a week for 6 weeks, once a week for 12 weeks)	24	24
Preliminary practice (once a week after the sixth week)	12	12
Practice (kindergarten)	720	1,440
Practice (primary)	120	160

It is interesting to compare this outline with one which is the result of the cooperative work of a committee of 20 kindergarten leaders and which forms part of a study on "Kindergarten training schools for the school year 1912–13," undertaken by the Bureau of Education.[1] The committee advocates "the use of general educational terms for courses when advisable, instead of specific ones intelligible to kindergartners only." In accordance with this recommendation the term "student teaching" is used to indicate practice work. "Kindergarten manual activities" is used instead of gifts and occupations; and "kindergarten curriculum" for program work.

The course is planned for two years of 36 weeks each, five days a week, four periods a day, 45 to 50 minutes a period; total number of periods, 1,440.

The noticeable advances in the training schools are mainly in two directions: First, toward the school as a whole; second, toward the home and the community. In uniting closely with the school, kindergartners are becoming aware that the period between four and eight years in the life of the little child is largely characterized by the same instincts, impulses, and interests, and that the educative process therefore should be continuous and progressive, not sharply defined and changed at six years. Quick to see a new opportunity

[1] To be published later as a bulletin.

for extending kindergarten ideas and responsive to a demand from school superintendents for "kindergarten-trained young women to fill positions in primary grades," kindergarten training-teachers have expanded and enriched their curriculum so as to give their students a knowledge of education in a broad aspect and afford them an opportunity for experience in practical work in primary grades. This has resulted in several instances in lengthening the period of preparation to three years; graduates of such courses are then entitled to teach either in kindergarten or primary grades.

A deep sense of social needs and of the responsibility resting upon the kindergartner to become a helpful force in the community has found expression in the training school in the shape of courses in child welfare, sociology, home making, home nursing, and allied topics. Students are given opportunities for practical experience in settlement work, in work related to charity organizations, home-visiting boys' and girls' clubs, children's hospital work, and other occasions requiring the services of earnest young women. Several schools are paying attention to the demand for trained directors of playgrounds and are offering preparation for that particular line of activity.

Increasing numbers of teachers of maturity and experience are each year attending classes for advanced study. Not a few find their way to the colleges and universities in order to be prepared for training and supervision work or to study for advanced degrees.

Within the past year or so important additions have been made to the roster of kindergarten training schools. Among these are the new department at Wellesley College, the training school of the New York Kindergarten Association, and the new department in Goucher College, Baltimore, Md.

KINDERGARTEN PROPAGANDA.

Kindergarten interests played an important part in the propaganda tour across the continent undertaken by the National Congress of Mothers during the month of May, 1915, and popularly known as "A Mothers' Crusade." A representative of the National Kindergarten Association distributed literature and gave talks on the kindergarten to earnest audiences in St. Paul, Minn.; Bismarck, N. Dak.; Butte, Mont.; Seattle, Wash.; Portland, Oreg.; and Burbank, San Bernardino, San Francisco, and San Diego, Cal.

At the meeting in Portland the 200 delegates who were in attendance at the National Congress of Mothers pledged themselves to work actively for public school kindergartens in their respective communities.

At the Panama-Pacific International Exposition at San Francisco the kindergarten was placed before the public by means of literature for free distribution, lantern slides, and motion pictures. The slides consisted of 52 pictures of kindergarten buildings, gardens, playgrounds, and indoor activities, and were representative of work done in various parts of the country. One film showed the kindergarten children of the city of Washington in their annual spring play festival on the Smithsonian Institute grounds. Two others showed indoor and outdoor play and the work of children in two large private kindergartens of New York City. Another interesting kindergarten film was included in the picturization of the public school work of Los Angeles, Cal.

LEGISLATION.

California continues to lead the way in legislation. The 1915 legislature removed a serious obstacle to the extension of kindergartens by "a special kindergarten tax fund not to exceed 10 cents on $100 in addition to other special-tax levies." This gives a sum sufficient to maintain the kindergartens without withdrawing from the other grades their just share of public support. Much of the increase in kindergartens in California is due to the activities of a special collaborator of the Bureau of Education, who has given her best efforts to stimulating interest in the kindergarten.

Nevada has enacted a mandatory-on-petition law similar to that of California. North Dakota also provides that upon presentation of a petition signed by the majority of the legal voters in a district, kindergartens shall be established and maintained, and that in cities of over 5,000 inhabitants kindergartens shall be established and maintained upon petition of one-fifth of the legal voters.

The North Carolina Legislature passed a law permitting the establishment of public-school kindergartens, but through a technicality it will probably remain inoperative.

In the Southern States, notably in North Carolina, South Carolina, Georgia, and Virginia, where legislative campaigns for kindergartens have been carried on, good results are evident in widespread interest, intelligent questionings, and a wholesome ventilation of the entire subject of child welfare and education.

The New York State plan for kindergarten extension attracts much attention. A committee, with Miss Fanniebelle Curtis, director of public school kindergartens in New York City, as chairman, has been created by the kindergarten section of the State Teachers' Association to conduct a campaign in behalf of legislative measures based upon those of California.

OTHER ITEMS.

Dr. Montessori's demonstration school.—The arrival of Dr. Montessori in this country and the demonstration of her methods and materials in three important educational centers in California (San Diego, Los Angeles, and San Francisco) have provided an immediate focalizing point for the general interest which has during recent years been manifested in her contribution to education. Classes for the preparation of teachers were held in three cities; and a daily demonstration of the practical work with little children took place in a glass-inclosed space in the Palace of Education at the Panama-Pacific International Exposition. Students in the training class were thus permitted to observe the working out of the theory. Casual visitors to the fair were also attracted and interested, and by means of this concrete exhibit discussion which formerly dealt with the printed accounts now dealt with the tangible practice.

The kindergarten and the rural school.—The possibility of carrying the kindergarten into the rural school is in process of discussion. There is no question as to the need of the kindergarten in rural communities; the method of organization and the financial support are the chief concerns. So far, reports are confined to isolated instances. An interesting report comes from Hollis Center, Me., where Kate Douglas Wiggin and Nora Archibald Smith have for several summers made it possible for their little neighbors to have 8 or 10 weeks' experience with a well-prepared kindergarten teacher.

Better music.—The call for "better music" in the kindergartens is being heard and heeded with more earnest attention, and certain improvements are beginning to emerge from the field of effort. Simpler songs, shorter songs, fewer songs, more attention to tone, more individual work with children are some of the evidences of reform in this direction.

Applications to art and library work.—The application of kindergarten ideas and methods to art and library work is one of the more recent projects worked out in a large city. The experiment, begun three years ago, is yielding remarkably successful results. A teacher in the department of normal art training in the Cleveland School of Art is in charge of a group of normal students who are preparing to be teachers and supervisors of art, and of a group who are studying to be illustrators with the expectation of going into commercial and advertising work. Finding the "students at first too academic in their point of view, and very far away from childhood," and realizing that even the best German, French, English, and American illustrators of books incline "toward the decorative rather than the child-life interpretation of the text," this instructor, who was formerly a kindergartner of wide experience, gives a course in child

study and story telling. The child's interests and play activities throughout the seasonal year "furnish wonderful material for the art worker." The simplest form of story is told first, the finger play and nursery rhyme; then the fairy tale and folk tale; then the myth and the classic story. The stories are worked out by the students in black and white, and in color, and are criticised from the standpoint of the child and from the standpoint of technique. "The work has been exhibited with the highest success," says the report. In a similar manner, the same instructor in working with a group of children's librarians applies Froebelian principles to the study of the reading child as compared with the playing child. The course is based upon an examination of the book preferences of children and the nationalities represented among the youthful readers.

CHAPTER XVII.

EDUCATIONAL HYGIENE.

By Willard S. Small,

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Contents.—Cooperation in health administration—Schoolhouse sanitation—Medical inspection of school children—Hygiene of the rural schools.

A survey of the educational field with respect to the relation of education to the conservation and promotion of the health of school children would reveal an astonishing volume and variety of activities. Similarly it would reveal an astonishing number and variety of agencies engaged in some form or aspect of school health work—agencies as widely remote from each other as the Federal Reclamation Service and city charitable organizations, or as the Illuminating Engineering Society and county health officers. In this chapter it is not attempted to box the compass either of activities or agencies, but rather to present what seem to be some of the more important recent facts and tendencies. This has necessitated the omission or the incidental treatment of some really important topics. Among these are the recent advances in the science of ventilation;[1] the research and educational work of the Illuminating Engineering Society;[2] physical education, athletics, and health teaching; and open-air schools.[3]

In connection with health teaching the following three items are of special interest and importance: (1) Under date of February, 1915; the New Jersey State Department of Public Instruction issued a brief but comprehensive monograph entitled "The Teaching of Hygiene and Safety" as a handbook and guide for the teachers of the State. (2) In September, 1915, the board of education of Kansas City adopted Supt. Cammack's plan for a department of hygiene, the purpose of which is to unify and extend the work for the "conservation of the health of the child," including in its func-

[1] See report of the Chicago commission on ventilation (1914) and the preliminary report of the New York ventilation commission (1915).

[2] Through its committee on school lighting, M. Luckiesh, chairman, Nela Park, Cleveland, Ohio.

[3] In collaboration with Dr. J. H. McCurdy, of the International Y. M. C. A. Training School (Springfield, Mass.), the bureau is now collecting data for a bulletin covering adequately these topics.

tion the direction and control of the teaching of hygiene. (3) In a paper in the Educational Review, May, 1915, entitled "The Case System of Teaching Hygiene and Preventive Medicine in the Upper Grades," Dr. Harry W. Haight, of Princeton, N. J., presents a very suggestive statement of his successful experience with the "Case method" for two years in public-school work.

With regard to open-air schools, a comprehensive study of the subject by Dr. Sherman P. Kingsley and Dr. F. B. Dresslar is about to appear in the form of a bulletin of the Bureau of Education. This treats of the history, significance, organization, equipment, cost—indeed, of all the practical and theoretical problems—incident to the open-air school movement. It shows that in 1914 there were over 500 such schools widely distributed in the United States.

An experimental study made by Supt. D. C. Bliss, of Montclair, N. J., of the effect upon health of open-window schools was published in the Psychological Clinic April 15, 1915. The results of his study indicate that other factors than "open air" in the open-air schools are predominantly important.

The topics selected for discussion in this chapter are: Cooperation in health administration, schoolhouse sanitation, medical inspection, and hygiene of the rural schools.

COOPERATION IN HEALTH ADMINISTRATION.

A notable feature in the progress of school-health administration is cooperation of school authorities not only with health authorities but also with responsible voluntary organizations. Such cooperation, in many places, is becoming much more than a complacent willingness on the part of the school to act as a mere distributing agent for properly authenticated tracts and oral messages; it is becoming a rational and considered policy in which the several cooperating agencies effectively perform their several parts.

A good example of effective State-wide cooperation is the Minnesota Public Health Association. This is an outgrowth of the Minnesota Association for the Prevention and Relief of Tuberculosis. It is an independent organization, financed by voluntary contributions. It serves as a coordinating center for investigation and propaganda and has relations with the State board of health, the State department of education, and other voluntary organizations. The salary of the executive secretary of this association is paid in part by the State board of health for his services as publicity agent for the board. Among the dozen or more "planks" in its "platform" are the following, directly or indirectly relating to school-health work:

Promotion of the teaching of true public health in the public schools, parochial schools, normal and high schools, through ministers, priests, women's clubs, press. (First educate these; then get them to educate others.)

Education and remodeling the work of public-health officials.

Establishment of whole-time district health officers, especially for rural areas.

Establishment of school medical inspection everywhere, to be conducted in rural districts by whole-time district health officers.

Since the organization of the association in March, 1914, it has performed or projected the following services for school-health work:

(1) A syllabus of public-health teaching was prepared for the State education department, which was distributed by the department to the 16,000 public-school teachers of the State. Later, through Archbishop Ireland, it was distributed to the Catholic parish-school teachers. Arrangements have been made with the State department for a second syllabus, to be issued in the fall of the current year.

A public-health placard was similarly prepared and distributed to about 10,000 schools and other public institutions.

In cooperation with the Minnesota Federation of Women's Clubs a questionnaire on public health in the schools was prepared and distributed to the number of about 8,000. This inquiry was designed primarily for the public schools, but has been indorsed by some of the Catholic authorities and will be used in some, at least, of the parish schools.

"We are hoping to secure funds for a rural health exhibit to be transported from school to school in a given school district, moving it from district to district and so gradually covering the State."

In cooperation with the State department of education, it is planned to conduct an essay contest on public health in the public schools. Prizes of small value are to be awarded to pupils standing highest in class examinations upon the material sent out in the syllabus on public-health teaching and for essays on these subjects.

In cooperation with the State board of health it is proposed to conduct a health census of the 500,000 children of the State. Such a census has been undertaken on a small scale in certain localities. In one town of 55,000 inhabitants 8,900 usable returns were secured. The results of this investigation showed an average of $3\frac{1}{2}$ infections for each child before the age of 20 is reached, most of them occurring before the age of 8. They showed a higher percentage of infection among girls than among boys, and a higher percentage in the schools attended by the well-to-do than in the schools of slum districts.

An example of effective cooperative effort in a great city in which the school department is the coordinating agency is furnished by Chicago. The school department cooperates with civic and philanthropic organizations in the promotion of health instruction and health habits. The list of cooperating organizations includes: The General Safety Committee of the Chicago Surface Lines, the Civics Extension Committee, the Visiting Nurses' Association, the Infant

Welfare Society, the Chicago Tuberculosis Institute, and the Elizabeth McCormick Memorial Fund.

The following report of this work has been furnished:

The work with exhibits may be illustrated by an account of an exhibit recently held in one of the large high schools. Some of the young people made charts showing the historical and sanitary development of the school district from a swamp to a well-occupied business and residence district; others showed on their charts the density of population, the business blocks, the residence blocks, and the recreation areas. Labels were prepared in the languages of the groups living in the district, children were trained to act as guides, lectures were given in the languages used by the people.

After the exhibit had served its purpose in the high school it was divided and three sections of it were sent to as many elementary schools, there to be visited by the children of the school and by children and adults from the neighboring school districts. The other three sections were exhibited in as many Young Men's Christian Association rooms. Similar exhibits have been shown from time to time in the field houses located in the parks and in other public places.

The use of the public baths and of the facilities of the bathing beaches is encouraged by teachers. The school bath is installed in 84 schools. An attendant cares for the small children who need baths and supervises the older bathers.

The daily visit of the health inspector, the follow-up work done in the homes by the nurses, the exclusion of families in which contagious diseases develop, all unite to give an object lesson of a most convincing nature.

A group of children affected with venereal diseases is segregated in the Frances Juvenile Home. These children are under the care of a board of managers, physicians of high rank, and competent nurses. The board of education furnishes a teacher for these children and for a similar group in the county hospital. Protection from contagion is assured through the care of the nurse.

In the fall of 1913 all high-school children and the normal school students were instructed, in a series of three lectures, in regard to personal purity. The meetings of the girls were held with woman physicians and the boys were instructed by men physicians. These doctors are of high rank in their profession. The matters of general health and talks on the subject of physiology of the sexes were given in a most dignified and forceful manner by these eminent physicians.

In the fall of 1913 a committee consisting of the coroner, a representative of the Chicago surface lines, and three district superintendents prepared a bulletin on "Safety First," which was circulated in the schools. The teachers used it as a text for the instruction of children in avoiding accidents, poisoning, scalds, and burns. The board of education has permitted the expert from the surface lines to give a number of illustrated lectures on the subject of the prevention of avoidable accidents and the conservation of life and limb.

These are not isolated cases; they are rather typical of the movement toward effective cooperation. Correspondence with State departments of education reveals a large amount and a wide variety of cooperative effort. The "pupil deputy health officers" of Oregon[1] form an interesting phase of cooperation. Idaho, Louisiana,

[1] See section on health work in rural schools.

Mississippi, Utah, West Virginia, Indiana, and other States report various cooperative activities. The State board of education of Virginia reports close and effective cooperation with the State board of health, the Cooperative Education Association, and the Virginia Journal of Education in issuing pamphlets on health topics; and with the University of Virginia, the Cooperative Education Association, and the Appalachian school improvement foundation in preparing and presenting public lectures and exhibits in the public schools.

As an illustration of effective cooperation between a voluntary association and a school department, eventuating in the integration of the special object of cooperation into the organized health work of the schools, the work of the School Lunch Committee of the Home and School League of Philadelphia is especially instructive.

This committee has disbanded after an existence of nearly eight years. During this period its work has been that of experimentation and demonstration. It has established lunches in the elementary schools of this city, administered them successfully, demonstrated that they can be self-supporting, and it has now issued a final report in which the results of this extended experiment are made available for use by others. A statement by the chairman of the committee declares:

> The school lunch committee is going out of existence because it has *voluntarily transferred its activities to the public school authorities* of this city. At the May meeting of the board of education the report of the committee was accepted, its recommendations adopted, and the superintendent of schools authorized to extend elementary lunch service immediately to 25 additional schools.
>
> The committee has carried on its work and is now terminating it, because it holds that the *function of a privately supported organiaztion is to experiment and demonstrate.* It never can eventuate on a large scale, and it should not if it could. The function of a publicly supported organiaztion is to eventuate on a large scale. It can seldom experiment, and it lacks freedom and flexibility in demonstration.
>
> The school lunch committee has experimented and demonstrated successfully. It is a source of profound satisfaction to its members that the public school system is now taking over its work, continuing it, and extending it.

SCHOOLHOUSE SANITATION.

A recent bulletin issued by the United States Bureau of Education[1] gives a comprehensive survey of the statutes, judicial decisions, and administrative regulations of the several States governing the hygiene and sanitation of schoolhouses and school grounds.

Forty States have enacted laws relative to the sanitation and the safety of school plants. The eight States that appear to have taken no legal steps in this direction are not necessarily indifferent or inactive as to the conditions of schoolhouses, although public sentiment and activity have not yet culminated in legal action.

[1] Bulletin, 1915, No. 21, "Schoolhouse Sanitation," by W. A. Cook.

The laws concerning school plants are of varying degrees of thoroughness and effectiveness. They invest various central administrative officers with authority to advise local school boards, with authority to approve plans for school buildings, and with authority to inspect and condemn school plants.

The nine States that empower officials outside of the district to give advice have backed up this advisory authority with stronger prerogatives. Advice, except in three instances, includes the preparation of plans for buildings and the loan of plans where they are desired.

The power of approval of plans, which is more potent in effect than the power of advice, is exercised in 30 States; in 28 of them by legal enactment, and in 2 through administrative rules. In some instances State aid toward building schools is conditioned on approval of plans by the superintendent of education.

Twenty-six States have regulations concerning inspection, and in over one-half of these the right to inspect carries with it the right to compel remedial measures where they are needed. This may mean condemnation.

In many cases these laws regarding advice, approval, and inspection lack "teeth," because there is no penalty provided either for nonobservance or for nonenforcement. In other instances the responsibility for enforcement is so dispersed as to render the laws relatively ineffective. In still others the scope of the laws is limited too narrowly.

As an instance of a weak law, one State says, in effect, that managers of public institutions—schools specified, among others—shall remedy the sanitary defects called to their attention. The health authorities are presumably the ones to call attention to defects; but there are no penalties and no enforcing of authority.

On the other hand, as an example of a strong law, one State says: "The inspector of rural schools, the inspector of State graded schools, and the inspector of high schools of the State * * * are hereby made inspectors of public school buildings." Any school official, member of a board of health, or voter of a school district in this State, may complain in writing concerning insanitary conditions about a schoolhouse or any imperilment to life or limb of the attendants.

In the more recent enactments of laws relating to schoolhouse sanitation there is a marked tendency toward correction of previous weaknesses. The later enactments are also characterized by breadth and completeness, by centralization and definiteness of authority, and by the inclusion of adequate penalties for nonobservance of the laws.

Minnesota presents a good illustration of these tendencies. The revised statute of 1913 defines the powers and duties of the State superintendent of education so as to include control of construction of school buildings. The statute reads:

He shall prescribe rules and examine all plans and specifications for the erection, enlargement, and change of school buildings, which plans and specifications shall first be submitted to him for approval before contract is let, and no new school building shall be erected or any building enlarged or changed until the plans and specifications have been submitted to and have been approved by the superintendent of education. He shall include in such rules those made from time to time by the State board of health, relative to sanitary standards for toilets, water supply, and disposal of sewage in public-school buildings. In all other respects the authority to make rules for public-school buildings shall be vested in the superintendent of education. Under such rules and procedure as the superintendent or the high-school board shall prescribe, he may condemn school buildings and sites which are unfit or unsafe for use as such.

The law further provides that no contract shall be let until the plans have been approved, and—

In order to carry out the provisions of this section a special assistant has been appointed who will be known as commissioner of school buildings. Plans and specifications for school buildings should be sent direct to him, as well as correspondence relating to this subject.

The general school law of Illinois was amended by the last legislature so as to authorize the State superintendent of schools—

To prepare, with the advice of the State board of health, the State architect, and the State fire marshal, for school directors and boards of education, specifications for the minimum requirements for the heating, ventilation, lighting, seating, water supply, toilets, and safety against fire which will conserve the health and safety of the children attending the public schools.

County superintendents are authorized and directed to inspect plans and specifications for the heating, ventilation, lighting, seating, water supply, toilets, and safety against fire, and to approve only those which comply with the specifications prepared and published by the State superintendent; and to condemn, upon written recommendation of the State board of health, the State fire marshal or the State architect, buildings that are "unsafe, insanitary, or unfit for occupancy." Failure on part of boards of trustees to fulfill legal requirements is penalized by forfeiture of State funds.

It is further provided that—

Before erecting or remodeling a public-school building the board of directors or the board of education in districts containing fewer than 100,000 inhabitants shall submit the plans and specifications respecting heating, ventilation, lighting, seating, water supply, toilets, and safety against fire to the county superintendent of schools for his approval.

A drastic law was proposed in the last Kansas Legislature, but failed of passage. Its salient features were: (1) A State commission of school sanitation, consisting of the State superintendent of schools, the secretary of the State board of health, and the sanitary engineer of the State university, to "supervise and have full jurisdiction over the sanitation of school buildings and school premises and of all properties adjacent to school premises whereon, or wherein exist, or are maintained insanitary conditions"; to approve all plans for construction or remodeling of school buildings; to make rules and regulations for supervision and control of school water supplies, privies and toilets, heating, ventilation, lighting, fire-escapes and other matters affecting the physical welfare of pupils; (2) a penalty of removal from office for violation of the act or of the rules and regulations of the commission, if the violator is a member of a board of school trustees; or a fine if the violator were other than a member of a school board.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

At the time of the publication of Gulick and Ayres "Medical Inspection in Schools" (1908), but two States, Massachusetts and Connecticut, had statutes relative to medical inspection of school children. A few States were reported as having in operation some general laws pertaining to the health of school children. Since 1908, 21 States have secured some form of legislation upon medical inspection or examination for defects. The triennium 1909–1911 was the most productive period. In those three years 16 States provided medical-inspection laws of some kind. In 1913 there was one addition; in 1914 one more. Strengthening amendments have been frequent since 1912.

In 1915 Wyoming was added to the States having medical inspection. In two other States, Nevada and Oklahoma, bills were before the legislature, but failed of enactment. In five others amendments were considered. One of these, the New Jersey amendment, which was reactionary in character and sought to change the law from the mandatory type, is important because of its failure.

These laws vary widely in breadth, in local application, and in force. Some provide only for examination by teachers of the sight and hearing of pupils. These are hardly worthy the name of "medical-inspection" laws, but in a number of cases they have been the first step. Others are so broad and general that they vest in the designated authorities ample powers for the creation of adequate and thorough health supervision.

The following summary of the desirable features of legislative enactments covering health supervision of schools is based upon a

careful study of the medical-inspection laws of all States having such laws in 1913. It includes no feature not found in one or more laws then in force: (1) Compulsory health supervision of school children; (2) a provision placing the administration of the system in the hands of the school authorities with discretion to cooperate with the health authorities in an epidemic, etc. (whether the inspection should be in the hands of the school authorities or the local health board is still an open question); (3) inspection by a physician to control contagious diseases; (4) annual examination by physician to discover defects of a deterrent nature; (5) annual tests of sight and hearing by teachers; (6) examination of teachers and janitors and regular inspection of buildings, premises, and drinking water to insure sanitary conditions; (7) adequate training of students in normal schools in conducting tests of vision and hearing; (8) provision for employment of school nurses; (9) a penalty or other provisions to secure enforcement of the law.[1]

The classification of medical-inspection laws and ordinances adopted by Gulick and Ayres[2] in 1908 is still serviceable, though some of the recent laws are too general in character to fit nicely any of their categories. For instance, the Virginia law provides that—

> the school boards of cities and counties may in their discretion select and appoint medical inspectors of school children, whose duties and compensation shall be prescribed by the respective boards and who shall report to and be under the control of such boards.

The classification is as follows:

I. Examinations for the detection of physical defects of school children conducted by teachers. Usually limited to sight and hearing.

II. Examinations conducted by physicians for the detection of communicable diseases.

III. Inspections conducted by physicians for detection of contagious diseases, combined with physical examination for the detection of physical defects.

IV. Systems combining examination by teachers for detection of defects of sight and hearing and examination by physicians for contagious diseases and for physical defects other than sight and hearing.

Other important aspects of medical-inspection laws are: Whether mandatory or permissive, administering authority, and scope of application.

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[1] Monthly Bulletin, Ohio State Board of Health, July, 1913.

[2] See their "Medical Inspection of Schools."

The following tabulation gives a conspectus of the laws of 26 States relative to these characteristics:

A brief classification of the laws pertaining to medical inspection in schools.

States.	When adopted.	Permissive or mandatory.	Classification.	By whom administered.	Applies where.
California	1909	Permissive	I	School authorities	Where adopted.
Colorado	1909	Mandatory	I	do	All public schools.
Connecticut	1907	Permissive[1]	II	do	Where adopted.
Delaware		do			
Florida	1915	do			
Georgia		do			
Idaho		do			
Indiana	1911	Mandatory, 1913.	IV	School authorities	All public schools.
Louisiana	1911	Mandatory	I	Health authorities	Do.
Maine	1909	Mandatory as to sight and hearing.	IV	By not more than 1,000 pupils to physician.	Cities and towns of less than 40,000 population.
Maryland	1914	Permissive	IV	School physicians, appointed by county school board.	
Massachusetts	1906	Amended, 1910; mandatory.	IV	School authorities	All public schools.
New Hampshire	1913	Permissive	IV	do	Where adopted.
New Jersey	1909	Mandatory	III	do	All public schools.
New York	1910	Mandatory, 1913.	IV	do	All public schools, except cities of 1st class.
North Carolina	1911	Permissive[2]	IV	County health authorities.	
North Dakota	1911	Mandatory on petition.	III	School authorities	Where adopted.
Ohio	1909	Amended, 1913; permissive.	III	School or health authorities.	Cities, villages, or townships.
Pennsylvania	1911	Mandatory in district 1st and 2d class; permissive 3d and 4th class.	III	School authorities	All public schools, where adopted in 3d and 4th class districts.
Rhode Island	1911	Mandatory as to sight and hearing.	IV	do	All public schools.
Utah	1911	Mandatory	IV	do	Do.
Vermont	1910	Mandatory when voted by towns.	IV	do	Do.
Virginia	1910	Permissive	III	do	Cities of 1st class.
Washington	1909	do	III	do	Do.
West Virginia	1911	Mandatory in cities; permissive in country districts.	III	do	Cities, and where adopted in country.
Wyoming	1915	Mandatory	I	do	All public schools.

[1] Mandatory in cities and towns of over 10,000 population.
[2] Mandatory in counties having whole-time health officers.

The Massachusetts law of 1906 has had a strong normative influence. The term "medical inspection," as defined in the act, is "held to mean the testing of sight and hearing of school children and the inspection of school children by physicians for disease, disabilities, decayed teeth, and other defects which may reduce efficiency or tend to prevent their receiving full benefits of school work." With slight variations, this is the wording of the definition of the aim and scope of "medical inspection" in the statutes of Indiana, Maine, Maryland, New Hampshire, New York, and West Virginia. Amendments to the Massachusetts law in 1911, 1913, and 1914, respectively,

authorize towns to appropriate money for the employment of district or other nurses; cities and towns to provide free meals for school children, and cities and towns to establish and maintain dental dispensaries for children of school age.[1] The Maryland law of 1914 provides also for the establishment of special schools for defectives and the employment of school nurses "to visit parents to assist in securing the medical attention required;" and also provides that the State normal schools shall give "suitable instruction and practice for testing sight and hearing of school children."

West Virginia specifies an "accurate and complete record of each pupil examined, the examination to cover heart, lungs, eyes, ears, throat, teeth, contagious or infectious diseases, skin diseases and measles." A number of States specify also the inspection of school buildings and grounds and the examination of teachers and janitors. The New Jersey law provides specifically for control and prevention of communicable disease, for sanitary inspection, and for the annual physical examination of all school children. The New York law has a strong enforcement clause, placing the enforcement of the law in the hands of the State commissioner of education and authorizing him to withhold at his discretion State moneys from districts not fulfilling the law. It further authorizes the State department to employ a State school medical inspector. Like Massachusetts and Maryland, it authorizes employment by districts of school nurses.[2]

It is worthy of notice that the initiation of medical inspection has not anywhere waited upon specific enabling legislation. School medical inspection was practiced in every State having now a medical inspection law prior to the enactment of such a law. Likewise it is practiced to-day in every State not having a specific enabling law. In 1914 out of 1,466 cities of over 4,000 population, from which the United States Bureau of Education received accurate information, 750 reported some form and degree of "medical inspection." Every State was represented. School nurses were reported as employed in one or more places in all but nine States. Illinois, Minnesota, and Wisconsin, none of which have State medical inspection laws, show some of the best examples of organized health supervision in the schools. In most States the general powers of the health or education authorities are adequate; and in a number of instances (e. g., Minnesota State Board of Health) broad and effective work has been done under administrative orders having the force and effect of law. In general, the value of State laws is in their standardizing and stimulating influence. The definition of aim and scope of the work even where the laws are merely permissive generally brings results both quantitative and qualitative. Indeed the moral compulsion of

[1] Acts of 1911, ch. 72; acts of 1913, ch. 575; acts of 1914, ch. 677, respectively.

[2] Acknowledgment is hereby made to an unpublished study of medical-inspection laws by Mr. Wellington Patrick, graduate student of the George Washington University.

permissive laws is probably as effective as the legal compulsion of mandatory laws in communities that have not grasped the significance of such laws.

Two gratifying tendencies appear in recent legislative and administrative dealing with "medical inspection": The broadening of the scope of medical inspection and the recognition of the educational department as the proper administrative authority. They are interdependent.

The first of these has been suggested in the first part of this section dealing with the scope of recent enactments. The almost chaotic condition of the use of terms in this field is a sign of healthy progress. The following list is not complete: "Medical inspection," "medical examination," "medical and sanitary examination," "health work in the schools," "school health supervision," "medical supervision," "school health administration," "educational hygiene," "department of school hygiene," "bureau of child hygiene," "department of health and development." All recent books on this subject; the discussions in educational, civic, and medical organizations; and the discussions in the popular press as well as in the educational and scientific journals bring clearly into relief the broadening scope and the fundamental character of the health movement in education. The narrower problem of medical or health supervision is coming to be conceived in its true relation to the broad and fundamental question of educational hygiene.

This inevitably leads to a recognition of the school authority as the proper locus of administration of all health work in education. From the beginning it has been recognized that the expense of medical inspection is a proper charge upon the school funds. In a few instances nothing is specified in this respect in the State laws, but in most cases it is specified that the expense is to be borne by the school department. This is almost universal. In Pennsylvania, for instance, where the fourth-class districts are under the administrative jurisdiction of the State health department, the expense is charged to the school fund. It is also generally recognized that responsibility for organizing medical inspection rests with the educational authorities. Reference to the table on page 418 shows that in 20 States the law vests the power to organize medical inspection in the educational authorities. Only two States, by legal enactment, have placed medical inspection with the health authorities—North Carolina, with the county health authorities, and Louisiana, by specifically authorizing the State health department to make rules.

The difficulty is in the administration of this function. Medical inspection antedates all State medical inspection laws. It began as an exercise of the police power of health authorities to protect the public health through the inspection of school children for the de-

tection and control of communicable disease. Systems were organized and in effective operation by health authorities before the broader educational significance was recognized. Technique and experience were with the health departments. Naturally there has been a good deal of controversy over the locus of administrative responsibility. This has been reflected in some of the statutes, especially in those of Massachusetts and Pennsylvania. In these two States in communities where medical inspection had been organized by health authorities prior to the enactment of the law, it has been permitted to the health authorities to retain control, provided they satisfy the demand of the educational authorities with respect to quality and extent of work. In Massachusetts, the health authorities may also initiate medical inspection, if agreeable to the educational authorities. In Pennsylvania, control is divided—in districts of the first three classes it is lodged with the school boards; in fourth-class districts (rural), it is with the State health commissioner.

Events, however, as well as logic point clearly to the concentration of administrative control in the school authorities. Within the past year such control has passed from health to school authorities in two large cities, Boston and Washington. In the latter city the transfer was made by act of the last Congress.

The change in Boston is significant as the final solution of a long controversy. For some years the Boston school committee has administered, through its department of school hygiene, all phases of health work in the schools, except the inspection for contagious diseases. Even the control of the school nurses was under the school authorities. Such a bifurcation of control was a self-evident absurdity. The transfer of control to the school committee was made when the board of health, in June, 1915, voted that—

> on and after the 1st day of July, 1915, the board of health shall no longer maintain the medical inspection of the children in the public schools of the city, as the school committee has voted to exercise the powers and to perform the duties provided by law for the appointment of school physicians and for the maintenance of such medical inspection.

A statement issued by the board of health explains that—

> the division in the charge and control of the work of medical inspection * * * by having the school committee appoint the nurses and the board of health appoint the school physicians seemed to the board of health unnecessary and to result in less efficient service than if complete authority for the subject were reposed in one department.

Boston now has a complete and unified organization for educational hygiene. Immediately upon assuming control the school committee took an important step toward more efficient medical inspection by reducing the number of inspectors from 80 to 40 and raising the compensation from $300 to $500. This is not the most desirable

arrangement, as it retains the plan of employing a large number of part-time physicians instead of a small number of full-time inspectors. Appointments are to be made by competitive examination.

Returns from 1,466 cities and towns received since November, 1914, show the following data relative to medical inspection (elementary schools only):

Summary of returns from questionnaire on medical inspection in elementary schools, 1914.

Total number of schools reporting	1,466
Number of cities having some form of medical inspection	750
Cities where medical inspection is instituted chiefly or in part for contagious diseases	242
Cities having medical inspection of eyes, ears, and teeth	570
Cities having medical inspection of ears and eyes only	62
Cities having medical inspection of eyes only	9
Cities having medical inspection of teeth only	29
Cities having school (or district) nurse	268
Total number of nurses reported	923
Cities where nurses are employed by the board of education	174
Cities where nurses are employed by the board of health	43
Cities where nurses are employed by other agencies	36
Cities having dental clinics for school children	130
Cities treating teeth of school children	195
Cities where treatment is paid for by board of education (all or in part)	42
Cities where treatment is paid for by board of health	4
Cities where treatment is free, or paid for by city, county, or other agencies	89
Cities having psychological clinics under expert direction	33
Cities having a central or general clinic	74

The notable thing in these figures is the number of school clinics, dental, psychological, and general. The maintenance of clinics is coming to be recognized as essential to effective health work in the schools. A special inquiry by the Bureau of Education relative to school clinics in 1914 showed a preponderating weight of opinion on the part of those responsible for health supervision in favor of school clinics. Out of 608 replies, 350 favored the establishment of school clinics; 24 opposed; the rest were noncommittal. The reason given in most cases was the inadequacy of existing clinical agencies. Other reasons were "conservation of the time of school children and school nurses," and "control by the school of facilities for treatment." Undoubtedly the establishment of school clinics and the organization of systematic use of existing voluntary agencies is one of the most important administrative problems in the development of educational hygiene. It should be noted that not all of the cities reporting school clinics really have well-organized clinics. In a good many cases the clinic is maintained by the voluntary unpaid service of physicians, the school board merely furnishing the room and equipment. Such cases

are purely tentative and frequently are abandoned. At first the physicians are enthusiastic and the results are substantial, but, in course of time the interest and enthusiasm wane and the project fails. A voluntary organization, in the nature of the case, is temporary. It serves only to demonstrate the value and practicability of the idea. As the value and practicability of the school clinic have now been abundantly demonstrated both in this country and in foreign countries, it is inadvisable now for communities to go through the motions of proving what is already proved.

HYGIENE OF THE RURAL SCHOOLS.

In the past three or four years there has developed a significant and gratifying interest in the health problems of the rural schools. Prior to that there had been sporadic attempts at betterment of rural conditions. These had dealt almost exclusively with gross sanitary conditions and with improvement of rural-school architecture. It was pointed out at the Fifteenth International Congress on Hygiene and Demography,[1] in a discussion, that whereas more than half of the American school children were in the rural schools, practically nothing had been done in this field in the way of health supervision. The proceedings of the school hygiene section of that meeting show nothing of importance and, in the exhibits, only the collapsible models of rural-school houses, shown by the United States Bureau of Education, and some jacketed stoves by various manufacturers were especially significant. The Fourth International Congress of School Hygiene (Buffalo, August, 1913), again was almost barren of papers and exhibits relative to rural-school conditions. The bureau's summary[2] of the papers contains only one specifically rural-school topic, "Intestinal Parasites and the Rural School," by Dr. Ferrell, of the Rockefeller Sanitary Commission. In the introduction to the bulletin appears the following generalization in regard to health supervision in rural schools:

> A more fundamental problem is the extension of health supervision to country schools. Here again the rural school is much behind the city school. If medical supervision takes the course of other changes in education, it will proceed from the city to the State, and may eventually reach all the rural districts if State supervision is made effective. Where there is a county organization the task of reaching the hygienic needs of the rural school is by no means impossible; but adequate State support and control are essential if this and other needed improvements are to be made in rural educational facilities. The beginnings of State medical inspection are visible in a few States. Colorado has a State plan that is reported to be working satisfactorily, Pennsylvania sends medical inspectors into remote country districts, and New York has a recent law providing for medical inspection in every school in the State, the results of which will be watched with interest.

[1] Held in Washington in September, 1912.
[2] U. S. Bu. of Educ. Bul., 1913, No. 48.

Some of the more important manifestations of interest in the health problems of the rural schools are the following:

1. The joint committee on health problems in education of the national council of the National Education Association and of the American Medical association was created at the meeting of the National Education Association in 1913. Up to the present it has devoted itself almost exclusively to the rural school problem. The first fruit of its labors was the report submitted to the St. Paul meeting of the National Education Association in 1914 proposing a standard of "Minimum sanitary requirements for rural schools," which should be demanded by "educational authorities and by public opinion of every rural school in the country." The items for which standards are erected are: Location and surroundings, schoolhouses, ventilation and heating, lighting, cleanliness, drinking water, water for washing, furniture, toilets, and privies.

It is further stated in the report that—

> No community should be satisfied by the minimum requirements indicated in the foregoing, but every country school should be so attractive and well equipped as to minister with some abundance of satisfaction to the physical, mental, æsthetic, social, and moral well-being of those who provide it, who own it, who use it, and who enjoy it.

The report refers to the "deplorable conditions of rural schoolhouses" and specifies the following reasons for the existence of such conditions:

Low architectural and sanitary standards in rural regions; ignorance regarding the physical, mental, social, and moral effects of unattractive and insanitary school buildings; false economy of school boards; and lack of State supervision and assistance.

Improvement, according to the report, can be effected by two general measures: (1) "A popular campaign of education regarding the conditions desirable and possible in the country school"; and (2) "Emulation and competition should be recognized and rewarded in ways that will promote wholesomely and progressively the welfare of the community as a whole."

The following are designated as important "issues" in such a campaign of education:

> (*a*) The United States Bureau of Education and State departments of education should furnish plans and instructions for construction and equipment of rural-school buildings.
>
> The United States Bureau of Education in Washington is already supplying on request valuable help of this kind, and a few State departments of education are demonstrating what may be done by supervision and support which aid without controlling.
>
> (*b*) State departments of education should supply supervision of rural schools and should have power:

(1) To condemn insanitary and wholly unsuitable buildings and school sites.
(2) To give State aid to rural schools when the local authorities fulfill certain desirable and reasonable conditions.

(*c*) Ideas and standards of school sanitation should be inculcated in minds of local school patrons and school authorities who control school funds and who administer the affairs of the schools. Public lectures on health topics should be provided in the schoolhouse and elsewhere.

(*d*) Effective school health courses should be introduced in normal schools and teachers' institutes.

Better education of rural-school teachers, county superintendents, and rural-school supervisors in the principles and practice of school hygiene and sanitation should be assured.

(*e*) Interest in and enthusiasm for the improvement and care of all features of the school and its surroundings which affect health and happiness should be inspired in the minds of rural-school pupils.

Organizations such as "Pupils' boards of health," "Civic leagues," or "Health militias" may profitably be formed among pupils.

(*f*) Organizations like "the Granges," women's clubs, county medical societies, and other groups so situated that they may further the cause of health and efficiency should cooperate with the rural board.

(*g*) Attractive but reliable health information should be furnished abundantly by the public press.

Arrangements have been completed for the distribution of three-quarters of a million copies of this report by the United States Bureau of Education. The report should thus reach most of the rural-school teachers throughout the country and in itself should be an important campaign document.

Another important contribution made by this committee is an investigation of the actual health and sanitary conditions in rural schools. The results were shown graphically in the education exhibit of the Panama-Pacific Exposition.

(*a*) Comparative statistics of defects in school children show less defect among city children than among country children. One chart giving the relative percentages of 13 defects in the school children of the cities and rural districts of five States showed that for all defects except two, the prevalence of defect was much greater among the children of the rural schools.

(*b*) The deplorable sanitary conditions in rural schools were presented in a chart showing the results of careful investigation of 109 rural schools in five States: New York, New Jersey, Connecticut, Vermont, and Maryland. There was an astounding prevalence of insanitary and indecent conditions. Unclean privies, bad ventilation, inadequate lighting, defective cleaning, and unhygienic furniture are common. Out of 3,572 rural schools in Pennsylvania inspected by the State health department, 3,036, or 85 per cent, were found to be insanitary in one or more of the points mentioned. Both supply and distribution of water are undesirable. Of the 109 schools mentioned above more than one-half depend upon dug wells

for water supply and upon open pails for distribution. Reports received by the committee from 1,258 rural schools in 18 States show the common drinking cup in use in 580, or 46 per cent, of these schools.

(*c*) Another important fact presented graphically by the committee's exhibit is that, in general, health supervision does not exist in the rural schools. Of the 20 States having health supervision laws, only 8 provide for inspection in the rural schools. In the other 12 the statute applies only to city schools. Reports from 1,262 rural schools in 18 States (two counties in each State) show that medical inspection was practiced in only 61 schools, dental care in 68, and sight and hearing were tested in only 294 and 238, respectively. Similarly only 6 States report provision for warm lunches in any rural schools, whereas 27 States report warm lunches in some city schools.[1]

2. The Rockefeller Foundation International Health Commission is doing a large work of investigation and education. In cooperation with local educational and health authorities the commission has conducted surveys and educational campaigns in several of the States where hookworm disease is prevalent. Incidentally these investigations and demonstrations have stimulated interest in the general health problems of the rural schools and rural communities. The exhibit of the commission at the Panama-Pacific Exposition had as its keynote "Teaching the people by demonstration." Wax models, pictures, graphic charts, and other devices were used to show the ravages of the hookworm disease and the details of the campaign that has been waged for the eradication of the disease. The exhibit showed that during this five-year campaign more than 500,000 children of school age (6–18, inclusive) in all Southern States had been examined for hookworm disease and that 216,828, or 39 per cent, were found infected; 2 out of every 5 children of school age. By the same concrete means the meaning of infection was clearly shown: Impaired health; greater susceptibility to other diseases; stunted growth; dulled mind; diminished results of teaching; blighted manhood and womanhood. Another important feature of the exhibit, perhaps the most important, was the demonstration of improvement in community well-being by the elimination of insanitary and the substitution of sanitary living conditions.

It will be noted that the work of the International Health Commission is primarily a general community service and concerns itself with school health problems only as these are integral with com-

[1] Many of these charts and of the exhibits subsequently referred to are reproduced in a bulletin to be issued by the Bureau of Education on "Education Exhibits at the Panama-Pacific International Exposition."

munity problems. In this respect it is like the work of many other organizations, such as the Antituberculosis Society, which working directly upon the community at large and incidentally and cooperatively with the schools exert tremendous influence in the improvement of school conditions. As shown in another section, cooperative effort is the significant feature of organized health work.

3. The United States Public Health Service has conducted some sanitary surveys that involve rural school problems. In its exhibit in the Liberal Arts Building at the Panama-Pacific Exposition were shown, in striking contrast, models of a sanitary and an insanitary country school. The latter bore the date of "A. D. 1890" and carried the following legend:

> In the erection of this building no attention was paid to proper lighting or sanitary environment. The surface privy pollutes the soil, increasing the danger of infection by hookworm and other intestinal parasites. These breed in the manure in the horse shed and may transmit typhoid fever. The well is so located that surface drainage from the privy and stable may contaminate the water supply. No provision is made for physical exercise. The lack of individual drinking cups favors the transmission of disease.

The sanitary country school, dated "A. D. 1914," was intended to fit the following requirements:

> This school building was constructed with a view to proper lighting and ventilation. The privy is of the type known as the L. R. S. privy. The horse shed is kept clean and the manure is in a covered bin to prevent fly breeding. The water supply is from a driven well, incased with concrete cap, to prevent contamination by surface drainage. There are no roof gutters except over doors, and the surrounding ground is drained so that there may be no breeding places for mosquitoes. A playground and school garden are provided. Each child is required to have an individual drinking cup.

4. Through its Town and County Nursing Service, the American Red Cross is prepared to place qualified visiting nurses in rural districts, in towns of less than 25,000, and for county work. Red Cross visiting nurses are appointed to communities where the same local organization that finances and directs the work has regularly affiliated with the town and county nursing service. These nurses give instruction in the home, teaching families the care of the sick, protection against disease, and the general principles of hygiene and sanitation. They give talks to school children, to Boy Scouts and Campfire Girls, to groups of mothers, to parent-teachers' associations, and to other clubs and classes for young and old. Red Cross visiting nurses are now employed in 34 communities.

Several of the nurses are teaching mothers' helpers classes, giving instruction school hygiene in teachers' training schools, starting dental clinics in rural schools, and developing rural-school nursing along with the various forms of their community service.

Effort is made by this arm of the Red Cross service to interest educational institutions in conjunction with visiting nurses' associations in various sections of the country to provide training courses in public health work. There is as yet no training center west of the Mississippi, but the University of Colorado has the matter under consideration.

The directors of this service wish to affiliate with school boards, as well as with private organizations undertaking school nursing. The Red Cross service is likely to be the standard source of supply for rural-school nurses, as well as for information in regard to rural-school nursing problems.[1]

5. During the past two years a number of State laws have been proposed or enacted,[2] and a great many administrative bodies have promulgated regulations which breathe the spirit of the recommendations of the joint committee on health work in education referred to above. In some cases it is probable that they have been directly inspired by the report on minimum requirements.

(*a*) The State Board of Health of Kentucky, under its regulation having the force and effect of law, requires specific types of sanitary toilets and privies to be constructed in every school or other public building in the State not on lines of sewers. A full description and plans of the "Kentucky sanitary privy" are given in the bulletin of the Kentucky Board of Health for July, 1914. A good many schools have already installed the required improvement.

The Mississippi State Board of Health has taken similar action.

(*b*) The State Board of Education of Pennsylvania has issued an admirable 70-page bulletin entitled "School Architecture: One, Two, Three, and Four Room School Buildings." "The purpose of the bulletin is to present to boards of directors suggestive standard plans and limited specifications for the construction of one, two, three, and four room buildings." Local boards are required to employ architects to prepare plans and specifications which, however, must be submitted for approval to the architect of the State board of education. "Standard plans supplied by the State board of education may be changed to suit local needs, but before any legal contracts can be made such changes must be submitted to the State board of education." "This specifically requires that schoolhouses built hereafter must conform to the modern principles of lighting, heating, ventilating, and physical activity." To insure such conformity and to encourage local communities to provide attractive schoolhouses, constructed with due regard for modest artistic effects of grace and beauty and surrounded by large and well-kept grounds

[1] The superintendent is Fannie H. Clement, American Red Cross Headquarters, Washington, D. C.

[2] See section on "Schoolhouse sanitation.'

"this bulletin is issued under the direction and authority of the State board of education."

The bulletin states simply and succinctly the elementary requirements relative to character of sites, floor and air space, lighting, heating and ventilation, fire protection, construction and care of toilets and playgrounds. It is amply illustrated not only with plans of school buildings but also with cuts representing hygienic school furniture, hygienic provisions for drinking water, jacketed stoves, and various types of sanitary toilets. Furthermore, there are clear and definite instructions in regard to many phases of school hygiene and sanitation.

The bulletin is much more than a handbook on rural-school architecture; it is also a statement of proper hygienic operation of a sanitary school plant.

(*c*) The Oregon State Department of Education has put into effect a plan that actualizes the recommendation of the "joint committee" relative to encouraging "emulation and competition in ways that will promote wholesomely and progressively the welfare of the community as a whole." In the four-page leaflet entitled "Standardization of Rural Schools" 15 of the constituent elements of a good school are briefly and cogently stated. Of the 15 "standard" requirements 5 are "sanitary"—lighting, heating and ventilating, grounds, drinking water, and toilets. The purpose is to erect a "standard to which each rural district must bring its school, a measuring rod by which the farmer may be convinced that he has not as a rule been providing house and grounds equal to those for his cattle and horses."

The requirements are printed on a large card and hung on the front wall of each rural school. At each regular visit the county superintendent inspects the school and fastens a gold star opposite each requirement that has been fully met. When all the requirements are fulfilled, a pennant is awarded to the school. Methods are suggested for enlisting the active interest of the community, as well as of teachers and pupils, in this wholesome and inspiriting competition.

Oregon contributes another interesting idea in a plan for commissioning pupils as deputy health officers. In cooperation with the State department of education, the State board of health has offered to deputize one pupil in each school whose duty it becomes to look after the matter of lighting, ventilation, water supply, toilets, and buildings and grounds. The pupil taking this office receives from the State board of health a metal health officer's badge and a little circular of instructions on sanitation. These deputy health officers are being appointed in a large number of schools of the State.

Other features, promoted by State departments of education, that are of special significance for rural schools are motion picture exhibits, in cooperation with State health departments and tuberculosis organizations; "health day campaigns" (Arkansas, Alabama, New York, and others); special emphasis on rural hygiene in teachers' institutes (New Hampshire, Utah, New Mexico, and others); a division of medical inspection in the State Education Department of New York.

6. State educational institutions in a number of States are performing important practical services. The following are typical:

Kansas State Normal School.—The school has designed what is known as the Emporia model plan. Blue prints for building plans are sent to boards desirous of building a modern structure. The plans are designed as a social center building as well as schoolhouse. The school is intended for school purposes, entertainments, and Sunday school, and other social center uses.

Washington State Normal School, Cheney.—The school has organized a department of health education which extends its influence into the rural demonstration schools and the country round about where health examinations are held and the children given information and lectures on personal health improvement. Much work is also done to encourage improvement in school architecture with a view to making the school premises as wholesome and sanitary as is possible.

Utah State College of Agriculture, Logan.—Rural sanitation is a constant part of the instructional work of the college proper and the educational division. Through special lectures, farmers' institutes, and county agents definite instruction is given in sewage disposal, house-fly control, water supply for rural homes, school building construction and the like. Practical headway has been made in the reconstruction of many of the older type of rural schoolhouses.

7. Feeble-mindedness and the rural schools. The problem of amentia in the rural schools is one to which as yet little careful study has been given. There are few urban school systems to-day that do not make some provision for atypical children both in the way of examination and special training. On the other hand there are few rural schools that have done anything in either respect. Furthermore, investigation of feeble-mindedness in rural districts is much less advanced than in cities. The data mentioned above in regard to the relative prevalence of defect in city and country school children showed more mental defect among country than among city children. These data are suggestive but not conclusive. The few investigations that have been made to determine the number of mental defectives in certain States or localities show very little in regard to the comparative situation in rural and urban communities. The report

of the New Hampshire Children's Commission (1914) contains important facts in regard to the geographical distribution by counties. The investigation revealed that "the range of feeble-mindedness gradually ascends from the smallest percentage, in the most populous county of the State, to the largest percentages in the two most remote and thinly populated counties."

Whether such a condition prevails in other States—indeed, whether the incidence of feeble-mindedness is greater or less in rural districts—is relatively unimportant; the important fact is that feeble-mindedness exists extensively in rural as well as urban communities and that, as yet, little attention has been given to this very serious problem of rural sociology. Prof. Groves, of the New Hampshire State College, points out that immediate progress may be made by educating country teachers and pastors and, through them, the substantial people of the rural communities as to the social and moral significance of mentally defective children. He urges that—

> rural school organization be made use of in the attempt to find the children who are defective. It is wise economy to organize the forces of public education so as to enable them to undertake clinical investigation in localities too small to carry on such work by themselves. There is a special reason why such investigation * * * will appeal to educational officials. They of all persons are likely in practical and even painful ways to feel the need of such work being done.[1]

In addition to the New Hampshire investigation the following reports are significant: The New Jersey department of charities and corrections "Research Work in New Jersey," 1913; commission on segregation of feeble-minded and epileptic persons in Pennsylvania, 1913; Adele H. McKinnie, "The Feeble-minded in One Michigan County," Journal of Pyscho-Asthenics, March, 1914; report of the New York State "Commission to investigate provisions for the mentally deficient," 1915; Davenport's studies of the "Nam Family and the Hill Folk." A survey of Nassau County in New York is now under way.

[1] Groves' *Clinical Psychology and the Rural Schools.* Psychol. Clinic, Feb. 15, 1915.

CHAPTER XVIII.

SCHOOL SURVEYS.[1]

By Edward Franklin Buchner,

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Contents.—Surveys of 1913: Orange County, Va. Of 1914: San Francisco—Rural and village schools, Colorado—New Orleans—Covington, Macon, and Morgan Counties, Ala.—Springfield, Ill.—Blaine—Chicago—South Bend—Upper Peninsula, Mich.—Bell, Collin, Fisher, Harris, and Nacogdoches Counties, Tex.—Rabun, Clayton, Taliaferro, and Bulloch Counties, Ga.—Richmond, Va. Of 1915: Seattle—Reading—Minneapolis—Ogden—Hammond—San Antonio—Dansville, N. Y.—Oakland.

ORANGE COUNTY, VA.

During the early months of 1913, at the suggestion of Joseph D. Eggleston, retiring State superintendent of public instruction, a sanitary survey of the white and of the colored schools and school children of Orange County, Va., was undertaken. The purely rural investigation was placed in charge of Dr. Roy K. Flannagan, director of inspections of the Virginia State Board of Health. He was assisted in the hookworm investigation by Drs. W. A. Brumfield and H. A. Lickle, of the Rockefeller Sanitary Commission. The inspection of all the consolidated schools was made through the voluntary services of Drs. H. S. Hedges, R. L. Compton, and J. C. Flippen, members of the medical faculty of the University of Virginia, and Marvin Harris, D. D. S., of Orange. Valuable assistance and cooperative suggestions were received from Supt. C. P. Cowherd and Dr. E. G. Williams, commissioner of health of Virginia; R. C. Sterns, the State superintendent of public instruction; and Dr. W. H. Heck, of the University of Virginia.

The report on the results of the investigation was prepared by Dr. Flannagan and published by the United States Bureau of Education.

[1] In the Report of the Commissioner of Education for the year ended June 30, 1914 (Ch. XXIV, vol. 1, pp. 513–562), appeared a previous report on school surveys in the United States. The educational inquiries and surveys, the reports of which, with two exceptions, had been published up to the close of that year, were analyzed with reference to the place and time, the authorization, the details of the staff, the situation leading to the inquiry, the scope and method, and the fundamental problems investigated, with a summary of the more important findings and the recommendations.

This second report presents in the same manner the data of 21 new school surveys, all of which, excepting the first 2 on the list, where published in the year ended June 30, 1915. Copies of the Salt Lake survey were received too late for inclusion in this report.

For the survey of the University of Wisconsin and the Wisconsin normal schools, see, respectviely, Ch. VI (Higher Education) and Ch. VII (Training of Teachers).

(Bul., 1914, No. 17, whole No. 590, 28 pp.) The report includes four chapters: The setting of the survey and explanatory note, organization and methods, results of the inspection, rural school-building equipment and environment. Eight plates give pictures of some of the school buildings, interior and exterior. A map and specimen blanks and forms used in the inquiry are included in the report. The survey included a study of "the physical condition of the children in attendance on the schools, the enrollment, the proportional attendance, the size, equipment, and appearance of buildings and grounds, heating and lighting arrangements, water supply, and sanitary conveniences." The most important findings are briefly consolidated in three pages of statistical tables, which include the data concerning school population, age, height, weight, eyes, ears, throat, nose, teeth, glands, nutrition, anemia, eruption, vaccination, previous sickness, organic disease, hookworm and data in relation thereto, nutrition and hookworm, roundworm, school buildings and grounds, water delivery, and sewage disposal.

Twenty-two one-room white, 20 negro, and 7 consolidated schools were investigated. The procedure was to reach the children in school during the hours of 9 a. m. and 3 p. m. The survey equipment included such material as could be conveniently transported in a two-seated vehicle: Scales with measuring rod, tongue depressors, sterilizing pan, towels, head mirror, throat and nasal speculums, Snellen's eye-testing cards, containers for hookworm specimens, and a stereopticon and acetylene tank for use in illustrating talks to patrons wherever possible.

In the matter of attendance it was found that 30 per cent of the whites and 40 per cent of the colored enrollment were absent from school. Out of 315 white children examined in the one-room schools, 27 per cent had defective eyes; of the 651 examined in the colored schools, 23 per cent were defective; of the 659 in the graded white schools, 17 per cent were found defective. The total percentage for defective eyes in the county was 21.5. The tests on hearing may have been inadequate, yet results show 7.5 per cent with hearing defects; 33.3 per cent enlarged tonsils; 34.7 per cent enlarged adenoids; 31 per cent showed deviated septums; 58 per cent of the children had defective permanent teeth and 42 per cent defective temporary teeth; 18.5 per cent of the children in the one-room schools showed glandular enlargement; 31.2 per cent of the children in the one-room schools gave evidence of poor nutrition; 67 per cent of the boys and 33 per cent of the girls (in the white one-room schools) were anemic. Prevalence of the hookworm infection is indicated as follows: 25.6 per cent in rural white one-room schools, 19.5 per cent in rural colored schools, 14.5 in the consolidated graded schools. These results argue for the general prevalence of better sanitary conditions in the graded or consolidated schools.

These, with the other data discovered, lead to the general conclusion which the report urges upon boards of health and education alike, namely, that there must be a more serious consideration of the physical side of education.

SAN FRANCISCO, CAL.

One of the best examples of a survey of schools designed to reach and to influence public opinion is that which was made in San Francisco by the school survey class of the California branch of the Association of Collegiate Alumnæ.

The report was based on studies made during the winter of 1913–14 and was published under the title "Some Conditions in the Schools of San Francisco—What Kind of Education Shall San Francisco Buy in 1914–15?

The school survey class realizes that this report is not a complete survey of the schools in the sense that other cities have had educational surveys. We have not attempted to solve, or even to state, some of the gravest problems that affect the destinies of the 54,000 children in our public schools. We have focused merely on two questions: (1) The need of a greater appropriation as brought out by official figures, and as reflected by conditions found in 20 schools visited by members of the class; (2) the need of installing immediately scientific records and reports which will automatically index school conditions, and which will keep administrative officers and the public informed about school needs. A second report upon charter limitations other than those affecting the school budget is now under preparation, and will be issued at a later date.

The report (96 pp.) employs photographs, diagrams, graphs, and statistical tables to present the material which relates to the following 18 topics:

How the work began; the school-survey class; the school-budget study; significant facts about San Francisco; where the school money comes from; where the school money goes; six years in San Francisco's schools; San Francisco's rank among 195 cities over 30,000; San Francisco's rank among 18 California school systems; summary of conditions found in 20 schools; what does San Francisco know about her schools; some good things about our schools; where San Francisco lags behind; defective conditions easily corrected—no charter revision necessary; charter limitations affecting the school budget; the school estimate for 1914–15; and next steps and recommendations.

The appendix includes copies of circular letters, outline of lecture courses, and the blanks used by the members of the class in visiting and scoring the schools. Each school visited is observed with reference to its external appearance, its internal appearance, the teacher and teaching of the lesson, the type of teacher, the type of child in school, particular merits and defects observed, and various personal observations and recommendations. The time given to the study was two months, with four weeks additional for the preparation of the report. The class enjoyed the cooperation of the board of education and the superintendent of schools.

The report indicates that the schools of San Francisco were suffering from evils due to three fundamental sources:

(1) Defects which are inherent in the charter governing the organization and finances of the school system; (2) inadequate and unscientific financial

and education records and reports; (3) a lack, year after year, of a sufficient appropriation for educational purposes.

Among the significant facts about San Francisco discovered by the class were these:

It is the richest city per capita—based upon actual valuation of property—among the 11 principal cities of the United States; with the exception of Los Angeles and Washington, it has the lowest tax rate of any city over 300,000 population; it is also one of the great cosmopolitan cities of the nation, having only 27.7 per cent born of native parents; the foreign-born elements of its population come from nearly every nation upon the earth; like other coast cities, it is peculiarly "a single man's city," with comparatively few children in the population; San Francisco's percentage of children under 15 years of age is only 18.9 as compared with the percentage of 27.3 for all the cities in the United States. Portland, Oreg., is the only city in the country which has a smaller percentage of children, namely, 18.8. In such a community the maintenance of school should be very easy. In spite of the wealth and population conditions, however, San Francisco stands fifth from the bottom among the 18 cities over 300,000 in the per capita cost for schools. It is also found that in the past six years since the rehabilitation of the city there has been an unbalanced growth in school expenditures as compared with the increase in city population and other expenses of government. In the matter of expenditure for schools in 1912 San Francisco was one of the six cities spending the smallest amount, its expenditures being 19 per cent of the total city expenditure, whereas the average among 195 cities of over 30,000 population was 28.9 per cent.

The relative position of San Francisco among 18 California school systems is no less striking. For example, it ranks fourteenth in order of cost per pupil for elementary school education, namely, $43.18; eighteenth in the order of cost per pupil for high-school education, namely, $71.92; seventeenth in the order of tax rates for elementary schools, namely, $0.177; and eighteenth in the order of tax rates for high schools, namely, $0.047.

Outside of paying good salaries to elementary teachers, San Francisco has simply no conception of what it means to spend money upon education.

Twenty of the eighty-four elementary schools were visited and extended attention is given to the serious oversight of improving the school plan. Owing to the seriously defective organization of the department of education, San Francisco—

has no idea, and can not easily discover, how many children there are in the city, how many children are not attending any school, how many children begin school each year, how many children drop out by the way, how many children repeat a grade, or how long it takes children to finish the school course.

Detailed recommendations are given specifying the school facts which should be recorded and reported to the public, so that there may be an end to the practice of keeping—

currently only such records and making only such reports as are necessary to obtain money from the State, fill out State blanks, and to comply with the law that an annual report be made.

While pointing out educational opportunities not yet afforded to children of San Francisco, the report specifies some good things about the schools. Limitations of the study are indicated by a list of the total of 31 items, divided into 7 groups, of problems that have not been touched upon.

The specific recommendations are as follows:

1. An increased appropriation which shall provide: Enough teachers to reduce all classes to 40 pupils; enough money to restore the 18 ungraded classes and add at least 15 others; enough money to extend manual training into the sixth grade and to children of sixth-grade age; enough money to maintain the three intermediate schools; enough money to furnish adequate supplies—at least $10,000; enough money to make a beginning of social use of the schoolhouse; enough money to restore the evening lecture system; enough money to make present temporary shacks livable and to relieve the present serious crowding of buildings.

2. Immediate consideration of the constitutionality of taxing San Francisco as a school district.

3. Educational campaign in behalf of removing the schools from the dollar limit and of removing the present charter limitations upon school expenditure.

4. The present study of the financial methods of the board of education should result in: Installation of an up-to-date system of bookkeeping; installation of a standard system of financial record keeping and reports, such as is recommended by the Bureau of Education in Washington.

5. Introduction of time sheets and service records throughout the department.

6. Employment of a commission of experts to pass upon all future school sites, school buildings, and ventilating and plumbing systems.

7. Adoption of a standard of equipment which shall insure an adequate supply of necessary teaching material.

8. Adoption of sanitary cleaning rules for buildings and abolishment of feather dusters. Janitors to be appointed on civil-service basis.

9. Installation of scales in all schools for the weighing of coal upon delivery.

10. Establishment of an efficiency and publicity bureau in the school department whose duty it shall be to collect scientific and adequate school data for the guidance of school authorities and the proper information of the public.

11. Wider publicity in the daily press—if possible, a school page in one of the leading papers, such as is run in two New York papers, the Globe and the Brooklyn Eagle.

RURAL AND VILLAGE SCHOOLS, COLORADO.

A novel attempt to utilize the data contained in official school records as the basis of a State-wide survey was developed in Colorado. In 1909 a survey of the rural schools of Mesa County was undertaken in order to secure a statement of the true condition of the schools. This effort included a personal visitation as well as the utilization of all other available sources of information. Incident to this first-hand inquiry was an examination of the records of these schools "to see what light they might throw on the subject by giving the past history of these schools." This form of investigation was carried back until the preceding eight years were studied and all the items

of record included. The application of these data in the explanation of the unsatisfactory condition of the schools in this county created something of a situation in the matter of attempted reorganization and consolidation of schools. At this stage of progress an investigation of "eight representative counties" was undertaken by the State agricultural college, which yielded results indicating that "conditions were fully as bad, or even worse, than in Mesa County." With the added interest of the college teachers' association in the movement for rural school improvement, the college undertook the task of completing an eight-year survey for the whole State.

The scope of the survey included 62 counties and more than 1,800 school districts of the first, second, and third class. The study was conducted by Prof. C. G. Sargent, specialist in rural education and the rural school visitor of the Colorado Agricultural College. The present report is published under the title "The Rural and Village Schools of Colorado; an Eight-year Survey of Each School District, 1906–1913, inclusive," Bulletin No. 5, Series XIV, Fort Collins, Colo., 1914. The report (106 pp.) includes the following topics: Introductory statement, the survey, the school census, the enrollment, the average daily attendance, eighth-grade graduates, length of term, special school taxes and revenues, teachers and salaries, sites and buildings, the district system, consolidation of districts, summary, and suggestions for improvement. Three maps, 13 figures, and 16 pictures of school buildings aid in a clear presentation of the varied material of the study. While the survey for the eight-year period is completed for the entire State, this report gives "in a greatly condensed and summarized form the most important facts discussed by the survey" of what is known in Colorado as the third-class districts—that is, those districts which have a school census of less than 350 children between the ages of 6 and 21 years. A second-class district is one which enumerates from 350 to 1,000, and a first-class district enumerates 1,000 or more children between the ages of 6 and 21 years. The scope of this report accordingly includes 1,725 different districts.

The real basis of the study is to be found in the material contained in the annual report of the Colorado superintendent of schools, which must be made on or before the 1st day of August of each year, under oath and a penalty of $100. The school board (three members) of each district must make a report to the county superintendent, and the county superintendent must report to the State superintendent. The survey assumes the complete reliability of the official reports which have been placed on file during this period.

It is from the county superintendent's report to the State superintendent that this survey was made. This report includes all items of record, such as the personal statistics of the school proper; the kind of building; its condition,

value, and equipment; and a complete financial statement. It is a fairly complete quantitative report of the educational activities of the district, and the completeness and correctness with which these reports have been made is, with but few exceptions, highly complimentary to the county superintendents of the State.

Certain forms were used tabulating the data, thus rendering the material comparable between the counties and the State. These forms included the items of census, enrollment, average daily attendance, eighth-grade graduates, male and female teachers, length of school term in days, salaries of men and women, assessed valuation of the district, special tax in mills, number of buildings, value of sites and buildings, and total cost of school. "The writer has examined every item of the 1,725 districts, and to further corroborate the facts found in the records has visited 100 of the districts in different parts of the State." The sole purpose of the study was "to show conditions as they are," although "absolute accuracy is not and can not be claimed" for the facts presented.

The first four topics consider the school children in their various relations to the school. The first for consideration is the average school census for each of the eight years for the 60 counties containing the third-class districts. There were found to be 82,174 children, 289 districts having less than 15 children each, and 194 districts having more than 100 children each. The average enrollment was 78 per cent of the census. "Seventeen thousand seven hundred and eighty-nine boys and girls constitute 'Exhibit A' in this investigation, and indicate the first loss recorded against the district system of rural schools in Colorado." The compulsory school-attendance law, which has been on the statute books during the period, has apparently not been well enforced. Its recent revision may succeed in placing practically all the children of school age in school. Detailed study was made of individual counties in the matter of census and enrollment. It was found that between an agricultural (Weld) and a mining county (Las Animas), the extremes are nearly the same, "there being only 6 per cent difference in the county averages." This may be taken as fairly typical of the rest of the State. A worse showing is made in the study of the average daily attendance of the enrollment, the extremes of this average varying from the highest, 77 per cent, to the lowest, 51 per cent, for the eight-year period. The total average daily attendance was but 61 per cent of the enrollment. Twenty-five thousand one hundred and seventy-one, "the number who were out of school all the time on account of irregular attendance . . . is here marked 'Exhibit B,' and represents the second great loss recorded against the rural school system of Colorado."

The school course is arranged on the basis of an eight-grade, one year to the grade, plan. "We have a right to assume that approxi-

mately one-eighth of the enrollment should be in the eighth grade each year, and if they are not it is perfectly proper to inquire why they are not there." Proceeding on this assumption, a detailed study was made of the situation as evidenced by the number of pupils reported as completing the eighth grade. In Mesa County this detail is studied from 1905 to 1912, inclusive; in all other counties, from 1906 to 1913. The data for several counties are presented in detail. For all the rural schools of the State it was found that only 22 per cent of the average enrollment and 37 per cent of the average daily attendance were graduated from the eighth grade. Twenty-four thousand six hundred and sixty children who were in average daily attendance during these eight years are presented as "'Exhibit C' and constitute the third great loss to be recorded against our system of rural schools."

Other aspects of the school system are examined "to see if anything can be discovered to help account for the low enrollment, poor attendance, and unmistakable evidence of general inefficiency clearly proven by the facts and figures already given." In the absence of a minimum-term law during the eight-year period it was found that 5 counties had school terms of 160 days or more, 30 had between 140 and 160, 21 had between 120 and 140, and 5 had less than 120 days each year. The average for the 1,725 districts was 140 days. A very great variation was found in the special school taxes and revenues. On the basis of an eight-year average, the special tax levy for schools in the counties averages 8.08 mills, with a range of 13.21 mills to 3.56 mills. Under the legal limits fixed for local taxation it was found that at no time during this period did any county in the State "make use of more than 80 per cent of its resources allowed by the special district tax." The average use by the 60 counties was but 50 per cent of their available resources. The study shows in detail how the additional revenue available, by means of using the entire tax limit, would greatly improve the teaching situation in the schools by the addition of six county supervisors of school work. In contrast with the town and cities in the first and second class school districts, the third-class districts are "getting an inferior article," or the other districts are "paying an enormous price" for the education they are trying to buy for their children. The study also included the data respecting the number of teachers employed, their sex, number of months taught during the current year, and the salary of each. No information was available on the education, professional training, and experience of these teachers.

The total number of teachers engaged in all the districts is 19,563, of whom 16 per cent were men and 84 per cent women. The eight-year average salary for men is $64, and for women $53 per month. "One county paid an average of $81 per month, 6 paid between $70

and $80, 20 paid between $60 and $70, 23 paid between $50 and $60, 9 paid between $40 and $50, while one paid less than $40 per month for the eight years." The range of salaries in any one-teacher school was $20 per month to $133 per month.

In the examination of the data relating to sites and buildings it was found in light of the bonding ability on the basis of the assessed valuation of all third-class districts that only 50.4 per cent of the available resources for building purposes was used.

The general outcome of the study is an indictment against the district system, and a special plea for the consolidation of districts in order to secure rural school improvement. "It would seem from the facts given that there is something fundamentally wrong with the district system, and that a more complete reorganization is more necessary than the expenditure of more money, much as that is needed."

There is every degree of variation between these 1,725 districts. They vary in area from a little more than 1 section of land to many townships; in assessable property on which taxes may be levied to build and support school, from $250 to more than $1,000,000. They vary in number of children from an average of 1 in a district to 340; in number of teachers, from 1 to 18; in the value of buildings, from nothing to $25,000, while there is but little uniformity in length of term, taxes, or results. Other things being equal, the smaller the number of districts in a county the greater is the efficiency of the system, and the greater the uniformity throughout the county in all things that make for better schools.

Illustrations of progress in rural school improvement are given in the detailed accounts of five consolidated schools. The study concludes with a special recommendation that the plan for a system of public schools, presented at the joint meeting of the Southern Education Association and the Conference for Education in the South in Louisville, Ky., April, 1914, be adopted as the basis for the reorganization of the rural and field schools of the State.

NEW ORLEANS, LA.

The constructive power of a selected type of educational survey may come to have its directive value fully estimated when the central trades school, founded by a bequest of Isaac Delgado and to bear his name, is established and in full operation in New Orleans, La. A similar judgment of worth may then also be available concerning the material assistance to a public-school system derivable from a division of educational research. In July, 1913, the city, by ordinance, organized this division and committed to it the tasks of educational measurement and a vocational survey as a first preliminary step in the establishment of the Delgado school. On June 25, 1914, Dr. David S. Hill, director of the division of educational research,

presented to the commission council of the city his first report: "Facts about the Public Schools of New Orleans in Relation to Vocation; Part I, Vocational Survey" (pp. 58). Its contents center about these topics: General facts about public schools in New Orleans; elimination of pupils from the schools; a study of our 13-year-old boys (1,387); attitude of employers of New Orleans toward evening, part-time, preparatory, and practical trade schools; and night-school students in relation to trade education in that city. Twenty-one tables and charts are used to exhibit the statistical material.

The first annual report of the new division to the superintendent of schools was presented in September, 1914. It contains principally a record of the primary activities of the division in its "clinical" studies of the school children of the city. The principal topics are: Studies of the progress (age grade) of 36,284 school children (white and colored); the special investigations in the educational laboratory (established as a psychological clinic in 1912) of 63 delinquent and dependent boys; and an outline of the data collected by the division concerning industrial education.

COVINGTON, MACON, AND MORGAN COUNTIES, ALABAMA.

One of the interesting contributions to the utilization of the survey for State-wide purposes is to be found in the study of educational conditions in Alabama. One of the first official acts of the present superintendent of education, William F. Feagin, was to inaugurate a close study of educational conditions in the State, by means of the rural-school agents of the State department. The result of the investigation was published under the title "An Educational Survey of Three Counties in Alabama, Bulletin No. 43, Issued by the Department of Education, July 1, 1914."

Instead of surveying the entire State, as in the case of Ohio and Vermont, this investigation proceeded to find three counties in the most divergent geographical sections of the State that would typify conditions both fairly and generally. Anything like a close study of the findings will show how the wisdom of the choice of Morgan, Macon, and Covington Counties has been abundantly confirmed.

Morgan County, in the Tennessee Valley in the north, represents conditions where the white population largely predominates; Macon County, on the eastern border of the Black Belt, represents conditions where the colored population predominates; and Covington County, on the southern border, represents one of the newly developed counties in the Pine Belt.

The field work of the survey was done by rural-school agents of the State department, N. R. Baker and J. L. Sibley. In the prepa-

ration of the blanks, forms, and questionnaires, the assistance of Dr. F. B. Dresslar, specialist of the Bureau of Education and of the George Peabody College for Teachers, was secured.

The agents visited, in company with the county superintendents, a total of 263 white and colored schools in three counties. Five months' time was spent in collecting information, compiling figures, and preparing the manuscript of the report. Accuracy in learning and stating the conditions, rather than completeness or perfection in the survey, was the chief aim. The object of the investigation was to lead the way for a decided improvement in the State educational system in such matters as local taxation, better supervision and consolidation of schools, and compulsory education.

The report (179 pp.) is admirably prepared. It comprises 13 chapters, as follows: Three type counties; population, literacy, and farming; economic conditions; public health; general administration; teachers; school buildings; school grounds; material equipment; values of public-school property; vitalizing agencies; games played by the children at school; miscellaneous unclassified observations. In the three appendices are found the field forms used in the survey, the form of medical inspection report in use in Macon County, various charts and diagrams, and a very useful summary of the statistical information in comparative tables for the three counties. Maps, diagrams, charts, and photographs are freely used to exhibit the facts gathered. The value of the presentation of the data is enhanced by carrying forward the material pertaining to each of the three counties together. The historical, economic, social, and educational facts and conditions are made the basis of the interpretation of the data as they are presented from topic to topic in the progress of the various chapters.

The constructive purpose of the survey appears in the special attention given to the agencies already at work in the counties for the improvement of economic and social conditions, such as farm demonstration work, merchants' and farmers' league, live-stock association, county fairs, farmers' unions, boys' and girls' clubs, farm-life conferences, Chautauquas, and Sunday school associations, as presented in chapters 3 and 11. Attention is likewise called to the educational value of railroads, highways, the relation of roads to schools, parcel post and rural delivery, and rural telephones.

Take Macon County as an example: Here we have the farm demonstration agent, the farmers' union, the live-stock association, the country fair association, the boys' and girls' clubs, and the merchants' and farmers' league, all more or less affiliated. A country-life committee, composed of one representative from each of the above, with the county superintendent of education, the county health officer, some one to represent the women's clubs, and another the religious life of the county, would form a splendid framework about which to

build a more prosperous community life. Covington County has already taken preliminary steps for such an organization.

The study of public-health conditions leads to the constructive suggestion that each county should be given the benefit of three officers: A full-time health officer, a full-time superintendent of education, and a full-time farm-demonstration agent. The study of the various agencies and activities in the general administration of State, county, and district administration, involving the duties of various officials, a tendency toward the grading of schools, the great school mortality, elimination and retardation, and salaries, leads to the following recommendations:

1. County boards of education should be alert to pass such regulations as will favor the organization and vitalization of the work of the school. 2. Either appropriations for janitor work should be available for rural schools or more systematic housekeeping should be done by pupils. 3. The terms in rural districts should be lengthened. 4. Think of 5,423 pupils entering school in the first grade and but 60 completing the work of the fourth-year high school. Why not make a more intensive local survey in an effort to account for this numerical decrease in the grades? Or is the entire theory of grading wrong? 5. Pay the teacher more and demand a higher class of service.

So far as the study of the teachers was concerned, the surveyors directed their attention to "the preparation, experience, and activities of the teachers rather than their methods of classroom instruction."

The surveyors visited 171 white teachers in rural schools, 77 white teachers in city schools, 80 colored teachers in rural schools, and 14 colored teachers in city schools—a total of 343. The facts gathered are strikingly set forth in the report, as follows:

The instructor should keep constantly in mind when he faces an average institute of 100 teachers in a rural county that—

22 have never taught before;

30 have never been in high school, have never studied beyond where they are expected to teach;

34 possess no professional books;

43 subscribe to no professional magazines;

45 are strangers in the county where they expect to teach, and hence are, to a certain extent, without county spirit and do not know county conditions;

51 hold third-grade certificates;

63 have never attended a summer school;

70 do not belong to the State Teachers' Reading Circle;

76 are strangers to the community where they will teach;

80 do not belong to the State educational association; and

80 have never attended a normal school even for a day.

To follow these teachers a little further, when they arrive at the schoolhouse where they are to teach 41 pupils each—

19 will have schools without desks of any kind;

41 others will have only home-made desks, while often three pupils will face the teacher from a desk intended for but two;

60 will find unpainted houses;

65 will teach schools without toilet facilities;
66 will find schools with no idea of sanitary drinking arrangements;
70 will find pictureless walls;
78 will teach without wall maps;
79 will find schools without libraries;
84 will teach in houses with defective lighting.

The study of the teaching force leads to these constructive suggestions:

1. The higher the grade of certificate the higher the grade of the school. Would it not be a good investment for the State to encourage some form of teacher training in a high school in each county? A considerable number of teachers have some high-school training. If pedagogical training were offered in the last years, many would stay to complete a course. "A half loaf is better than no loaf."

2. When the school grounds shall have been enlarged and made to include a teacher's home, and when local taxation has provided a better building and a better salary, he will then cease to be a sort of tramp teacher moving from place to place year after year.

As to school buildings, it is recommended:

1. State aid for school buildings should be reapportioned to the counties at the end of each year, just as the library fund now is.
2. Public funds should be used for equipment up to, say, one-half mill.
3. The number of schools should be reduced rather than increased.
4. There should be greater space for seating pupils, so as to safeguard their health.
5. A closer adherence to State plans in the construction of State buildings is imperative in the absence of county regulation.
6. Better care of the school plant.
7. More care in sweeping arrangements. Floors should be oiled. Use cottonseed oil or regular floor oil obtained at a hardware store. Apply by means of a common string mop after the floor has been scrubbed thoroughly and is perfectly clean.

With regard to school grounds, the findings are:

1. The grounds should be larger, so as to give ample space for recreation; should contain a school garden and farm and a home for the principal.
2. The school well should be sanitary, supplying the school, the principal's home, and afford water for irrigation and for filling a trough at the road for passers-by. The well should be closed and provided with a force pump and either a tank above ground or a pressure tank below the surface.
3. The grounds should be graded and beautified.
4. Jacketed stoves should be more generally used.
5. Houses should be provided with means for keeping the fuel dry.
6. Every school should have two sanitary toilets.

The needs of school equipment are thus indicated:

1. More furniture and equipment of suitable proportions are needed. This should be procured at public expense.
2. Blackboards of wood are wasteful, inelegant, and otherwise unsatisfactory and should be replaced by slate or other prepared boards.
3. More pictures of proper selection are needed.

4. Drinking fountains, not individual cups, are the only safeguards for drinking water. The cups are dangerous because they are not used as it is designed they should be. They are frequently lost, exposed to dust, loaned, etc.

5. Half of the available light should not become unavailable by the use of opaque window shades.

6. Libraries are a most excellent investment. No county should neglect to secure all possible libraries allowed under the law.

In the study of the value of public-school property there were found variations from the amounts reported to the State superintendent, which led to the suggestion that the county superintendent should make all inventories in person in order to arrive at the real facts. It was found that the average value of the entire school plant and equipment, based on the whole number publicly surveyed, is $600 for white rural schools and $491 for colored rural schools. In the study of national conditions of education made by Dr. Leonard P. Ayres, who used the figures of 1910, it was found that the average value of school property per child of school age in Alabama was $13. In the three counties of this survey this average in 1914 came to $15, but for the entire State, based on enumeration, it still remained $13.

Can a school building and equipment worth less than $600 serve effectively as the school center, social center, and economic center of a community? Can it be consolidated? Can it serve a large community? Can it be beautiful, artistic, attractive, and at the same time large enough to contain an auditorium, workrooms, cloakrooms, libraries, and the necessary classrooms to accommodate nine grades and sustain the vocational as well as cultural subjects of the course of study? One building and its entire equipment was valued at $65.

A separate chapter is devoted to the study of the vitalizing agencies noted at the beginning of the report. Leading to the following conclusions and constructive suggestions:

1. In Macon County the board of education should employ an additional Negro supervisor to work out from the superintendent's office in connection with the present supervisor and give this highly deserving form of instruction a systematic basis. It would be advisable for Covington County to employ a supervisor similar to the one in the other two counties.

2. More time should be allowed for agricultural instruction.

3. Home industries are still almost a negative quantity in rural schools.

4. The Negroes seem to outdistance the whites in the matter of using the school as a community center.

5. Better roads would make more and better teachers' meetings possible.

6. Literary work drags when and where vocational work is not emphasized.

7. School improvement associations should be free to work for better social, spiritual, and cultural conditions, along with material betterment.

An exceedingly interesting but very brief chapter reports a list of 100 games played by the children at school. About 40 per cent of the teachers attempted to direct or supervise the play of their pupils.

SPRINGFIELD, ILL.

A new and interesting point of view from which a school survey can be made is that which characterized the study of the public schools of Springfield, Ill. It was conducted as a part of a general social survey of the city undertaken by the Russell Sage Foundation. The authorization for the study was given by the board of education on January 19, 1914, when Dr. Leonard P. Ayres was invited to direct the work. The survey staff comprised four persons from the regular staff of the division of education of the foundation: Dr. Leonard P. Ayres, R. R. Lutz, Edna C. Bryner, and A. H. Richardson. The material used in one chapter was secured in the recreational survey by Lee F. Hanmer and Clarence A. Perry. The entire time consumed was that of 4 persons for 10 weeks, and 2 persons for 5 weeks, including the preparatory work, 3 weeks in the schools in Springfield, a tabulation of data, the interpretation of results, clerical work, and publication. The total cost of the survey was $3,261, of which the board of education appropriated the sum of $1,000, the remainder being defrayed by the Russell Sage Foundation.

The report (152 pp.) may, in many respects, be considered a model. It comprises 14 chapters, the 5 forms used in the collection of data, 37 tables, 13 diagrams, and 23 illustrations. Each chapter forms a complete unit and includes a summary of findings and recommendations. The topics of the chapters are: The school survey; Springfield and its schools; the board of education; the school plant; the children; the teaching force; the quality of classroom instruction; the course of study; financial administration; medical inspection; the high school; the organization of intermediate schools or junior high schools; vocational education; educational extension.

SPRINGFIELD AND ITS SCHOOLS.

1. Springfield is a prosperous, growing city having an unusually large proportion of native-born white American citizens, a high per capita wealth, an average tax rate, and a high expenditure for municipal government. Its business interests are largely commercial, although there is considerable manufacturing. 2. The daily school attendance is about 10,500. Of every 100 of these young people 67 are in public schools, 26 in parochial and private schools, and 7 in business colleges. 3. There are 21 public-school buildings, 8 parochial schools, 2 private schools, and 2 business colleges, making a total of 33 buildings. 4. The school district is a State organization and includes more than twice as much territory as does the municipality, but over nine-tenths of the inhabitants of the district live within the city. 5. The board of education consists of seven members elected at large and has independent taxing powers within the limits imposed by law. 6. The public schools are 20 in number and are administered by the superintendent, 18 principals, and 4 general supervisors. Nine employees besides the superintendent are attached to the central office. There are 224 teachers, and the average attendance in all public day schools is 7,082.

THE BOARD OF EDUCATION.

1. The board transacts a great amount of detail administrative work that could better be delegated to its employed executives. 2. The board's offices are exceptionally satisfactory, and its office employees are efficient. 3. Economies could be effected by dispensing with the services of the attorney and the bookkeeper and the filing and record systems rendered more efficient by simplifying them. 4. It is recommended that a bureau for the purchase and distribution of supplies be organized. 5. It is recommended that the administration of compulsory attendance and the issuance of age and school certificates be reorganized by employing two competent attendance officers and reforming the school census so as to make it tell the names and addresses of the children who ought to be in school.

THE SCHOOL PLANT.

1. Build no more buildings according to the plans now in use; profit by the experience of other cities and secure plans embodying the most modern practice. 2. Build future classrooms smaller; make ceilings lower; plan coat rooms somewhat narrower. 3. Reduce width of corridors from 25 feet to about half that width. 4. Insist on lighting of classrooms from the left only. 5. Have the window area in classrooms equal to one-fourth of the floor area. 6. Secure a better type of window shades and insist on constant care in their adjustment. 7. Establish standards for the cleaning of windows and insist on their observance. 8. Reduce classroom temperatures to a maximum of 68 degrees and equip all rooms with reliable thermometers. 9. Equip new buildings with the best type of mechanical ventilation and repair defects in existing systems. 10. Place some seats and desks of varying sizes in each room; equip some rooms in each building with the new movable combined seats and desks. 11. Install drinking fountains elsewhere than in the toilet rooms. 12. Arrange blackboards in classrooms, hooks in coat rooms, and seats in toilet rooms with reference to the size of the children who are to use them. 13. Build new schools fireproof or fire resisting; straighten winding stairways in old buildings or, better still, replace one stairway in each old building by fireproof stairs. 14. Immediately replace all bolts on outer doors by panic bolts, and forbid the fastening of any outer doors by any other means. 15. Reorganize fire drills, forbidding all running and confusion. 16. Plan all auditoriums built as annexes of old buildings so that they will be integral parts of the new buildings to be erected in the future; where this is impossible, do not build them. 17. Secure new sets of specifications and reorganize the system of inspection so that specifications will be followed in new buildings. 18. Organize a school for janitors under the direction of the superintendent of buildings, in which they may learn the best and most efficient methods of carrying on their very important part of the school work.

THE CHILDREN.

1. The school census should be reformed so as to tell how many children there are of school age in the city, who they are, where they live, and where they attend school. 2. As compared with other cities, Springfield makes a good showing in having a relatively small proportion of children who are overage for their grades or are making slow progress. 3. There are 1,000 children in the elementary schools who are both overage for their grades and are making slow progress. The proportion of such children varies from 5 per cent to 27 per cent in the different schools. These children need individual teaching and provision for giving it should be made. 4. There are some 101 cases of extreme retardation. These children should be in special

classes. Some of them should not be in the public schools at all but in institutions. 5. The course of study, teaching methods, and administration of the schools are better adapted to the needs and abilities of the girls than they are to those of the boys. The boys make slower progress, fail more often, and drop out of school earlier than the girls. This condition is always found where the school work is artificial, formal, and abstract. It has been remedied in other cities and can be remedied here. 6. Promotion rates are high, but not too high. 7. Classes range in size from 17 to 53, with an average of 36. Wherever possible, the children should be redistributed so as to have fewer overcrowded classes. The welfare of the children is vastly more important than the strict maintenance of school-district boundaries.

THE TEACHING FORCE.

1. The teaching force consists of 238 teachers and principals. Of these, 199 are in elementary and 39 in high school. 2. They range in age from 19 to 71 years and the average age is about 30 years. 3. The teaching force is relatively stable, the average length of service in the schools of Springfield being seven years. 4. Salaries are relatively high, Springfield being fourth from the top in a comparison of average salaries of elementary teachers in 16 cities. 5. Of each ten teachers in the elementary schools, seven are graduates of the Springfield High School and six are graduates of the Teachers' Training School. Too large a proportion of them have been trained in the local schools. 6. The efficiency of the system can be greatly enhanced by suspending the training school and attracting to the service of the city the best teachers from other localities. 7. An assistant superintendent of high professional education and successful experience should be employed to assist in classroom supervision.

This survey is one of the few that have made use of the new standard scales of measurement for teaching purposes. Tests were made in spelling, handwriting, and arithmetic. Some of the results are summarized as follows:

1. The members of the survey staff made 684 classroom visits, of which 273 were for the purpose of observing teaching methods and the remainder for noting details as to physical equipment or making humidity, ventilation, and illumination tests. 2. The strongest feature of the work is the free relationship between pupils and teachers. The weakest feature is that throughout the system there is too little real teaching and too much hearing of recitations. 3. In too large a proportion of the classrooms the work suffers from the inadequate professional, educational, and cultural preparation of the teachers. 4. Throughout the elementary schools the discipline is good. 5. Standard spelling tests in all grades from the second through the eighth indicate that in general the children spell as well as average children in other city school systems. 6. Measurement of the quality of handwriting of pupils in the four upper grades shows that it is in general as good as that of children in the same grades in other cities. 7. Standard tests in arithmetic show that in Springfield children do work in fundamentals more rapidly but less accurately than average children in other cities. In reasoning their work is less rapid and less accurate than the average work in other cities.

In a study of some of the values obtaining in the course of study a novel exercise was introduced "to test the practical value of the subject matter taught to children in the elementary grades." Eleven

of the leading successful citizens, all men, were brought together one evening and asked to take short examinations, including material "prescribed by the course of study and actually being taught in the upper grades in spelling, arithmetic, history, and geography." The special group included a State senator, a former lieutenant governor, the president of a manufacturing concern, the former superintendent of parks, a banker, a physician, a merchant, a lawyer, a newspaper editor, an efficiency engineer, and a clergyman. Of course "the most difficult material was purposely selected" for these tests. The result of these examinations in spelling, geography, arithmetic, and history of the fifth, sixth, and seventh grades was that no one of the men examined made a passing mark in any subject.

THE COURSE OF STUDY.

1. The course of study in its present form is the product of a number of partial revisions of a course in use many years ago. In parts it is rigid and behind the times, while in other parts it is modern and progressive. It is not closely followed in the schools. 2. The time devoted to each subject varies so widely in the different schools that no general study of the time allotment is possible. 3. A new course of study and time allotment should be developed, and in this work the best experience of the most progressive school systems should be utilized. 4. Tests of the existing course show that it includes much material that is so artificial and unrelated to the needs of real life that it should be abandoned and more useful matter substituted. 5. The city should adopt the policy of supplying textbooks free. This promotes educational efficiency, facilitates uniformity, and reduces expense to the community.

EXPENDITURES.

1. Springfield spends on its schools about one-third of a million dollars each year, more than 90 per cent of which comes from local taxes. 2. The board of education fixes the tax rate for schools within limits imposed by the law. 3. As compared with other cities of similar size, Springfield is somewhat wealthier than the average, spends less than the average amount on city government, and ranks a little above the average in its expenditures for education. 4. This city spends as much as the average city of similar size for each high-school pupil and more than the average amount for each elementary pupil. 5. The per capita cost in this city is more than in the average city for salaries of principals, maintenance of buildings, purchase of stationery and supplies, salaries of supervisors, and the purchase of water and light. It is less than in the average city for the salaries of janitors and the purchase of fuel. 6. The system of collection and disbursement of funds is accurate and safe. It is deficient in that there is undue delay between the collection of tax money and its delivery to the board of education by the county treasurer. 7. It is strongly recommended that Springfield will abandon the unnecessary practice of issuing bonds for the erection of school buildings. 8. The board would do well to submit to a vote of the people a moderate advance in the tax rate for educational purposes.

HEALTH SUPERVISION.

1. Medical inspection is carried on by one nurse. The work accomplished is well done, but it is impossible for one person to do thoroughly the amount of work that she is attempting. 2. Two nurses should be employed and the half-time services of a physician secured. This could be best arranged by having the board of education cooperate with the board of health in employing a municipal physician, half of whose time could be devoted to work in the schools. 3. Nearly three-fourths of the children are not vaccinated. Vaccination should be required as prerequisite to entrance into the public schools. 4. A most successful school dental clinic is maintained. 5. Arrangements for the establishment of an eye clinic are under way. 6. Special ungraded classes should be organized for exceptional children. A beginning should be made by establishing open-air classes, classes for the mentally slow, and classes for those having speech defects.

HIGH SCHOOL.

1. The high school has nearly 900 pupils in average attendance, of whom about 50 come from outside the city. It is growing at the rate of about 50 pupils per year. About 400 pupils are boys and nearly 500 girls. 2. Nearly half of the pupils entering leave within two years. 3. The building is seriously overcrowded and many of the rooms are entirely unfit for classroom use. 4. The teaching force consists of 39 men and women, of whom nearly one-third are graduates of the school. The salaries run from $800 to $1,400. 5. Of the pupils entering the school only about 1 in 16 goes to college, which indicates that the college entrance requirements should wield less influence than they now do in shaping the courses of study. 6. The school needs better administration, more cooperation between students, teachers, and principal, and a higher quality of teaching.

REORGANIZATION.

1. It is recommended that the school system be reorganized so as to include intermediate schools or junior high schools, which shall comprise the seventh, eighth, and ninth grades. This will leave the first six grades in the elementary schools and the three highest grades in the senior high school. 2. Such a reorganization will provide temporary relief from the overcrowding in the present high school until a new building can be erected. It also provides for the economic utilization of the present high-school building. 3. The proposed plan is educationally superior to the present one because it provides a special type of schooling for the boys and girls during the period of adolescence, when they most urgently need it. Schools organized as recommended are in successful operation in other countries and in many cities of this country. 4. Schools organized on the proposed plan hold their pupils better than do schools organized as they are in this city at present. 5. The adoption of the new plan would help to solve the problems of vocational education. 6. If the schools are reorganized as is recommended, some opposition from teachers, principals, and parents must be expected. This is true of every innovation, but in this case it would not be either serious or of long duration.

In the study of vocational education a new attack was made upon the problem in order to secure the data which would be really significant. This included particularly the nativity, the migration of parents, and the family relations of those engaged in each class of industry studied, and the proportion of schoolboys who wished to enter the same industrial groups. The occupational choices of boys

as compared with the occupations of fathers and older brothers and the occupational choices of girls as compared with the occupations of older sisters brought to light interesting data on the aspirations of youth.

1. At present the boys and girls, upon reaching the limit of the cumpulsory attendance period, are scattered throughout the grades of the elementary and high schools. Nearly half of them are in the sixth grade or below. The problem of securing a reasonably complete elementary schooling for all these children is part of the problem of instituting vocational education. 2. Among the fathers of these children only one in six was born in this city and of the children only one-half were born here. This indicates that narrowly specialized preparation for specific industries will not solve the problem of vocational education. 3. The children in school aspire to types of life work far in advance of those to which their brothers, sisters, and fathers have succeeded in attaining. They also hope to secure far more schooling than it is probable that they will be able to secure. 4. The statements of the boys as to life work which they hope to enter appear to be reliable in general and unreliable in detail as guides for the formulation of courses of vocational education. The choices of the girls are of less value, both in general and in detail. 5. An analysis of the available data indicates that most of the girls and substantially half of the boys desire to enter occupations for which the schools already offer somewhat adequate preparatory training. 6. About one-half of the boys desire to enter industrial work for which general industrial preparation can be given. 7. It is recommended that the city establish courses of preparatory industrial training in its junior and senior high schools through utilizing for educational purposes the work that is incidental to the maintenance of the public schools. 8. This work can be instituted at slight expense, and the major part of its cost can be defrayed from the building fund.

BLAINE, WASH.

How an educational survey may be useful in helping the new and rapidly changing communities in the far West to eliminate the evils that make their early appearance in the public schools can in future be illustrated by the permanent results derivable from the study of the schools in Blaine, Wash. At the request of the board of education the public schools of this Northwesternmost town in the United States were studied under the supervision of the department of education and the extension division of the University of Washington. The investigators were Prof. H. G. Lull, assisted by F. E. Millay and P. J. Kruse, graduate assistants in the department of education.

Attention was directed to the educational needs of the town; grounds, buildings, and hygiene; age-grade distribution of pupils; the course of study; and instruction. The object was to present the most pressing needs of the schools for the immediate consideration of the local authorities. Some conditions were compared with those prevailing in 15 other small towns in the State. The survey "contains so much that is applicable elsewhere" that it was decided to publish it in the issue of the *University* [of Washington] *Extension Journal*, volume 1, No. 3, July, 1914 (pp. 89–165).

CHICAGO, ILL.

A new method of conducting a survey of schools was inaugurated in Chicago by Mrs. Ella Flagg Young, superintendent of schools, in the effort to anticipate the appearance of this new educational movement in that city.

After listening to the presentations by the members of the committee on standards and tests of efficiency [at the Department of Superintendence, Richmond, Va., February, 1914] I concluded that great benefit would be derived in a system if the teachers, those who are directly associated with the children and youth, could first make such a study, if of only one line of instruction or effort. I then called together the superintendents to consider conducting a survey of our system by ourselves, before outside experts or lay investigators should take up the work. With 7,000 teachers and principals, it was impossible that all should have the benefit of activity in visiting schools and discussing the work observed. A few governing conditions were laid down: Every school should have a representative on some one of the survey committees, hence no school should have more than one representative; the chairmen of the committees should be taken from the superintendent's staff, because each could have greater freedom in planning the trips and the meetings of the committee in charge than a principal or teacher could; no member of a committee should be a specialist teaching the subject assigned that committee. Having gone thus far the following points were decided upon: First, each committee should hand in a written report on or before May 15; second, the reports should indicate defects in the work as well as excellencies; third, suggestions for improving the schools should be made freely; fourth, the committee reports should be presented to the board of education in the annual report of the superintendent of schools in place of the customary individual reports of regular day schools and districts by members of the superintendent's staff.

The schools were grouped by the chairmen so that every school in the city should be visited by at least one committee. Upon the urgent request of some committees one exception was made to the ruling that no school should have more than one representative on the committees; the exception was in case of three specialists in the normal college faculty.

Some aspects of this method of having teachers conduct a survey of their own activities may be found in the following communication sent out when it was learned that "teachers were becoming uneasy as to the object of the visits:"

The survey which we are making of our schools at present is not in any way intended to bring schools into comparison with one another. No teachers will be marked; no schools will be marked. In the report the schools will be spoken of as schools A, B, C. Even the good schools will not be mentioned by name. There is no need for any anxiety or excitement. Without doubt, we shall be more conscious of our excellencies or failures because of visitors coming to the school, but there is nothing which will in any way disturb any teacher in his or her position as a result of this survey.

Should there come later a survey conducted by inspectors from the outside, we shall have our own survey with which to judge their results. We also shall have gone through the first palpitations and excitement caused by a cooperative investigation.

Another angle from which to estimate the value of a teacher-made survey may be found in an observation in the report of the committee on geography and nature study:

> To our mind, one of the best and most unusual features of this unique survey has been the fact that teachers, not overawed by the presence of some great expert, have communicated their difficulties and perplexities freely and have often asked for help that was fully accorded them whenever possible. The fact that the elementary teachers themselves participated in the survey has made it easy for the teacher of the class to ask her visitor in entire good faith, "Now, as one teacher to another, tell me candidly what you think of this lesson? What are its weak points, and how can I make it better?"
>
> This survey presents the findings of the various committees more from the viewpoint of the principal and the teacher than do the reports of the college experts. College experts who are making a specialty of testing and standardizing public schools earnestly desire to march on to the schools of Chicago. We are ready for a fair test, but we suggest that the situation would be most delicate if a survey committee should include any one immediately concerned with the organization or instruction in an elementary or high school charging tuition fees within the corporate limits of Chicago.

The work was conducted by 320 superintendents, supervisors, principals, and teachers arranged in committees, each of which was assigned particular topics. The length of time involved in the inquiry is not stated. The reports were ordered printed by the board of education on May 13, 1914, and appeared in the sixtieth annual report of the board of education for the year ending June 30, 1914.

The survey occupies pages 31–287. The 25 topics, with the extent of the reports and the size of committees, respectively, are as follows:

	Committee of—
The school plant, 13 pages	7
Administration, 11 pages	9
Child study, 9 pages	13
Physical education, 10 pages	19
Humane and moral education, 3 pages	11
Social efficiency, 8 pages	10
Music, 8 pages	11
Training of teachers, 18 pages	21
Kindergartens, 5 pages	11
Reading in the elementary schools, 10 pages	15
Spelling, 10 pages	19
Penmanship, 10 pages	20
Arithmetic in grades, and mathematics in high schools, 13 pages	20
Geography and nature study, 7 pages	11
History, 10 pages	26
German in elementary schools and in high schools, 8 pages	5
Art construction in elementary schools and in high schools, 13 pages	21
Industrial and prevocational education, 14 pages	11
Commercial education in high schools, 8 pages	11
Vocational work in technical high schools, 8 pages	11
Vocational guidance, 10 pages	6
Plan for organization of a bureau of vocational guidance, 4 pages	8
Special schools, 17 pages	13
Penny lunches, 2 pages	2
Corrective institutions, 12 pages	7

The report of each committee is made independently of the others. There is no summary of the findings and of the recommendations. Among the numerous details in the statements, discussions, and recommendations the following may be grouped as most interesting:

A complete elementary-school plant is thus described:

For teaching purposes: Classrooms, with varying equipment to meet the requirements of the various subjects; kindergarten, manual-training, cooking, and sewing rooms, and other special rooms as needed, properly equipped; and space on the grounds for school gardens.

For administration: A principal's office, with a private office for consultations; storerooms for supplies and movable equipment; a room for meetings of the faculty.

For health and sanitation: A gymnasium, properly equipped, and separate from the assembly hall; playrooms or shelter rooms into which children may go while waiting for the doors to open in inclement weather and for play space for pupils of the primary grades in bad weather; a bathroom; a room for the use of the visiting nurse and physician; sanitary toilet rooms on each floor of the building; drinking water supplied on each floor; playground space on the grounds sufficient to give an average of 30 square feet per pupil.

For teachers: A rest room; a room properly equipped in which they may eat their luncheon; toilet rooms on each floor.

Supplemental: An assembly hall on the ground floor, not combined with gymnasium, so constructed that it may be used for evening meetings without requiring the use of other portions of the building; a library room for pupils' use; an adaptation of the ground-floor rooms for community center uses in the evening.

With this plan in mind the committee endeavored to estimate the fitness of the equipment of the nearly 300 school buildings in the city. Taking 30 square feet of open playground per pupil as the minimum in school grounds, it was found that 50 per cent of the schools had from 5 to 29 square feet per pupil and 50 per cent from 30 to 100 square feet per pupil. The problem of the semifireproofing old buildings received special attention. A regulation of the board of education called for window-glass area equal to 20 per cent of the floor area of the room. It was found that in all elementary and kindergarten classrooms only 33 per cent of all the classrooms had 20 per cent or more of glass area, 27 per cent of the rooms having less than 15 per cent of glass area.

The committee on administration endeavored to widen the door of opportunity to let trained and experienced teachers from elsewhere enter the Chicago system. A number of changes were proposed in the matter of certificates, oral examinations, and the adoption of a strictly merit system for the eligible list. The present promotion system should be abolished. It was suggested that the Chicago Normal College be made a public school, and, accordingly, an integral part of the school system. The tendency of the teachers to adopt commercial in the place of professional standards was definitely

deplored. The amount of equipment and the distribution of supplies received special consideration.

The department of child study and pedagogic investigation, established in 1899, was one of the earliest in the country to make application of the scientific method in dealing with individual children. Some aspects of the restricted development of this work may be gained from the following recommendations:

It is the opinion of this committee that owing to the growth of the city's demands, and owing to increased calls by schools for instructions in handling difficult and peculiar children, the child-study department has been crowded beyond its capacity; that it lacks organization both within itself and in its relation to other agencies looking to the welfare of children in the city; and that it therefore does not reach all cases needing attention, and its records and recommendations are now insufficient to serve the demands made upon it. We recommend, therefore—

(*a*) That its scope be enlarged.

(*b*) That it be given more help and more facilities.

(*c*) That it be put in closer relation with other departments which care for children.

(*d*) That it be given greater power to call upon agencies concerned in carrying out its recommendations.

(*e*) That there be more definite internal organization, and that it be made more accessible as a bureau of educational research for the welfare of all classes of children in the city.

(*f*) That every school have one or more ungraded rooms, with a maximum attendance of 25 pupils, providing a specially equipped teacher and facilities for treating these pupils as to their individual needs.

(*g*) That since malnutrition is responsible for much of the retardation and subnormality, and since marked improvement is noted where proper food is provided for such children, steps be taken to insure suitable food, at least one meal a day, to all pupils needing such attention.

(*h*) That a more comprehensive "adult probation law" be passed, giving school authorities power to compel parents to provide for the proper examination of their children, where such is deemed necessary, and for the carrying out of the suggestions made after such examinations.

In the matter of physical education the recommendations were:

1. Our schools should move in the direction of required courses in physical training that produce noticeable results.

2. Strengthen instruction in the elementary schools. In the light gymnastics or calisthenics, work more toward simplicity, accuracy, and vigor.

3. Encourage school athletics by appointing field directors to relieve overworked gymnasium teachers.

4. Establish a department in the normal school for a thorough training of special teachers and supervisors, and in that way supply the greatest need of our work in physical education at the present time.

In the study of the situation of the training of teachers the report directs attention to the Chicago Normal College, the practice schools, and a period of four months' cadetship in the elementary schools. The following suggestions, looking toward an increase in the number

of admissions to the normal school and the improvement of the quality of its product, were made:

1. That the normal school should be made a more integral part of the public-school system by admitting graduates of the public high schools without examination.

2. That some plan should be devised for securing a pro rata apportionment for each public high school and for each accredited high school, thus giving the schools an opportunity to offer their best product to train for the profession of teaching.

3. The cadet period should be made financially productive to the graduates of the normal school without requiring them to perform the work of substituting.

4. The vocation of teaching, and this means of entering it, should be kept prominently before the students of the high schools by addresses by members of the faculty of the normal school, formal and informal meetings, such as a "high-school day" at the normal school, acquaintance with their best teachers of the staff, and the like.

In the study of spelling, three separate lists of 50 words each were prepared for the fifth and sixth grades, the seventh grade, and the eighth grade. Testing 1,881 fifth-grade pupils yielded an average of 74.3. The same list given to 1,948 sixth-grade pupils yielded an average of 82.7; to 1,803 seventh-grade pupils, resulted in an average of 75.5; to 1,783 eighth-grade children, resulted in an average of 76.3. Attention is given by means of the questionnaire to the problems of the spelling recitation and the study period in this subject. An attempt was made to study the spelling needs of business firms, but the replies were not very satisfactory or instructive.

It is the opinion of your committee that this experience should discount very considerably the complaints said to emanate from the business houses concerning the inability of pupils, fresh from the schools, to spell in terms of their employer's business.

The recommendations are:

1. That a spelling book, or fixed list of words, should be provided and adopted for general use in the schools without excluding the privilege of using textbook lists for special study.

2. That more attention should be given in the school system to the method of study in preparing lessons. Your committee is persuaded that if the same attention were given to the study of words that is given to the study of problems, spelling results would be much better.

3. That it would be wise for the board of education to authorize as optional the use of as large a list as might be approved from the "Simplified spelling board's" recommendations.

The committee on arithmetic and mathematics—

found the teaching of arithmetic in the elementary schools good; far better than they had anticipated. They were struck by the great amount of careful individual work done and by the responsibility assumed by the individual child despite the large classes where much work is necessarily formal. They wish to commend many new and effective methods seen. If the pupils do not get a

reasonable knowledge of arithmetic in our elementary schools the cause must be sought elsewhere than in the teaching in the schools visited. In some cases the committee saw much formal review and would suggest more careful planning of the work from grade to grade. The committee saw too much abstract and not enough concrete work in many cases. The present demands of "business" that the schools turn out expert manipulators of figures is liable to result in irreparable loss to pupils.

It is also suggested that if mathematical forms and language were more carefully exact throughout, time would be saved and power gained. There should be more real problems. The value of so much oral and mental abstract work divorced from the written and concrete work is seriously questioned. The general overlapping of the work in the elementary schools and the high school business arithmetic is inexplicable.

The committee on geography and nature study recommended, in part, as follows:

1. That a more helpful supervision of geography and nature study, emphasizing fundamental educational principles, rather than details of method, be given.
2. That, as far as is possible, the work in geography and nature study be departmental.
3. That an exchange of visits between teachers be provided for and encouraged.
4. That excursions by classes, accompanied by experienced teachers, to places of interest connected with these subjects be a regularly planned part of the work.
5. That some systematic plan of collecting, distributing, and using illustrative material be followed in the schools.
6. That, as far as possible, the special training in geography and nature study now given in our Teachers Colleges be utilized by placing the incoming young teachers where they shall have opportunities to use this training.
7. That attention to home geography be continued in the fifth and sixth grades.
8. That the closer correlation of geography with history, civics, literature, and other subjects should be made wherever possible.
9. Finally, that a permanent nature study and geographical committee be appointed, whose duty it shall be to plat the city and its surroundings; show what material can be found; tell where and how to reach it and consult with all transportation lines, with the view of getting reduced rates and special accommodations for classes wishing to visit the various sections. A comprehensive excursion plan would be worked out which would open up a new field of investigation for nature study and geography.

The scope of the study made by the committee on history, as well as some of the findings, can best be illustrated by the outlines which were used by the committee on elementary schools and the committee on high schools, respectively (where figures occur in the first outline they indicate the summary of reports from 72 schools):

Is there an organization of the celebrations in connection with the patriotic holidays which results in a knowledge of history? Yes, 53; no, 19. Which holiday is singled out for emphasis? Are the patriotic songs a means of cultivating a love of country? Are the patriotic poems memorized by classes or by individuals? Has the school a collection of historical pictures? Are any of the

decorative pictures historical in character? Has anything in the way of pageant been organized? If so, note its character. Is there a well-selected supply of supplementary reading material? Yes, 50; no, 22. Has the school a supply of library books bearing on history? Yes, 29; no, 43. Does the school make use of the facilities offered by the public library? Yes, 43; no, 29. By the historical society? Is the principle of the three-textbook plan recognized? Yes, 61; no, 11. A list of patriotic poems suitable for different grades. Some of the best supplementary readers bearing on history. Some of the most suitable library books presenting historical material. Is training for civic responsibility manifest? Yes, 60; no, 12. Did the registration of the mothers bring out the necessity and advantage of naturalization for foreign-born people? Yes, 43; no, 29. Several of these 29 schools are American.

The recitation in history: 1. Was it inclined to be formal or memoriter? Yes, 19; no, 48. 2. Did the teacher depend upon volunteers? 3. Did the recitation develop "initiative"? 4. Were formal written tests in evidence? 5. Did the lesson lead into questions of the day? 6. Did it start with a question of the day? 7. Was there evidence of organization on the part of the teacher? On the part of the children? Yes, 58, no. 14.

Do the high-school pupils approach the study of history with the advance in power which should reasonably be expected? To what extent is the study one of isolated facts? To what extent does it trace the development of the freedom of mankind? To what extent does it make for good citizenship? Are questions concerning such subjects as these connected with the discussion of the history: Industrial development, child labor, naturalization, suffrage for women, State rights, laws regarding the holding of land by aliens? To what extent do the pupils make use of histories other than the required text? Is collateral reading evident? Are pictures and other illustrative material used? Is the public library used for history material? Are the pupils familiar with the work of the historical society? Is the English of the recitation clear, dignified, connected?

The report of this committee called particular attention to the importance of the use of three textbooks in the upper grades and the topical recitation in the high schools.

The report of the committee on industrial and prevocational education is one of the most comprehensive in the survey. The following statement of principle was enunciated:

1. The committee holds that the primary or fundamental purpose in elementary education is the development in the child of those attitudes and reactions essential to social well-being in a democratic society.

2. The different handworks are hence in the elementary schools, as, in fact, all content, primarily to further the end of good citizenship or social culture, and only secondarily for vocational purposes. It is granted that all elementary school content has a vocational aspect. In this sense all work in the elementary school is prevocational.

Criticism: The committee looks, therefore, with disfavor on overemphasizing the vocational aspect of handwork in the elementary schools for pupils under 14 years of age and the subordination to this aspect of the academic content taught.

The report undertakes to make a contribution to this new movement in education in its discussion of aims, terminology, differentia-

tion of schools, courses and pupils, types of handwork, and the preparation of teachers.

Two committees agree in the recommendation of the organization of the vocational guidance bureau as an integral part of the public-school system. The plan detailed for this bureau is as follows:

The vocational guidance bureau should consist of the director and such professional and clerical assistants as the director and superintendent shall from time to time deem to be necessary.

The work of the director should include the following: 1. To advise, instruct, and confer with the school advisers. 2. To plan and direct a system whereby each child who leaves school to go to work may be followed up, and such assistance and advice given him as he may need from time to time. Also to keep on file in his office such data gathered from the various schools as shall be of value for reference and consultation. It is understood that the work undertaken by this bureau shall not in any way conflict with or take the place of the work of the compulsory education bureau. 3. To organize and maintain a placement bureau, which shall be conducted under his direction, and to cooperate with industrial, social, and philanthropic organizations outside the schools in their efforts to place children in suitable vocations. 4. To give advice and help to such children as the school advisers may refer to him. 5. As rapidly as possible, to make surveys of the more important industries, especially of those which employ young people between 14 and 16, and to have the results printed in suitable form for reference and distribution. 6. To perform any other duties appertaining to his office which may from time to time seem necessary.

The committee recommends that the principal of each school, or some teacher appointed by him, shall act as vocational adviser. The work of the vocational advisers should include the following: 1. To advise pupils who intend to go to work. To furnish information to pupils and parents as to opportunities in occupations open to children. 2. To confer with the parent always before a school certificate is given. 3. To make out the school certificate after conference with the parent and pupil and mail it to the central bureau. 4. To fill out in duplicate an informational card, one of which shall be mailed to the central bureau with the school certificate and one kept on file at the school. This card shall contain such data as are necessary in advising and placing the child intelligently. 4. Acting in cooperation with the compulsory education bureau to keep track of all children to whom work certificates have been given, to ascertain whether they are actually at work, where such work is, and, as far as possible, the conditions under which they are laboring. This information shall be entered on the pupil's card and kept at the school for reference. 6. As far as possible, to keep in touch with the employers of children in the neighborhood, and to advise the central bureau of needs and conditions in local establishments. 7. To attend meetings called by the director and to perform such other work as may be necessitated by the vocational demands of the schools.

The central bureau will always act in harmony with the bureau of compulsory education, both in reference to the "follow-up work" and the issuance of work certificates. In all cases where necessity arises the powers of both departments should be concentrated to accomplish the observance of the law, and consequently the highest interests of the child.

SOUTH BEND, IND.

A distinct contribution to the study of school systems is made in the survey of the public schools in South Bend, Ind., conducted by the department of education of the University of Chicago. During the "last six weeks of the school year," 1912–13, the field work was conducted by Prof. Charles H. Judd and Dr. J. F. Bobbitt, the latter being the director of the survey. A personal investigation of the school conditions in the city included the visitation of 17 buildings, a half day usually being devoted to each building. Each expert was in the field not more than two or three days each week, aggregating "15 days actually on the grounds." The data were secured with "the friendly cooperation and assistance of superintendent, assistant superintendent, principals, teachers, and clerk of the board."

It appears that the question of having a study made of school conditions was first introduced by the superintendent in a meeting of the principals a year earlier. "The money to defray the expenses of the actual survey was raised entirely through efforts of the teaching force, and later the board appropriated $250 to be used if necessary for the publication of the same." The situation leading to the inquiry was accordingly not one of dissatisfaction; on the contrary, it was desired by the school staff "with the thought that some outside aid and outside guidance would be able to render service valuable to the entire school city."

The report is published in connection with the biennial report of Superintendent of Schools L. J. Montgomery, for the biennium ending August 1, 1914 (pp. 117–216). The report was submitted by the director of the survey on August 27, 1914, the section on reading (pp. 125–131) being contributed by Prof. Judd.

Among the large number of findings and recommendations the following may be stated here: In their possession of the tools of knowledge or training for literacy it was found there was great diversity of practice in the several elementary schools of the city, due to the freedom allowed principals to adjust time allotments, methods, and materials to meet the specific needs of their buildings, respectively. Attention is called to the necessity of differentiating the method of teaching reading in the upper grades from that which obtains in the lower grades. The material was not always well selected, either being too difficult or not well adapted to the children, as in the case of those of foreign parentage. Freedom from the limits of the adopted textbook and the selection of reading matter is especially recommended. The system of phonic analysis which teachers have developed is commended. Attention is called to the over emphasis upon the extraction of the meaning of particular passages in the upper grades, and to the practical neglect of methods of instruction in silent reading.

The study of the education situation in South Bend is dominated by a careful and exhaustive analysis of the various functions which a system of public schools should discharge. Briefly stated, these are as follows: (1) The overcoming of illiteracy in the whole population; (2) the giving of college preparatory training to those looking forward to professional and managerial labors; (3) training for vocational skill and understanding because of the highly complex industrial processes and the great wealth of technical information needed for guidance; (4) training for wise and efficient citizenship because of the status of the individual and the democracy; (5) training of the population for physical efficiency due to the congestion of population in civic centers and the increasing sedentariness of the work of men and women; (6) training for leisure occupations as the best antidote for the modern competitive nervous strain.

The practical test to which the school data were brought was in each instance an approximate measurement of the extent to which each of these functions was converted to organizing the administrative and teaching purposes. In general, it is found that the first and second functions have been well performed in South Bend; the third has received some partial but wholly inadequate recognition. As to the fourth function, "much is being done, but purposes have not been defined, consequently work is wavering and fragmentary." The fifth has received some partial but very inadequate recognition, while the development of a recognition of the last function is only in its incipiency. The final offering of "a short list of things done and a long list of things yet to be done" is not to be construed as "faultfinding" but rather an indication of the growth which always characterizes a school system. "Educational growth in South Bend has been rapid and healthy, but the school system is not full grown."

Were I asked to point out the greatest single weakness of educational work in South Bend, or in most other cities for that matter, I should point to the haziness of ideas as to what the schools are after. I should not only point to this as the greatest weakness but as the taproot out of which almost all other weaknesses grow. As one visits classrooms one often finds perfunctoriness, forcelessness, incoherency in the organization of materials, abstractness of materials, passivity of pupils, unthinking use of textbooks, etc. All these things can be traced to the central root of purposelessness in the work.

There is no need of our discussing these derived faulty conditions. Our business is to get at the root of things—the definition of the purposes and the fitting of means to these purposes. This has been our central aim in all the preceding chapters.

* * * Faulty conditions are not to be got at in any direct and easy manner. They all spring from a common root. We felt that in giving so much time in the earlier sections to definition of proper ends and purposes we were making the recommendations that would go furthest in remedying imperfect teaching methods.

The report includes 12 chapters and 25 tables. The chapter topics in order are as follows: The general situation, education for literacy, education for vocation, education for citizenship, education for physical efficiency, education for leisure occupations, definition of purposes, the student population, elementary teachers, the high-school situation, the general administrative situation, the financial situation.

The report stands out in strong contrast with all other surveys made by reason of the method of interpretation given to the data which were collected. Instead of the usual procedure of inquiry into the so-called "fact basis," this study is an application of the principles of education which are kept constantly in the foreground. The fact features of the situation are then brought forward for proper distribution and further recommendation. The first seven chapters, or nearly seven-ninths, of the report are devoted to the consideration of the purposes which are obtaining in "the school city." This feature is clearly set forth in the prefatory statement:

> What is needed in a first survey is an examination of the fundamental aspects of the work. One must see whether the schools are trying to meet the needs of the community; whether they are emphasizing the various aspects of the work in proportion to relative social values; whether all the children are being reached, and for a long enough period; whether the teaching and supervising corps are well trained and clearly conscious of the specific ways in which their labors are designed to serve the general community; whether the material bases of good work are being supplied by the community; whether the general public is performing its share in actively promoting the labors of its schools.

The teaching of spelling exhibited many merits as well as shortcomings. The work is too abstract. Special commendation is given to the development of the English work called "Free expression." It is recommended that the time now given to the classes called language, composition, and grammar should be greatly curtailed, but without an exclusion of language drill. In penmanship South Bend ranks 16 per cent above the average speed in writing letters by pupils in all grades, from the second to the eighth, in 138 American cities. Speed is overemphasized and quality is apparently sacrificed; on the Ayres scale, South Bend is the lowest of 38 cities. A redistribution of special drill to those pupils in need of it is recommended.

The data of the 1910 census report on the vocational distribution of both the male and female wage-earning population were utilized as a foundation for considering the next steps that should be taken in making provision for giving training for entrance into all of the major vocations in which the city is directly interested. The report of the survey makes the interesting suggestion that this training should be "upon three levels"—the general vocational training, the

semispecialized, and the specialized. In addition to the wide range of practical activities that are listed in detail, the need of additional training is emphasized—technical vocational information of many sorts and general socializing vocational information for purpose of social vision. It is found that some beginnings have been made in each of these seven aspects of vocational training. That these "practical activities must be intellectualized through and through" is a special note in the report.

In addition to the consideration of the teaching of the vocational subjects, special attention is given to geography and history as academic instruments directly concerned with the development of vocational purposes. It is recommended:

(1) Teachers and supervisors should clearly define their purposes in teaching geography in terms of twentieth century social needs, keeping in mind that, among these various social needs, wide industrial vision is the major one. (2) Each building should be supplied with all necessary books and visual materials. (3) The development of geography work of the right sort for the eighth grade and the high school is urged.

Practically the same recommendations are made with reference to history. History and geography deal with the same social groups, with the same institutions, and with the same vocational labors. One, however, looks at them spatially, the other temporally. The geographical and historical treatments of any topic should not be divorced.

It is recommended that training for citizenship be recognized by the school at South Bend as one of the legitimate functions of public education and that the curriculum of grammar grades and high schools be modified accordingly. In order properly to perform his portion in carrying on the very many civic functions demanded of the citizen to-day, it is necessary that he be given much the same in general outline as that for vocational training: (1) Practical participation; (2) technical information for guidance; (3) general social, economic, and political information for perspective.

That education for physical efficiency is a legitimate province of public education has been recognized partially, but imperfectly, in South Bend. The elements in training necessary for this purpose are recognized as of the three kinds necessary in other fields—practical training, technical information, and a wide social point of view. The important place of play and games is strongly emphasized in this connection.

The attention given to the educational purpose of training for leisure occupations shows that the past emphasis upon reading and music as preparation for the enjoyment of leisure during maturity does not sufficiently supply the needs of a community. Folk dancing, sports, and games, as well as a general vocational training which lays the foundation for healthy avocations, are brought forward as demanding immediate attention. The probable future values of the modern foreign languages, such as French and German, in this connection are not probably commensurate with the effort and expense which are expended upon them. Finally, it is definitely recommended that courses of study be stated in terms of purposes rather than in terms of topics and materials to be covered. Along with such courses there should be a wealth of suggestions as to material that may be employed which will assist in reaching the ends in view. Each teacher should be permitted to continue to enjoy large freedom from arbitrary authority in the selection of the material that is used.

The school census of South Bend shows a population of somewhat over 16,000 between the ages of 6 and 21. The number of children of each age is unknown. The number in school, including public, private, and parochial, of each age is unknown. The number of each age who are not in any school is unknown. The annual school census seems not really designed as a means of supervising attendance.

Principals and teachers should cooperate with the community of their district and know it so intimately that a family could not move in under ordinary circumstances without their becoming aware of it. The welcoming into their district of all newly arriving families in which there are children of school age should be one of the primary functions of teachers and principals.

A novel attempt was made at a new problem in the treatment of the position and progress of every pupil in every school. The 16 elementary schools were also compared as to their relative standing in the progress of pupils through the grades. By this scheme it was found that in 10 schools satisfactory progress was being made, whereas in 6 schools the progress was clearly unsatisfactory. A retardation chart shows the comparative position occupied by each school. In view of the serious situation created by the well-known phenomenon of elimination, it was recommended that special classes be formed for the purpose of giving rapid treatment of the essentials of history, geography, hygiene, elementary science, and vocational studies, so that no student of normal intelligence may go forth from the school in total ignorance of these vital fields of training.

The study of the elementary teachers revealed that the amount of academic and professional training received by them averages 4.8 years beyond the eighth grade, or eight-tenths of a year beyond a full high-school course. They had had an average experience in teaching of 6.7 years, and an average tenure of four years in South Bend schools. In these three respects South Bend occupies a very low rank in a group of 26 cities and villages in the Middle West. The median salary of the elementary teacher is $540. In this respect South Bend is next to the lowest in a list of 34 northern cities east of the Rockies. Immediate attention should be given to the raising of the salary schedule in order to hold teachers.

Study of special topics relating to the high schools developed some interesting results. In terms of the conception of the several education purposes, some of the facts are not easy in explanation. It was found that the portion of each $1,000 expended for instruction in each of the high-school subjects was as follows: English composition and literature, $157; the sciences, $130; higher mathematics, $117; commercial subjects, $106; manual training, $81; history, $77; modern languages, $71; public speaking, $58; physical training, $58; Latin, $54; domestic science, $35; domestic arts, $29; drawing, $22; music, $5.

[1] Vol. XV, p. 41.

The distribution of the time of the high-school students was taken as another means for judging the community valuation of the material in the course of study. The distribution of each 1,000 student hours over the different subject is as follows:

Commercial subjects, 151; English, 149; science, 129; mathematics, 112; physical training, 88; history, 78; modern languages, 69; manual training 45; Latin, 39; public speaking, 35; domestic science, 31; drawing, 27; domestic arts, 24; music, 23.

An effort was made to determine the cost per student-hour of the different subjects, with the following results:

Manual training, $0.111; public speaking, $0.104; Latin, $0.085; domestic arts, $0.074; domestic science, $0.070; English, $0.066; modern languages, $0.063; mathematics, $0.062; history, $0.062; science, $0.062; drawing, $0.051; commercial subjects, $0.043; physical training, $0.041; music, $0.016.

It appears that the burden of teaching the different subjects is inequitably distributed among the teachers of the different departments as shown by the relative amount of classwork done per teacher per week.

	Number of hours per week.	Average size of of class.	Student-hours per week.
Manual training	20.0	15.5	310
Latin	20.0	15.6	312
Public speaking	18.7	17.2	322
English	14.6	23.5	343
Domestic arts	25.5	14.5	370
History	17.3	22.6	391
Mathematics	18.6	22.0	409
Modern languages	18.9	22.6	427
Domestic science	24.5	18.5	453
Science	22.0	21.7	477
Drawing	29.3	16.8	492
Commercial subjects	21.3	25.6	545
Physical training	21.3	37.9	807
Music	26.7	52.0	1,388

The medium high-school teacher's salary is $940. Three-fourths of the cities in its class pay a higher average salary than South Bend.

The financial problem receives final consideration. It is shown that the city is in a very fortunate financial situation, being able to undertake without strain any of the things recommended in connection with the survey. Comparatively speaking, it is a very wealthy city, as shown by the practice of 46 Northern cities east of the Rockies. The property tax for all purposes is also far below the average, and the tax rate as based upon the estimated true valuation of property is nearly at the bottom of the list. The very slight burden of the city debt per capita of population shows that its material resources in the direction of education need to be more completely utilized.

UPPER PENINSULA, MICH.

The bureau of research of the Upper Peninsula (Mich.) Educational Association, which gives instance of a cooperative school survey in its first report in 1913, modified the work, the results of which were presented in its report of September 1, 1914.

This year the bureau has attempted to discover the points of strength and weakness in the schools, as judged by parents and others interested in them.

The duty of the school is to produce the type of citizen demanded by the times, and it must frequently inquire into its own success or failure in accomplishing this task.

The basis of this report is the individual judgments of 317 representative citizens of the Upper Peninsula. The judgments of teachers were not considered, consequently the report gives only the viewpoint of the layman.

The following occupations were represented by the persons who responded to the committee's inquiry: Attorney, banker, bank cashier, bookkeeper, broker, chemist, city clerk, clergyman, contractor and builder, construction superintendent, county Young Men's Christian Association superintendent, draftsman, druggist, electrician, farmer, health officer, housewife, justice of peace, laborer, mayor, manager of mine, manager of business house, merchant, mining engineer, mine inspector, mine superintendent, mine clerk, mill superintendent, mining captain, mill owner, newspaper man, observer at weather bureau, photographer, physician, postmaster, president of railroad, railroad agent, real estate and insurance, register of deeds, railroad manager, salesman, sheriff, secretary of Young Men's Christian Association, secretary of commercial club, stenographer, superintendent of stone quarry, soprano soloist.

The inquiry was made by means of a questionnaire sent to laymen, dealing with problems connected with moral education, physical education, industrial education, and general.

On moral education the questions were as follows:

1. In your opinion, are the public schools doing all they should in training for conduct and character? (*a*) If not, in what particular are they deficient? (*b*) If not, what remedy would you suggest?
2. Should the schools do more to train boys and girls socially; that is, in the amenities of society?
3. In your opinion, do parents sufficiently exercise their responsibility in training children for conduct and character?
4. Should the conduct of boys and girls outside of school hours be more carefully supervised by parents?
5. Do you believe sex hygiene should be taught in the schools? Why? How?

On physical training and care of the health, the questions were:

1. What more can the schools do than they are doing to conserve the health of the pupil?
2. What more can the schools do than they are doing to develop the physical well-being of the child?
3. What more can parents do to further the physical welfare of the child?
4. Should dental inspection be compulsory in the schools?
5. Should medical inspection be compulsory in the schools?
6. Should thoroughly sanitary conditions in and around school buildings be required by law?

7. What should be done in case a child has physical defects which need treatment, and the parents refuse to have them treated?

8. What should be done in case a child has physical defects which need treatment, and the parents are unable financially to have them treated?

9. Should there be more playground space in connection with the school building?

10. It is recognized that playgrounds should be supervised. Who should supervise them—the school or the city?

On industrial education, the questions were:

1. What portion of the time should be devoted to industrial education? (*a*) In elementary schools? (*b*) in high schools?

2. What portion of the time should be devoted to cultural education? (*a*) In elementary schools? (*b*) In high schools?

3. How can the schools secure the cooperation of industries, business, and home, in teaching special phases of industrial education?

4. In your opinion, are the schools at present successful in teaching education? (*a*) If not, in what particular are they defective? (*b*) If not, what remedy for these particular defects would you recommend?

5. How can arrangements be made with industrial establishments so that the pupils may work part time and attend school the other part of the time?

6. Should pupils be taught specific trades? (*a*) If so, what trades?

7. Should city schools teach agriculture? If not, where should it be taught?

8. At what age should training begin? (*a*) For boys? (*b*) For girls?

9. Should cooking, sewing, and household economy be taught to all girls?

On general phases of education, the questions were:

1. What, in your opinion, should be the qualifications for members of school boards?

2. Should school officers be paid? Why?

3. How can we keep pupils in school until they are older?

4. How can the cooperation of home and school be secured to aid the boy in fixing a life purpose?

5. Should the school year be lengthened so that pupils who wish to and are able may make up time? If not, why?

6. Should school buildings be used as social centers? If not, why? If so, who should have personal charge of the building while put to such use?

7. In your opinion, are school-teachers somewhat out of touch with the business world and its methods?

The report presented to the association includes a tabulation of the "yes" and "no" answers to the specific questions and summaries of the variations of opinion. This summary is submitted by comment and discussion to each of the four general topics by the committee. The survey thus begins, as it were, a sort of educational referendum, but without power to enforce its majority conclusions. It is, nevertheless, an interesting exhibit of the state of the public mind on these educational issues in that particular locality.

The report concludes with the following recommendations:

1. There is need of greater interest in training for character.

2. Both the home and the school should do more to inculcate refined manners and respect for serious and good things.

3. The child's health should be studied in a calm and sane way.
4. The teaching of sex hygiene in the school is not favored with the present means at our disposal.
5. There is need of careful dental and medical inspection of school children.
6. Physical exercise should be primarily for health.
7. The duties of school boards and superintendents should be differentiated.
8. Members of school boards should be intelligent, honest, broad-minded citizens and the best of business managers.
9. Finally, the committee recommends that the committee on research be continued another year and that a special and detailed study of industrial education be made.

BELL, COLLIN, FISHER, HARRIS, AND NACOGDOCHES COUNTIES, TEX.

The department of extension of the University of Texas comprises an organization of seven divisions, as follows: Correspondence instruction, public welfare, public discussion, home welfare, public-school improvement, public lectures and publicity, and child welfare. Each of these divisions is organized so as to assist in the effort to take the university to the people—to bring its benefits within the reach of as many individuals as possible. A part of the work of the division of public-school improvement has been that of making "a study or a survey" of the educational conditions and needs of the rural public schools, particularly as found in the five counties, Bell, Collin, Fisher, Harris, and Nacogdoches.

The investigation was conducted by E. V. White, head of the division, and Edward E. Davis, a lecturer in the division. Their method of investigation led them—

> to original sources for information and observation—to the county school superintendents, to the boards of school trustees, to the teachers, to the schools, to the homes of representative citizens, to the records of the commissioners' courts, to the officers and some of the leading members of the social, industrial, and religious organizations of the counties.

As in the Alabama survey the counties selected were regarded as typical of conditions in different parts of the State: Bell, located in the south-central part of the State; Collin, in the northern part of the State; Fisher, in the west-central part of the State; Harris, in the southeastern part of the State; and Nacogdoches, in the eastern part of the State. Particular attention is given to the location, history, economic resources, and development of these different representative parts of the State. The report of the survey, "A Study of Rural Schools in Texas," was issued by the University of Texas as Bulletin No. 364, October 10, 1914 (167 pp). It includes 11 chapters, several charts and diagrams, and many photographs. In addition to the single chapter given to the presentation of the material concerning the rural schools of each of the five counties the following topics are presented: Educational rank of Texas; necessity for compulsory school attendance in Texas; consolidation and transportation; rural

school administration; the rural church. The eleventh chapter is not a part of the survey but an article contributed as an illustration of the betterment of rural life in connection with the Tuleta Rural High School, Bee County.

The report is characterized by a persistent plea for the consolidation of rural schools as the chief means for a radical improvement of the backward condition of rural education in Texas. This plea, with its various recommendations, was addressed to the thirty-fourth legislature as well as to the people in the particular counties and the State at large. The starting point of the authors is found in the educational rank which the State occupied as shown by the results of Dr. Leonard P. Ayres's "A Comparative Study of the Public-School Systems in the 48 States" in 1910, and published in 1912. In this measurement it was ascertained that Texas ranked eighteenth in the amount expended for schools per $100 of wealth; thirtieth in the average annual salary of teachers; thirty-second in the per cent of pupils in high school; thirty-third in the per cent of average daily attendance per child; thirty-fifth in the per cent of illiteracy among persons 10 years of age or over; thirty-sixth in the value of school property per child; thirty-ninth in the annual expenditure per child in the length of public-school term and in the daily cost per child in school attendance; forty-second in the average days of attendance per child; and forty-sixth in the per cent of children enrolled in school. On the basis of these data special plea is made to the legislature for enacting a compulsory education law.

The progress of consolidation of schools and transportation of pupils in seven counties effectively illustrates the contention that small schools mean high cost, short terms, and low attendance, while large schools mean moderate cost, long terms, and high attendance. Particular attention is given to the problem of proper and adequate county school supervision. The past system of assigning the supervision of county schools to the county court or commissioners' court and the method of political election of county superintendent are severely condemned. It is recommended that every county having a school population of 2,000 should be required to have a county superintendent, while those counties having fewer than 2,000 should be grouped, so that two or three counties would be required jointly to employ such an officer. This officer should have professional training, be paid an adequate salary, be assured of a longer tenure, and have sufficient clerical help to discharge the duty of supervision.

The exceptional position occupied by the rural schools of Harris County is described and explained in the following language:

> There are 35 mothers' club organizations. Every school district in the county has voted a local maintenance tax. The amount of $125,000 is raised annually by local taxation for the purpose of school maintenance. The school-

building bonds issued during the past two and one-half years amount to $325,000. There are 26 brick school buildings in the common-school districts. There are 200 odorless, fly-proof, sanitary closets in use. The schools have in all 115 pianos. Six wagons are being operated at public expense to carry children to and from school. There are 50 school districts in the county, with an average area of 32.5 square miles each. There is a total of 173 white teachers employed. Three of the largest school districts employ district superintendents. The largest district in the county has 1,641 pupils, 7 schools, 33 teachers, and 2 public transportation wagons. The present county superintendent has been in the office for the past 10 years. The county superintendent uses an automobile to make his school visitations. The commissioners' court furnishes a stenographer to the county superintendent.

The summary of the causes that have contributed to educational development of Harris County includes: Good county roads; 74 per cent of the farmers own their homes; the rural population has increased 73 per cent during the past 10 years, and the ingress of new people with new ideas has been a wonderful stimulus; the county superintendent has progressive educational ideas and has the courage to put them into effect; with the assistance of good roads, an automobile, and adequate office help, the services of the county superintendent have been multiplied many fold. The present county superintendent has been in office 10 years, and thoroughly understands the people, the local conditions, and the needs of every district in the county. Mothers' clubs and local improvement associations have contributed all that could be expected. The city of Houston, with its advanced governmental ideas and excellent systems of schools, has had an unconscious constructive influence far out into the country. Interscholastic athletic contests among the schools have done much to develop the latent possibilities of many school communities. The superintendent's annual report of more than 100 pages each year has had a good effect. It has given the people of each district a chance to see what those of other districts are doing, and the spirit of friendly rivalry and the desire to excel have thus been created.

Bell County.—The Texas Experiment Station would be an ideal place for the maintenance of a model rural high school at comparatively little cost. Not to mention the possibilities of better country schools and improved social intercourse among neighbors, the commercial value of permanent roads amply justified their construction. In almost every community there is ample evidence of the good that could be accomplished by the teacher in directing social life. The procuring of competent pastors is the biggest problem of the country church in Bell County. Living salaries are not at present paid to ministers. Church buildings should be made more attractive. The maintenance of efficient country schools in Bell County will require the expenditure of more money for better teachers. The consolidation of districts is the only guaranty of the possibility of good schools for the country children of Bell County. For this purpose the county needs redistricting. An official map defining district boundary lines should be prepared. Outhouses should be screened and provided with septic tanks. Local school-tax sentiment has shown a marvelous growth during the past few years. The office of county superintendent should be removed from factional politics. The county superintendent is overloaded with clerical work that should be done by an assistant. A larger number of local institutes would prove beneficial. Very little industrial work is done in the schools. Such instruction is not possible to any great extent until larger districts are obtained by means of consolidation.

Collin County.—After having looked over the field carefully, the writer believes that an area of 12 to 20 square miles would be the most practical unit to

adopt for rural-school purposes in this county at present. Collin County has a number of village and town schools that are well equipped and well taught, but the country schools are very inferior and below the average for the State. Bad roads and farm tenancy are the two greatest hindrances in the way of good country schools. The smallest common-school districts found in the entire course of this survey are in Collin County. The poorest attended and most expensive schools are among the smaller rural districts. Some clerical help should be provided for the office of the county superintendent. He needs to spend his entire time in the field among the schools, but as it is, more than half of his time is consumed in the office. There is no economy in having a $1,500 man do the work of a $40 office clerk. There should be a map of the entire county, showing the exact boundaries of each school district. As it is, there is much irregularity in the rendition of property for school taxes.

Nacogdoches County.—Supt. R. F. Davis, of the Nacogdoches High School, is president of the county board of education. His influence as an educator is felt throughout the county. Every county board in the State should have at least one professionally trained school man on it. A majority of the rural teachers are ladies. In some of the one-teacher schools they are walking as far as 2½ miles to procure board and accommodations. No teacher can do the best work under such conditions. Trustees should give such matters their attention, and provide a remedy where possible. North Church School was annexed to Nacogdoches in 1913. Formerly it had three teachers. At present it is a ward school of Nacogdoches and employs two teachers. One teacher at $50 per month has been eliminated by a transportation wagon for $30 per month that conveys all the children above the seventh grade, 11 in number, to Nacogdoches, where they get nine months of school instead of seven. School boards should keep posted as to the success of this public transportation wagon, and adopt the plan wherever efficiency and economy among the schools can be gained by it. There are 29 negro schools in the county. The greatest waste of the public-school funds is on these negro schools. They are poorly housed, poorly taught, and poorly attended; and, withal, are made to conform to an educational system planned entirely for the whites.

Fisher County.—The employment of a county farm demonstrator to initiate industrial organizations through the schools would be a profitable investment. There needs to be a broader social utilization of the school plant under the leadership of the teachers. The teachers are commended for the personal interest which they are taking in athletics, and for the friendly contests developed among the different schools. The churches need more resident pastors whose time should be available for community betterment during the entire week. Salaries should be at least large enough to enable the pastors to become business men to the extent of meeting tromptly their living expenses. This can be best accomplished by strengthening present organizations and by discouraging the establishment of too many new churches. It is also evident that the church should assume a larger work in directing the activities of the young people. The fundamental weakness of the country schools is that they do not offer industrial courses. Salaries are entirely too small to employ and retain efficient teachers. The fact is plainly evident beyond contradiction that the lack of thorough high-school opportunities is a most serious defect and that the conditions now imposed upon these schools make good high-school instruction impracticable and impossible. The people of Fisher County are commended for the unparalleled progress which has been made in the voting of local taxes and in the erection of hygienic schoolhouses. The holding of local institutes throughout the county would doubtless bring the people and

the local trustees into closer relation with the county superintendent, thereby assisting in the solution of many school problems. If the country schools are to perform the character of service which prepares the pupils for life, there must be country high schools, industrial courses, higher salaries for teachers, longer school terms, better libraries, and adequate laboratory facilities.

RABUN, CLAYTON, TALIAFERRO, AND BULLOCH COUNTIES, GA.

The utilization of an educational survey for the improvement of conditions in rural school work has been specially applied in Georgia. Through the cooperation of the General Education Board in 1914, which provided funds for the salary and expenses of a trained expert, M. L. Brittain, State superintendent of schools, appointed M. L. Duggan rural school agent. His duty is to make, as rapidly as possible, educational surveys of the various counties. Mr. Duggan has issued the following reports:

1. Educational Survey of Rabun County, Bulletin No. 1, under the direction of the department of education, November 2, 1914 (48 pp.).
2. Educational Survey of Clayton and Taliaferro Counties, Bulletins Nos. 2 and 3, under the direction of the department of education, January 19, 1915 (23 pp.), and appendix of two statistical tables.
3. Educational Survey of Bulloch County, Bulletin No. 4, under the direction of the department of education, 1915 (78 pp.).

RABUN COUNTY.

The first county selected in which to make "a true inventory of the educational interests, activities, resources, and deficiencies" was Rabun, "the brave little county" in the extreme northeastern corner of the State. While it is not a typical county of the whole State, it is a typical mountain county. It was thus selected because it was the first mountain county in Georgia to add to the State fund for schools by local taxation. It is a county in which there are "no rich citizens" and "no paupers." The greater part of six weeks was consumed in making the survey. Every school was personally visited and inspected as carefully as the time allowed. It included 27 white and 2 colored schools, 1 high school, and 3 additional schools not a part of the public school system, namely, the Rabun Gap Industrial School; the Logan E. Bleckley Memorial Institute, under the auspices of the State Baptist mission board; and the Tallulah Falls Industrial School, which is owned and maintained by the State Federation of Women's Clubs. The survey of the last-mentioned school was made by special request, and received some assistance from Miss C. S. Parrish, the State supervisor.

The method of the inquiry was based on the adoption of the minimum standard of efficiency for rural schools, issued by the State superintendent of schools. More than 100 county schools have re-

ceived diplomas, stating that they measure up to the standard in the following particulars:

I. THE TEACHER.

1. Good teaching.
2. Good order and management.
3. First-grade certificate.
4. Full, neat, and accurate school register.
5. Daily program posted in room.
6. Teacher's manual on desk.

II. GROUNDS.

1. Good condition.
2. Playgrounds.
3. School garden.
4. Two separate sanitary closets.

III. BUILDINGS.

1. Painted outside.
2. Plastered, or ceiled and painted.
3. No leaks.
4. Windows without broken panes.
5. Cloakrooms.
6. Good doors with locks and keys.
7. Clean and well kept.

IV. EQUIPMENT.

1. Patent modern desks.
2. At least 20 linear feet of blackboard per room.
3. Building comfortably heated and ventilated.
4. Framed pictures on the wall.
5. Dictionary, maps, and library.
6. Sanitary water supply.

V. ASSOCIATED ACTIVITIES.

Manual arts, corn, canning, poultry, or cooking club.

VI. SALARY OF TEACHER.

At least $40 per month.

VII. TERM.

At least seven months.

The presentation of the study of the schools in detail is simple and direct. In nearly every case one page is given to a school. The report includes a photograph showing equipment and surroundings, and in many cases the children and teacher, with the data arranged under the following 11 items: Teacher, location, grounds, building, community uses, equipment, statistics, water, school organization, organized community help, maintenance.

The recommendations are submitted to three groups of persons as follows:

To the county school officials: First. Whole-time supervision by the county superintendent; and as soon as practicable provide during the school term a trained lady supervisor as his assistant. Second. In so far as possible employ only trained teachers. This will require somewhat better pay. It is of even more importance than a longer term. Third. Consider the advisability of further consolidation. Fourth. Encourage in every legitimate way school fairs, educational rallies, etc. Fifth. Make teachers' contracts binding for not less than a full school year.

To the teachers: First. Clean up your schoolhouse and grounds, and keep them so every day in the year. Second. Teach and demonstrate hygiene and sanitation, and look for the result of your teaching in the better health habits of your pupils. Third. Free yourselves from the slavery to textbooks; teach some lessons "not in book." Fourth. Devote regular and systematic attention to at least one of the homemaking industries. (See Industrial Bulletin from

Department of Education.) Fifth. Organize school clubs, and supervise but do not "boss" them.

To the patrons: First. Demand trained teachers for your children; they deserve as much. Second. Organize for the purpose of helping along the work of education in your county and at your local school in every proper way. Third. Visit your school occasionally, and always take notice of the manner in which the house and grounds are kept. (Your children are being influenced by these every day.) Fourth. See that suitable closets are built and kept in sanitary condition. (The prevalence of hookworm disease in your county, as shown by the survey of the State board of health, ought to be sufficient argument for this. There are other reasons.) Fifth. Give the teacher freedom in her work and uphold her in it. See that your children attend school regularly.

CLAYTON AND TALIAFERRO COUNTIES.

Two of the older counties, Clayton and Taliaferro, were next selected for study. The State superintendent of schools gives the reasons for this selection:

Both are small; the county seat of each is well situated in many respects to serve as a central high school; both have as superintendents elderly gentlemen, veterans of the sixties, and both have failed to keep pace with some of the more vigorous new counties, particularly with regard to modern education.

These are small counties, located in the central section of the State. The field work was done during November and December of 1914. The method followed was similar to that reported above.

The data collected are conveniently tabulated separately for each county, respectively, under the main items of grounds, buildings, equipment, organization, maintenance. Pictures of all the schools and of the model plans for rural schoolhouses are included in the report.

The similarities and the contrasts of the two counties are noted. The prime need in both counties is found to be constructive direction and expert supervision.

Naturally enough we found practically the same methods of "teaching" prevailing in the two counties. Many of the "beginners" were set to the antiquated tasks of "learning their letters," and "could not yet begin to learn to read." Much drilling on the symbols of reading and numbers and the hurried hearing of lessons seemed to be the order of the day at many of these schools. In many schools it was difficult to make the children "be quiet" on the stiff, uncomfortable seats, often poorly adjusted to their physical demands, while their minds were unconsciously protesting against the emptiness of the tasks assigned and their muscles aching for natural activity.

The two counties are also contrasted. In Taliaferro the surveyor was unable "to discover a perfectly good title to any school lot in the county." No efforts of any sort are made to increase the resources for education through local taxation. In Clayton, on the contrary, 14 out of a total of 19 districts now levy a local school tax. This has been accomplished through the district system as the unit

and not through the county. In Taliaferro it was found that the schoolhouses for Negroes "will average about as good as those for the white children of the county, but are without equipment of any value whatever." After a review of the financial resources, from the standpoint of taxation, a special plea is made to the business men of Taliaferro County to examine carefully the proposition that increased revenues should be secured through "a county-wide plan" of assessment and taxation.

The recommendations submitted related principally to the addition of a professionally trained assistant to the county superintendent, who shall be employed as a supervising teacher. The work for this assistant should include:

(*a*) Planning constructive educational policies; (*b*) constantly advising, supervising, and assisting the teachers at their several schools; (*c*) seeking to vitalize the academic work of the schools by relating it to the life activities of the pupils through the organized agencies of the corn clubs, pig clubs, canning clubs, etc.; (*d*) promoting educational interests and creating stronger public sentiment and securing a better school attendance by constant and close contact with the patrons in their homes; (*e*) organizing and directing the teachers of the county in their professional interests and the patrons and citizens in social, agricultural, and educational interests.

This assistant should be either a competent woman or man. To Taliaferro County it is recommended "that no more public-school buildings be erected without first having the plans approved by the State department of education."

BULLOCH COUNTY.

Bulloch is "one of the largest, richest, most progressive, and most resourceful of the southeast Georgia counties." A period of seven full weeks was required to inspect the 93 public schools of this county. In the report brief attention is given to the subjects of schoolhouses and grounds, equipment, sanitation, consolidation, course of study, scholarship, and finances.

A lack of thoroughness in the fundamentals of scholarship is probably the most noticeable characteristic of the rural schools in this and other counties surveyed. In the majority of schools we have found that the majority of the children of the fifth and sixth grades do not readily enumerate numbers of six figures, can not add accurately and with reasonable rapidity; can not read their history lessons understandingly or well, are very slow in finding a word in the dictionary, generally unable to determine its meaning clearly when found, and can rarely determine its pronunciation at all. These serious defects seem to be mainly the results of a lack of training on the part of primary teachers, but partly, perhaps, from irregular attendance. Satisfactory work can not be done in the intermediate grades because good work has not been done in the primary grades.

The method of study and the manner of presenting the results are those which characterized Rabun County.

It is interesting to note that the effect of the study of the school conditions in this county were noticeable during its progress. "Many of our reports of conditions had to be modified before leaving the county on account of having been immediately improved, and before this report can be put into print it will do injustice to others on account of still further improved conditions."

"The most pressing needs" of the schools of this county are summarized as follows:

1. County-wide "local taxation" for the businesslike support and direction of the schools.
2. A supervisor to assist the superintendent in a closer supervision of the schools; also, more office room for a permanent display of school work.
3. A better planning of schoolhouses for school purposes; also, better equipments.
4. Better sanitation, particularly with reference to the drinking water and the school toilets.
5. Consolidation at some points. One-teacher schools can never reach the highest efficiency. The children deserve the best.

RICHMOND, VA.

In partial preparation for the eighth annual convention of the National Society for the Promotion of Industrial Education, held at Richmond, Va., in December, 1914, a "type" survey of the schools and of the industries of that city was completed on November 1 preceding. The society and the city succeeded in arranging for unusual cooperation in the undertaking, which was shaped by several correlated aims.

The director of the school survey was Dr. Leonard P. Ayres, of the Russell Sage Foundation and of the industrial survey, Mr. Charles H. Winslow, of the United States Bureau of Labor Statistics. The agencies cooperating were the United States Bureaus of Labor Statistics and of Education, the Russell Sage Foundation, the school people and the citizens of Richmond, a local and a general survey committee. The latter, of seven members, had direct charge of the investigations. It was enlarged to 14 members for making the recommendations.

A preliminary report of this double survey has been published under the titles "Synopsis of the Findings of the Vocational Education Survey of the City of Richmond" (pp. 62), with an appendix of four charts presenting the findings about occupations, and findings about education for occupations in the building, metal, and printing trades, and the tobacco industry of Richmond; and "Synopsis of Recommendations" (pp. 29).

The recommendations, 53 in number, relate to Richmond's problem of financing vocational education; compulsory attendance as a factor in a program of industrial education; the types of schools and

courses of study for boys and men and for girls and women, as determined by the findings of the industrial survey; prevocational training; and the place of private institutions receiving city moneys in the general plan. The complete report will be issued as Bulletin No. 162 of the United States Bureau of Labor Statistics.[1]

SEATTLE, WASH.

A suggestive study and interpretation of "the vocational problems involved in education and the educational problems involved in industry" was carried on by Dr. Anna Y. Reed during a full year beginning September, 1913. The basis of the study includes 402 pupils of the grammar schools and 822 pupils of the high schools who left school during 1913–14, personal visits to 919 homes in following up these cases, and 202 girls and 223 boys up to the age of 21 years who had been out of the Seattle public schools more than one year.

The report (103 pp.), made November 24, 1914, and presented to the board of directors January 15, 1915, includes 8 sections and 37 tables. The topics presented are: Facts about Seattle; sources of information and methods of investigation; children who left school, 1913–14; school leaving and labor permits; educational and occupational experience of boys and girls up to 21 years who have been out of school from one to five years; minimum wage and vocational efficiency; State school and child-labor laws and the making of unemployables; conclusions and recommendations. In his letter of transmittal Supt. Frank P. Cooper emphasizes a new aspect of the work of the school:

> Gradually it is dawning upon the observant portion of the public that the most critical time in the child's school life is the day on which he leaves it. Then, for the first time, he is entirely released from discipline; then, for the first time, with little help and no experience, he attempts to adjust himself to new conditions and surroundings, and, immature of mind and will and undeveloped in judgment, he is forced to grapple with the great and varied problems which puzzle the mind of the nation. Moreover, the theory that the public schools exist for children who are in attendance, whether attendance ceases at 14 or 18 years, whether in the grammar grades or in the high schools, is gradually giving place to the belief that there are educational problems within the shop as well as within the school, and that the protection and supervision of the educator should follow the working child into his new surroundings and help in the solution of the problems involved in his daily life.

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[1] Additional material on the vocational analysis of educational facts in other centers may be found in:

"Work, Wages, and Schooling of 800 Iowa Boys" (Des Moines and Sioux City), by E. E. Lewis, Univ. of Iowa Extension Bull. No. 9.

Annual Report of the Supt. of Schools, Pasadena, Cal., vocational survey of 623 girls and 735 boys.

Seee also Chap IX of this report.

MANUAL, DOMESTIC, AND VOCATIONAL TRAINING IN THE UNITED STATES.

A somewhat different form of "survey" from that which has usually characterized the study of school systems may be found in the report of the "inquiry into the progress of manual, domestic, and vocational training in the cities of the United States," which was authorized by the board of school directors at Reading, Pa., and for the most part was conducted by Wallace E. Hackett, director of the department of practical arts in the Reading schools. The survey was begun in February, 1914, the report (156 pp.) being presented to the board February 16, 1915. The object of the survey was—

to find out what subjects were being taught in other school systems, the amount of time given these subjects, the number of shops in use and the number of instructors employed; to know how many vocational and prevocational schools each city had and how many of them conducted bureaus of vocational guidance; and then, the above information having been received, to compare Reading with the cities studied, to discover where she stood in line and to what extent her system could be improved.

The material of the report comprises the replies received from 147 cities out of 150 which were requested to supply data. The report presents detailed information concerning the teaching of the following practical arts subject:

Paper tearing, paper cutting, thin woodwork, paper folding, cardboard construction, weaving, raffia work, basketry, embroidery, bricklaying, gas-engine mechanics, blacksmithing, mural decoration, book illustration, furniture finishing, tailoring, sign painting, tile setting, terra-cotta drawing, house framing, lamp-shade making, novelty work, sample mounting, clay modeling, whittling, elementary bench work in wood, Venetian ironwork, bookbinding, chair caning, joinery, art metal work, sheet-metal work, printing, mechanical drawing, applied design, furniture making, wood turning, pattern making, forge-shop practice, foundry practice, machine-shop practice, bookkeeping, typewriting, stenography, sewing, cooking, dressmaking, millinery, home economics, nursing, engineering, cement work, color work, knitting, industrial arts, block printing, free-hand drawing, reed work, kite making, coping-saw work, house practice, wood carving, wood knotting, lettering, building trades, concrete construction, automobile repairing, tool making, architecture, household decoration, tooled leather work, laundrying, telegraphy, house carpentry, building model houses, theory of woodwork, thin-metal work, cabinetmaking, painting, costume designing, serving, pottery, molding, dietetics, automobile construction, brush making, clothing-machine operating, straw-machine operating, applied mechanics, soldering, pipe work, and commercial advertising.

The arrangement of the material includes the data on these subjects as taught by elementary grade and other schools, instructors, shop and drawing rooms, vocational and prevocational schools, bureaus of vocational guidance, the ranking position of Reading in comparison with other cities, and details the survey by cities.

MINNEAPOLIS, MINN., BUSINESS MANAGEMENT.

The widening use of the "survey" in the field of education is illustrated by the special study, extending over 16 weeks, of the conduct of the business side of the school system of Minneapolis. At the request of the board of education, F. S. Staley, director of the bureau of municipal research of the civics and commerce association of Minneapolis, inquired particularly into the manner of the conduct of the business side of the school system. The study, which was completed in February, 1915, has not been published, but a summary appeared in the *American School Board Journal*, May, 1915. The purpose of the inquiry was to ascertain the actual conditions and to suggest in a spirit of cooperation means for the correction of any business defects in the conduct of the system.

It was found in the business management of the schools that there was an absence of definite planning; no clear definition of the authority of the business executive and his relation to other departments; no coordination of all the branches of work; no adequate system for the determination of repairs to be made; excessive clerical, petty, detail work in the offices of principals of schools and the business executive; too much duplication of work by the repair force and a consequent waste of time by workmen; inadequate organization of the heating and ventilating plants; a failure to organize properly the engineers and janitors; decentralization in the purchasing and storing of supplies; an absence of the modern budget system and displacement of the auditing function of the auditor's office by excessive accounting.

In suggesting plans for reorganization, the survey considered five chief divisions of the business affairs of the schools: The organization of the business administration, the operation and maintenance of buildings, the construction of new buildings, the purchase, storage, and distribution of stores, and accounting.

In order to improve the conditions discovered, it is recommended—

that there should be a business executive, subordinate to the superintendent of schools, under whose charge would be placed the construction, operation, and maintenance of buildings and equipment, maintenance of grounds, accounting and auditing, purchase, storage, and distribution of stores, insuring school property, supervision of all buildings by contracting, safe-keeping of documents and records. He should have under his direction (1) an architect, (2) an overseer of buildings, (3) an accountant, (4) and chief clerk in charge of purchasing. The architect should design all additions to buildings and prepare plans for all buildings which are to be similar to those already built. The board should call outside architects to design new buildings whenever it is desirable. The overseer of buildings should be responsible for keeping the buildings in proper condition for use and report the necessity for repairs or replacements. Under his direction there should be a chief engineer and a repair foreman, the former of whom should have immediate charge of the mechanical

equipment of the schools, including supervision of engineers and janitors; the latter should have charge of the repair force and the activities of the repair shop. All records of accounts and business orders, collections, and claims should be in charge of the accountant. The report offers detail suggestions for handling repairs, including the adoption of the budget system, emergency repairs, and various suggestions for increasing the efficiency of the business operation of the school system.

OGDEN, UTAH.

In April, 1915, there was published by the Utah State Department of Education the report of the Ogden public-school survey commission.

Because certain suggestions of the superintendent, J. M. Mills, regarding the vitalization of the schools by reorganizing them on an industrial plan had aroused considerable opposition in the community, a commission for the survey of the schools was proposed. The commission was appointed by the United States Commissioner of Education, P. P. Claxton; President J. T. Kingsbury, of the University of Utah; and Prof. Milton Bennion, of the Utah State Normal School. The survey commission included W. S. Deffenbaugh, specialist in school administration of the United States Bureau of Education; Prof. Edward J. Ward, of the University of Wisconsin; Supt. Charles S. Meek, of the Boise (Idaho) schools; Prof. W. G. Roylance, of the University of Utah; and George A. Eaton, principal of the Salt Lake City schools.

The division of labor between the members of the survey commission is interesting because of the differentiation in the allotment of the special tasks. Three members, Messrs. Deffenbaugh, Meek, and Eaton, studied the public-school system in "the aspect in which the school system is considered specifically as the actual machinery for the instruction of children." Messrs. Roylance and Ward studied "the aspect in which the school system is considered as the potential machinery for the whole community's cooperation in an educational process that includes also the systematic organization of the political, economic, and recreational life of adults and older youth." The members of the commission were in Ogden one week. The report (42 pp.) was submitted May 11, 1914.

The report on school organization, curriculum, and instruction comprises pages 6–23. The report on a plan for municipal and educational unity of administration comprises pages 23–42.

In view of the extended discussion aroused among the citizens by the policy of the administration in organizing subhigh schools and reorganizing them on the half-day plan, the treatment of the topics allotted to the first committee partook more of the nature of an investigation than of a survey. Special approval is given to the position

of the school board of Ogden whereby the superintendent is definitely permitted to be the head of the school system. The school plant is not up to the standard, in adequate buildings and equipment, of cities of the same size in other parts of the country. Touching some of the issues relating to the subhigh schools into which grades seven and eight have been organized—

> The commission does not believe that the subhigh-school teachers should have more pupils per teacher and be paid less, but that the elementary schools should immediately be given more teachers, and salaries so increased that teachers of extended training and long experience may be attracted to this department.

In the matter of retardation and elimination of pupils the schools of Ogden were found, as measured by the Ayres scale, based on 386 cities, to make a favorable showing, particularly for the first eight grades. The high school does not show as favorably, but is still above the scale. In Ogden schools 19 per cent of the children were found to be over age, and in one-half of 318 cities 36 per cent were over age for the grade in which they were found. Ogden is considerably below the average in per capita cost of education in both elementary and high schools when compared with cities whose population ranges from 25,000 to 100,000. The average cost per capita per year for elementary schools is $30.37; for secondary schools, $60.83.

So far as the course of study is concerned, it was found in the elementary schools to be comprehensive and rich in educational subjects, the fundamental topics having been retained and modern material introduced in place of the useless topics. The subhigh schools which are organized on a departmental plan are specially commended in the report. There is no evidence of overwork of the pupils; the teachers show an excellent spirit of cooperation. The class-room work throughout the system was on the whole found to be good—in fact, much better than could have been expected under the meager supervision. The use of the standard tests in writing, English, arithmetic, etc., is strongly recommended. The plan of supervision is not approved. The proposal to reorganize the school on the plan of the half-day session with two different sets of students doing work of accredited study on one half day, and of music, art, study, sewing, cooking, manual training, bookbinding, and physical culture on the other half, is not approved by the commission. The plan is regarded "as being unpedagogical, unnecessary, and well-nigh impossible of realization."

The other section of the survey, which is directed to the attention of the public aspects of the school system for the development of community life, outlines a plan of organization and extension for future developments rather than states the immediate condition. This city, with a population of mixed and diversified character, has had difficulty in becoming conscious of its fundamental problem of

unifying its economic, civic, educational, and recreational resources into a veritable community system. The lack of unity of the past must give way to a new type of unification.

Because of the financial saving and the business efficiency that would result from unification of administration; because the public-school system can not succeed even in its prime functions of effectively training children for citizenship and promoting their morality unless the adults and older youth of the community make use of the schoolhouses as centers of organized civic expression and wholesome recreation; and because this full use of the public-school system as the machinery of the city's comprehensive self-organization depends absolutely upon the unification of its municipal and public-school administration; therefore, we find, after careful study of all the elements of the situation and after consulting officials and other responsible and well-informed citizens, that the key to the solution of Ogden's problem, civic, moral, and economic, is the consolidation and identification of its municipal commission and its board of education.

The chief constructive suggestion, which is offered and defended at some length, is the establishment of a civic secretaryship.

The responsibility of this office would not conflict with that of the superintendent of schools, but would begin where the responsibility of the superintendent now ends and extend throughout the community.

HAMMOND, IND.

A survey, with an especially constructive aim, of the industrial and vocational aspects of the public-school system of a manufacturing city is reported by Prof. Robert J. Leonard, of Indiana University, in "Some Facts Concerning the People, Industries, and Schools of Hammond, and a Suggested Program for Elementary Industrial, Prevocational, and Vocational Education" (pp. 165), and published by the board of education April 15, 1915. The work was carried on by the department of industrial education of Indiana University, in cooperation with the vocational division of the State department of public instruction.

The report includes 8 chapters, 42 tables, 10 charts, and an appendix giving the sources and methods of deriving data and the forms used. The topics are: Facts concerning the people of Hammond; the city's industries; work of young people under 17 years of age; part-time education; the children enrolled in the schools; present provisions for industrial, household, and art instruction; and suggested provisions for elementary industrial, prevocational, and vocational education. Two-thirds of the material relates to the last three topics, and one-fourth of the space is needed for the presentation of the recommendations. These detail the special courses necessary in the elementary grades, the vocational high school, and evening school, and the equipment of teachers for the instruction outlined. These provisions are suggested to the school system, which is

to be reorganized on a basis of seven elementary grades and a four or five year high-school course, and particularly for the new industrial high school, which, after litigation, the city is now free to build. The care taken in the preparation of the program offered as a result of the study is evident from the following statement:

> The recommendations for future courses, departments, and equipment, though in the main specifically proposed by the writer, are really conference measures, as all parts of the sections bearing upon future work were first submitted to the superintendent of schools, principals, supervisors, and special teachers, after which many conferences were held, and nothing has been included as a specific recommendation that has not been agreed upon in conference.

SAN ANTONIO, TEX.

The period under review for this report may be regarded as especially fortunate in having a second instance of the application of the educational principles so strikingly utilized in the investigation of the public schools in South Bend, Ind., reported above. On March 27, 1915, Dr. J. F. Bobbitt, of the University of Chicago, submitted the report on the survey of the San Antonio public-school system conducted in January, as authorized by resolution of the school board December 16, 1914. When he began his field work, the surveyor was informed by the chairman of the survey committee that he was "to study the situation in his own way and to make any recommendations that, in his judgment, would promote the efficiency of the schools. Beyond this no instructions were given nor suggestions made." Four weeks were given to the personal observations, conferences, and the examination of documents. Three high schools and 19 of the 29 elementary schools were visited. The report (257 pp.) was published May, 1915. It comprises 14 chapters, 31 tables, and 10 charts. The topics of the chapters are: Prefatory statement; the work of the schools; education for vocation; education for citizenship; education for physical efficiency; education for leisure occupations; English language training; the teaching of certain subjects; general organization and administration; the student population; elementary teachers; the high school; buildings and equipment; finance. The tables and charts presented data concerning pupils, teachers, high school, finances; general organization and administration; and the community.

The most helpful kind of a school survey is described as one—

> (1) That sympathetically looks to the good that exists in the school system; (2) that sees this good not as the end of progress, but as gains made that are steps toward further gains; (3) that suggests constructive plans for further progress; and (4) that shows the reasons for the plans recommended so as to permit verification of their validity.

The functional point of view which characterized the South Bend investigation is characteristically maintained in the valuation of the

factors in the situation presenting education in San Antonio. The values of the distinctively educational activities in the schools, as they are held to function in the future adult's interests and activities in the community, are kept constantly in the foreground. All other features of the school system are interpreted in terms of their relations to this prime aspect. A fully rounded educational program should therefore be designed:

1. To fit the children and youth for effective performance of the labors of their life's calling. 2. To lay a broad and secure foundation for sound judgment as to the various social, economic, and industrial problems with which one is concerned as a citizen in a democracy. 3. To lay a secure foundation in knowledge and in habits for lifelong health and physical vitality. 4. To develop habits of healthy and socially desirable leisure occupations. 5. To give effective training in the means needed for social intercommunication, namely, the language or the languages that one actually needs. 6. To train individuals for the activities concerned in the rearing and education of children; or, in other words, the functions of parenthood. 7. To train one for his religious activities.

The seventh item, for well-known reasons, is omitted. The first six items are made to serve as the basis for justifying the retention and development or exclusion of any of the work found in, or that ought to be found in, the San Antonio schools. The survey is also made on the basis of a distinction between fundamental and supplementary or preliminary and functional education.

The supplementary relation of school work to community life in San Antonio is not greatly taken into account in drawing up the courses of study. As a result there is a considerable quantity of useless and wasteful work. * * * Except for the teaching work of shop, sewing room, kitchen, and commercial department, practically all the work of both elementary and high schools is of the preliminary prefunctional type.

Under the guidance of these conceptions the study in fact became a double survey of the material of the curriculum and the work of teaching it, namely: First, an interpretation of the six functional values, as illustrated by the presence or absence of appropriate material in the school work, and secondly, an estimation of the useful and the wasteful in the teaching of certain subjects and the distribution of the varied activities of school officers, teachers, and pupils. Instead of summarizing briefly its recommendations, the report distributes them pertinently throughout the treatment of the different phases of the various topics.

The educational problems of San Antonio are peculiarly determined by the fact that it is a southern city, comprising American, European, Mexicans, and Negroes. Its total school population is probably above 25,000; its public schools are costing half a million dollars. Its financial outlay at present and resources for meeting the future needs in the further growth of the system, from the stand-

point of its material equipment, are indicated by some of the following comparisons: The annual cost of janitors per school room in 19 southern cities ranges from $21 to $105, the average being $53, San Antonio expending $71. The cost of supplies for instruction per pupil in the practice of 19 cities of the same population ranges from 23 cents to $2.92, the average being 75 cents, San Antonio spending 31 cents. In the cost of elementary education per pupil San Antonio, in spending $31, is fairly generous as compared with 18 other cities, in which this expense ranges from $16 to $35, the average being $28. It is not so generous when compared with cities of the same population, grouped through the country in general, where the expenditure ranges from $24 to $44, San Antonio standing fourth from the bottom of the list. In the cost of high-school education per pupil in comparison with other southern cities with a range from $31 to $108, the average being $61, San Antonio is not doing as well in its expenditure of $53 by its secondary pupils as it is by its elementary pupils. In comparison with other southern cities its total property tax per capita for all purposes, $13.34, is slightly above the average for the group, which is $12.56. When compared with the cities of the United States belonging to its population class, it occupies the medium point. In the total net city debt, which amounts to $50.17 per capita, San Antonio stands in a middle position among the 19 southern cities.

The survey found in general that "much progress has been made: the schools are in a healthy, growing condition; in many respects they are fully abreast with the best work going on in any portion of our country. The city will have to be numbered among cities of the educationally progressive type."

In considering the problems of general organization and administration the survey offers the following explanation of the weaknesses found in the schools:

> Such weaknesses as exist in the schools of San Antonio seem to be due in large measure to the state of tutelage in which practically everybody from superintendent down has been held. The State has decreed the studies that shall be taught in elementary schools and the textbooks that shall be used. The colleges have decreed the subjects and the units which shall be given in the high schools. The board has held most powers of initiative except as to the routine classroom teaching. Teachers and supervisors have had too much to go like children and get permission to do almost anything that they do. They have largely been forbidden the exercise of individual responsibility and initiative. Visible responsibility is not a thing that will grow in such an atmosphere. Things will not be corrected until responsibility can be so distributed that everybody can bear his due share.

The recommendations distributed throughout the report are not intended to be taken as specific things which must be done immediately, but rather as constructive suggestions which shall lead to

more detailed inquiry by those who are doing the work in the system itself. For example, in calling attention to the large sum of money which the city is investing in high-school algebra and geometry, which could be better expended "upon the study of the practical, civic, social, industrial, recreational, and other matters which are greatly needed by this rising generation of young people." It is admitted that the recommendation will appear "absurd." It is then recommended that the school city should—

> Get the opinion on this topic of intelligent leaders of thought in this county, educational leaders as well as leaders among public-spirited, social-minded laymen. Also, consult any group of laymen of San Antonio who are graduates of the high school as to the degree in which they have ever used their algebra or the demonstrational aspects of their geometry.

Among the numerous findings of the inquiry respecting the curriculum are the following: In education for vocation the following principle is laid down for the organization of the instruction: "The department which is responsible for the practical labors employed in vocational training should be responsible for the teaching of that mathematics, science, drawing, and design that is concerned in the guidance of those labors." By eliminating the waste in teaching certain portions of mathematics, science, and social studies, English, foreign languages, history, and literature, sufficient time will be found for the introduction of the technical and social material which is specified as essential to the further development of this form of education. The work that is done in reading is found to be "struggling in the quagmire of pedagogic methodology." This is due to the State-adopted textbooks imposed upon the teachers, and the order of method of instruction which is issued to them in this work. There is a wrong emphasis in method and a wrong selection of material for the work in spelling, the doctrine of habit and use being applied in the recommendations that are made. An excess average amount of time is devoted to handwriting. The results of this instruction, as tested, shows that in quality determined by the Ayres scale, the school occupies an exactly average standing among 33 cities; and in speed San Antonio stands high. The tests were used also so as to show the relative rank of the work in the same grade in the different buildings. The work in grammar, which is too abstract and not purposeful, could probably best be reduced to one lesson a week for the preliminary education. The work in geography should substitute "the method of geographic experience" in the place of mere textbook learning, and become characterized by the selection of topical material based on social needs. The introduction of a functional study of history would eliminate most of the "wasteful overdoing" which is found to characterize the work. The test in arithmetic indicated that San Antonio, with a seven years' course, "is getting about aver-

age results" in comparison with other cities having an eight-grade course. Special attention is given to the local significance of the teaching of Spanish and German. The elementary teachers are undertrained, having had an average of only 4.6 years beyond the elementary schools. On this point the different schools in the city were compared, showing a range of courses of training from 3.7 to 6.7 years. The total teaching experience of the teachers average 7.5 years. Their tenure in the city schools is very short, showing an average of only 3.5 years. The average elementary teacher's salary is $720, which is slightly above the medium for the cities of its class. Immediate attention should be given to the acute problem of training new teachers.

The following features in the high-school data may be compared with those discovered in the South Bend investigation:

The portion of each $1,000 expended for instruction in each of the high-school subjects was as follows: English composition and literature, $204; higher mathematics, $170; the sciences, $131; history and civics, $106; modern languages, $103; household occupations, $97; shopwork and mechanical drawing, $63; commercial subjects, $53; Latin, $52; public speaking, $19; music, $4; physical training, $00; drawing and design (not mechanical), $00.

The distribution of each 1,000 student-hours over the various subjects was as follows: English literature and composition, 243; algebra and geometry, 200; the sciences, 154; history and civics, 102; household occupations, 92; modern languages, 73; shopwork and mechanical drawing, 48; Latin, 40; commercial subjects, 41; music, 7; drawing and design (not mechanical), 0; physical training, 0; training of elementary teachers, 0.

The cost per 1,000 student-hours of instruction in the various high-school subjects was as follows: Modern languages, $114; Latin, $103; shopwork and mechanical drawing, $103; commercial subjects, $103; public speaking, $98; history and civics, $83; household occupation, $83; mathematics, $69; sciences, $68; English literature and composition, $67; music, $40.

THE DANSVILLE HIGH SCHOOL NEW YORK.

An interesting example of an effort of a small public school system to "survey" itself is found in "A Study: The Dansville High School," by J. Murray Foster, supervising principal. This investigation consumed about 16 months of the surveyor's spare time, and grew out of his feeling that the high school was not doing its proper work in comparison with the high schools in neighboring villages about the size of Dansville. When the work, which was aided to some extent in statistical compilation by the teachers in the school, was finished it was presented to the board of education, by whose order it was published (1915, Dansville, N. Y., 109 pp.).

The material of the study is presented in 19 chapters, 13 illustrations, 8 graphs, and 21 tables. The study led to 11 conclusions which were offered not as "a program for immediate action," but as "a sort of guide for the future." These conclusions pointed out the

need of increasing the salary scale of teachers; a good library in or near the school building to supplement the work in the grades, and particularly that in the junior and senior high schools; the addition of a teacher trained in giving tests for mental deficiency; the addition of a department of agriculture and horticulture, and in home-making; readjustment of the curriculum; the appointment of supervisors of play of boys and girls; more active concern about medical inspection; frequent parents' meetings; the organization of a group of the mothers of children in the lower grades; a wider use of the school plant by broadening the work of the night school; and enlarging the district so as to increase the school revenues.

OAKLAND, CAL.

On June 12, 1915, Dr. E. P. Cubberley, of the Leland Stanford Junior University, presented to the board of education his report (48 pp.) on a special study of the school system which he had been requested to make by resolution of the board of education on June 1, 1915. The motive of the study is to be found in the fact that "the per capita cost of maintenance, based on the average daily attendance of the Oakland school department, has increased 22 per cent during the last five years." The surveyor was "to investigate the reasons for the increased expense and to determine if it were possible to conduct the schools more economically without loss of efficiency."

"The report of a survey of the organization, scope, and finances of the public-school system of Oakland, Cal.," presents the answers to the three main questions which received consideration. Thirteen tables and two figures illuminate the details of the answers: The form of organization of the administrative departments and the overhead expense of the school department; the scope and further needs of the school system; the financial aspect of the problem and the ability of the city of Oakland to maintain a good system of schools. It is found that the form of organization can best be modified by coordinating the present four separate departments under the responsible direction of the superintendent. It is found that overhead expense, excluding the salaries paid the six members of the board of education by the city, is 2.5 per cent of the total estimated cost for the maintenance of the educational work of the city. Considering the work that is accomplished in the different branches of the administration, it is found that this expense is comparatively low. It would not be unreasonable to increase this expenditure to 3 per cent or even 3.5 per cent.

The expenditures for education in Oakland have shown a marked rise because the old type of school system has, during the past five or six years, been displaced by efforts to meet the newer demands

made upon a school system designed to meet the community needs. The chief causes of this rise are found to be:

The increased salaries for teachers; the large increase in the number of teachers employed; the recent rapid introduction of kindergarten instruction; the additions to the supervisory force; the organization of new high schools and new departments in these schools; the reorganization of a number of the elementary schools for instruction along department lines; the addition of new subjects of instruction in the elementary schools and of new departments in the high schools, such as domestic science and home economics; an excellent reorganization and expansion of the work in music; the organization of a department for health development and sanitation; the better organization of the work in physical training and the provision of directed school playgrounds; the organization of a department of child study, the classes for the instruction of atypical children; the organization of a vocational school; the extension of the courses in the evening high schools; and the beginnings of an evening lecture system.

Fourteen of these "causes" are reviewed in detail from the standpoint of cost. The study "does not reveal any place where any important economy is possible, if the school system is to continue to serve the needs of the children of the community." The detailed consideration of the increase in the cost of maintenance of all of the city departments, the increase in tax rate, the comparison of increase in property valuation, the increase in the cities of the school system, and considering the financial burdens upon the city as estimated by comparison of wealth, size, and per capita costs for maintenance with other cities in the eastern, middle western, and western sections of the country, the study finds "that there is no need for any curtailment of the public-school system in Oakland." If economies must be effected, the city should turn to "other departments than that which deals with the education of its future citizens."

FOREIGN SURVEYS.

It is well known that the American survey movement has been preceded by a definite survey movement abroad. Bulletin, 1915, No. 37, of the United States Bureau of Education, "Some Foreign Educational Surveys" (39 pp.), by James Mahoney, contains an account of "certain foreign types" and describes surveys conducted in Belgium, Canada, England, France, Germany and Austria, Ireland, New South Wales, New Zealand, Scotland, Sweden, and Switzerland between 1798 and 1914.

"EDUCATIONAL SURVEYS."

This report for the year under consideration may appropriately close with a reference to two brief discussions of the "some 30 surveys" which had been made at the beginning of the year. In the ninth annual report of the Carnegie Foundation for the Advance-

ment of Teaching (123 pp.), dated October 15, 1914, President Henry S. Pritchett presents a number of observations on the growth and values of the new survey movement. Since "no other subject touches life on so many sides or includes such a wealth of varied material," it is most important "to have authoritative and thorough investigation of the fundamental facts and principles" found in our educational activity. It is noted as significant that the surveys have for the most part been made in order to secure "suggestions and direction for the next step in progress" and have been an expression of the interest of the public in educational matters. As to the future of the movement, it is felt that "there is every indication that some such scheme of educational inquiry will become a permanent feature of American education."

> From the present indications it would be hazardous to infer, and dangerous for general educational welfare, to suppose that educational control and advice will become concentrated in the hands of a few experts, and much will have been gained if the need for the critical habit of mind becomes part of the educational routine. More important than the occasional survey is constant study of and familiarity with progress in contemporary educational thought on the part of those charged with the conduct of the schools.

It is noted that "these reports have added nothing radical to educational thought or literature." The work of a survey should include: First, the historical development of the system studied; second, the relation of educational needs to economic, political, and sociological conditions; and third, conclude with a constructive program which "should point a way not too far removed from present conditions as affected by the factors mentioned." It is also noted that there is an absence of "agreement as to the ends of education," that the standards of measurement are "equally indefinite," and that the comparative method "does not give a measure of the essentials or establish guiding principles." Accordingly, these surveys reveal a great deal as to the present scientific status of our educational knowledge. "The value of the recent educational surveys lies not so much in their actual contributions as in the suggestions to which they give rise."

In the same report (pp. 56–59) are found brief observations and comment on the report on education in Vermont which present the results of the first study of this character conducted by the division of educational inquiry of this foundation. The wide and sharp criticism which this report awakened is constructively interpreted.

"A SURVEY OF SCHOOL SURVEYS."

On April 17, 1915, Dr. Leonard P. Ayres, director of the division of education of the Russell Sage Foundation, delivered an address on "A Survey of School Surveys" at the close of the second annual

conference on educational measurements, held under the auspices of the extension division of Indiana University.[1] In tracing the developments of the survey movement and pointing out the important characteristics of the 30 surveys which have been made, Dr. Ayres adds information on different items, such as agencies and directors, cost, length of time expended, and the size of the reports.

These surveys have been carried through by organizations or individuals as follows: Individuals, 7; universities, 6; bureaus of municipal research, 5; State departments of education, 3; foundations, 3; United States Bureau of Education, 2; municipal departments, 2; national societies, 2.

The directors of these 30 surveys have been the following: Professors of education, 13; special investigators, 11; directors of foundations, 4; United States Commissioner of Education, 1; superintendent of schools, 1.

The cost figures that are available for the different pieces of survey work are as follows: Montclair, N. J., $500; Baltimore, Md., $2,000; East Orange, N. J., $1,000; Bridgeport, Conn., $1,000; Waterbury, Conn., $126.89; Portland, Oreg., $7,500; New York, N. Y., $125,000; State of Ohio, $10,000; State of Vermont, $10,000; Springfield, Ill., $3,261; San Francisco, Cal., $700; Butte, Mont., $4,500.

The time required is as follows: Baltimore, 3 months; East Orange, 2½ months; Vermont high schools, 4 months; Montgomery County, Md., 4 months; Waterbury, 3 days; New York, 2 years 2 months; Portland, 4 months; Ohio, 8 months; Springfield, 2½ months; San Francisco, 3 months; Butte, 1 month.

Nine surveys were conducted by 1 individual, 8 surveys conducted by 2 individuals, 4 surveys conducted by 3 individuals, 2 surveys conducted by 4 individuals, 2 surveys conducted by 5 individuals, 1 survey conducted by 7 individuals, 3 surveys conducted by 8 individuals, 1 survey conducted by 12 individuals.

The published reports vary greatly in size. The smallest consists of 6 pages and the largest of 2,573; 11 have less than 100 pages; 3 from 100 to 200 pages; 2 from 200 to 300 pages; 2 from 300 to 400 pages.

To summarize the salient characteristics of the survey, it may be said that they are 30 in number; that they have all been conducted in the past four years; that they are increasing in frequency; that they have largely been conducted by professors of education; that they have largely been undertaken by agencies or individuals outside of the school systems; that they range in cost from $126 to nearly $126,000; that the time consumed ranges from three days to more than two years; and that the reports range in bulk from 6 pages to nearly 2,600 pages.

[1] Indiana University Bulletin, October, 1915, pp. 172–181.

CHAPTER XIX.

PROGRESS IN THE EDUCATION OF THE DEAF.

By Edward Allen Fay,

Gallaudet College, Washington, D. C.

Contents.—The training of teachers—Much reading of books—A constant language environment—Better speech—Vocational training—Pensions for teachers—Tests of efficiency and mentality—A correction.

THE TRAINING OF TEACHERS.

In the early days of the education of the deaf in America little provision was made for the special training of teachers for the work. There was generally no preliminary training whatever. During their first year of service young teachers were given a thorough course of instruction in the sign language, which was then regarded as the all-important element in the instruction of the deaf, and they received some advice and suggestions from the head of the school and older teachers; otherwise they were left largely to their own devices. No doubt they would have done better work if they had been prepared for it by courses in pedagogy, psychology, and the special needs of the deaf; perhaps they spoiled two or three classes while they were learning how to teach; but being generally men of liberal education, graduates of New England colleges, mostly of Yale, eager to solve a new and intensely interesting problem in education, they accomplished, notwithstanding their lack of special training, wonderful results in the teaching of language, which is the essential feature of the education of the deaf—results which, during the same term of instruction, are not surpassed and probably are not equaled at the present day.

The need of special training for teachers of the deaf is now much greater than it was formerly. For this there are two reasons.

One reason is that nowadays comparatively few men of liberal education can be persuaded to become teachers of the deaf, on account of the greater pecuniary inducements offered them in other occupations. A large majority of the present-day teachers are young women whose only general preparation has been that of the high school, rarely the normal school, too often only the common school.

Without some special training their work would be far inferior to that of the highly educated, profoundly thinking men of former days.

The other reason is that the teaching of speech and speech reading, which now has become general in the schools, demands a thorough knowledge of the physiological basis of speech, the visible movements upon which speech reading depends, and the various ingenious devices by which deaf children may be led to produce the vocal elements, combine them into words, give the proper inflection and accent in sentences, modulate the voice, etc. Here the college graduate, with all his superior mental equipment but without special training, would be almost as much at a loss how to proceed as the tyro just out of the grade school.

The training of teachers of speech in America was begun by Dr. Alexander Graham Bell, at Boston, in 1872, and was continued in a private school under his supervision until 1879. For several years subsequently a few young women were prepared in various schools for the deaf to give instruction by the oral method, but no general provision for the training of teachers was made.

To meet this need, to provide for the deaf students of Gallaudet College hearing and speaking associates who would give them practice in speech and speech reading, and at the same time to raise the general standard of qualifications for teachers of the deaf in America, Dr. Edward M. Gallaudet, in 1891, persuaded Congress to establish a normal department at Gallaudet College for a limited number of young people, mostly men, who had received a liberal education. Candidates for admission were required to have, in addition to a college diploma, a certificate of proper capacity from their previous instructors and of special fitness for the work from the head of a school for the deaf. Exceptions to the requirement of a collegiate degree have been made in some cases where there were unusual qualifications in other respects; but, in general, the requirements have been maintained. Both oral and manual methods of instruction are included in the curriculum. The results hoped for by Dr. Gallaudet in the establishment of this normal department have been fully realized. While some of the graduates have risen to the highest positions in the schools, becoming superintendents, principals, and head teachers, the general standard of the work of teaching the deaf throughout the United States has been raised in a marked degree.

The Clarke School at Northampton, Mass., under the direction of Dr. Caroline A. Yale, which for several years had had a training class for its own teachers, began in 1892 to admit a few students who might become teachers in other schools. Fourteen years later, through the aid of the Melville Bell Memorial Fund, the school was enabled still further to enlarge the capacity of the training class.

The requirements for admission have always been high and the course of instruction thorough. The curriculum is limited to the oral method. Most of the students are young women. Dr. Yale is also doing much to improve the quality of speech work in the United States by conducting a summer school, which is attended by teachers from schools for the deaf from all parts of the country.

While Gallaudet College and the Clarke School have thus provided the schools with many well-trained teachers, they have never been able fully to supply the demand. In consequence, a considerable number of schools within recent years have found it necessary to establish training classes for their own teachers and in some cases have admitted students who afterwards became teachers in other schools. The result of all these efforts is that at the present time the entrance of an untrained teacher into a school for the deaf is as rare as the entrance of a trained one was 25 years ago, and the quality of the work accomplished in the schools, especially the oral work, has been greatly advanced.

MUCH READING OF BOOKS.

One of the most important aids in the acquisition of language by the deaf is much reading of books. From the frequent repetition of words and phrases, by which the hearing child unconsciously acquires language through the ear, the deaf are wholly shut off; reading, and reading alone, can give them this needed repetition.

Although the early teachers recognized language as the great want of their pupils, sought earnestly for the best methods of imparting it, and were acquainted with Dalgarno's principle that it is the frequency with which words are presented to the mind that impressed them upon the memory, they seem to have overlooked the fact that this need can be met by much reading of books and in no other way. In the considerable body of the literature of the profession for more than 50 years after the establishment of the first schools for the deaf in America, there is not a single reference to it. Probably few teachers during that period encouraged their pupils to read much unless the pupils had a natural taste for it; one pupil who had such a taste reported in after life that his teacher even discouraged him from reading, because it took time that he thought might better be devoted to the learning of set lessons.

The value of this means of acquiring language seems to have been first discovered by a man who was himself deaf, Henry C. White, then a student in Gallaudet College. Seeing that some of his fellow students who were congenitally or quasi-congenitally deaf had a much better command of the English language than others of equally good natural advantages and an equally long term of instruction, he sought the cause of this difference. He found it in the

circumstance that those who understood and wrote English well were eager readers of books, while those whose command of English was inferior had, like the great majority of deaf-born people, no taste for reading, and did little more of it than was required by their instructors. His article on "Reading as a Means of Acquiring a Good Command of Language," published in the American Annals of the Deaf in 1879, was the first of many that have been written on that subject.

It remained for Dr. Alexander Graham Bell to point out the reason, which is stated above, why reading is so helpful to the deaf in the acquisition of language. This he did in a lecture to the students of Gallaudet College in 1887 and in an address to the conference of superintendents and principals of American schools for the deaf in 1888. Since then he and others have persistently urged its importance. American schools for the deaf now generally recognize its value and endeavor more and more to make use of it. Ingenious devices are employed to give children a taste for reading at a period when their vocabulary is still very scanty; little story books, written in the simplest language, are prepared for beginners; stories suited to classes of varying grades are printed in the school papers; attractive books are supplied in great profusion for the use of older pupils; reading periods are assigned during school hours or (in the Ohio school) during the hours formerly devoted to evening study; teachers encourage and guide pupils in their reading; in some schools special teachers of reading are employed.

It can not be affirmed that these methods always lead the pupil to a mastery of language or a love of literature; but where they are efficiently applied they result in an enlargement of his vocabulary, a comprehension and use of language, a development of the imagination, breadth of vision, clearness of thought, and sense of values that fully justify the labor bestowed.

A CONSTANT LANGUAGE ENVIRONMENT.

While much reading of books gives the deaf child a repetition of words that corresponds in some respects to the repetition that the hearing child receives through the ear, it does not provide the same incentive to the use of language by the child himself, nor afford the same opportunity for practice in it. These essentials to the mastery of language are supplied as far as possible by the teacher in the schoolroom, who faithfully drills his pupils day after day and year after year in the use and practice of the English language, making all his other instruction subsidiary to this. Much further than this few of the schools go. On the playground and in the general intercourse of daily life outside the schoolroom the children, not yet having a sufficient command of the language of words to use it as a means of

communication, resort to the easier and more intelligible language of signs. This is true not only of the combined-system schools but also of the oral schools. The attempt to repress by severe measures the use of signs by little children who have as yet no other means of communication results in what is worse than the use of signs—no communication at all. The sign language thus is apt to keep its place in the mind of a congenitally deaf person as the natural medium of thought and expression in daily life, while written and spoken language are too often looked upon as something belonging exclusively to the schoolroom.

This great drawback to the mastery of language is probably most successfully overcome in the Western New York Institution for Deaf-Mutes, at Rochester, N. Y., under the direction of Dr. Z. F. Westervelt. In that school the manual alphabet is used, to the exclusion of signs, as the ordinary means of communication as well as of instruction from the very beginning of the child's education. The English language is so readily acquired by this method that the pupils become able to express their childish wants in it at an early stage of their instruction. In their hours of recreation they are under careful supervision, the persons in charge being always ready to address them in English rapidly spelled upon the fingers and to encourage and assist them in using English in the same way themselves. The children are thus provided with a constant environment of the English language, and the results from a language point of view are highly satisfactory.

Other American schools do not deem it wise to follow the Western New York Institution in its strict adherence to the manual alphabet method, some because they regard the sign language as too valuable a factor in awakening and developing the mind of the deaf child and too convenient a means of addressing the pupils in assembly to be wholly rejected; others because they believe that speech, to the exclusion of the manual alphabet, should be the only medium of instruction and communication. But if they wish to achieve as good results in language as the Rochester school can show they must in some way provide an equally effective language environment for all the waking hours of the pupils. English, spelled on the fingers, written, or spoken, must be the language used in the trade school and on the playground as well as in the classroom; and with the children there must be at all times when they are not in school or shop competent supervisors who will surround them with a constant atmosphere of good colloquial English. Such supervision demands a higher standard of intellectual and moral qualifications than is usually to be found in persons available for monitorial service and involves a larger expenditure than most schools can afford. In the Kendall School, at Washington, D. C., this difficult problem is solved

to some extent by requiring the students of the Normal Department of Gallaudet College to act as supervisors during a part of every day.

BETTER SPEECH.

The vocal utterance of those whose ears are sealed to sound is usually more or less painful and disagreeable, and sometimes, even after years of instruction by faithful teachers, almost unintelligible except to the teachers themselves, to members of the family, and to intimate friends. This has generally been regarded as an inevitable, though deplorable, consequence of deafness; and oral teachers of the deaf, knowing with how great an expenditure of effort on their part and on their pupils' part the power of speech has been acquired, have been indignant when the results attained were criticized as unsatisfactory. Parents, too, hearing from their heretofore voiceless children the longed-for words "papa" and "mamma," and finding them able to make their simple wants understood in their own homes through speech, have been amazed and delighted at the transformation wrought and have asked for nothing more.

Within the past two or three years, however, there has grown up a belief among oral teachers that better results in speech than have hitherto been achieved are not only desirable but really possible. This belief is due to the fuller understanding of the mechanism of speech, the discovery and invention of new devices for teaching it, and the introduction of music, both instrumental and vocal, to give the idea of rhythm and increase the control, flexibility, and strength of the voice. The success of Prof. Charles A. White, of Boston, in developing Helen Keller's voice so that she is able to address large public audiences has shown what can be accomplished under unusually difficult conditions. The declaration of Dr. Yale at the convention of American instructors of the deaf held at Staunton, Va., in 1914 that "the plea now should be not for more speech, but for better speech," met with an enthusiastic response from the large body of teachers present.

What is said above of the importance of a constant language environment in order to acquire a mastery of language is equally true of a constant speech environment in order to secure the best results in speech and speech reading. Not only must the most advanced methods of instruction be used by the most competent teachers in the schoolroom, but the pupil must be surrounded by an atmosphere of speech at all times. In oral schools this requires the employment of numerous supervisors of superior qualifications; in combined-system schools not only that but also the separation of the orally taught pupils from the manually taught out of school hours as well as in the schoolroom.

VOCATIONAL TRAINING.

The schools for the deaf were the pioneers in vocational training in America, though they called it by another name. They have always recognized the importance of preparing their pupils while in school to become self-supporting when they graduate. The equipment for the work and the character of the instruction given in some cases, however, have not been of the best. The high standard of the trade schools for hearing youth established within recent years has aroused the emulation of the schools for the deaf, and a general effort is now being made to improve the condition of their industrial departments. The great obstacle in the way is the lack of sufficient means. In this respect the endowed schools, as the New York and Pennsylvania institutions, which have an income from their invested funds as well as support from the State, have an advantage over the State schools which are wholly dependent upon legislative appropriations.

So much time is required to give deaf children the necessary knowledge of the English language and other branches of learning that the term of instruction allowed, though much longer in America than in any other country in the world, is all too short for the addition of adequate vocational training. This difficulty is overcome to some extent in various ways. Gallaudet College offers optional courses for young men in electricity, chemistry, scientific agriculture, floriculture, stock and poultry raising, and dairying; for young women, courses in library cataloguing and dressmaking. The Indiana and New Jersey State schools have established postgraduate courses in shopwork. The Michigan school made a new departure last year by opening a school of agriculture under a different régime from that of the other departments of the institution. For the pupils in this department the school year begins the 1st of March and closes the 24th of December. The pupils go home for their long vacation from Christmas to March, instead of in the summer. During the term they spend half a day in school and half a day at work on the farm under the direction of a graduate of the Michigan Agricultural College. They are taught the science of agriculture in the schoolroom and the art of agriculture in their work. The course includes not only general farming, but also dairying and the raising of poultry and swine.

The proper division of the time between school and shop has been a subject of much discussion among teachers of the deaf. While there is still some difference of opinion on this subject, the majority now probably believe that five hours a day should be given to the schoolroom and two and a half or three hours to the shop until the last two or three years of the term of instruction. During these

last years they would divide the day equally between the academical and the industrial training. The interdependence of the two departments is more and more fully recognized and, by correlation of the work of brain and hand, by joint meetings of the literary and vocational teachers, and frequent visits to one another's classes, mutual aid and cooperation are sought.

PENSIONS FOR TEACHERS.

A few schools for the deaf have been able to provide teachers of long service with suitable pensions when they retired on account of advanced age, but such schools are the exception, not the rule. For several years the three great organizations of teachers of the deaf in America—the Convention of Instructors, the Conference of Superintendents and Principals, and the Association to Promote the Teaching of Speech—have been working together in the effort to establish some system of pensions which would be available for all deserving teachers. Various plans have been proposed, but have encountered obstacles that seemed insurmountable. Recently, however, California, Indiana, Minnesota, and New York have passed laws making teachers in State schools for the deaf eligible to the pensions provided for teachers in common schools. This seems to be, on the whole, the most satisfactory solution of the problem, and it is to be hoped that it will be adopted generally throughout the country.

TESTS OF EFFICIENCY AND MENTALITY.

At the meeting of the Convention of American Instructors of the Deaf, held at Staunton, Va., in 1914, there was a symposium on "Measurement of Efficiency of Schools for the Deaf." It was pointed out that the educational departments of some States are attempting to measure the efficiency of schools for the deaf without any comprehensive knowledge of the peculiarities of the work, looking at it almost solely from the point of view of teachers of hearing children. They insist, for instance, that the same textbooks should be used as in the common schools, that the same standards should be applied, and even that ordinary teachers should be allowed to take charge of deaf classes without any special training for the work. In order to correct this mistaken view, the Conference of Superintendents and Principals, meeting in conjunction with the convention, adopted the following declaration of a basic principle in the education of the deaf:

> The education of the deaf child—which is claimed as a matter of right, not of charity—while a part of the general educational movement, is a distinct and highly specialized branch of the work, and, as such, requires the services of expert educators of the deaf—those who know not only the commonly applied principles of pedagogy and psychology, but who also, through special training,

active experience, and thorough research work, know the possibilities, the peculiarities, and the limitations of the deaf child; who know clearly what is possible and practical, as opposed to the impossible and theoretical. This is a knowledge not possessed even by those who proclaim themselves masters, theoretically or otherwise, of the work with the hearing child, who, as a matter of fact, receives his education largely at the hands not of his school-teacher, but of the thousands with whom he comes in contact outside the schoolroom, and through the acquisition of his mother tongue, with its vocabulary and expression, which comes to him naturally and easily from the very day of his birth—all of which is denied to the deaf child. With this special knowledge of deaf-child nature, as referred to above, acquired through years of study of, and experience with, the deaf, one may readily perceive that the problems presented are not ordinary ones, that they are indeed complex, and, further, that the ordinary curricula, textbooks, grade divisions, and modes of procedure adapted to the hearing child must be very decidedly modified with the deaf child. To those who are not in the work of educating the deaf, this knowledge does not come, and they are ill-prepared to criticize methods, progress, and results which necessarily must be seen and judged from a viewpoint entirely different from their own.

The conference regarded this question of efficiency in schools for the deaf as so important that it appointed a committee to study it and to arrange a general scheme for the measurement of efficiency wherein mentality tests and age and class-year norms should be established.

The committee consists of Mr. R. O. Johnson, of Indiana; Mr. Augustus Rogers, of Kentucky; Dr. A. L. E. Crouter, of Pennsylvania; Mr. J. W. Jones, of Ohio; and Mr. W. M. Kilpatrick, of Connecticut. These gentlemen have before them an exceedingly complicated and difficult task, but they have gone to work at it energetically and intelligently. They early secured the assistance of several psychologists of national reputation, who have attended the meetings of the committee and made many valuable suggestions. Two psychologists, Dr. Rudolph Pintner and Mr. Donald G. Paterson, of the Ohio State University, who had previously experimented upon deaf children with the Binet-Simon scale and ascertained that it could not be applied satisfactorily without modifications, have examined, under the direction of the committee, the pupils of the Ohio, Indiana, and Pennsylvania schools, using tests for mentality specially designed by themselves. The committee hopes to be able to present its conclusions to the conference at its next regular meeting, to be held in 1916.[1]

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[1] A CORRECTION.

In the chapter on "Progress in the Education of the Deaf," in the Report of the Commissioner of Education for the year ending June 30, 1913, the statement was made that Mrs. Edwin G. Hurd, of the Rhode Island Institute, was the first actually to apply the Montessori method to the education of the deaf. This was an error. Mrs. Hurd, as the report states, began the use of the method in January, 1913, but in February, 1912, Mrs. J. Scott Anderson, of Torresdale House, Philadelphia, had a Montessori class of deaf pupils, and in the summer of that year full equipments for the Montessori work were procured for the New York institution, and teachers with special training were put in charge.

CHAPTER XX.

EDUCATION FOR THE BLIND.[1]

BY EDWARD E. ALLEN,

Director of the Perkins Institution and Massachusetts School for the Blind, Watertown, Mass.

CONTENTS.—Progress in education for the blind—Progress of the day-school movement—Progress at the institutions—The blind and higher education—Classes for the conservation of vision—The prevention of blindness—Influence of providing work for the adult blind—Summer schools for adults—Home teaching—Embossed books and their circulation—The blind and museum extension—Progress toward a uniform type.

In 1872 there were 1,900 pupils in attendance upon the 27 schools for the blind; in 1914 there were 4,971 pupils in 62 schools. The property devoted to this field of education in 1872 was reported to be $3,986,678.71; in 1914 it was given as $15,224,693. The cost per pupil for instruction and maintenance necessarily keeps large; in 1914 it was $360. This is owing to the fact that the schools are mainly residential, also that the proportion of teachers and other employees to enrollment is larger than in other types of educational institutions. In one institution, where the proportion of all employees to pupils is approximately as 1 to 3, the pay roll amounts to about 60 per cent of the total current expenses, and yet this institution recently rebuilt in such manner as to reduce the number of people on its pay roll by 10.

PROGRESS OF THE DAY-SCHOOL MOVEMENT.

Public education of blind youth is then admittedly expensive when compared with that of the seeing. The attempt in certain places to make it less so and actually to apply compulsory education laws to the blind by creating the machinery for teaching them in the public schools and receiving local pupils there, which began with the twentieth century, is meeting with undoubted success. It is but fair to the originators of this plan to say, however, that they look for even greater educational efficiency from it, because the blind children are kept all the time with seeing children and in the world to which they

[1] A somewhat statistical chapter on this general subject appeared in the 1913 report of this bureau. None had before been published by it since 1872. This resumption of the matter indicates in itself a recognition of the growth and importance of the work of educating the blind.

normally belong, rather than removed for a part of the time to a special residential school, even though in the latter case conditions of pupil competition are equalized and every conceivable chance is given for acquiring a well-balanced education. Be that as it may, the public-school classes for the blind are growing both in number, in attendance, and in balance, and, though the movement is believed by most to be still an experiment, it is one which the whole profession can not but observe with sympathetic interest and be ready to aid and further so far as proves just and right to the blind themselves. Many, perhaps most, expert observers feel that, while these "day schools for the blind" possess certain indubitable advantages over "boarding schools for the blind," the latter likewise have their advantages, and that, until the existing state of society changes and a saner responsibility for all childhood and youth reigns, the best interests of the blind will demand both kinds of schools; also, that most of the blind would benefit by experience in each kind. It is felt, too, that education is not a matter of dollars and cents, but of results, and that blindness should command whatever the condition calls for.

It is gratifying to note, therefore, that a most helpful cooperation exists between the two kinds of schools; also that each kind has stimulated the other to work toward overcoming its defects, with resulting benefit to both. The day schools, as soon as they showed that their blind pupils could hold their own in the studies required by others of their age and grade, found themselves criticized by the institutions for failing to balance with physical training, manual training, and music the more purely intellectual studies of the public-school curriculum. To supply this evident lack some private associations in behalf of the blind and some semipublic agencies, like the Fox Fund in Brooklyn, came to the rescue, supplementing the existing facilities in an effective and beautiful way—such as bringing a larger number of the children together for story-telling, dancing, and social games, giving plays, forming Boy Scout battalions and Camp Fire chapters, providing inspirational talks on personal hygiene, knitting for the Belgians, work in manual training, lessons in cooking, in chorus singing, and even individual lessons on the piano. Some, notably in New York City, also gave vocational opportunities in piano tuning. Obviously, these activities have meant utilizing occasional out-of-school hours—afternoons, evenings, and Saturdays. Where private organizations did not wish to take labor and means from the adult blind, as in Wisconsin, yet desired to get these socializing and balancing benefits for the children, they caused legislation to be enacted, raising the State appropriation for a blind pupil attending day schools from $150 to $200 a year. In the light of this experience, Ohio made its appropriation $200 at the outset. In the

three Ohio cities conducting these classes the school day of the blind is now six hours instead of five, and certain attendance is required on Saturdays also. The 1913–14 annual report of the superintendent of schools of Cleveland contains two full-page illustrations and 14 printed pages descriptive of the city's classes for the blind and their activities. Indeed, Cleveland would appear to be the center of Ohio's movement for such classes, the Cleveland supervisor of blind classes having been given charge of the classes of the same kind reconstructed in Cincinnati and begun in Toledo. This fact augurs well for the general success of the day-school movement whose aim, as given in the 1914 report of the Chicago schools, where the movement originated, is "to give to the blind child the opportunity of growing up in a natural environment and to provide him such training as will enable him to mingle later on in the business and social world as nearly as possible like a normal member of society."

Eleven cities now conduct day-school classes for blind children. "The room for the blind at each center is in charge of a special teacher, but the time of the pupils is divided between the work in the special room and that of the regular grade class rooms, the work in the special room being of necessity largely individual and supplemental." Where the pupils are many, an embossing press is run in order to provide textbooks; where they are few, as at Newark, N. J., the special teacher often writes out by means of an embossing typewriter, known as a Braillewriter, copies of the books needed which she can not procure elsewhere. In the school year 1913–14 the whole number of children attending these day schools was 422, New York City enumerating 194 in 17 centers.

PROGRESS AT THE INSTITUTIONS.

There are 48 residential schools for the blind, registering in 1913–14 a total of 4,399 pupils. Many of these "institutions," being located in populous centers, not only permit their pupils to go home for week-ends but urge as many as can to do so. Most of the pupils remain at home over the Christmas and Easter holidays, and all must leave the institution during the long summer vacation. In other words, these schools have long recognized the danger of weaning their children from home and have seemed to be doing their best to prevent it. But they, too, have been touched by the movement away from institutions for children and, being perhaps influenced by the criticisms of the advocates of day schools for all kinds of pupils, have striven to meet these criticisms by introducing new socializing influences. The annual reports of these institutions and the school notes appearing in the *Outlook for the Blind*, a periodical chronicling every kind of activity for and by the blind, are more and more filled with out-of-class events in which the pupils participate—public festivals, con-

certs, dramatics, pageants, and even with accounts of athletic, typewriting, and other contests with boys and girls who have full use of their eyesight. Where there are "patrols" of blind Boy Scouts and camps of blind Camp Fire Girls and nests of "Bluebirds"—and these are multiplying—the blind and the seeing are inevitably brought more and more into contact. At least three residential schools insist on pupil participation in the daily housework and are highly pleased with the results; and we read of others either adding new buildings, as, very recently, a kindergarten at Batavia, N. Y., or planning to rebuild on the cottage system—all definite tendencies away from the congregate toward the segregate manner of housing. Again, there are increasing reference to courses in domestic science and to such out-of-door activities as school gardening and farming and poultry keeping scientifically conducted. In fact, the reports and the periodical now enrich and enliven their reading matter with pictures of such agencies and activities, indicating the greater emphasis placed upon them. All this tends to attract attention and to bring the schools into the public eye.

Formerly the institutions felt more deeply than now the need of saving their pupils from the influences of home, the visiting of parents being often discouraged. Even to-day the rules of at least two institutions provide that parents and friends of the pupils can not be entertained at meals or overnight. On the other hand, the rules of several others contain definite invitations for parents to spend a night at the school. The much-to-be-desired cooperation of parents and teachers can be promoted in no other way so well as by bringing them together.

THE BLIND AND HIGHER EDUCATION.

The idea is evidently growing in the institutions that selected pupils who are ready for high school, normal school, and college should either leave the institution entirely or attend from it the public school or college desired. Daily contact with seeing students, necessitating self-measurement by the standards of the world, should be in the highest degree developmental.

It is significant that there is a growth in the number of institutions whose high-school department is on the list of fully accredited high schools. Two institutions report that recent acts of assembly require the superintendent of their State school for the blind to be a trained teacher of the blind.

It is also to be noted with satisfaction rather than with wonderment that numbers of the blind are in college, and that as a rule they more than hold their own, usually graduating with honor rank. The explanation is not far to seek. Only the best and most deter-

mined essay higher education, and, as compared with others, they are more mature upon entrance, better prepared and more habituated to mental concentration, less able to put their best energy into athletics and other distractions, and more filled with "the motive of the life career." It would appear that the University of Texas appreciates in an unusual degree the advantage of having blind students, since it had seven in 1914 and nine in 1915. It is reported that its senior law class in 1914 elected blind young men to the offices of president, vice president, and secretary-treasurer. In any community of seeing people the presence of the blind who achieve noteworthy results in spite of their handicap is inspiring, and therefore extremely serviceable to the community.

In order to make it more possible for such people of parts to obtain higher education, six States have now made limited appropriations of money, obtainable by individuals under certain conditions, either to defray the expenses of a reader or for other needs or for both.

CLASSES FOR THE CONSERVATION OF VISION.

The movement to include all kinds and conditions of children, subnormal, and even supernormal, in the public schools and to instruct them according to their needs and possibilities has in two or three cities brought together in special classes children who see too little to progress in the usual grades and too much to be patient under methods used by the blind. As such pupils are obviously out of place unless trained through means modified by the condition of their eyesight, special centers for them have been recently opened in a number of cities in Europe, and in Boston, Cleveland, Cincinnati, and Toledo in America. The instruction is addressed largely to the eye, under the watchful care of oculists, its chief object being to conserve such sight as the pupils have. For psychological reasons such pupils would better be called semisighted than semiblind. The multiplication of these classes will be a relief to institutions for the blind, most of which still have to admit these children with defective vision and to treat them as semiblind pupils rather than as semisighted.

THE PREVENTION OF BLINDNESS.

The schools are very generally recognizing the obligation resting upon them to render valuable aid in local and nation-wide campaigns for preventing blindness. The Legislature of Arkansas, for example, recently voted a sum of money to its State school for the blind for the purpose of spreading knowledge and means of such prevention. Again, the State Medical Society of North Carolina has just appointed the superintendent of its State school a member

of the society's committee on conservation of vision. And, again, Principal Van Cleve, of the New York Institute for the Education of the Blind, has been made managing director of the new national committee for the prevention of blindness. This committee and kindred agencies keep on hand for general use slides, charts, and other means used in a modern publicity campaign. As evidence of the increasing attention to this matter the librarian of a special library of literature on all matters connected with blindness and the blind reports that her most notable and important accessions since 1907 fall in the section of "Cause and prevention."

INFLUENCE OF PROVIDING WORK FOR THE ADULT BLIND.

The librarian of the special library above mentioned likewise reports large recent accessions under the heading "Adult blind," the most of these being under the subheading "Industrial training." There are now, in 1915, besides numerous societies, at least 14 State associations for the blind conducted with private funds and 8 State commissions conducted with public funds. These provide means of employment not only for people blinded in adult life but also for increasing numbers of former pupils of the schools for the blind, thus stimulating those schools to bestow a more complete training in the useful arts at which the blind may be profitably employed. In this and other ways have the schools been changed and benefited by the twentieth-century campaign in behalf of the adult blind.

Where a field officer works under the management of a school, as at Pittsburgh, Pa., and Faribault, Minn., home and school can be kept in fairly close touch; and where he is also director of an employment bureau, as in Philadelphia, the constant pressure his demands exert on his school for better workers is having a wholesome effect upon the quality of its instruction.

SUMMER SCHOOLS FOR ADULTS.

In communities where public and private agencies in aid of the adult blind are either nonexistent or feeble or where the institution superintendent prefers to have it so, he has opened his doors for a summer school for adults. The instruction and practice given, while mostly in the manual arts or handicrafts and piano tuning, have not wholly excluded such practically intellectual matters as reading, typewriting, etc. Supt. Dow, of the Minnesota institution, has successfully conducted a summer school for men since 1906, not 1911 as previously reported, and one for women since 1914. Following this lead Supt. Hall opened in the Washington State School for the Blind, in July, 1915, a summer school for blind men and blind women.

HOME TEACHING.

There are large numbers of old blind people; the median age of the 57,272 blind population reported for the United States in 1910 was 59.6 years. Most of these older blind people are at home and, if sitting in idleness, are generally unhappy. Organized attempts to relieve their condition without removing them from home were begun in Great Britain at least as early as 1854, by sending teachers to carry cheer, encouragement, and instruction to them. This is what is meant by "home teaching." The first permanent home teaching in America was begun in 1882 in Philadelphia, its chief service being to teach the blind to read an easily tangible type and to circulate books among them, a solace which is the greatest possible boon. Massachusetts began home teaching in 1900, the first to do so with public money. Since then at least 13 other States have instituted the work either with private or public funds or with both, and while all teach reading as their chief instrumentality, most home teachers teach whatever else they can; for their pupils can not read all the time and crave an occupation through which they can be useful and perhaps earn a little money. It has been found that the most efficient home teachers are blind people selected for their intelligence, resourcefulness, and cheer. Here, then, is an excellent and growing employment for the blind graduate and one for which the schools can and do prepare.

EMBOSSED BOOKS AND THEIR CIRCULATION.

The report of the Commissioner of Education for 1913–14 gives a total of 115,000 volumes in raised type in the various schools for the blind. The circulation of these is largely among present and past pupils. Material in 64 public and State libraries goes wherever a blind reader sitting at home makes her wants known.[1] According to the 1914 report of the New York City Library, 26,224 volumes or magazines went out in 12 months from that collection alone, most of them by mail. In August, 1915, the Post Office Department announced a substantial reduction in postage on reading matter for the blind exchanged between the United States and Great Britain. The weight limit is increased from 4 pounds 6 ounces to 6 pounds, and a flat rate of 10 cents a pound for each package exceeding 18 ounces in weight is charged. Should the efforts of the uniform type committee lead to a wider interchange of literature between the two countries, the reduction is likely to prove of great service.

[1] Circulations through the Post Office Department were made possible on a large scale by the franking privilege granted in 1904.

THE BLIND AND MUSEUM EXTENSION.

Established schools for the blind have collections, more or less extensive, of specimens and models for object teaching. Their pupils can "see" certain things in no other way than through handling them. A visitor to European continental institutions is astounded at the amount and variety of their object-teaching material. American instructors of the blind would possibly do well to increase the stress now laid by them upon such means of clarifying the conceptions of their pupils. Day schools, particularly, would appear to be liable to lack such opportunity. In New York City the danger was foreseen and means taken to avert it in 1909. The American Museum of Natural History then exposed objects of contemporary interest, like polar expedition sledges and clothing, and invited blind people, young and old, to "see" them there. The things were explained and lectures given. Later special collections were sent to the centers for blind children in the public schools of the city and of neighboring cities, like Newark, N. J. Indeed, this work, which is part of the movement for museum instruction and its extension to the schools of Greater New York, has been endowed in behalf of the blind, transportation is supplied for the blind, and guides are furnished to and from the museum. As in Washington, D. C., people of note are glad to entertain and instruct the blind, and have done so for years at the Library of Congress and the National Library for the Blind, so in New York experts, such as Rear Admiral Peary and Ernest Thompson Seton, have lectured to audiences of blind people.

PROGRESS TOWARD A UNIFORM TYPE.

Many systems of embossed types palpable to the fingers of the blind have been put forth since 1784, when the first one was printed in Paris. These systems fall under two heads—those composed of lines and those composed of points or dots. The latter are writable as well as readable by the blind and partly for this reason have prevailed. Nearly all the codes are arbitrary, like the Morse telegraphic code. Three are in extensive use to-day—Braille in most countries, New York Point and American Braille in America. Americans desiring the best possible instrumentalities for their blind, on the ground that blindness is in itself sufficient handicap, have so far been unable to agree on which is best. As a consequence, their presses have been issuing books in two point systems, in some case even duplicating the same book in each system. To be sure the blind can readily master both, but having two systems is manifestly wasteful in time, money, energy, and in product. The blind are the obvious sufferers. A movement for uniformity, which the blind themselves began about 1900 and which a few devoted ones among them labored

for and even financed for a number of years, has been gaining headway, particularly since 1911. At a convention of the American Association of Workers for the Blind, money was raised for continuing this investigation by a uniform type committee which had been appointed by that association in 1905. Since then more funds have been contributed, enabling the special investigators to travel widely in this country and in England and to compute from their tests both an ideal, or most efficient, system and a compromise system, thought to be more likely to meet with acceptance by the British, who are on the whole satisfied with their present alphabet.

This past summer, at a convention of the association held in Berkeley, Cal., the committee made its final report, which was accepted for adoption and the committee discharged. The system recommended, called "Standard Dot," is the compromise, and while its alphabetical characters are those of Braille, the spacing prescribed both for writing and for printing them is similar to that of New York point; it also differs from any other single system in most of the punctuation marks and in its special characters for groups of letters known as "contractions." Standard Dot is thus seen to be a new system. However, the conviction overwhelmingly shown at the convention above named and at that held in the same week by the American Association of Instructors of the Blind was for uniformity, not for diversity; and while the latter-named body accepted Standard Dot for immediate trial, it appointed a strong committee both to see that the test was carried out in the schools and to make every reasonable effort to agree with the British uniform type committee, to the end that there shall be but one system for the English-speaking blind. This American "commission on uniform type," so called, is composed of workers and instructors, and is financed so that one of its members may give his whole time to the work. It has caused certain books to be embossed in Standard Dot, and it has been instructed to report its findings in the summer of 1916. Thus, though not a few of those most concerned expected that the "type question" would be definitely settled at Berkeley, the majority of those feeling the responsibility involved voted for the delay which practically every one saw was absolutely required if the introduction of another system to those in use was to be avoided. The progress toward uniform type is the most important recent advance in the progress of the education of the blind in the United States.

CHAPTER XXI.

LIBRARY ACTIVITIES.

By J. D. Wolcott.

Chief of the Library Division, Bureau of Education.

Contents.—Legislation—Public library extensions—County library systems—State-wide use of university libraries—Library service to immigrants—Library exhibits at the Panama-Pacific Exposition—Meetings of associations—Recent books on library administration and technique.

LEGISLATION.

During the past year a considerable amount of important legislation relating to libraries was enacted. The general tendency was to extend the scope of library activities and to increase appropriations for work already existing. The following is a survey by States of the general movement in library legislation during the year, including outlines of the laws which were passed, and also references to some proposed measures which failed of enactment.

Alabama.—The Alabama legislature of 1915 passed an act requiring all libraries in the State, except those of strictly private character, to make regular and specific reports to the State department of archives and history.

California.—Section 1715 of the Political Code was amended by adding a clause authorizing the school board in any city maintaining a public library to arrange for library service similar to arrangements that are allowed between county free libraries and district schools. (S. B. 1129, ch. 469, Laws of 1915.)

Section 1741 of the Political Code was amended to provide that the high-school board of any high-school district lying wholly or partly in a county maintaining a county free library shall have power to enter into a contract with the board of supervisors whereby the high school may secure the advantages of the county library. This bill will enable high-school boards to arrange for branches of county libraries in the various high-school buildings. (S. B. 811, ch. 464, Laws of 1915.)

The library fund in cities not divided into school districts, under the provisions of an amendment to section 1714 of the Political Code, was increased to a sum not to exceed 80 cents for each child in average

daily attendance. The effect will be to increase the number of supplementary books in the elementary schools.

Connecticut.—The following increases in appropriations for the two fiscal years ending September 30, 1917, over those for the same purposes for the preceding biennium were made by the 1915 general assembly: For school libraries, $20,000, increased from $18,000; for public libraries, $20,000, from $19,000; for the public library committee, $8,000, from $6,500.

Illinois.—A bill was passed at the 1915 session increasing the maximum tax rate for public library purposes in incorporated cities having up to 100,000 inhabitants to 2 mills on the dollar annually, from $1\frac{2}{10}$ mills. (S. B. 114.) Cities with a population of over 100,000 may not levy a tax to exceed 1 mill on the dollar annually; their previous limit was 6 cents on $100.

With reference to this new law, the librarian of the Chicago Public Library is quoted as follows:

> Our tax rate has been increased from six-tenths to one mill, which will net us about $200,000 more than we have been receiving. This assures us resources for considerable extension of our work during the coming calendar year, when the first installment will be available. * * * The law is a general State law which gives at the same time to cities outside of Chicago a possible increase of $66\frac{2}{3}$ per cent revenue, subject to the local aldermanic approval.

A county library bill was introduced in the 1915 legislature, but failed of passage.

Indiana.—A library bill designed to codify the library laws of Indiana, approved by both the Indiana Library Association and the Indiana Library Trustees' Association, was introduced in both houses at the 1915 legislative session. It passed the house, but failed to be favorably reported by the senate committee. A new bill was drawn up comprising those sections of the first bill which provided for county libraries and greater freedom in township extension. This new bill passed the senate, but failed in the house owing to the rush of business in the last few days of the session.

Iowa.—The public-library law relating to the number of library trustees was amended by the general assembly of 1915, so as to make the number 5, 7, or 9 at the option of the city council, to be fixed by ordinance. Previously, 9 was the only number permitted.

An increase of $4,000 was made in the biennial appropriation for the Iowa library commission. The appropriation for the commission made by the general assembly of 1913 was $7,600.

Kansas.—The maximum tax rate for establishment and maintenance of free public libraries in cities having less than 40,000 population was raised from four-tenths of 1 mill to a half mill on the dollar by the Kansas Legislature of 1915. The limit for a public-library levy in cities having over 40,000 population continues to be

one-fourth mill, as provided in section 1 of chapter 80, laws of 1913.

The appropriation for purchase of traveling-library books was increased from $2,000 to $3,000 per year.

Maine.—The annual appropriation for regular traveling libraries was increased from $2,500 to $3,500, and $1,000 was also appropriated annually for the years 1915 and 1916 for the purchase of special traveling libraries for circulation among high schools located in those cities and towns having no public libraries.

Massachusetts.—A Massachusetts act of 1915 authorizes the board of free public-library commissioners to determine by examination, or by such rules as it may establish, the selection and appointment of supervising librarians and all other library workers who are paid, under the authority of the board, from the treasury of the Commonwealth.

The trustees of the Massachusetts State library were allowed $5,000 for the purpose of continuing work on the card catalogue for public use.

Minnesota.—The appropriation for public-school library aid in Minnesota was reduced in 1915 from $31,500 to $25,000 per year.

Missouri.—The appropriation for the Missouri library commission for the biennial period 1915–16 was increased to $15,430 from $14,200, which was the 1914–15 allowance.

A bill was introduced in the legislature of 1915 providing for the establishment and maintenance of county libraries throughout Missouri. This bill was practically identical with the California county-library law and was introduced for the purpose of arousing discussion before the next legislative session, its immediate passage not being expected.

Montana.—The Montana Legislature of 1915 enacted a county-library law, of which the most prominent features are as follows: Upon petition signed by not less than 20 per cent of the qualified voters of a county, at least one-half of whom shall reside outside of the county seat, the county commissioners may establish at the county seat a county free library. Any incorporated city or town in the county may withdraw and cease to participate in the benefits of such county free library. The county free library shall be under the general supervision of the board of county commissioners, who may appoint as county librarian any person who is a graduate of a library school or who has had one year's practical experience in library work.

The board of county commissioners may annually levy a special tax, not to exceed 1 mill on the dollar, for the purpose of maintaining the county free library. School libraries may be maintained as a part of the county free library. Instead of establishing a separate

county library, the board of county commissioners may enter into a contract with the free public library of any incorporated city or town to assume the functions of a county free library.

Nebraska.—The biennial appropriation for the Nebraska State library commission for 1915–1917 contained an addition of $900, making the total $16,900.

New Jersey.—The annual appropriation for the New Jersey public library commission, which in 1914 was $13,400, was increased to $16,000 by the legislature of 1915. On November 1, 1914, in accordance with legislative enactment, the commission formally took over from the department of public instruction the supervision of school libraries and the control of the State school library funds.

New York.—The New York Legislature of 1914 provided that district school libraries shall be free for public circulation in all districts where there are no regular free public libraries.

The appropriation for the aid of local public libraries was increased at the 1915 legislative session from $35,000 to $37,000 for 1915–16.

An act to exempt from taxation the property of free libraries in the State was vetoed by the governor May 25, 1915.

North Carolina.—The General Assembly of North Carolina, at its 1915 session, established a legislative reference library as a department of the North Carolina historical commission, with an annual appropriation of $5,000.

The biennial appropriation for the equipment and operation of traveling libraries by the North Carolina library commission was in 1915 increased to $4,000 from the previous $3,000, as made in 1913.

North Dakota.—The State public library commission of North Dakota was in 1915 abolished by legislative enactment and its functions transferred to the newly created State board of regents.

Oregon.—Chapter 346, general laws of Oregon, 1915, authorizes any county in the State to assess, levy, and collect a special tax, not to exceed 1½ mills on the dollar, for the purpose of erecting a central public-library building upon a site approved by the county and conveyed to such county by any person, firm, corporation, or city, school district, or union high-school district.

Ohio.—An important law supplementing the county library law of Ohio was passed by the General Assembly of 1915. It provides for the establishment, maintenance, care, management, and control of a county library in counties where a library has been bestowed on the county by either gift or bequest.

Pennsylvania.—The appropriation for the support of the Pennsylvania free library commission for the biennial period 1915–1917 was reduced to $24,000 from $31,000, which was the allowance for

the preceding two years. This reduction necessitates considerable retrenchment in the work of the commission.

The legislative act relating to free public nonsectarian libraries and branch libraries within the State and their maintenance, including taxation for their support, etc., was vetoed by the governor. The measure was described as a codification of existing laws relating to free public libraries, and raised the minimum tax rate to 1 mill per annum. Since this would have largely increased the library budgets of municipalities, the bill was vigorously opposed by the cities of the State.

South Dakota.—An act of 1915 (ch. 195) amends paragraph 5 of section 5, chapter 217, Laws of South Dakota for 1913, which prescribed that the State free library commission should annually designate a list of books from which the county library boards should select books for the school libraries. As amended, this paragraph now makes it a duty of the commission "to render upon request assistance to county superintendents and to county library boards in selecting books for school libraries."

The legal number of members of a board of public library trustees, which was fixed at three by chapter 217, Laws of 1913, is enlarged to five, two of whom must be women, by chapter 195, laws of 1915.

The biennial appropriation for the free library commission for 1915–1917 was made $4,000 per year, an increase of $1,000 per year over the previous allowance.

Texas.—An act providing for the establishment of county free libraries was passed by the Texas Legislature at its 1915 session (general laws, 1915, ch. 117). The following is a synopsis of the main provisions of the law:

Four ways are provided by which library privileges may be secured: (1) A separate county free library may be established at the county seat; (2) any incorporated city or town maintaining a library may become a part of the county free library system; (3) a county free library of one county may extend its privileges to another county that has no county library; (4) a free public library of any incorporated town or city may assume the functions of a county library.

When petitioned so to do by 25 per cent or more of the qualified voters of that part of a county which is to be affected, the commissioners' court shall order an election. If a two-thirds vote in this election is favorable, the commissioners' court shall proceed to establish and provide for the maintenance of a county free library. Under methods 2, 3, and 4 above, the commissioners' court of any and all counties, and all library boards, are authorized to enter into contracts, deciding upon their own terms.

A tax not to exceed 6 mills on the $100 valuation must be levied upon all property outside of incorporated cities and towns maintain-

ing free public libraries, and upon all property within incorporated cities and towns which have elected to become a part of such county free library system.

In the million-dollar appropriation bill for Texas rural schools there is a clause requiring that each school receiving aid from this appropriation shall be provided with "such library, books, maps, and globes as recommended in the State course of study."

Added appropriations in 1915 are $1,500 for a legislative reference librarian and $500 for conducting legislative work.

Utah.—Chapter 109 of the laws of Utah, 1915, provides:

> The State board of education shall also promote the establishment of libraries and gymnasiums throughout the State, and shall have power to appoint a secretary, who shall work under the direction of the State superintendent of public instruction.

West Virginia.—Chapter 64 of the Laws of West Virginia, 1915, authorizes incorporated cities and towns, and also counties and school districts, to establish public libraries and reading rooms supported by taxation, and to appoint library boards for their management.

Washington.—By an act of 1915 the Legislature of the State of Washington extended the operation of its public library law to cities of the fourth class, or incorporated towns. (Ch. 12, laws of 1915.)

Wisconsin.—The appropriation for the general work of the Wisconsin free library commission was reduced by the 1915 legislature from $34,085 to $32,000.

Wyoming.—The Legislature of Wyoming, in chapter 24 of its session laws of 1915, raised the maximum limit of the annual county library tax which a board of county commissioners is authorized to levy to one-half of 1 mill on the dollar, from the previous limit of one-fourth mill.

PUBLIC-LIBRARY EXTENSION.

The following is a summary by States of the number of public libraries established and of public library buildings erected during the past year, so far as reported to the Bureau of Education:

NEW PUBLIC LIBRARIES, 1914–15.

Alabama, 1; California,[1] 4; Colorado, 9; Connecticut, 3; Georgia, 4; Illinois, 3; Indiana, 14; Iowa, 7; Kansas, 7; Kentucky, 7; Maine, 3; Minnesota, 6; Missouri, 2; Nebraska, 7; New Jersey, 17; New York,[2] 16; North Carolina, 4; North Dakota, 7; Pennsylvania, 8; Rhode Island, 2; South Dakota, 3; Tennessee, 1; Texas, 7; Utah, 2; Washington, 2; Wisconsin, 2; Wyoming, 2.

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[1] Also 490 branch libraries.

[2] Also 8 branch libraries.

NEW LIBRARY BUILDINGS, 1914–15.

California, 21; Colorado, 2; Georgia, 4; Illinois, 6; Indiana, 12; Iowa, 3; Kansas, 3; Kentucky, 4; Maine, 2; Massachusetts, 7; Minnesota, 5; Missouri, 3; Nebraska, 4; New Jersey, 5; New York, 13; North Carolina, 2; North Dakota, 1; Ohio, 4; Rhode Island, 1; South Dakota, 2; Tennessee, 1; Texas, 5; Utah, 5; Washington, 1; Wisconsin, 2; Wyoming, 2.

COUNTY LIBRARY SYSTEMS.

Montana and Texas enacted county-library laws at their 1915 legislative sessions, and, while arrangements have not yet been completed in either State for establishing libraries, seven counties in Montana are already circulating petitions under the new act. The West Virginia Legislature passed a law authorizing municipalities, under which term counties are included, to establish and maintain public libraries. In other States already having appropriate legislation the organization of new county libraries continued during the year, with especially marked gains in California and Wyoming, where county extension now prevails in a majority of the counties. Notable progress was also made in Oregon.[1]

General laws under which counties may establish and maintain libraries, or contract for county service with libraries already existing, are now in force in 16 States. These States, with the year of enactment, are: California (1909); Iowa (1913); Louisiana, for parish libraries (1910); Maryland (1898); Minnesota (1905); Missouri (1909); Montana (1915); Nebraska (1911); New York (1911); Ohio (1898); Oregon (1911); Texas (1915); Washington (1901); West Virginia (1915); Wisconsin (1901); Wyoming (1899). In 6 of these 16 States county libraries organized under State-wide legislation are in operation, the number in each case being as follows: California, 33; Minnesota, 9; Ohio, 6; Oregon, 5; Washington, 1; Wyoming, 14. A seventh State is Wisconsin, with 15 county traveling library systems, organized under its county library law.

The county free-library system has been more widely extended in California than in any other State. By October 1, 1915, the system had been adopted by 33 out of the 58 counties in the State, namely, Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lassen, Los Angeles, Madera, Merced, Modoc, Monterey, Plumas, Riverside, Sacramento, San Bernardino, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Siskiyou, Solano, Stanislaus, Tulare, Ventura, Yolo. The total number of county free libraries in operation in California grew from 22 on July 1, 1914, to 26 on June 30, 1915,

[1] The prospect for the passage of a law permitting the establishment of county libraries in Indiana is considered good, and similar laws are proposed in Illinois, Pennsylvania, South Carolina, and other States.

and by October 1, 1915, the number had increased to 30, with 3 others established and soon to be opened. Of the total area in the State of 158,297 square miles, the equivalent of 104,958 square miles is now covered by the county system, and 1,601,887 of the 2,377,549 persons in the State are within reach of the service. The California county library is also coming into closer touch with the people through the multiplication of its branches. On July 1, 1914, there were 752 branches in connection with the county free libraries, and on June 30, 1915, there were 1,226 branches. The people of counties that have adopted the county free-library service are enthusiastic over its effectiveness.

The California State library at Sacramento assists in the county free library work by supplying advice and encouragement, and by freely lending its books to the county libraries. A county free library organizer is sent out to explain the law to those desiring information regarding it. On January 1, 1915, a school library organizer was also added to the staff, whose duty is to explain to school superintendents and trustees, teachers, and any one else interested, the benefits a school district receives by joining the county free library.

The Iowa law provides that a town, township, school corporation, or county may contract with a public library in a near-by town for the free use of its books. County extension is not in operation, but 14 town and city libraries are at present lending books to one or more outside towns or townships, which in turn contribute to the support of these libraries by means of tax levies.

There are no libraries in Maryland organized under its general county library law, but at Hagerstown, in that State, is located the Washington County free library, established by a special legislative act in 1901, and receiving support from both city and county. The Frederick County free library, which was opened in 1914 at Frederick, Md., is not supported by public funds.

The nine county libraries now in operation in Minnesota are located in Anoka, Clay, Hennepin, Itasca, Lake, Meeker, Olmstead, Steele, and Washington Counties.

Nothing has yet been accomplished under the provisions of the county library law of New York State. The principal difficulty in the way of arranging for county library service under this general law seems to arise from its requirement that the property of any city or town now maintaining a library be taxed a second time if a contract for the outside districts is made. This obstacle was found insuperable in a recent test case in Broome County, where county service from the city library of Binghamton was desired. A remedy may possibly be found in so amending the law as to exempt from

taxation for this purpose all property already paying a library tax, as is done in California, Nebraska, and other States.

In addition to the six county libraries in Ohio organized under general enactment, located in Erie, Green, Paulding, Richland, Ross, and Van Wert Counties, there is the Hamilton County library at Cincinnati, established under a special law of 1898 applying to only two counties in the State—Hamilton and Cuyahoga.

In Oregon the county library system has been adopted by five counties—Multnomah, Wasco, Hood River, Umatilla, and Klamath. Many other counties are considering the system, which is recommended by the Oregon State library as the best method of making books available to the rural population.

The library of Thurston County is the only county library at present reported from the State of Washington.

In Wyoming, out of a total of 21 counties, county libraries are located at the county seats of 14, namely, Albany, Big Horn, Carbon, Converse, Fremont, Johnson, Laramie, Natrona, Park, Platte, Sheridan, Sweetwater, Uinta, and Weston Counties. Five of these libraries send out boxes of books in the form of traveling libraries to rural districts.

Indiana has no modern law under which county libraries may be established and operated. At Indianapolis is the Marion County library, organized under an old act of 1852, according to which it may receive not more than $75 from the county annually. The public library of Bedford accords its privileges to the citizens of Lawrence County, which contributes to the support of the library. At Evansville is an old county library, rarely used, belonging to Vanderburg County. No one of these libraries does extension work.

Rural extension of libraries in Indiana, in recent years, has been effected chiefly through the township as a unit. Of the 1,017 townships in Indiana 91 now enjoy library privileges extended by 86 libraries. In view of the fact that less than 10 per cent of the rural inhabitants of Indiana have free access to a public library, a vigorous movement is now under way looking to further extension of libraries by means of the township plan, as well as by the passage of a law permitting the establishment of county libraries wherever desired in the State.

In North Carolina four libraries are serving the rural inhabitants of their respective counties, which in turn are giving the libraries financial aid. These four libraries are the public library of Salisbury, Rowan County; the Good Will Free Library of Ledger, Mitchell County; the public library of Durham, Durham County; and the public library of Greensboro, Guilford County. The last-named county has appropriated $1,250 for one year toward the sup-

port of the Greensboro public library, in order that the full privileges of the library may be extended to all white citizens of the county. In addition to loans made directly from the library in Greensboro, six regular stations have been established in the county. This is the greatest advance in rural library extension so far made by any county in North Carolina.

Attention in this chapter has so far been directed to county libraries which receive financial support or aid, either by taxation or appropriation, from their respective counties. In addition to libraries of this class, there are also city and town libraries that are free to the inhabitants of the respective counties, though having no official recognition from the county government.

The Warren County library at Monmouth, Ill., receives no tax support from the county, but different portions of it appropriate sums in order to obtain library privileges. It is the only county library in the State, and is an endowed institution.

The Willard Library at Evansville, Ind., is an endowed library, supported by the income from invested funds and a small appropriation from the Evansville city council. According to the terms of the endowment, it is free to the residents of Vanderburg County.

No library has yet been organized in Missouri under the provisions of the county library law. The Jewett Norris Library, of Trenton, is an endowed institution, free to the residents of Grundy County, in which it is located.

In New York State are two endowed libraries, not under county management nor receiving county support, but which by the terms of their charters are free to the residents of their counties. These are the library of the Cornell Library Association, in Ithaca, Tompkins County, and the Wadsworth Library, in Geneseo, Livingston County. The second of these sends books to delivery stations, schools, and clubs in various parts of the county.

To recapitulate, the county library system is officially recognized in the United States by a total of 91 counties, which either maintain county libraries or contract with city or town libraries to render county service. These 91 counties are distributed as follows: California, 33; Indiana, 2; Maryland, 1; Minnesota, 9; North Carolina, 4; Ohio, 7; Oregon, 5; Washington, 1; Wisconsin, 15 (traveling library systems); Wyoming, 14. In addition to these, the residents of a certain number of counties situated in various States are allowed the free use of city or town libraries located in their counties, without contributing to the support of these libraries.

STATE-WIDE USE OF UNIVERSITY LIBRARIES.

The university library naturally has its part to perform in realizing the new conception of the function of a State university, that it is to serve the people of the entire State. The first duty of a university library is to the university community, but without interfering with its obligations to its immediate constituency, the library has many opportunities to serve the people of the State at large by lending books, pamphlets, and periodicals; by compiling bibliographies, and by supplying information which may be obtained from publications on file in the library or from specialists in the university faculty. This service is regularly rendered by the library in close cooperation with the extension division of the university.

In States having no library commissions, as Montana, Oklahoma, and Wyoming, the State university library properly exercises some of the functions usually belonging to a State library commission, such as assistance in organizing public libraries, the provision of traveling libraries, etc. It may be remarked here that care needs to be taken to coordinate the extension work of the State university library with the activities of the State library commission, or State library, in cases where one or both of the latter exist alongside of the former.

The requests from citizens at large for assistance from the State university library are steadily increasing in volume in a number of States, and if the service is to keep pace with the demand, more books and an enlarged library staff will be required. Some typical examples of wider service rendered by State university libraries during the past year are presented in the following brief reports:

University of California.—In every way possible, the library of the University of California endeavors to meet the needs of serious individual workers throughout the State of California. Books are not loaned directly to individuals, but through the local library. During 1914–15 the library made 189 loans, comprising 387 volumes, many of which were sent to libraries in Nevada, Washington, Oregon, New Mexico, and Texas. The borrowing library is required to pay transportation charges both ways, and is usually allowed to retain the loan for 30 days. The University of California library also undertakes to answer inquiries, supplies reference lists, and sometimes sends copies of brief extracts, all without charge. The library is free for reference, and there is a constantly increasing use of it for this purpose by residents of San Francisco, Oakland, and Berkeley.

Indiana University.—The Indiana University library sends out, as interlibrary loans, any nonperiodical material requested, provided it is not needed for class use. Such books may be kept for two weeks, the borrower paying transportation charges both ways. Brief bibli-

ographies are prepared on request. The use of the library by borrowers throughout the State is increasing steadily.

University of Minnesota.—The library of the University of Minnesota makes every effort to serve the citizens of the State, outside of the university community, so far as this can be done with justice to its local constituency. Many requests for information and assistance are received both by mail and telephone. The library usually lends its books through the borrower's home library, but if this method is impracticable, will lend directly to individuals of certified reliability. The volume of this outside work is large and constantly increasing.

University of Montana.—The library of the University of Montana gives free help to communities in organizing the county libraries provided for by the new State library law of 1915.

As a part of the State educational system, the university library is glad to extend all possible assistance to the high schools of Montana. Under reasonable regulations, books and pamphlets are loaned upon request, and where this can not be done, reference lists or suggestions regarding sources of information are supplied.

The university library is forming, in a tentative way, a series of package libraries on civic, political, and social subjects, to which additions will be made as rapidly as possible. As at present constituted, these libraries consist mainly of clippings from metropolitan newspapers. Magazines containing related material are in some cases lent by the university. Borrowers pay the postage on these package libraries.

The University of Montana library also cooperates with the bureau of public information of the extension division of the university.

University of North Carolina.—The library of the University of North Carolina serves the State in three ways: (1) By preparing reference lists and bibliographies for inquirers; (2) by giving, through letter, answers to specific questions; and (3) by loaning books and pamphlets from its collection and bulletins prepared by the bureau of extension of the university.

Books and pamphlets are loaned for use in special studies and investigation, as for debating purposes, and may be kept for three weeks. No charge is made for any of this service, except that the postage on the packages is paid by the borrower.

The service during the year 1914–15 comprised the sending of 1,045 letters and 1,196 books and pamphlets. The librarian of the university reports that no service which the library has rendered has been more fruitful, and certainly none has been more genuinely appreciated.

University of North Dakota.—The University of North Dakota library is not only filling the regular demands made upon it by the

university community, but is daily meeting specific and real needs of the people out in the State. During the year 1914–15 the library served directly 147 towns in the State; 312 requests were received, in response to which 987 books, periodicals, and pamphlets were sent out, in addition to many bibliographies and letters. A comparison with earlier statistics of this work shows a marked increase in 1914–15 over previous years. The correspondence on file shows that the university library serves in this way bankers, business men, editors, lawyers, librarians, ministers, school superintendents, school principals, teachers, and high-school students.

The library is officially recognized by the university authorities as a very definite and essential part of the extension organization of the institution, in that it acts as a bureau of general information, sends out books, pamphlets, periodicals, and documents, compiles bibliographies, and refers the inquiries it receives demanding expert and technical knowledge to the proper men on the faculty.[1]

University of Oklahoma.—The University of Oklahoma sends out rural traveling libraries which supplement the bulletins of the university extension division, on the various subjects treated by them. In order to make these collections of value to the entire community, many other topics have been added, covering a wide range of information and interest. These libraries are 45 in number, containing 12 to 15 books each, and are lent free of charge to any community or rural school for a period not exceeding four weeks.

University of Oregon.—During the year ending September 30, 1915, the University of Oregon library sent by parcel post to persons outside of Eugene 473 packages of books, pamphlets, and periodicals. Of these packages, 186 were sent to schools and teachers, 73 to public libraries, 71 to ministers, and 31 to students. The library will send to any responsible citizen any books that can be spared, to be kept for one month, the borrower paying transportation charges both ways.

A special effort was made to serve the ministers of the State. Interdenominational conferences of ministers are held at the university each summer, and the resources of the library are brought to the attention of those in attendance. Monthly lists of books added to the library are mailed to persons requesting them.

Duplicate copies of text editions of some of the English classics were loaned to a number of schools.

The library staff also does its best to answer inquiries from any persons wishing information of various kinds that can be briefly given, and for this purpose keeps in close touch with the members of the university faculty.

[1] For a fuller account, see State-wide Use of the University Library, by Clarence W. Sumner, Quarterly Journal of the University of North Dakota, 6: 60–64, Oct., 1915.

University of Texas.—The people of Texas are calling on the State university library more and more each year for the loan of books. The university is supplying schools and clubs throughout the State with materials for papers, discussions, and debates.

A resident of Austin, or of any part of the State, may enjoy the privilege of regularly drawing books from the University of Texas library by making a deposit of $5 with the university auditor. This amount is returned to the borrower upon his surrender of the privilege of using the library.

University of Utah.—Citizens of Utah in general may use the library at any time for reference, and may borrow books which can be spared, provided the book desired is not to be found in the local public library. Borrowers pay the transportation charges both ways.

University of Washington.—The library of the University of Washington lends individual books to anyone in the State, if the book requested is available for circulation and is not needed immediately in the university. Books are lent through the local library if practicable, or if not, directly to the individual. No guaranty is required.

From August 1, 1914, to August 1, 1915, outside loans from the University of Washington library amounted to 452 books and 458 pamphlets and magazine articles.

During the same period the bureau of debate and discussion of the extension division of the university sent out 22,084 items, including pamphlets, magazine articles, and books. Some of these were in packages containing a number of items upon the same subject; others were individual loans. Additional statistics are as follows: Number of packages sent out, 1,184; number of centers served, 202; number of subjects covered, 149; bibliographies prepared, 6.

University of Wisconsin.—Speaking of the university library and the State historical library, the librarian of the University of Wisconsin says, in his report to the board of regents for the biennial period ending June 30, 1914, page 317:

> Both libraries are especially glad to be of service to the college and public libraries of Wisconsin, and these libraries apply to us frequently for the loan of books and for bibliographical assistance. The university library and the State historical library cooperate freely with the department of debating and public discussion of the university extension division and with the Wisconsin free library commission in this matter of loans to libraries and schools in the State. Our feeling is that where books, not in immediate demand, can be of service to residents of the State outside of Madison, it is in accord with the general policy and aim of the university to make them available.

University of Wyoming.—The library of the University of Wyoming lends books, when consistent with the regular needs of the university, merely on prepayment of express charges. Questions on

historical, economic, literary, scientific, technical, or practical subjects are answered freely.

Traveling libraries containing 20 to 25 volumes are sent by the University of Wyoming library to any part of the State free of cost except for transportation charges. The list of books in each library covers a variety of subjects—fiction, history, biography, science, travel, and children's literature. These collections circulate in every part of the State and are transported by any convenient method—parcel post, horseback, stage, automobile, wagon, freight, or express. The libraries are very popular and the demand for them exceeds the supply of books and boxes.

LIBRARY SERVICE TO IMMIGRANTS.

The public library continues to be an important adjunct in the work of Americanizing the foreign-born population settled in great numbers in many parts of the country, especially in the large cities. Standard reading matter in their own languages is also supplied to the mature immigrants who can not be expected to gain a command of English. This service is rendered both by the State libraries and library commissions, and by city and other local libraries. There is a growing recognition of the importance of this work, and its scope is being extended and its efficiency increased by the adoption of improved methods and equipment. Some of the more notable examples of library work for foreigners during the past year are the following:

The Massachusetts free public library commission has a director in charge of work with foreigners. Last year 83 traveling libraries in 17 foreign languages and in simple English were sent to 56 towns in the State. Nineteen lists in nine foreign languages were prepared for 12 towns expecting to purchase books for their foreign population. The director spoke at nine meetings and made 24 visits to libraries in furthering the work with foreigners. Many local librarians have cheerfully assumed the additional burden of work involved in providing books for foreigners, and satisfactory results from the work are reported in nearly all cases. In addition to their strictly professional services, one librarian was instrumental in securing funds to start an evening class in English for Polish mill operatives, and another librarian started a club for Greek girls, with activities in both social and industrial lines.

The Connecticut public library committee reports that during 1913–14 five traveling libraries in Italian, Polish, Hungarian, and French were loaned seven times, with a total circulation of 527. In 57 libraries in the State, books representing 14 modern languages are available.

The Minnesota public library commission circulates traveling libraries in Finnish, French, German, Norwegian, Polish, and Swedish. Occasional requests are received for Italian and Dutch books. The needs of foreign readers in Minnesota are receiving increased local attention, especially from the libraries on the Iron Range, where there is great demand for books in many languages. These libraries are cooperating in this work through an exchange of books and in preparation of lists. One library in this region, in addition to supplying books in foreign languages, prepared a list of books in simple English for new Americans. A Bohemian library association was organized at Hopkins to place Bohemian books in the public library.

In Nebraska the State library commission sends out traveling libraries in German and in Bohemian, and foreign books are also supplied by many public libraries.

The Wisconsin free library commission sends out to libraries and elsewhere groups of books in various languages—German, Norwegian, Swedish, Bohemian, Danish, Polish, Finnish, Italian, Yiddish.

The California State Library is undertaking to meet the needs of the State for foreign books, which are loaned through the county free libraries. Books are supplied in French, German, Portuguese, Spanish, Italian, Russian, and Swedish.

The Boston Public Library has recently acquired collections of books in Polish, Swedish, Yiddish, and Italian, the Yiddish and Italian collections being principally translations from English works adapted to the needs of the North End branch. The foreign population is served chiefly through the branches. One branch custodian reported that more than 12 different races were represented in the new borrowers of the year. There is a strong demand for readers for foreigners and for books in easy English for use by the immigrants.

The foreign department of the Providence Public Library, which is in charge of a special custodian, contains 6,742 volumes. In this collection 19 foreign languages are represented, some far more fully than others. There are also 131 volumes in English, for the most part manuals intended to teach a foreign reader the language, customs, government, etc., of the United States. The circulation in this single department was 14,195, while in addition 571 volumes in foreign languages were circulated from the branches, deliveries, etc. A series of lectures for foreigners was given in the library building under the direction of the immigrant educational bureau.

During 1914 the circulation department of the New York Public Library issued 649,727 volumes in foreign languages. The languages represented, arranged in a list according to the volume of circulation

in each, decreasing in order from the largest number of volumes to the least, were as follows: German, Yiddish, Russian, Hungarian, French, Italian, Bohemian, Polish, Hebrew, Spanish, Roumanian, Swedish, Modern Greek. Besides the languages just named, there was contained in the total number of volumes reported a minor group of 12 additional modern languages.

The Buffalo, N. Y., Public Library emphasizes the use of the library by the immigrant population as a most important service which it is able to render the community in the constructive work toward better citizenship. The branch libraries in Buffalo come into contact with people from most of the European countries, many of whom do not speak or read English. The two largest groups are from Poland and Italy. Last year the library issued two small handbooks entitled "Books for Poles in America," and "Books for Italians in America," which call attention to the public library and give brief lists of appropriate books. The fact that it was necessary to increase the stock of Polish and Italian books is an indication of the extent of their use.

Branch 4 of the free public library of Newark, N. J., is its "foreign branch." Here the library has books in the languages of the many foreign people who live in that part of the city—German, Yiddish, Polish, Russian, Ruthenian, and Italian. This branch library numbers 10,000 volumes, and made last year 170,651 loans.

The Carnegie Library of Homestead, Pa., maintains an educational department which offers instruction in mechanical drawing, common and higher branches, and English for foreigners. The foreign-English class was attended in 1914 by 55 students. The library circulated Slovak, Hungarian, Polish, Italian, French, German, and Lithuanian books among the foreign employees of the Homestead steel works. The library building also contains a music hall, club rooms, a gymnasium, and baths.

A "free library" was started in 1912 in the home of Mrs. Paul Kreuzpointner, at Altoona, Pa., beginning with 10 books in the summer kitchen of the house and 4 members. The location is in a section of the city inhabited by workingmen, many of whom are foreigners. The library was popular from the first, and its membership has now increased to over 500. Supplementing the original library there are now five branches—a Polish branch, an Italian branch, a Negro branch, a Broad Avenue branch, and a small branch for messenger boys at the Western Union Telegraph office. The Polish and Italian branches contain books in Polish and in Italian as well as in English. The total number of volumes in use is 1,764. Funds for the library are chiefly derived from the membership dues of 25 cents per year of the Altoona free library association, which has

120 members. Donations of books and magazines are also received from various sources.

The Cleveland, Ohio, Public Library endeavors to provide good books for adult immigrants from other than English-speaking countries in the appropriate languages. These books include general reading, together with works on American history, biography, and institutions, preparation for naturalization and citizenship, and the study of English. The collection now has books in 22 languages other than English, is very largely used, and is reported by the librarian to be entirely inadequate for the growing demand. The foreign division of the library has charge of this material and also attends to the books in English for foreigners, which include textbooks, readers, books on civics, and a collection of easy and interesting books for reading and study.

At the Chicago Public Library, in order that readers of books in foreign languages might have the same privileges of inspection and examination as those enjoyed by patrons of the open shelves, a number of alcoves were set aside last year for the accommodation of groups of books in the various continental European tongues to the number of some 15,000 volumes. It was impossible to transfer the entire foreign collection to the new quarters, but a division was made by placing the most recent works on the new shelves in what is now called the foreign room and leaving the older works in their former location in the stacks. Thus, about one-fifth of all the German books, comprising the accessions of the past 10 years, were sent to the new room, and relatively similar allotments of French, Bohemian, Polish, and Scandinavian books were included. In other languages, with smaller collections, it was possible to find room for all the books. In this latter division are the books in Italian, Spanish, Russian, Yiddish, Lettish, Lithuanian, Hungarian, and Dutch. The establishment of this open-shelf book room has doubled the library's previous circulation of books in foreign languages.

Of periodicals in foreign languages, the St. Louis Public Library receives 65 German, 24 French, 6 Polish, 20 Bohemian, 3 Danish, 5 Hungarian, 8 Italian, 5 Spanish, 3 Croatian, 11 Yiddish, and 1 each in Arabic, Swedish, Lithuanian, and Russian. The branches report extensive use of their books by foreign readers during the past year. The Crunden branch has a very good Yiddish collection, and a demand for Italian books has made itself felt. The foreign issue at the Soulard branch amounted to 29 per cent of the total annual circulation. Of the 13 languages issued, the largest use was in German, Bohemian, and Hungarian. During the year purchases were made in Servian, Croatian, Slovak, modern Greek, and Ruthenian, and the services of the foreign papers, the clergy, and men prominent in

various activities were enlisted in giving publicity to this branch of the work.

Work with foreigners on the Pacific coast presents problems somewhat different from those arising in the East or Middle West. The Seattle Public Library bases its ministrations to these people on information obtained by a survey of their numbers, their neighborhoods, their clubs, their newspapers, and their special activities. The chief nationalities represented in the foreign population of Seattle were found to be Greek, Italians, Croatians, Japanese, Scandinavians, and Germans. The knowledge gained in the preliminary survey was of great assistance to the library in selecting books for these people, and in acquainting them with the English language and American institutions. In many cases the library staff came into very close personal touch with the foreign pupils in the city night schools through the cooperation of their teachers.

LIBRARY EXHIBITS AT THE PANAMA-PACIFIC EXPOSITION.

Libraries and their services to the community were well represented at the Panama-Pacific Exposition by various exhibits, of which the following were especially noteworthy:

In the Palace of Education a comprehensive display made by the American library association illustrated many lines of library activity by means of photographs, plans, publications, blanks, forms, etc. The principal headings under which this material was arranged were as follows:

1. Library work with children, including relations of public library and school, and school libraries.
2. Public libraries—their civic and social services, including municipal reference and provision for blind and other special classes; their art and music work, and aid to industry, exemplified by two typical cities, Los Angeles and Cleveland.
3. Service of library commissions, State libraries, and county libraries, to the rural population, by means of traveling libraries and other forms of extension.
4. Special libraries, including business, factory, engineering, and legislative reference libraries; college and university libraries.
5. Library publicity, by means of motion pictures, newspaper articles, reading lists, circulars, bulletins, etc.
6. Technique of library work.
7. Professional training for library work.

The California State library and California library association joined their exhibits with those of the American Library Association, the most conspicuous California display being a map of the State 40 feet square, showing the present condition of its county library

system. Moving pictures of library work in the State were also shown in the hall of the California school exhibit.

The exhibit of the United States Bureau of Education included a set of its own publications, a 6-foot shelf of books for a home reading course, a rural school library for California, and a representative collection of American college annuals; also statistical charts showing recent library progress in the United States and the advantages of county libraries.

Rare books, manuscripts, maps, and newspapers relating to the early history of the Pacific coast and of Spanish America were important features of the Library of Congress exhibit, located in the Palace of Liberal Arts. Other noteworthy parts of the exhibit came from the catalogue division of the library, the card section, and the divisions of bibliography and music. Statistical charts of American library progress were also shown.

Among the State exhibits in the Palace of Education, that of Wisconsin gave especial prominence to school libraries. It included photographs of typical high-school and rural-school library rooms in various parts of the State, and charts containing school library laws and statistics. A typical rural-school library of about 200 volumes was another feature. A public library survey of Oshkosh showed the distribution of adult and child borrowers by means of black and red tacks, respectively, each tack standing for a house.

The Oregon school exhibit in the Palace of Education included charts showing the work of the Oregon State library and of school libraries in the State.

New York displayed a relief map of the State showing the location of its various educational institutions, including the public libraries, by means of small, different-colored electric lamps.

In the California State building were a number of special exhibits of free county libraries, including those of Contra Costa, Solano, and Yolo Counties.

Moving pictures and lantern slides of libraries were shown in the Massachusetts building. The Missouri building contained a special library of Missouri authors.

The exhibit of the library of the Philippine Islands, Manila, in the Philippine Islands building, consisted of about 1,300 volumes covering the history of the islands from 1585 to 1785. In addition there was a collection of more recent literature relating to the islands and about 100 volumes illustrating the work of the native bookbinder.

MEETINGS OF ASSOCIATIONS.

AMERICAN LIBRARY ASSOCIATION.

The thirty-seventh annual meeting of the American Library Association was held at Berkeley, Cal., June 3–9, 1915. Out of a total registry of 750 persons two-thirds were in attendance at each of the general sessions, and the special meetings also were well attended, notwithstanding the difficulties of location and the counterattraction of the Panama-Pacific Exposition. The presiding officer of the conference was Hiller C. Wellman, librarian of the Springfield (Mass.) Public Library, president of the association for 1914–15. His presidential address reviewed the development of library work into the manifold features of to-day, and raised the question whether all of these were properly within the province of the library. Papers were presented by Henry W. Kent, secretary of the Metropolitan Museum of Art, on "The book," and by T. M. Cleland, of New York, on "The fine art of printing." Everett R. Perry, librarian of the Los Angeles Public Library, spoke on "Bulletins and library printing." The address of Herbert Putnam, Librarian of Congress, entitled "Per contra," stated and reviewed the arguments against certain tendencies of the modern library. answering the objections effectively. R. R. Bowker, of New York, addressed the conference on "The function of the public library," which he said must be responsive to and measured by the needs of its community environment. "New features in library architecture," illustrated by lantern slides, was presented by Chalmers Hadley, librarian of the Denver Public Library. In a paper on "The child in the school and in the library," Willis H. Kerr, librarian of the Kansas State Normal School at Emporia, maintained that the library should do nothing that can be done by the school, but is a no less important factor in education. George F. Bowerman, librarian of the Public Library of the District of Columbia, discussed "How far should the library aid the peace movement and similar propaganda?"

The various sections of the association and the affiliated organizations also held proceedings which were interesting and well attended. Among them was the recently established school libraries section, which discussed various problems of school library management and listened to reports of progress.

The officers elected for 1915–16 were as follows: President, Mary W. Plummer, director Library School of the New York Public Library; first vice president, Walter L. Brown, librarian of Public Library, Buffalo, N. Y.; second vice president, Chalmers Hadley, librarian of Public Library, Denver, Colo.

NATIONAL EDUCATION ASSOCIATION, LIBRARY DEPARTMENT.

The departmental congress on libraries of the fifty-third annual convention of the National Education Association and Third International Congress on Education, met at Oakland, Cal., August 24, 1915, with Harriet A. Wood, of Portland, Oreg., in the chair. The proceedings brought out many facts regarding library procedure in elementary, high, and normal schools, which were stimulating and helpful to those in attendance. Reports were made by departmental committees on rural-school libraries, elementary-school libraries, high-school libraries, and normal-school libraries, and by the National Education Association and American Library Association committees on standardization of the course of study in library instruction in normal schools. These reports showed encouraging progress during the past year. Ella S. Morgan, librarian of Lincoln High School, Los Angeles, Cal., presented a paper on "High-School Library Progress in California," in which she compared conditions in 1903, when the first high school librarian was appointed, with those of the present day. During this period 70,997 volumes in 143 high schools have increased to more than 340,000 volumes in 255 schools, with a corresponding improvement in equipment and methods of administration. There are now 33 high-school libraries in California which have trained librarians. At the evening session Edward O. Sisson, commissioner of education for Idaho, spoke on "Books and Education," and Bernard C. Steiner, librarian of the Enoch Pratt Free Library, Baltimore, Md., read a paper on "The Library as a Continuation School." John D. Wolcott, of the United States Bureau of Education library, gave a survey, illustrated with stereopticon slides, of progressive high-school libraries in the United States.

An exhibit illustrating the equipment and operation of high-school libraries, with special reference to California conditions, occupied a room in the Oakland municipal auditorium during the convention of the National Education Association and attracted much attention from those interested in the subject. In addition to photographs, plans, pictures, forms, pamphlets, etc., the exhibit comprised a collection of handsome editions of standard books suitable for inclusion in school libraries.

SOUTHERN CONFERENCE FOR EDUCATION AND INDUSTRY.

A significant organized movement for better high-school libraries in the South was inaugurated by the library conference at the meeting of the Southern Conference for Education and Industry at Chattanooga, Tenn., in April, 1915. This consisted in the appointment of a committee on high-school libraries, of which C. C. Certain,

of the Central High School, Birmingham, Ala., is chairman, and J. L. McBrien, school extension agent in the Bureau of Education, secretary. The general membership of the committee is divided into two sections dealing with city and rural high schools, respectively, each section consisting of representatives for various groups of Southern States. A plan of work was mapped out for the committee to follow during the coming year.

OTHER MEETINGS.

The Twenty Seventh Educational Conference of the Academies and High Schools in Relation with the University of Chicago was held April 16, 1915, with "The relation of the organized library to the school" as the central theme for discussion. About 1,000 teachers were in attendance. The program was prepared under the direction of the librarian of the University School of Education, Miss Irene Warren. A large number of prominent librarians from the Mississippi valley participated in the conference, among whom were Arthur E. Bostwick, W. D. Johnston, Henry E. Legler, Carl B. Roden, George B. Utley, M. S. Dudgeon, Samuel H. Ranck, Mary J. Booth, and May Massee.

A library conference under the auspices of the Wisconsin free library commission was held at Madison, Wis., July 22–30, 1915. "The librarian and the book" was the central theme of the conference, which was attended by 175 persons, representing 14 States, including one or more delegates each from 49 Wisconsin libraries. Many librarians of prominence in the Middle West took part in the program, and keen interest was manifested in the discussion of the various topics presented.

RECENT BOOKS ON LIBRARY ADMINISTRATION AND TECHNIQUE.

A number of notable books appeared during 1914–15, dealing with library administration and history, and library science and technique, from which the following may be selected for special mention:

The County Library. The Pioneer County Library (the Brumback Library of Van Wert County, Ohio), and the County Library Movement in the United States, by Saida Brumback Antrim and Ernest Irving Antrim, with an introduction by P. P. Claxton.[1]

The Relationship Between the Library and the Public School. Reprints of papers and addresses, ed. by Arthur E. Bostwick.[2]

State and County Educational Reorganization. The Revised Constitution and School Code of the State of Osceola, by Ellwood P. Cubberley.[3]

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[1] Van Wert, Ohio, The Pioneer press [1914] xiv, 306 p.

[2] White Plains, N. Y., and New York City, The H. W. Wilson company, 1914. 331 p. 12°.

[3] New York, The Macmillan company, 1914. xx, 257 p. 8°.

This book presents a plan for educational reorganization which Prof. Cubberley has worked out in the form of a school code and constitution for a hypothetical State called Osceola. The plan recognizes the library as an important adjunct of the school, and undertakes to bring the librarian and teacher into cooperation. It makes the State library one of the branches or bureaus of the State department of education. The county is made the unit of school administration, with central schoolhouses as centers of the community life, not only for teaching but also provided with an auditorium and a branch library in each. All such schools outside of incorporated cities are to come under the single control of a county board of education. The library of the county also is to be under the control of this county board of education, which will appoint a county librarian, to be certified by the State and nominated by the county superintendent of education. There are to be branch librarians, who also must hold State certificates in library work. One county library is to be established in each county, and in each community center a branch library containing a duplicate card catalogue of the entire county collection, so that the branches may borrow books from the county library at the county seat and through it from the State library. The school libraries are made part of the county library system, and the purchase and distribution of all their books is intrusted to the county library, which in turn is controlled by the county board of education. In cities the library is placed under the city board of education, according to the system now in vogue in a few American cities. There is thus throughout in this school system of the State of Osceola a very close coordination of library and school. The board of supervisors, school trustees, and so-called political officials are eliminated from educational affairs by the plan. The author presents this outline as a good scheme for securing effective organization and states that its successful operation would depend upon the character and ability of the men intrusted with its management.

Among the new publications issued by the American Library Association publishing board were the following chapters of its Manual of Library Economy:

Chap. 3. State libraries, by J. I. Wyer, jr.
Chap. 7. High-school libraries, by Gilbert O. Ward.
Chap. 8. Special libraries, by Richard H. Johnston.
Chap. 16. Book selection, by Elva L. Bascom.
Chap. 23. Government documents (city and State), by J. I. Wyer, jr.

The board also published a supplement, 1900–1910, to the A. L. A. Index to general literature, and a revised and enlarged edition of Theresa M. Hitchler's "Cataloging for small libraries."

Elementary and advanced manuals for teaching the use of books and libraries are now available as follows:

Lessons on the use of the school library for rural schools, State graded schools, village and city grades; also for use in high schools in the giving of such library instruction outlined as has not been given in the grades. Prepared by O. S. Rice, supervisor of school libraries; issued by C. P. Cary, State superintendent. Madison, Wis., 1915. 135 p. 8°.

The practical use of books and libraries; an elementary manual; by Gilbert O. Ward. 2d ed., rev. and enl. Boston, Mass., The Boston book company, 1914. 104 p. 8°.

Instruction in the use of books and libraries; a textbook for normal schools and colleges; by Lucy E. Fay and Anne T. Eaton. Boston, Mass., The Boston book company, 1915. 449 p. 8°.

Bulletin 1915, No. 6, of the United States Bureau of Education, A study of the colleges and high schools in the North Central Association, contains on pages 100–106, a statistical study of the library facilities available to high schools in the territory of the association, both in high-school libraries and in public libraries. Similar studies for other sections of the country would be of interest and value.

Bulletin, 1915, No. 25, of the Bureau of Education, entitled Public, society, and school libraries, contains a statistical report of libraries in the United States in 1913.

CHAPTER XXII.

EDUCATIONAL WORK OF AMERICAN MUSEUMS.

By Paul Marshall Rea,

Secretary of the American Association of Museums; Director of the Charleston (S. C.) Museum.

Contents.—Introduction—Extension work of public museums of science—Extension work of public museums of art—College museums—Museum work of secondary schools—Museums of history—United States National Museum—New York State Museum—Independence Hall, Philadelphia—Conclusion.

INTRODUCTION.

Visits to museums in all parts of the United States, the discussions of the American Association of Museums at its San Francisco meeting, and the returns made to the Bureau of Education unite in conveying a strong impression of increasing interest throughout the country in the educational work of museums. This interest is manifested (1) by the enthusiasm with which leading museum workers discuss the educational side of their work; (2) by the considerable number of museums reporting a recent beginning in educational extension work; and (3) by the apologetic tone of many reports from museums that are not doing any of this work.

It can be stated confidently that the educational and extension work of museums is a permanent addition to education and in no sense a fad. It is not a formal system to be readily outgrown, but an idea capable of the most varied and flexible application to the changing needs of times and places. It has won recognition and appreciation by its results, and has been so large a factor in the growth and general financial support of the museums adopting it that their continued development of it is assured.

Of much importance for a wider dissemination of information regarding this new relation between museums and schools is the recent publication, as a bulletin of the United States Bureau of Education,[1] of a paper on "The Educational Museum of the St. Louis Public Schools" by Carl G. Rathmann. This profusely illustrated account of a remarkable and conspicuously successful teaching museum fills the need for an exposition of the traveling exhibit idea

[1] Bulletin, 1914, No. 48.

and should stimulate closer relations between schools and museums throughout the country.

In previous reports the work of particular museums has been cited to illustrate the general principles and tendencies of the educational and extension work of museums. In this chapter it seems desirable to enumerate briefly the activities of a larger number of museums as an indication of their variety and extent. Space forbids any attempt to make this list complete. Selection has been made to include museums of a wide range in size and resources and to represent the various geographical areas of the country.

In a previous report[1] it has been shown that the public museums have been the pioneers in developing the sense of responsibility to the people, which is the mainspring of all extension work. The present activities of this class of museums will therefore be reviewed first. The term *public museum* is applied to those museums receiving their maintenance largely or wholly from public funds or from endowments and private gifts that are not restricted to special interests. For convenience of reference and comparison the science museums and art museums are treated separately. College museums and history museums also form natural groups with special characteristics.

EXTENSION WORK OF PUBLIC MUSEUMS OF SCIENCE.

The American Museum of Natural History in New York reports 1,300,000 school children reached by its extension work in a single year.

In addition to the traveling exhibits and the lectures on geography, history, and science given at the museum to between 40,000 and 50,000 children, three local lecture centers have been established in selected schools. In two of these the lectures were given in school hours as a part of the school work. In these three centers 20,000 children attended the lectures, and the year's total is expected to reach 50,000.

For the first time in its history the museum's series of more than 30,000 lantern slides have been placed at the disposal of public-school teachers for use in the classroom. These slides are available separately or in groups or in lecture sets, accompanied by full descriptions, and are delivered and collected by museum messengers.

The museum maintains 635 traveling exhibits, comprising more than 10,000 specimens, which are in daily use among more than 400 schools having more than 1,000,000 pupils.

[1] Rea, P. M. Educational work of American museums. Rep. Commis. Educ., 1913, Vol. I, ch. 13, pp. 299–311.

Cooperation with the public libraries is receiving particular attention. Several special traveling exhibits were sent to the children's rooms in the libraries for the purpose of stimulating the reading of good books relating to the subjects illustrated by the specimens. The success of the experiment is strikingly illustrated in a branch library on the lower west side. An Eskimo exhibit in this library was followed in less than four weeks by an increase in the call for arctic books from 0 to 400, and other branch libraries had to be called upon to supply the demand. Extension of this work is under way.

The interesting work with the blind, conducted by the American Museum, was described in this report last year.[1]

The New York Botanical Garden began in 1905 to utilize its advantages in correlation with the nature-study work of the public schools in New York City. The classes assemble from the various schools of the Bronx in charge of their teachers, and the audiences number from 450 to 850. After the lecture the pupils are divided into convenient groups, each under the guidance of a lecturer or demonstrator, and the topics treated in the lecture are further illustrated and enforced by a study of the museum collections and of the living plants in the greenhouses and out of doors in the forest and plantations. These lectures and demonstrations give pupils in the crowded city a close contact with nature and a breadth of view and inspiration such as could never be obtained in the more restricted conditions of the classroom. The total attendance at these lectures was approximately 115,000.

Special lectures and demonstrations are provided for the meetings of societies, clubs, and other organizations, some of which are closely associated with the work of the schools. Throughout the year the garden is visited by biology classes from schools and colleges in New York City and vicinity, and members of the staff are specially detailed to conduct such classes or other visitors through the grounds.

Regular public lectures on botanical subjects are given every Saturday afternoon from April to November and are attended by many school children. Many of the publications, the *Journal* in particular, have contained articles of interest to public school children, some of which were written by the children themselves in competition for prizes offered by the garden.

The Public Museum of the Staten Island Association of Arts and Sciences gives Friday afternoon lectures from October to March for children above the 4 B grade. In April, 1915, the Bird Lovers' Club conducted in the museum a bird-house contest among school children. In all 232 bird houses were constructed, of which 127

[1] Rep. Commis. Educ., 1914, Vol. I, ch. 23, pp. 506–507.

were brought to the museum. Of these 24 received prizes and 12 were given honorable mention. Four hundred and fifty visitors came during the first nine days of the display for the express purpose of viewing the houses, and about 50 houses were sold to the public. Significant of the interest aroused and the skill developed is the fact that several of the highest prizes were won by pupils who had never taken any kind of shopwork in the schools.

The Children's Museum of Boston has shown a steady growth during its second year. Lectures for private and parochial schools are now given in addition to those for the public schools. During July and August children from the settlement houses occupy all the time of one assistant. For the year ending September, 1915, 297 lectures were given to classes containing 11,000 pupils. The total museum attendance for the year 1914 was 63,000. The museum has been incorporated and is administered by a board of nine trustees. An advisory council, a teachers' council, and a museum aid association are closely affiliated with the trustees and render important aid in the development of the museum.

The Fairbanks Museum of Natural Science, St. Johnsbury, Vt., arranges its educational work in cooperation with the superintendent and teachers of the public schools. Special nature lessons are given monthly in grades 3 to 9, inclusive. The 19 town classes, with about 500 students, have regularly appointed lessons at the museum; the 11 rural schools, with 150 students, at their own school buildings. During the past year progress has been made in correlating the nature study with drawing and English composition. Field classes and bird study are conducted through the spring, and a flower table is maintained during the spring and summer. Requests for the identification of flowers, minerals, etc., are given prompt attention and information is frequently supplied on special topics.

The Park Museum, Providence, R. I., has developed a novel method of focusing the interest of children visiting the museum in groups of 50 to 100. This is done by what is called a "museum game." Each child is given a card bearing a puzzle sentence about some object in the museum. These sentences are carefully chosen to convey some fact of interest and information, and the children are asked to complete the sentence. A typical card may read as follows: "A ——— is a large animal with a Roman nose." As soon as a child reports a question correctly to the official in charge he is given another card. At the end of the allotted period all the children are gathered in the lecture room. This method is found to remove all problems of discipline, the children going steadily about, absorbed in their search for information. In the lecture room they become reporters of the facts they have gleaned and show a keen interest in what their com-

rades have learned and in what the instructor has to tell them. The curator reports the advantages of this plan as follows:

(*a*) *From the child's point of view:*

1. He has received a lesson in independent research, concentration, observation, and memory.
2. His interest in natural science is stimulated.
3. The museum has become a storehouse of knowledge to him rather than something intangible.
4. The spirit of rivalry and enjoyment in the game, as such, makes its own peculiar appeal to the children and arouses great enthusiasm.

(*b*) *From the museum's point of view:*

1. The children have received one or more definite impressions of the museum exhibits rather than a confused jumble of ideas.
2. The children have been stimulated to come again and actually do come often in groups of two or three to the office with a request to "play the game" by themselves.
3. The problem of disciplining an ordinarily boisterous crowd has been eliminated because the mind of each individual is occupied along a particular line, and excellent order is actually maintained by the boys and girls themselves.

The Museum of Natural History, Springfield, Mass., is visited by teachers with their classes from Springfield and neighboring towns for a general survey of the collections and to hold actual teaching exercises. A classroom and illustrative material is provided. Collections of minerals, rocks, and birds are loaned to the schools or given permanently. Prizes have been offered by the museum for the best collections of minerals and insects. A very convenient check list of bird migrations is published by the museum. A children's table is provided with special exhibits, frequently changed, and with books borrowed from the children's room of the city library.

The Newark Museum Association, in New Jersey, has from its inception been fundamentally an educational museum. That is to say, its preservation of things valuable only or chiefly for their rarity has always been incidental to its purpose of getting, showing, explaining, and lending things calculated to enlarge the knowledge and the interest of the people within its influence.

The museum, indeed, grew out of the similar mission of the library which founded it. The library lends not only books, but magazines, newspaper cuttings, pictures, charts, poems, and it early began to keep and to lend rocks, birds, butterflies, physiographic models, and industrial collections. Some of these things have been taken over by the museum, others are still lent by the library.

Each year, besides numerous other exhibits, the museum has one considerable exhibit covering a fundamental human industry. Last year the subject was pottery; this year it is to be textiles. Processes

in operation and steps of processes in sequence are shown, and an active docentry makes the exhibit a live teaching agency. Last year over 2,000 children came in classes and a number of clubs in groups for this instruction from Newark and neighboring cities, including Pratt, Teachers College, and other schools of New York.

In conjunction with these exhibits pamphlets are issued, and from the exhibits are gathered materials not only for a permanent exhibition in the museum, but for circulation in the schools. The school teachers, having visited the larger exhibition, are thus better able to deal with the traveling exhibits.

The Charleston Museum, in South Carolina, maintains a department of public instruction in charge of a curator. The museum is formally affiliated with the board of school commissioners, and the relations with the public schools are arranged in detail by conference between the curator of public instruction and the superintendent of schools and the supervisor of primary work.

The nature study in the primary grades is based upon the use of traveling exhibits from the museum and upon a manual prepared by the curator of public instruction. Economic and industrial exhibits are regularly used in the sixth and seventh grades in connection with geography. Over 70 different traveling exhibits are in regular use and are delivered by wagon provided by the museum. They remain one week in each school and are then transferred to the next school. Exhibits which have finished the public-school schedule are started on a similar schedule among private schools in the city. Requests for the use of the exhibits are received in increasing numbers from schools in other parts of the State, and these are granted in so far as they do not conflict with regular schedules within the city.

In addition to the traveling exhibits the museum offers the following facilities to schools: (1) Docent service in the exhibition hall; (2) lectures on particular exhibits; (3) special lectures at the museum in illustration of subjects pursued in the schools; (4) the use of a classroom and specimens for teachers with classes; (5) special exhibits of educational value from time to time; (6) a reading room supplied with popular nature-study literature adapted to the needs of both teachers and pupils and in charge of a trained librarian; (7) copies of the Charleston nature-study course furnished to teachers on request; (8) lectures to primary-school teachers supplementary to the nature-study work in the schools.

The museum conducts a natural-history society, having three sections, one for boys, one for girls, and one for adults, each of which meets in the museum once a month. Field trips for each section are conducted by the curator of public instruction.

The Cincinnati Society of Natural History maintains a museum and circulates seven sets of school cabinets, each set consisting of one

case each of birds, insects, and minerals. Each case is accompanied by a monograph descriptive of its contents. These sets are started out about October 1 of each year and remain a month at each school, thus reaching about 63 schools in the course of the academic year. The society also provides a course of illustrated lectures on Saturday nights, which are open to the public without charge.

The Buffalo Society of Natural Sciences conducts an extensive educational work in close cooperation with the school authorities, as described in a previous report.[1] Traveling exhibits are sent to the schools, and grammar-school classes also come to the museum on a regular schedule for lectures and demonstrations, which are an official part of the school curriculum. On Friday evenings from November to May free public lectures are given to audiences averaging 800 to 900 people.

The Chicago Academy of Sciences offers the following special features: (1) A large series of habitat groups, (2) the constant use of the celestial sphere by schools, (3) a children's science library, and (4) a story hour conducted by the librarian. The habitat groups show the animals of the Chicago area in their natural surroundings and form very beautiful and instructive exhibits, which appeal strongly to all visitors. The celestial sphere is a mechanical device for the study of the heavenly bodies.

The Milwaukee Public Museum maintains an extensive educational work, which has been fully described in the proceedings of the American Association of Museums.[2]

The Educational Museum of the St. Louis Public Schools is a model of its kind. Space forbids an account of its work, since it has been mentioned in a previous report[3] and is fully described in a recent bulletin issued by the Bureau of Education.[4]

The California Academy of Sciences, San Francisco, is planning to organize educational and extension work as soon as it is installed in its new building now nearing completion. Dr. Barton W. Evermann, who was appointed director of the museum March 15, 1914, says in his first report: "The one thing that impresses one most in the study of eastern museums is their activity along educational lines, and the ways in which they are endeavoring to interest the public, and to be of service to the public." Dr. Evermann then emphasizes the importance of a carefully thought-out method of cooperation between the museum and the public and private schools. It is probable that the first extension activity will be the circulation of natural history exhibits among the schools.

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[1] Rep. Commis. Educ., 1913, Vol. I, ch. 12, p. 306.
[2] Proc. Am. Assoc. Mus., VIII, 1914, pp. 60–64.
[3] Rep. Commis. Educ., 1913, Vol. I, ch. 13, p. 309.
[4] Bulletin, 1914, No. 48.

The Oakland Public Museum, California, inaugurated a definite policy of educational work within two months after the opening of the museum to the public in October, 1910, by means of lectures to classes from the city schools. The excellent exhibit of American colonial material was made the basis of lectures on colonial life and customs. Teachers were quick to note the advantages of this method of teaching history and brought many classes to the lectures. Other lectures on history and natural history, closely correlated with the course of study in the public schools, have been added from time to time. The lecturer also visits the schools to give talks illustrated by museum specimens.

A second method of extension work is by several series of loan material which are in almost constant use by the schools. A continuous exhibit of fresh wild flowers is of much interest to gardeners and park men as well as to the general public. Although one of the youngest museums on the Pacific coast, the Oakland Public Museum seems to be the pioneer in organized educational and extension work in this section.

The Museum of History, Science, and Art, Los Angeles, Cal., reports that it is working in close relation with the University of Southern California and the Manual Arts High School and is organizing a system of educational work with the public schools, modeled upon that of the Milwaukee Public Museum.

EXTENSION WORK OF PUBLIC MUSEUMS OF ART.

The Museum of Fine Arts, Boston, maintains extensive educational work which is summarized by the director, Dr. Arthur Fairbanks, as follows:

> The work with schools is twofold: (1) Lectures and lecture courses for teachers, to train them to deal intelligently and sympathetically with works of art in their teaching, and (2) trained guidance for groups of children who are brought from various schools to the museum. In practice it has been related to four lines of school work, viz., history, geography, and ancient languages, as well as drawing and design. Each of these subjects has been frequently treated in lectures for teachers. Lists of objects in the museum which illustrate the school work in these lines are furnished free to teachers, and the city of Boston furnishes various series of illustrations from objects in the museum for use by pupils in the schools. Groups of pupils are sent to the museum with or without a teacher and receive guidance (docent service) from a member of the staff. The museum instructor meets younger children; older children are met either by her or by a member of the department which they desire to visit.
>
> The extension work consists partly of courses given primarily for museum school students, but open to the public, partly of specific extension courses. The aim of this work is to deal not with the history of art, but rather with the objects of art themselves. In addition to courses of lectures and guidance to visitors, there are regular Sunday gallery talks, each on one object or one group of objects in the museum; and a series of Thursday conferences and lectures by an expert on some objects or group of objects has been given regularly.

The Worcester Art Museum, Mass., reports 4,741 photographs and lantern slides loaned to 24 schools, 10 churches, and 13 clubs and other organizations in 1914–15, as compared with 3,198 in 1913–14. Thirty-nine special talks were given to classes from schools, compared with 16 talks in the previous year, and 23 talks to other organizations, as compared with 15 in the previous year. The special work with children described in this report[1] last year has been continued. The following comment is of interest:

> After four years the deeper and fundamental aim of the work is seen to justify itself. Those engaged in it have been enthusiastic about it from the start. But even to casual visitors to the museum its effects are sometimes strikingly apparent. A concrete instance may serve for illustration: Two boys of about 14 years, and plainly from a walk of life not made easy by riches, were seen the other day walking about in the galleries quietly and earnestly discussing new acquisitions made by the museum since their last visit. It was apparent not only that they knew perfectly how to conduct themselves, but that they were thoroughly enjoying the paintings in a way not possible to either grown-ups or children without some previous instruction in the very delicate art of appreciation. The secret is easily explained—the boys had formed a habit several years ago of fairly regular attendance at the Saturday afternoon stories. Their acquaintance with the collections in this museum is real and intimate, and, needless to say, their future visits to other galleries of art will be a source of genuine enjoyment to them.

The Rhode Island School of Design, in Providence, maintains both an art school and a museum. One of its special purposes is the instruction of artisans in drawing, painting, modeling, and designing in order that they may successfully apply the principles of art to the requirements of trade and manufactures. A special feature of its relation to the schools of Providence is the awarding of scholarships in the School of Design on the basis of competitions in drawing among public-school children. The superintendent of schools has arranged a definite schedule to bring classes from all the city schools to the public library, the School of Design, the Park Museum, the Rhode Island Historical Society, and the statehouse. Under this plan 2,244 pupils visited the museum of the School of Design in the year 1914–15.

The Parrish Art Museum, Southampton, Long Island, is an interesting example of a privately owned museum endeavoring to exert as strong an influence as possible in a small community. During the past year a docent has been provided to give instruction to public-school children and adults. The attendance of children is voluntary, but the classes meet regularly and the attendance has been satisfactory.

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[1] Rep. Commis. Educ., 1914, Vol. I, ch. 23, p. 501.

The Metropolitan Museum of Art, New York City, offers the following special advantages to New York teachers and pupils:

(1) Free admission on Mondays and Fridays, which are made pay days largely to facilitate students by giving them a greater opportunity for privacy than is possible on free days. School children are welcome every day, but the pay days are theirs in a peculiar sense. Upon application made beforehand, a ticket is sent to the teacher, admitting the teacher and class.

(2) If a teacher is preparing courses of study to be conducted at the museum, members of the staff will gladly advise him concerning the objects contained in the collections and aid him to use the resources of the museum to the best advantage. An index of the paintings by subject and an index of the objects illustrating Greek and Roman history are obtainable.

(3) The use of classrooms equipped with stereopticon lantern, chairs, tables, and blackboard for talks given by the teacher to the class. Lantern slides may be borrowed, and books and photographs from the library may be taken to the classrooms to increase the interest and effectiveness of the talk.

(4) The services of a member of the museum staff to show the collections to the class or give them a talk, illustrated by the lantern. For this assistance application is made by letter, the day and hour of the proposed visit being specified.

(5) If a teacher can not bring his class to the museum, but can find time for a talk in his own schoolroom, arrangements can be made for a member of the museum staff to go to the school and render such service.

(6) The use in lectures outside of the museum of over 12,000 lantern slides owned by the museum of objects both here and elsewhere that illustrate the subjects represented in its collections. A set of mounted photographs of objects in the collection may also be borrowed for schoolroom use.

The Arnot Art Gallery, Elmira, N. Y., which has only been organized three or four years, has already developed a system of cooperation with the public schools. This work has been done on the initiative of the museum but has received the support of the board of education, which includes in the school work two visits to the art gallery each year by pupils of the sixth, seventh, and eighth grades. The director of the gallery talks to these classes. The gallery has also held a prize exhibition of the work of the children in these grades, the material being selected by the director of drawing in the public schools. Prizes were given for the best water-color and pencil or charcoal drawings in the nature-study work in the sixth and seventh grades and in still-life charcoal studies in the

eighth grade. The cooperation of the Arnot Art Gallery is acknowledged in the annual report of the public schools of Elmira.

The Albright Art Gallery, Buffalo, makes a specialty of art instruction for school children, teachers, societies, clubs, and the general public through the medium of docent service.

The Carnegie Institute, Department of Fine Arts, Pittsburgh, provides docent service for individuals or organizations desiring information concerning the works shown in the galleries. The children of the schools are brought to the institute by their teachers. Twenty-six clubs and 64 classes from the schools of Pittsburgh and vicinity availed themselves of this service last year. The museum also conducts a children's hour on Saturday mornings at which the voluntary attendance testifies to the enjoyment of the children.

Toledo Museum of Art.—The varied and extensive educational work of this vigorous young museum was described in detail in this report[1] last year, when it was noted that plans were being made for a bird-day celebration for the purpose of arousing community interest in the beauty and economic value of birds. This bird campaign is reported as showing results far exceeding expectations. Not only thousands of children but hundreds of grown people were led to study and plan for the welfare of useful birds. Three thousand bird houses were constructed in the manual training departments of the public schools from lumber furnished through the museum. When these houses were exhibited in the museum, in March, 11,000 people visited the exhibition. The houses were given by the children to the city and put in place in the public parks by the Boy Scouts, under the direction of expert ornithologists. Bird houses were also placed in the school grounds and around the homes of the children. Hundreds were purchased at the art museum and placed in private grounds. A permanent museum bird club is now organized under the auspices of the museum. The similarity of this work to that of the museums of science is a striking illustration of the common purpose which underlies museums of all kinds.

The Minneapolis Institute of Arts opened its beautiful new building on January 7, 1915. During the first two months all the children in the grade schools were given time off from their school work and brought in groups by their teachers to see the institute and the exhibits. A volunteer worker was stationed in each room to tell the children something of the history of the things that they were seeing. These visits took about an hour and a half each and presented merely an introductory survey. The children came in groups of 25 to 30 at one-half hour intervals all day. Since that time the task of organizing the work of the institute in its new building has so

[1] Rep. Commis. Educ., 1914, Vol. I, ch. 23, pp. 501–503.

fully occupied the attention of the staff that no formal extension work has been undertaken. Docent service is provided at certain hours, however, and the institute hopes to do much more with school children this year.

The City Art Museum, St. Louis, supplies docents and provides lectures and lantern slides upon demand. Circulating collections of paintings, with printed descriptions, are sent to the schools of the city. Paintings are also sent to the public library. All publications of the museum are mailed to the schools.

Western Gallery of Art, Kansas City.—The curator reports that the museum has been helpful in many ways to every grade of the public and private schools from the kindergarten to the high school, as well as to the colleges and universities and other educational institutions of Kansas and neighboring States. Docent service is provided, and every effort is made to assist visitors. Definite correlation with the school system has not been effected.

COLLEGE MUSEUMS.

The deplorable condition of college museums as a class when the Directory of American Museums was prepared in 1910 was described in this report two years ago,[1] and some of the reasons for this condition were revealed by an analysis of the history and limitations of this class of museums. Extension work for the benefit of the general public can hardly be considered a duty of college museums, but it is a question worthy of serious consideration by college authorities whether their museums can not be made to yield a return upon the investment they represent by promoting a closer relation between the public and the college.

Prof. Homer R. Dill says that the opening of the Laysan Island cyclorama in the University of Iowa museum drew more than 2,000 visitors in the first two days and that special excursions from all parts of the State are arranged by the railroads with this beautiful exhibit as the objective. He believes the great need of the college museums to be men capable of building modern picture groups and that the possession of such exhibits will be worth many times their cost as an advertising feature. To supply men with the necessary training Prof. Dill has organized a special course in museum technique at the University of Iowa and has assurances that some of the many small colleges in Iowa will employ his graduates to develop their museums in the manner he advocates.

It is certain at least that the public museums have set new standards of installation and demonstrated the possibilities of extension work, and have thus put a new face upon the problem of the college museum.

[1] Rep. Commis. Educ., 1913, Vol. I, ch. 13, pp. 229–302.

The following are typical of the reports received this year from college museums. The stimulating influence of the public museums is evident in some cases, especially in parts of the country where university extension is popular.

The University Museum at Harvard is used in university courses but offers no organized facilities to schools other than a general hospitality and a limited guide service.

The Fogg Art Museum at Harvard, in addition to the regular use of the collections to illustrate the work of courses in Harvard University and in Radcliffe College, circulates among the high schools of Massachusetts three sets of slides—one devoted to the monuments of ancient Greece, one to the monuments of ancient Rome, and one intended to illustrate English history. The set of Greek slides was used by 22 high schools and the Roman slides by 26 in the year 1913–14. These have been in constant use during the winter months and the museum hopes later to extend this service considerably.

The Social Museum at Harvard attracts the attention of various classes of serious students outside the university courses in which it is regularly used. Exhibits are loaned to national and international congresses and to public bodies for temporary display. A classified list of the collections is published in a pamphlet entitled "The Social Museum as an Instrument of Museum Teaching."

The Farnsworth Art Museum at Wellesley College contains the laboratories and studios in which the regular courses of the art department of Wellesley College are conducted. The primary purpose of the museum is to provide material for this work. A special activity is the maintenance of a training course for museum assistants. Graduates of this course are now engaged in art-museum work in Minneapolis, Chicago, Rochester, Providence, and Boston.

The Hillyer Art Gallery at Smith College is maintained primarily for the art department of the college, but during the past three years has been opened to the public on Sunday afternoons, when it has more general visitors than on any other day. During the past year a series of talks on special exhibitions has been successfully given on Sunday afternoons.

Wesleyan University Museum reports that while there is no systematic arrangement for the use of the collections by the schools of Middletown and vicinity every encouragement is given to teachers to bring their classes to the museum, and in some cases specimens are loaned to the teachers.

The University Museum at the University of Pennsylvania provides special talks by the curators either in the exhibition rooms or in the auditorium to classes of school children from the grade and high schools, and especially to classes made up from clubs and other

organizations in the city and from colleges in the vicinity of Philadelphia.

The School of Mines at the Pennsylvania State College contains an extensive collection of minerals and models illustrating the various industries of the State and which are used only in the regular work of the school. The photographs accompanying the report of the dean suggest that this material might be of the greatest value in extension work.

The Museum of Zoology at the University of Michigan reports the extension work as growing slowly. It consists in the loan of collections of Michigan animals to schools, the identification of specimens, and the supplying of information on biological subjects to the people of the State, and the giving of extension lectures. An effort is made to impress upon the residents of Michigan the importance of the museum as a central repository for Michigan zoological material. The success of this work is indicated by the number of requests for information, the increasing demand for the school collections, the cooperation of amateur naturalists, the increased appropriations allowed by the regents, and the gifts of money received from private sources each year.

The Classical Museum at the University of Illinois reports that in addition to the use of the museum in regular university courses it is visited by classes in ancient history and classics in the high schools of Champaign and Urbana.

The Museum of European Culture at the University of Illinois, which was described more particularly in this report[1] last year, has grown both in the extent of its collections and in the number of visitors and seems to be successfully fulfilling the purposes for which it was organized.

The Bennett Museum of Christian Archæology at the Garrett Biblical Institute, Evanston, Ill., is used in connection with a course on Christian archæology in the College of Liberal Arts of Northwestern University. It is used also in connection with courses in ancient history in Northwestern University, Northwestern Academy, and the Evanston High School.

The Museum of the Department of Fine Arts at Indiana University comprises collections selected with direct reference to the university courses in painting, sculpture, drawing, architecture, and engraving. During the past three years the museum has successfully loaned traveling exhibits of pictures throughout the State. This work has become so important that it is now administered under the extension department of the university, but remains in charge of

[1] Rep. Commis. Educ., 1914, Vol. I, ch. 23, pp. 507–508. See also Proc. Am. Assoc. Museums, VIII, 1914, pp. 120–124.

Prof. Alfred M. Brooks, who is head of the department of fine arts and who has created the museum during the past 17 years.

The Museum of Birds and Mammals at the University of Kansas is successfully circulating traveling exhibits among the public schools of the State.

The State Museum at the University of Nebraska distributes geological and mineralogical specimens to the accredited high schools of the State. Delegations of pupils, commercial clubs, etc., from various towns in the State visit the museum. Last year a lecturer was appointed, and the work is expected to be considerably enlarged this year. The museum provides special material and places laboratories at the disposal of visiting teachers with their classes, who often spend an entire afternoon in this work. The art departments in colleges and high schools are also supplied with specimens to be used as models in drawing.

The University of Colorado Museum encourages teachers and students of the grade and high schools to visit the museum and use its collections. The curator frequently lectures before scientific and other societies, teachers' institutes, etc. Lantern slides relating to the museum exhibits are loaned upon request. An increasing number of requests for information and for the identification of specimens is received each year.

The University of Arizona Museum is maintaining very little extension work at the present time, but plans formulated by the present curator form so admirable a program that they may be briefly stated as follows:

(1) To classify and arrange the collections so that they may be readily understood.

(2) To arrange visiting days for classes from the elementary schools within reach of the museum.

(3) To give university courses in archeology and to give extension courses in Tucson and neighboring towns.

(4) To give popular illustrated lectures at the university and throughout the State on the archeology of North America and especially of Arizona.

(5) To circulate throughout the State representative collections of Arizona birds, insects, and minerals and of prehistoric life and modern Indian life in Arizona and surrounding States.

The University of Oregon has heretofore had no regular museum, but reports the recent establishment of a geological museum and the intention of working toward a large university museum for all departments in the future. Small sets of minerals and rocks are already being sent to various schools, which retain them for a period of about one month. There seems to be an admirable opportunity

for the museum in connection with the general extension work of the university.

MUSEUM WORK OF SECONDARY SCHOOLS.

Several secondary schools report unusually good museums and show a keen appreciation of their educational value. Among these may be mentioned especially the Joliet Township High School in Illinois, which maintains a museum occupying at present five or six rather large rooms. The material is used in classes in geography, history, biology, zoology, and English composition. Occasionally some of it is sent to the elementary schools on the request of the principal or teachers. The superintendent says:

> We have already planned in our next building venture to have an entire building, three stories, with 12 rooms given over entirely to the museum with a view to making its value as an educational factor more pronounced. * * * We are much inclined to think that too little attention has been given to this phase of educational work, and when we see what is done in this particular in the city of St. Louis we wish that our position could be as fortunate as theirs.

MUSEUMS OF HISTORY.

About 25 per cent of all museums in the United States are devoted to history. They are maintained for the most part by historical societies, and, although they would make a strong popular appeal if properly supported and administered, they are usually inactive and neglected.

Public museums in many instances devote a part of their attention to history, especially to the installation of period rooms and to extension work. Their influence seems to be discernible already in an awakening of some of the smaller history museums. The field of history as a museum subject may be expected to develop rapidly when the right methods are generally adopted.

There is a small group of history museums which have adequate resources and progressive methods. Among them may be mentioned the museums of the Essex Institute at Salem, Mass., the Buffalo Historical Society, the Chicago Historical Society, and the Ohio Archæological and Historical Society.

The Chicago Historical Society allied itself directly with the educational forces of the city in 1913 by establishing children's lectures on Chicago history, conforming to the course of study in the public schools. The society considers this one of the most important activities it has ever undertaken. In the beginning the lecturer was sent to the school, but after a brief trial period all lectures have been given in the society's rooms, where the children are surrounded by the actual objects of the museum.

Among the smaller institutions, one of the best known to the writer is the museum of the Nantucket Historical Society in Massachusetts.

Others which show at least a desire to develop their educational influence are the Fitchburg (Mass.) Historical Society, the Montgomery County (Pa.) Historical Society, and the Whiteside County (Ill.) Historical Society.

Although the secretary of the *State Historical Society of North Dakota* is very modest in his report of the educational activities of the society, its publications indicate that, in addition to preserving historic sites, publishing historical material, maintaining a library and museum, and conducting field explorations, the society is maintaining lecture work among schools and communities throughout the State. It would be difficult to outline a more valuable program of historical work, and it is to be hoped that the society may be successful in its purpose of arousing interest in history throughout the State, as well as in preserving historical records.

UNITED STATES NATIONAL MUSEUM.

Although the United States National Museum is not in a position to conduct any of the usual forms of extension work, it has contributed in no small way through a long period of years to the upbuilding of museums throughout the country. It has done this by distributing among schools and colleges educational series of specimens. The extent of the service thus rendered by the National Museum is too little known and appreciated.

NEW YORK STATE MUSEUM.

No better illustration of the changing sentiment regarding the relation of museums to the public can be found than the section on "The Educational Function of the State Museum of Science" in the report of the director of the New York State Museum.[1] After calling attention to the fact that "the good repute of the New York State Museum has come more from the work of original research which it has fostered than from the educational service thus far rendered through its collections," the director continues:

> At no time in the history of the organization has there been an adequate museum; not once in all its career have the people been able to come into actual touch with the materials on which the published scientific works have been founded or to learn through their own eyes the real meaning of the resources and of the operations of nature which have been portrayed on the thousands of pages and plates of our public reports.
>
> The fact that this time has now arrived, that capacious quarters are about to be fully equipped for the reception of the material objects of science, brings, in effect, a new function to this division—that of making an efficacious and impressive contribution to the education of the people into these sources of knowledge in a building devoted throughout to the official diffusion of knowledge.

[1] N. Y. State Mus., 66th Ann. Rep., 1912, Vol. I, pp. 9–15.

In the science of paleontology, a science of which the State of New York has for years been the especial patron, this fact is preeminently true. The museum resources herein are large, but of this large accumulation there is only a small part that can be made to tell its fascinating story to the uninitiated. To consider for a moment the demands of this science alone and its place in a museum, the people of the State have a right to know what it is all about and why such extraordinary encouragement has been given to its prosecution; how it is that the State of New York has acquired its repute as the exponent of this science, and, if it is true that more is known of the paleontology of this State than of any equal area of the world (as has been said by a distinguished French geologist), where is the proof of this outside of published documents. There are no mysteries in science and the fruits of this knowledge are the property of the people who have paid for it. There is thus laid upon this division the acquisition of materials in this field of science that will tell the story of the life in the seas and on the lands of ancient New York, its beginning, its development, and its outcome, and tell it in a way so lucid and intelligible that the visitor to the museum can read it and learn it. No good thing, therefore, that can make clearer the wonderful history of life in this part of our ancient earth, and so help to enforce the broader lessons of the life from which we have derived our own existence, can be sacrificed or neglected for so simply gross a reason as that appropriations for this work are inadequate. A scientific specimen in a laboratory and such a specimen in a museum are of two vastly unlike qualities. The one tells its story to the expert, the other must be made to tell its simple and clear story to the larger world.

Certainly no clearer exposition could be desired of the obligation of a great museum to the people who support it, and it is to be hoped that the New York State Museum will succeed as completely in transforming invertebrate paleontology into a popular museum subject as the American Museum has succeeded with vertebrate paleontology.

INDEPENDENCE HALL, PHILADELPHIA.

Independence Hall began in 1914 to provide docent service and lectures for school children, the experiment proving a success from the start. The curator talked to 7,000 children ranging in age from 9 to 18 years.

Daily engagements three months ahead have been made with schools and colleges in Philadelphia and vicinity for these lectures. With the secondary grades the subjects are related to the classroom work of each grade. With older children a general review is given of the colonies before the war and of the Revolution itself. More time is given to industrial history than heretofore.

CONCLUSION.

While the important educational function of museums is now generally recognized alike by the leaders in both museum work and school work and by the teachers who have come in contact with it, it is nevertheless true that—

(1) As yet only a comparatively small proportion of the museums in the country are thoroughly aroused to its possibilities, and these chiefly among what are designated in this report as public museums.

(2) There is a much larger opportunity for educational work among the smaller public museums, college museums, and historical-society museums than is now appreciated.

(3) The initiative in this work is usually taken by the museums, and school authorities who have not had actual experience with it are not thoroughly alive to its advantages.

(4) Museum facilities are available to schools in various localities to a very unequal degree.

There is clearly need of some agency to stimulate and coordinate museum educational work throughout the country and to diffuse a full knowledge of it among schools and other educational organizations. The American Association of Museums is endeavoring to do this and has appointed a special commission for museum cooperation for this purpose, while the Bureau of Education is performing a valuable service in giving publicity to the work, but there is need of still more highly organized effort if the facilities which are proving so valuable in a few centers are to be made accessible to both town and rural schools throughout the country.

The experimental period is closed. Educational work has been done as efficiently by small museums as by great museums, in small towns as well as in great cities. Its State-wide extension among rural schools has been shown practicable. The need is for systematic encouragement of its development.

CHAPTER XXIII.

EDUCATIONAL WORK OF THE CHURCHES.

Compiled by J. O. KNOTT, Editorial Division, Bureau of Education.

CONTENTS.—Introduction—Roman Catholic parish schools—Lutheran parochial schools—Presbyterian Church schools—The schools of the Presbyterian Church in the United States—Schools of the Baptist Church (North)—Educational work of the Methodist Episcopal Church—Schools of the Methodist Episcopal Church, South—Schools under the direction of the Moravian Church in America—The educational work of the Congregational Church—The schools of the Reformed Church in America—Educational work in the Protestant Episcopal Church—Denominational schools for Indians.

INTRODUCTION.

The following account of the educational work of the churches in the United States and its dependencies for 1915 is more comprehensive than for last year. It is still, however, incomplete for two reasons. First, several of the bodies reporting have not had time to collect full statistics. The Methodist Episcopal Church, for example, gives an account of its educational work mainly from the viewpoint of the Sunday school, preferring to wait until 1916 for a more detailed report. A representative of the Protestant Episcopal Church explains in a letter to the bureau that time did not permit him to make a formal report. His letter gives some outstanding facts concerning the educational work of that church, which are included in a section of this chapter. Other denominations, notably the Disciples of Christ, the Southern Baptist Church, the African Methodist Episcopal Zion Church, the African Methodist Episcopal Church, the Colored Methodist Episcopal Church—all of which it was hoped could be included in this year's report—could not get their data in hand in time to make any report.

In the second place, some denominations make no report this year because, as their representatives declare, conditions given last year have not sufficiently changed to justify another statement. Still other denominations are not reported because their representatives say that there is not enough work included under the general head of parochial or parish education being done by these churches to call for special notice in this chapter. The work of the Young Men's Christian Associations is given in a separate chapter.[1]

The report included in this chapter on the educational work done by the several denominations in behalf of the Indians embodies the latest statistics.

[1] See Ch. XXIV.

ROMAN CATHOLIC PARISH SCHOOLS.

By Rev. Patrick J. McCormick, Associate Professor of Education, Catholic University Washington, D. C.

In the Catholic school system, the elementary parish schools increased 85 in number during the school year 1914–15. While the enrollment for the 30 new Ruthenian-Greek schools was not published, the total registration increased 26,347. The total of schools reached the number 5,488, as compared with 5,403 for 1913–14, and the total enrollment became 1,456,209, while that of the former year was 1,429,859. As with the statistics for the Catholic population, which increased from 16,067,985 to 16,309,310, there was a substantial growth in schools and attendance.

For the first time since 1911 data have been gathered for the parish high schools. The Catholic Educational Association, through the advisory committee of its executive board, has published (1915) a report on the condition of Catholic secondary education in the United States, in which it is shown that there are altogether 1,276 secondary schools, 56 of which are the high-school departments of colleges, 577 girls' high schools or academies, and 599 parish or city high schools. The parish high schools have a total registration of 29,476 in high-school grades—17,594 boys and 11,882 girls. Of these schools, 438 were especially studied by the committee, and it was found that all but 29 are directly connected with one or more parish elementary schools. The report shows that while many of the 128 new schools which had answered the committee's 1914 inquiry "were in existence three years ago, fully as many Catholic high schools have sprung into existence during the past three years."

The important process of standardization of high schools through affiliation with the Catholic University, touched upon in last year's report, has continued in a satisfactory manner. During 1914–15, 19 new schools were added to the accredited list, which now comprises 89 high schools, distributed as follows: Alabama, 1; California, 3; Colorado, 2; Connecticut, 2; Georgia, 2; Illinois, 4; Indiana, 2; Iowa, 8; Kentucky, 4; Maryland, 1; Massachusetts, 4; Michigan, 2; Minnesota, 2; Missouri, 4; New York, 3; Ohio, 19; Oklahoma, 1; Oregon, 1; Pennsylvania, 8; Tennessee, 1; Texas, 10; Washington, 1; Wisconsin, 4.

Among the administrative and supervisory officers, a few changes may be noted. The district boards in the diocese of Syracuse have been consolidated into one school board, and the membership of the boards of inspectors and visitors in many dioceses have been numerically modified. The Rev. J. B. O'Leary has been designated diocesan director of schools for the diocese of Galveston. The Rev. Joseph V. S. McClancy has been appointed inspector of schools for the diocese of Brooklyn to succeed the late Rev. Joseph D. McKenna.

Summer schools, largely attended by the teachers of the parish elementary and high schools, were successfully conducted by De Paul University, Chicago, Ill.; Marquette University, Milwaukee, Wis.; Creighton University, Omaha, Nebr.; and the Catholic University, Washington, D. C. In the last-named institution, which had an extension at Dubuque, Iowa, the total enrollment reached 608, with 40 States and 59 dioceses of the United States and Canada represented. Teachers' institutes were also held in various religious communities, and in dioceses for the teachers of their respective jurisdictions. The diocese of Cleveland held its first annual institute in June, 1915, and the enrollment was 450.

Tables 1 and 2 are based on data supplied by the Official Catholic Directory, published annually by P. J. Kennedy & Sons, New York City.

TABLE 1.—*Diocesan school boards and supervising officers.*

[Archdioceses are indicated by an asterisk (*).]

Ecclesiastical province.	Diocese or archdiocese.	Title of governing board and number of members.	Name and title of supervising officer.
Baltimore	*Baltimore	Examiners of teachers (2)	Rev. Lawrence Brown, superintendent (Baltimore city).
		Examiners of schools:	
		For Baltimore (4)	
		For Washington (4)	
		For rural districts (4)	
	Richmond	Examiners of schools:	
		Northern and western district (2)	
		Southern and eastern district (2)	
	Wheeling	Examiners of schools:	
		3 district boards (1, 2, and 2)	
	Wilmington	School board (4)	
Boston	*Boston		Rev. Augustine F. Hickey, S. T. L., supervisor of schools.
	Burlington	School board (3)	
	Fall River	Diocesan school visitors (2)	
	Hartford		Rev. W. J. Fitzgerald, S. T. L., diocesan supervisor of schools.
	Portland	School visitors (4)	
	Providence	Examiners of teachers (3)	
		Examiners of schools (9)	
		School board (2)	
	Springfield		Rev. John F. Conlin, P. R., diocesan school visitor; Rev. P. F. Doyle, assistant diocesan school visitor.
Chicago	Alton	Diocesan school board (6)	
	Belleville	Diocesan school board (6)	
	*Chicago	Diocesan school board (13)	
	Rockford	School board:	
		3 district boards (6, 6, and 4)	
Cincinnati	Columbus	School board (5)	Rev. John J. Murphy and Rev. John P. Curran, superintendents of schools.
	Detroit	Examiners of teachers (7)	
		School board:	
		6 district boards (9, 10, 4, 3, 2, and 4).	
	Fort Wayne	Diocesan school board (9)	Rev. A. E. Lafontaine, superintendent of schools.
	Cleveland		Rev. William A. Kane, superintendent.
	Grand Rapids	School board (6)	
	Louisville	School board (10)	
	Nashville	Examiners of teachers and diocesan school board (6).	
	Toledo	School board (6)	
Dubuque	Davenport	School board:	
		5 district boards (1, 3, 2, 2, and 2)	
	Lincoln	Diocesan school board (5)	

TABLE 1.—*Diocesan school boards and supervising officers*—Continued.

Ecclesiastical province.	Diocese or archdiocese.	Title of governing board and number of members.	Name and title of supervising officer.
Dubuque (Con.)	Omaha	Diocesan examiners of teachers (2). Diocesan school board (12). 7 local school boards.	
	Sioux City	Diocesan school board (6).	
Milwaukee	Green Bay	Diocesan school board (3).	
	La Crosse	School board (7).	
	Marquette	School commission (6).	
	*Milwaukee	Diocesan school board (9).	
	Superior	School commission (4).	
New Orleans	Dallas		Rev. L. J. Harrington, school examiner.
	Galveston	Diocesan school board (3).	Rev. J. B. O'Leary, diocesan director of schools.
	Little Rock	Diocesan school board (5).	Rev. Thomas V. Tobin, superintendent.
	Mobile	Diocesan school board (6).	
	*New Orleans	Catholic board of education (16) (11 ecclesiastics, 5 laymen).	Rev. L. J. Kavanagh, superintendent.
New York	Albany	Diocesan school examiners (9).	Rev. Joseph A. Dunney, inspector of schools.
	Brooklyn	Kings County school board (21).	Rev. Joseph V. S. McClancy, inspector of schools.
		Queens County school board (6). Nassau County school board (4). Suffolk County school board (5).	
	Buffalo	Diocesan school board (7).	Rev. Edmund F. Gibbons, superintendent of parochial schools.
	Newark	School board (14).	Rev. John A. Dillon, superintendent of schools.
	*New York	New York City and Yonkers school board (20). Westchester County school board (7). Orange and Rockland Counties school board (5). Ulster and Sullivan Counties school board (4). Putnam and Dutchess Counties school board (5).	Rev. Joseph F. Smith and Rev. Michael J. Larkin, superintendents of schools.
	Ogdensburg	School board (7).	
	Rochester	School board (2).	
	Syracuse	School board (8).	
	Trenton	Examiners of teachers (4). Diocesan school board (21).	Rev. William J. McConnell, superintendent of parochial schools.
Oregon	*Oregon City	Diocesan school board (6).	Rev. Edwin V. O'Hara, diocesan superintendent of schools.
Philadelphia	Erie		Rev. John M. Gannon, D. D., D. C. L., superintendent of schools.
	Harrisburg	School board (11).	
	*Philadelphia	Diocesan school board (12).	Right Rev. Mgr. P. R. McDevitt, superintendent of parochial schools; Rev. John E. Flood, assistant superintendent.
	Pittsburgh	Examiners of school teachers (11).	Rev. H. C. Boyle, superintendent of schools.
Ruthenian-Greek.		Diocesan school board (3).	
St. Louis	Concordia	Diocesan school board (5).	
	Kansas City	Diocesan school board (6).	
	Leavenworth	Diocesan school board (9). Diocesan high-school board (3).	
	*St. Louis	Diocesan school board (13).	Rev. A. V. Garthoeffner, superintendent of schools.
	Wichita	Diocesan school board (4).	
St. Paul	Bismarck	Parochial school board (5).	
	Crookston	School board (7).	Rev. Hugo Tell, O. S. B., diocesan superintendent of schools.
	Duluth	School board (10).	
	Fargo		Very Rev. J. Baker, V. G., inspector of schools.
	St. Cloud	Diocesan school board (5).	
	*St. Paul	School board (6).	
	Sioux City	Diocesan school board (6).	
	Winona	School board (7).	
San Francisco	Monterey-Los Angeles.	Inspectors of diocesan schools (9).	
Santa Fe	Denver	School board (6).	

TABLE 2.—*General statistics of parish schools in 1914 and 1915.*

[Archdioceses indicated by asterisk (*).]

Ecclesiastical province.	Dioceses included in province.	1914			1915		
		Catholic population.	Pupils.	Schools.	Catholic population.	Pupils.	Schools.
Baltimore	*Baltimore	261,000	25,207	91	261,000	25,254	91
(Includes Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, eastern Florida.)	Charleston (S. C.).	9,650	970	8	9,300	651	8
	Richmond	41,000	4,205	27	42,000	4,800	27
	St. Augustine	39,270	3,606	18	40,600	4,021	18
	Savannah	18,340	3,567	17	18,768	3,541	17
	Wheeling	55,000	3,411	18	55,000	4,000	22
	Wilmington (Del.).	37,000	4,056	14	38,000	4,100	14
	North Carolina	6,954	1,309	16	6,972	1,400	16
Boston	*Boston	900,000	60,428	122	900,000	61,666	98
(Includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.)	Burlington	80,978	6,356	21	82,878	7,045	21
	Fall River	167,892	12,881	30	164,000	13,344	30
	Hartford	438,483	35,831	82	441,193	37,556	82
	Manchester	130,081	17,214	41	130,081	17,664	41
	Portland	124,400	12,563	42	131,638	13,578	44
	Providence	270,000	19,995	37	275,000	19,169	38
	Springfield	328,000	28,260	65	328,000	28,960	67
Chicago	Alton	83,000	10,113	66	87,000	10,309	63
(Includes Illinois.)	Belleville	71,500	10,226	80	71,500	10,205	80
	*Chicago	1,150,000	107,750	247	1,150,000	109,162	256
	Peoria	106,134	12,505	75	108,879	12,957	75
	Rockford	54,000	4,605	28	56,000	4,730	28
Cincinnati	*Cincinnati	200,000	30,100	120	200,000	30,281	120
(Includes Ohio, Indiana, Kentucky, Tennessee, lower Michigan.)	Cleveland	380,000	44,211	141	392,000	46,490	141
	Columbus	101,179	12,581	57	101,179	12,987	57
	Covington	60,500	7,003	38	60,400	7,446	37
	Detroit	344,000	35,486	89	344,000	36,374	91
	Fort Wayne	112,187	17,831	89	117,186	18,952	89
	Grand Rapids	140,000	16,897	76	140,000	17,400	80
	Indianapolis	127,051	18,379	122	127,955	18,559	122
	Louisville	105,570	13,912	82	110,209	14,091	85
	Nashville	18,500	3,740	23	19,000	4,200	30
	Toledo	100,000	14,716	68	100,000	15,070	72
Dubuque	Cheyenne	12,750	117	1	13,000	223	2
(Includes Iowa, Nebraska, Wyoming.)	Davenport	52,790	5,753	42	53,043	4,806	42
	Des Moines	31,885	2,634	17	31,885	2,634	17
	*Dubuque	132,560	25,890	92	132,560	25,890	95
	Kearney	11,263	240	2	11,959	283	2
	Lincoln	25,746	1,800	28	30,979	2,245	21
	Omaha	78,950	10,675	89	80,465	10,954	92
	Sioux City	59,860	8,025	55	61,672	8,339	58
Milwaukee	Green Bay	146,765	18,590	107	146,765	18,633	108
(Includes Wisconsin, northern Michigan.)	La Crosse	118,300	10,352	77	115,000	10,438	80
	Marquette	98,500	7,688	25	97,000	7,955	26
	*Milwaukee	260,000	35,343	154	260,000	37,242	155
	Superior	53,130	4,654	23	54,705	4,582	23
New Orleans	Alexandria	35,000	1,583	18	36,200	1,851	18
(Includes Louisiana, Alabama, Mississippi, Texas, Arkansas, Oklahoma, western Florida.)	Corpus Christi	84,000	1,500	14	80,000	2,130	22
	Dallas	64,000	6,316	38	30,000	5,071	33
	Galveston	65,000	5,462	39	36,300	5,288	40
	Little Rock	23,000	3,328	42	23,000	3,305	42
	Mobile	42,500	4,955	34	44,570	5,803	36
	Natchez	28,570	4,175	21	25,362	3,767	20
	*New Orleans	550,000	19,640	117	550,000	21,628	90
	Oklahoma	36,578	4,972	38	38,233	4,865	39
	San Antonio	100,000	6,791	60	139,576	7,675	63
New York	Albany	205,000	18,735	51	205,000	18,611	49
(Includes New York State, New Jersey.)	Brooklyn	750,000	71,863	100	750,000	58,259	106
	Buffalo	307,340	34,148	125	307,441	35,811	125
	Newark	425,000	55,294	123	425,000	56,793	125
	*New York	1,219,920	83,742	168	1,219,920	86,863	176
	Ogdensburg	96,000	3,795	17	97,000	3,888	17
	Rochester	155,000	20,711	59	155,000	21,194	63
	Syracuse	151,463	9,904	22	151,463	10,943	25
	Trenton	140,000	13,664	45	160,000	13,702	44
Oregon	Baker City	6,450	850	6	6,450	703	4
(Includes Oregon, Washington, Idaho, Montana, Alaska.)	Boise	16,000	1,500	10	16,000	1,389	8
	Great Falls	26,500	1,000	9	27,500	1,200	9
	Helena	95,000	5,700	14	70,000	5,836	14
	*Oregon City	60,000	4,382	44	60,000	5,921	46
	Seattle	98,000	6,467	40	70,000	4,629	27
	Alaska	11,500	376	8	11,500	360	8

TABLE 2.—*General statistics of parish schools in 1914 and 1915*—Continued.

Ecclesiastical province.	Dioceses included in province.	1914			1915		
		Catholic population.	Pupils.	Schools.	Catholic population.	Pupils.	Schools.
Philadelphia	Altoona	92,810	8,735	35	94,530	9,567	37
(Includes Pennsylvania.)	Erie	125,000	11,692	47	125,000	12,247	47
	Harrisburg	58,410	8,892	40	59,233	9,755	42
	*Philadelphia	650,000	71,833	154	700,000	74,934	154
	Pittsburgh	480,000	50,772	166	500,000	52,743	175
	Scranton	278,000	18,130	84	278,000	18,270	84
St. Louis	Concordia	28,200	3,455	32	30,201	3,981	31
(Includes Missouri, Kansas.)	Kansas City	60,000	5,678	52	70,000	6,967	52
	Leavenworth	70,000	7,083	51	70,000	6,500	52
	St. Joseph	35,000	3,006	25	35,000	3,269	28
	*St. Louis	375,000	33,844	164	385,000	32,044	168
	Wichita	32,500	2,958	36	32,500	2,958	36
St. Paul	Bismarck	31,000	1,812	9	33,500	1,880	9
(Includes Minnesota, South Dakota, North Dakota.)	Crookston	21,250	760	5	23,000	970	7
	Duluth	43,200	2,185	9	45,400	2,625	10
	Fargo	69,871	1,888	17	69,871	2,492	16
	Lead	16,000	841	8	15,000	186	3
	St. Cloud	65,500	3,000	22	65,500	4,600	25
	*St. Paul	265,000	22,351	93	265,000	22,817	95
	Sioux Falls	55,000	3,859	29	30,500	3,831	29
	Winona	67,000	6,110	29	67,000	6,300	32
San Francisco	Monterey and Los Angeles.	110,000	9,280	38	139,480	9,316	40
(Includes California, Nevada, Utah.)	Sacramento	50,000	2,050	11	50,000	2,312	11
	Salt Lake	13,000	898	7	13,000	280	4
	*San Francisco	250,000	13,900	46	280,000	12,236	46
Santa Fe	Denver	109,182	6,550	27	108,336	7,291	30
(Includes Colorado, Arizona, New Mexico.)	*Santa Fe	140,573	4,415	21	140,573	3,607	22
	Tucson	55,000	1,730	10	40,000	2,359	7
Ruthenian-Greek		500,000		120	500,000		150
Total		16,067,985	1,429,859	5,403	16,309,310	1,456,206	5,488

LUTHERAN PAROCHIAL SCHOOLS.

By W. H. T. DAU, Concordia Seminary, St. Louis, Mo.

The present report on the status of the Lutheran parochial schools during 1914 has been prepared under an even greater handicap than its predecessor for 1913. The largest Lutheran body, and the one most devoted to the parochial school, the Missouri Synod, decided at its general convention at Chicago in May, 1914, to discontinue the annual publication of parish reports, and to publish these reports in periods covering three years. The next report will appear in January, 1917. The reason for this action was economy. To publish statistical tables exhibiting in detail the status and progress of church work in nearly 3,700 congregations entails a considerable expense. Moreover, the changes in the statistics of most congregations from one year to the next are not very great. Accordingly it was held that the last published statistics might be made to serve for several years.

Some of the Lutheran Church bodies, however, have given to the public more exact statements regarding their parochial school work than were available for 1913. A comprehensive view of all the facts obtained shows that there is no marked change in the status of the Lutheran parochial schools of the country.

For the history and location of the various bodies named in this chapter the reader is referred to the extensive account which was published by the Bureau of Education in 1913.[1]

From the United Synod in the South no parochial school work has been reported. It is a question whether the school reported last year by the Mississippi Synod, which is federated with the above-named larger body, has been abandoned. If so, there is here to be recorded a loss of 1 school, 2 teachers, 119 pupils. The United Synod at the beginning of 1914 reported a baptized membership of 71,225 (69,603 in 1913), and a communicant membership of 50,748 (50,819 in 1913).

No parochial schools are reported from the General Synod, which now numbers 441,444 baptized and 328,586 communicant members (420,282 and 320,246 in 1913).

The baptized membership of the General Council has arisen from 766,623 in 1913 to 769,456, and the communicant membership from 493,279 to 504,023. The parochial schools in this body have within the last year increased from 593 to 620, the number of teachers from 690 to 754, and the number of pupils from 26,067 to 26,818.

The General Council is composed of 13 synods. Seven of these report no parochial schools. Among the remaining 6 the totals given above for the entire General Council are distributed as follows: Ministerium of Pennsylvania, 40 schools, 73 teachers, 2,270 pupils (13, 22, and 2,120 in 1913); Ministerium of New York, 80 schools, 42 teachers, 3,466 pupils (77, 41, and 3,295 in 1913); Swedish Augustana Synod, 437 schools, 613 teachers, 19,250 pupils (446, 598, and 18,927 in 1913); Synod of Canada, 39 schools, 22 teachers, 980 pupils (37, 22, and 810 in 1913); Pacific Synod, 4 schools, 4 teachers, 72 pupils (3, (?), and 118 in 1913). The Synod of New York and New England, which appeared in the report for 1913, reports no parochial schools at present. The changes in this part of the report as compared with last year's would indicate that the parochial school has increased in efficiency in the Ministerium of Pennsylvania and in the Swedish Augustana Synod, both bodies having increased the number of their teachers for a smaller number of schools.

The 14 independent Lutheran bodies operating in the United States report 1,102,463 baptized and 690,528 communicant members (1,083,141 and 672,150 in 1913). All but three make at least partial reports of parochial school work done by them, totaling 1,437 schools, 1,595 teachers, 79,472 pupils (1,426, 1,986, and 78,981 in 1913). The differences in this division between the present figures and those for 1913 are due chiefly to defective reporting; e. g., the Norwegian Synod, the United Danish Lutheran Church, and the Norwegian Lutheran Free Church have published no reports for the present

[1] An. Rep. Comm. of Educ. for 1913, vol. 1, Ch. XVII, p. 395. (Also reprinted separately.)

year. The total gains or losses in this division, as given above, are distributed among the various independent synods, as follows:

The Ohio Synod has increased from 285 to 290 schools and from 122 to 132 teachers, but has decreased from 9,708 to 9,655 pupils.

Conditions have remained the same as last year in the German Buffalo Synod (20 schools and 7 teachers), the Norwegian Eielson's Synod (6 schools and 4 teachers), and the German Texas Synod (12 schools, 12 teachers, 250 pupils).

Hauge's Norwegian Synod last year reported 185 schools, with 6,000 pupils, failing to give the number of teachers. This year the same synod fails to give the number of schools, but reports 222 teachers and the same number of pupils as last year.

The German Iowa Synod reports 985 schools, 39 teachers, 11,448 pupils (500, 37, and 11,448 in 1913).

The Danish Lutheran Church reports 59 schools, 78 teachers, 2,224 pupils (84, 52, and 2,498 in 1913).

The German Immanual Synod has increased from 11 to 18 schools, from 11 to 19 teachers, and from 702 to 814 pupils.

The Finnish Suomi Synod reports 47 schools, 50 teachers, and 2,800 pupils (49, 53, and 2,175 in 1913).

The United Norwegian Church reports 1,032 teachers and 46,281 pupils (941 and 36,500 in 1913).

The 89 parochial schools which were credited to the United Danish Lutheran Church in the last report have not been reported this year. There is no reason to believe that they have been abandoned.

From the Norwegian Lutheran Free Church no report has appeared this year. Last year's figures for this body were 185 schools, 220 teachers, 9,700 pupils.

The synods composing the Synodical Conference have increased their baptized membership from 1,283,750 to 1,299,727 baptized, and from 831,120 to 778,500 communicant members.

For reasons explained before, the report for the Missouri Synod is the same as last year, 949,771 baptized and 575,299 communicant members, 2,259 schools, 1,371 teachers, 96,287 pupils.

The Wisconsin Synod reports 190,415 baptized and 153,521 communicant members, 310 schools, 118 teachers, 36,112 pupils (190,217, 175,624, 318, 118, and 35,875 in 1913).

The Minnesota Synod reports 97,291 baptized and 25,547 communicant members, 120 schools, 26 teachers, 16,121 pupils (97,271, 48,114, 154, 26, 16,121 in 1913).

The District Synod of Michigan numbers 21,673 baptized and 8,843 communicant members and reports 75 schools, 29 teachers, 3,085 pupils (21,673, 15,514, 75, 9, and 3,021 in 1913).

In the District Synod of Nebraska the baptized membership has increased from 20,105 to 20,285, the communicants have decreased from 11,108 to 6,090, the schools from 30 to 20, and the teachers from 5 to 4; the number of pupils, 1,085, remains the same.

For the Slovak Synod there are reported 20,292 baptized and 9,200 communicant members, 28 schools, 2 teachers, 1,426 pupils. The figures were respectively 20,285, 15,631, 25, 2, and 8,821 in 1913.

PRESBYTERIAN CHURCH SCHOOLS (NORTHERN).

By MARSHALL C. ALLABEN, Superintendent of Schools, Woman's Board of Home Missions of the Presbyterian Church in the United States of America.

The educational work of the Presbyterian Church is so conducted that a full report of this phase of its activity would involve not only the Presbyterian Church in the United States of America, but also the United Presbyterian Church and the Presbyterian Church South.

The account herein given has reference merely to the primary and secondary schools of the Presbyterian Church in the United States of America under the administration of the (*a*) Woman's Board of Home Missions and the (*b*) Board of Missions for Freedmen.

(*a*) The task of the Woman's Board of Home Missions is primarily to establish and maintain grammar and secondary schools at strategic points throughout the United States, among communities deprived by location, race prejudice, environment, or for some other reason from the advantages of public-school education or Christian influence and training of any kind. Through the mission schools established in such centers appeal is made to the moral and spiritual sides of life, and the resulting tendency is almost invariably a general mental awakening and improved standards of living. The course of study followed in the mission schools is similar to that of the State public schools, with greater emphasis placed on industrial training, so that when boys and girls leave these schools they are well equipped for the successful undertaking of life in a rural environment, either as useful citizens or as home makers.

These are approximately 235 teachers and 3,600 pupils connected with the mission schools, and with few exceptions the teachers are either college or normal-school graduates.

The following table of statistics will give an idea of the number and enrollment of the schools classified according to the various fields representing the work of the woman's board:

Presbyterian schools under the Woman's Board of Home Missions.

Population.	Boarding schools.	Day schools.	Total.	Commissioned workers.	Enrollment.		
					Boarding schools.	Day schools.	Total.
Alaskan	1	.....	1	15	146	.....	146
Indian	5	1	6	44	357	25	382
Mexican	3	11	14	50	305	780	1,085
Mormon	2	4	6	33	278	281	559
Southern mountaineer	11	.....	11	84	1,070	.....	1,070
Porto Rican and Cuban	.....	3	3	9	.....	383	383
Total	22	19	41	235	2,156	1,469	3,625

In addition to the above schools, mention should be made of Presbyterian schools in immigrant communities. These are controlled on a different basis from the others, the work being administered locally, although the funds pass through the hands of the board. Organized effort for Slavs, Bohemians, Hungarians, and other foreigners has been recorded, but the day school and community work are so blended that they can not well be differentiated in a brief report.

(*b*) The Board of Missions for Freedmen has for its task the educational development of the Negro race in the South. This is a problem which has confronted the church ever since the emancipation of the Negro 50 years ago, until now it is concerned with more than 8,000,000 colored people, largely in rural communities, scattered throughout 13 States. When the fact is considered that 30 per cent of these 8,000,000 people are illiterate, it can readily be seen that the church is committed here to a most important work.

In the 13 States referred to the Board of Missions for Freedmen has established 140 schools, having 480 teachers and approximately 17,000 pupils. Only Christian teachers are employed, and as a rule they must be members of the Presbyterian Church. Of the 140 schools, all with the exception of 6 are under the administration of responsible colored people. The value of industrial training is recognized as an important part of the curriculum of the schools, and Bible and catechism are required daily studies. The schools are classified and distributed as follows:

Presbyterian schools under the Board of Missions for Freedmen.

States.	Boarding schools for young men.	Boarding schools for young women.	Coeducational boarding schools.	Other schools.	Total.
Alabama		1		2	3
Arkansas			5	5	10
Florida				3	3
Georgia			4	9	13
Kentucky			1	2	3
Maryland				1	1
Mississippi		1			1
North Carolina	1	1	4	23	29
Oklahoma			1	1	2
South Carolina	1		4	40	45
Tennessee			1	8	9
Texas		1			1
Virginia		1		20	21
Total	2	5	20	114	141

SCHOOLS OF THE PRESBYTERIAN CHURCH IN THE UNITED STATES (SOUTHERN).

By Henry H. Sweets, Secretary of Education, Louisville, Ky.

The General Assembly of the Presbyterian Church in the United States is composed of 16 synods, which comprise the States of Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Missouri, Arkansas, Oklahoma, and Texas.

Each one of these synods is now engaged in the work of correlating, standardizing, and unifying the appeal of all of the institutions within its bounds.

In all of these there are 6 theological seminaries with 36 teachers, 43 buildings, property valued at $1,000,000, endowment funds of $1,840,000, and 95,000 books in the libraries.

There are 28 colleges with 387 in the faculties, 3,873 students, 164 buildings, property valued at $4,895,000, endowment funds of $2,234,600, and 149,936 books in the libraries.

There are 21 institutions of the grade of academies, collegiate institutes, and junior colleges with 154 in the faculties, 1,482 students, 54 buildings, property valued at $796,000, endowment funds of $130,000, and 12,702 books in the libraries.

There are 34 mountain schools of varying grades with 117 in the faculties, 2,806 students, 72 buildings, property valued at $273,300, and endowment funds of $15,100.

There are 11 orphans' homes and schools with 42 in the faculties, 1,016 children, 76 buildings, property valued at $773,000, and endowment funds of $171,000.

This gives a total of 100 educational institutions with 736 in the faculties, 9,491 students, 409 buildings, property valued at $7,734,030, endowment funds of $4,386,603, and 255,359 books in the libraries.

Mountain schools.—Thirty-four schools of varying grades are being conducted in the Appalachian Mountains, in the States of West

Virginia, Virginia, North Carolina, Georgia, Tennessee, and Kentucky, and one in the Ozarks in Missouri.

Negro schools.—Three primary schools for the Negro population are conducted; and a large college and theological seminary at Tuscaloosa, Ala., is maintained by the church.

Indians.—A college and high school are maintained in Oklahoma for the Indians.

Mexicans.—Several primary schools and an industrial training school of higher grade have been established in Texas to minister to the Mexican population.

SCHOOLS OF THE BAPTIST CHURCH (NORTH).

By F. W. Padelford, Corresponding Secretary, Board of Education of the Northern Baptist Convention.

The Baptist Churches of the Northern States maintain an educational system that includes 8 theological seminaries for the professional training of its ministers, 24 colleges and universities, and 25 academies. Most of the academies confine their instruction to work usually given in the four-year high-school course, though a few have developed the courses belonging to the junior college. The accompanying table indicates the character of these schools, their size and strength. The Baptist Church has no parochial school system and maintains no schools below high-school grade, save such as are conducted among the exceptional populations.

Among these populations the church conducts several schools for training ministers for their own people, as follows: For the Germans at Rochester, N. Y.; for the Italians at Brooklyn, N. Y.; for the Hungarians at Cleveland, Ohio; for the Norwegians and for the Slavs at Chicago, Ill.; for the Swedes at Minneapolis, Minn.; and for the Danes at Des Moines, Iowa. These schools give instruction of all grades, according to the requirements of the pupils, from the grammar school through the divinity school.

The Baptists also maintain, through their home-mission boards, 13 colleges and 10 schools of secondary grade for the Negroes. These are well scattered through the Southern States and enroll over six thousand pupils. In addition to these schools entirely maintained by the boards, many teachers are supported in schools under other control. For the education of the Indians, the church maintains Indian University at Bacone, Okla., besides one other school of lower grade in the State and two schools in Mantana. Schools for Chinese children are sustained in San Francisco, Sacramento, and Oakland, Cal., and at Portland, Oreg.; for the Poles in Milwaukee, Wis.; and for the Italians in Brooklyn, N. Y. Schools of various grades from the kindergarten to divinity schools are conducted in Cuba, Porto Rico, and Mexico.

The following tables give the most recent statistics:

TABLE 1.—*Baptist educational institutions in the Northern States.*

Name.	Location.	College students.[1]	Total students.	Faculty.	Buildings.	Value of land and buildings.	Endowment.	Income.
Seminaries.								
1. Colgate	Hamilton, N. Y	17	36	17	1	[2]	[2]	[2]
2. Crozer	Upland, Pa	40	83	13	10	$200,000	$800,000	$41,000
3. Chicago	Chicago, Ill	318	347	28	3	[3]	[3]	[3]
4. Kansas City	Kansas City, Kans	15	62	11	2	62,000	25,000	15,359
5. Newton	Newton Center, Mass	56	70	12	5	217,750	898,770	39,387
6. Northern Baptist	Chicago, Ill	.....	18	6	.....	.....	.....	.....
7. Pacific Coast	Berkeley, Cal	4	20	4	3	20,000	23,973	4,984
8. Rochester	Rochester, N. Y	158	83	15	5	502,686	1,758,039	78,837
Total		608	719	106	.....	1,002,436	3,505,782	179,567
Colleges.								
9. Brown	Providence, R. I	976	976	96	.....	2,000,000	3,258,926	250,029
10. Bucknell	Lewisburg, Pa	598	628	45	16	335,192	735,900	131,085
11. Central	Pella, Iowa	68	180	18	5	110,000	54,735	19,828
12. Chicago	Chicago, Ill	4,340	7,300	274	40	10,452,465	18,398,273	2,076,583
13. Colby	Waterville, Me	449	449	30	9	375,000	475,000	90,000
14. Colgate	Hamilton, N. Y	515	515	31	10	826,128	1,123,881	176,410
15. Colorado	Denver, Colo	60	187	11	1	140,000	.....	14,154
16. Denison	Granville, Ohio	603	665	45	21	941,000	835,000	126,000
17. Des Moines	Des Moines, Iowa	215	600	26	6	220,000	171,000	35,000
18. Franklin	Franklin, Ind	211	211	15	5	214,000	313,000	43,500
19. Grand Island	Grand Island, Nebr	56	200	15	5	130,000	51,000	17,000
20. Hillsdale	Hillsdale, Mich	246	385	20	6	140,000	315,069	31,742
21. Kalamazoo	Kalamazoo, Mich	137	137	16	4	132,000	537,145	39,232
22. La Grange	La Grange, Mo	150	175	10	6	70,000	50,000	6,000
23. McMinnville	McMinnville, Oreg	84	239	15	4	67,900	60,349	28,512
24. Ottawa	Ottawa, Kans	185	280	20	4	132,000	234,762	25,653
25. Redlands	Redlands, Cal	168	187	18	5	211,120	96,000	61,935
26. Rio Grande	Rio Grande, Ohio	22	210	10	2	36,000	78,127	3,257
27. Rochester	Rochester, N. Y	495	495	42	12	1,048,000	1,700,000	124,435
28. Shurtleff	Alton, Ill	75	146	14	7	100,000	130,370	16,734
29. Sioux Falls	Sioux Falls, S. Dak	30	270	13	2	125,000	.....	16,000
30. Stephens	Columbia, Mo	98	239	24	3	300,000	40,000	50,000
31. William Jewell	Liberty, Mo	232	462	25	12	447,362	543,595	57,799
32. Vassar	Poughkeepsie, N. Y.	1,073	1,073	115	.....	3,079,559	1,546,962	702,669
Total		11,086	16,209	948	.....	21,632,726	30,949,094	4,143,557
Academies.								
33. Adelphia	Seattle, Wash	.....	59	8	2	151,182	.....	10,112
34. Bethel	St. Paul, Minn	.....	119	5	2	70,000	.....	50,000
10. Bucknell	Lewisburg, Pa	.....	72	7	2	[4]	[4]	[4]
35. Broaddus	Phillipi, W. Va	.....	214	12	3	160,000	15,000	.....
36. Cedar Valley	Osage, Iowa	.....	62	8	.....	50,000	38,032	5,743
37. Chicago Training	Chicago, Ill	.....	66	18	1	200,000	.....	25,000
38. Coburn	Waterville, Me	.....	124	8	3	96,000	33,598	11,575
39. Colby	New London, N. H	.....	150	10	8	175,000	118,378	35,664
40. Connecticut	Suffield, Conn	.....	185	12	4	200,000	70,000	40,000
41. Cook	Montour Falls, N. Y	.....	102	9	1	122,000	14,700	14,758
16. Doane	Granville, Ohio	.....	138	10	.....	[5]	[5]	[5]
42. Frances Shimer	Mount Carroll, Ill	.....	144	20	8	140,000	60,000	46,000
43. Hebron	Hebron, Me	.....	247	14	10	216,576	200,931	38,345
44. Hiawatha	Hiawatha, Kans	.....	120	7	3	30,000	60,000	6,000
45. Higgins	Charleston, Me	.....	94	7	2	75,000	19,000	4,500
46. Keystone	Factoryville, Pa	.....	136	10	6	120,000	24,400	20,335
47. Maine Central	Pittsfield, Me	.....	221	11	3	120,000	53,265	21,129
48. Peddie	Hightstown, N. J	.....	330	19	12	376,985	130,117	120,506
49. Philadelphia Training.	Philadelphia, Pa	.....	50	29	1	130,000	5,000	13,145
50. Pillsbury	Owatonna, Minn	.....	204	15	8	260,000	293,000	48,000
51. Ricker	Houlton, Me	.....	152	7	2	60,000	22,700	7,000
52. Vermont	Saxtons River, Vt	.....	72	10	10	200,000	76,000	20,000
53. Wayland	Beaver Dam, Wis	.....	173	13	6	208,125	247,762	46,769
54. Western Pennsylvania.	Mount Pleasant, Pa.	.....	84	7	2	35,000	51,000	6,441
55. Worcester	Worcester, Mass	.....	275	21	6	550,000	200,000	50,000
Total		.....	3,593	297	.....	3,745,868	1,732,883	641,022
Grand total		.....	20,521	1,351	.....	26,381,030	36,187,759	4,964,146

[1] In seminary figures "College students" means college graduates. In college figures it means students in the 4 college classes.
[2] Included in Colgate University.
[3] Included in Chicago University.
[4] Included in Bucknell University.
[5] Included in Denison University.

TABLE 2.—*Negro and miscellaneous schools for year ending May 31, 1915.*

Negro and miscellaneous schools.	Enrollment.								Average attendance.			Preparing for college.	Pursuing college course.	Preparing to teach.	Receiving instruction in industrial work.	Preparing for the ministry.	Pursuing ministerial course.	Pursuing missionary training course.	Pursuing nurse training course.	Number of conversions.
	Teachers.					Puplis.														
	White.		Negro.		Total.	Male.	Female.	Total.	Day students.	Boarders.	General average.									
	Male.	Female.	Male.	Female.																
Higher schools for negroes.																				
Arkansas Baptist College, Little Rock, Ark	.....	.....	8	9	17	154	134	288	136	89	225	165	16	85	90	20	20	.....	.....	1
Benedict College, Columbia, S. C.	4	13	5	5	27	248	350	598	231	244	475	14	53	175	135	48	15	9	3	37
Bishop College, Marshall, Tex.	4	9	3	6	22	122	118	240	43	167	210	124	53	58	187	15	15	.....	.....	6
Hartshorn Memorial College, Richmond, Va	1	9	.....	3	13	.....	210	210	55	140	195	.....	2	175	74	.....	.....	.....	.....	2
Jackson College, Jackson, Miss.	.....	.....	6	10	16	102	147	249	99	81	180	.....	.....	38	199	5	.....	.....	.....	10
Morehouse College, Atlanta, Ga.	1	3	13	3	20	320	.....	320	126	165	291	144	124	30	236	68	3	.....	.....	19
Roger Williams University, Nashville, Tenn.	.....	1	10	11	22	73	54	127	13	75	88	51	6	31	119	18	.....	.....	.....	8
Selma University, Selma, Ala.	.....	1	9	10	20	126	176	302	115	81	196	11	3	55	120	28	4	.....	.....	3
Shaw University, Raleigh, N. C.	2	7	14	3	26	143	147	290	100	161	261	157	25	23	227	11	3	.....	.....	14
Spelman Seminary, Atlanta, Ga	.....	45	.....	5	50	.....	644	644	241	327	568	27	9	179	500	.....	.....	.....	21	24
State University, Louisville, Ky.	1	.....	8	5	14	93	65	158	40	97	137	.....	6	21	93	17	17	.....	.....	10
Storer College, Harpers Ferry, W. Va	3	9	3	3	18	54	80	134	34	85	119	25	.....	40	134	4	.....	.....	.....	.....
Virginia Union University, Richmond, Va	6	2	6	1	15	282	3	285	71	180	260	86	49	30	79	108	28	.....	.....	4
Total	21	99	85	74	280	1,717	2,128	3,845	1,304	1,901	3,205	804	346	950	2,193	342	105	9	24	138
Secondary schools for negroes.																				
Americus Institute, Americus, Ga.	.....	.....	5	9	14	49	80	129	49	51	100	53	.....	21	42	4	.....	.....	.....	1
Coleman Academy, Gibsland, La.	.....	.....	7	5	12	85	161	246	112	58	170	.....	70	.....	.....	15	.....	.....	.....	9
Florida Baptist Academy, Jacksonville, Fla.	.....	.....	5	16	21	232	282	514	229	142	371	.....	.....	.....	161	.....	8	.....	.....	40
Howe Bible and Normal Institute, Memphis, Tenn.	.....	.....	6	9	15	175	88	263	165	17	182	.....	.....	43	92	22	.....	.....	.....	1
Jeruel Academy, Athens, Ga.	.....	.....	3	6	9	56	84	140	66	28	94	.....	.....	24	70	7	7	.....	.....	8
Thompson Institute, Lumberton, N. C.	.....	.....	1	5	6	27	75	102	35	47	82	.....	.....	.....	47	.....	.....	.....	.....	3

Tidewater Institute, Cheriton, Va.			2	3	5	42	82	124	87	12	99	17		16	32					11
Walker Baptist Institute, Augusta, Ga.			2	11	13	71	180	251	99	50	149				108	24	24			5
Waters Normal Institute, Winton, N. C.			3	6	9	133	146	279	127	41	168			28		4	4			9
Western College, Macon, Mo.			5	6	11	39	55	94	30	28	58			35	47	8	8			6
Total			39	76	115	909	1,233	2,142	999	474	1,473	70	70	167	597	84	51			93
Miscellaneous.																				
Indian University, Bacone, Okla.	5	12			17	156	122	278	16	218	234				25	7				
Red Stone Indian School, Red Stone, Okla.		1			1	13	10	23	17		17				19					
International Schools, El Cristo, Cuba	6	5			11	87	79	166	59	75	134	23	3	5	4	4	4			40
Theological School, Monterey, Mexico[1]																				
Grace Conaway Institute, Rio Piedras, P. R.	1				1	18		18	17		17				5	14				
Total	12	18			30	274	211	485	109	293	402	23	3	5	53	25	4			40
Grand total	33	117	124	150	425	2,900	3,572	6,472	2,412	2,668	5,080	897	419	1,122	2,843	451	160	9	24	270

[1] Temporarily discontinued.

THE EDUCATIONAL WORK OF THE METHODIST EPISCOPAL CHURCH.

By Edward S. Lewis, Associated Editor of Sunday School Publications.

The educational work of the Methodist Episcopal Church in the United States may be summarized as follows:

1. Sunday schools.
2. Young people's work in the Epworth League.
3. Institutions affiliated with the board of education.
4. The schools of the Freedmen's Aid Society.
5. Deasonesses' homes and schools.

1. The work of the Sunday schools of the Methodist Episcopal Church is religious education. An extensive literature is provided by the publishing house of The Book Concern, located in Cincinnati, Ohio, and New York City. The Sunday schools of the church number 35,719, with a total enrollment of 4,186,766 officers, teachers, and scholars.

2. The Epworth League is the official young people's organization of the church. One prominent department of its work is educational. It conducts classes in Bible study, missions, and social service. All local leagues are urged by the central office to organize and maintain such classes. These the central office aids with helpful supervision and with suitable literature.

3. The board of education operates with the numerous educational institutions of the church to standardize them and to promote in them the best educational ideals. For this it works through the university senate. This has established scholastic standards for the secondary schools and colleges. These relate to courses of study, minimum requirements by units, quality of work, minimum of productive endowments, size of faculties, and number of students.

To a number of needy institutions the board of education contributes financial aid. Upon its official list there are 51 colleges and universities, 42 secondary schools, 11 theological schools, and a number of other professional schools and training schools for missionary work. In the above institutions there are 3,393 professors and 42,566 students. The value of their property and equipment is $28,321,704, and their total endowment is $27,052,436.

4. The work of the Freedmen's Aid Society is the preparation and training of ministers, teachers, physicians, and other Christian leaders for the 10,000,000 Negro people in the United States, and particularly for the 325,000 of them and their families that are members of the Methodist Episcopal Church. This work is done in 22 schools and colleges in the South, in which are 6,961 students, about one-half of whom are in industrial classes, such as agriculture, blacksmithing, carpentering, wagon making, printing, painting, dressmaking, millinery, and general housekeeping.

5. There are 78 Deaconess Homes of the Methodist Episcopal Church, practically all of which are engaged in some form of educational work. Many of them maintain well-organized training schools for deaconess and missionary work. Eight of the larger training schools report property values of $796,600 and 251 students in training.

SCHOOLS OF THE METHODIST EPISCOPAL CHURCH SOUTH.

By W. E. Hogan, Assistant Secretary of Board of Education.

The educational work of the Methodist Episcopal Church South—not including its schools in foreign-mission territory—is confined largely to the 88 universities, colleges, junior colleges, and academies which it owns and controls. In addition to these, there are a number of special schools conducted by this church.

Schools of the Home Mission Board.—The home department of the board of missions is maintaining: (1) Two mountain schools—1 in Kentucky and 1 in North Carolina—that together have 27 teachers and 555 students; (2) 3 schools on the Florida coast, with 26 teachers and 740 students; (3) 4 schools for Japanese—2 kindergartens, 1 day school, and 1 night school—on the Pacific coast, having 6 teachers and 109 pupils; (4) 2 schools in Georgia and Texas for friendless or unfortunate girls, with 12 teachers and 262 students; (5) 1 school in Georgia for Negro industrial education; (6) 1 school for Mexicans at Laredo, Tex., having 15 teachers and 276 students. There are in all of these schools 90 teachers and 2,006 students, while the total value of the property is $368,465, and the annual cost of maintenance, in addition to the amount received for tuition fees, is $62,639.

Cuba and Mexico.—Through the foreign department of the board of missions this church is maintaining in Cuba 3 secondary and 2 primary schools, with 29 teachers and 338 pupils; and along the borderland of Mexico it has 5 schools with 37 teachers and 884 pupils.

Mountain schools.—In addition to the 2 mountain schools mentioned above the church, through its annual conferences, maintains schools giving primary and secondary instruction in mountain fields. These schools are distributed as follows: In Alabama, 1; Arkansas, 1; Georgia, 2; Kentucky, 1; North Carolina, 1; Tennessee, 1; Virginia, 1; West Virginia, 1. These schools are looked upon as missionary enterprises, and appropriations for current expenses are made to them annually by the general conference board of education. There are in these schools 80 teachers and 1,710 students. The majority of these schols doubtless report to the Bureau of Education as "private high schools."

Bible and Missionary Training School.—An institution which would not be reported elsewhere is the Scarritt Bible and Missionary Training School, at Kansas City, Mo. This institution is maintained by the Woman's Missionary Council for the training of missionaries, deaconesses, kindergartners, and other special church workers. This institution has a plant valued at $73,000, an endowment of $140,000, an annual income of about $17,000, and enrolled in 1914–15 69 students.

Negro education.—Through its general conference board of education the Methodist Episcopal Church South makes annual appropriations of from ten to fifteen thousand dollars to schools for negroes. Most of this goes to Paine College, Ga., an institution owned jointly by the Southern Methodist Church and the Colored Methodist Episcopal Church. In making this appropriation to Paine College, it is understood that it is to be used largely for the training of preachers and teachers of the Colored Methodist Episcopal Church.

SCHOOLS UNDER THE DIRECTION OF THE MORAVIAN CHURCH IN AMERICA.

By J. H. Clewell, Ph. D., Moravian Seminary and College for Women, Bethlehem, Pa.

The Moravian Church in America was among the pioneers of advanced education, especially for young women. Three-quarters of a century before any effort was made to provide advanced education for young women in any portion of the territory now embraced by the United States the well-known Moravian school at Bethlehem, Pa., was providing education for the daughters of almost every family of prominence in the Colonies and later in the States.

In earlier years the church conducted parochial schools in connection with nearly all its congregations, but these primary and secondary schools were in later years gradually merged into the public schools. The boarding schools, however, because of their special home oversight, united with their scholastic advantages, have continued without interruption since 1742 to the present day.

The two principal groups of these schools are located in North Carolina and in Pennsylvania. The school for girls and young women in Winston-Salem, N. C. (Salem Academy and College), with more than 500 students, has done its work for more than a century. The boys' school in Winston-Salem has been united with the city school system, after a history of usefulness of more than 100 years. The school at Clemmons, N. C., still retains its organization, though it, too, has been united with the State's interests as a home-farm school and promises to become a valuable institution of the newer type.

In Pennsylvania the work was begun in 1742 by the organization of the Moravian Seminary and College for Women, and this school has continued its work without interruption ever since. To-day it is an accredited college, with many States, North and South, represented in the student body.

The Moravian Parochial School, in Bethlehem, also has an uninterrupted history of 174 years, and is to-day largely patronized. In the same town of Bethlehem is located the Moravian College for Men and the Theological Seminary of the Moravian Church. This school has within recent years moved to College Hill, where a number of substantial stone structures have been erected, and the institution is doing an excellent work.

Two other schools of historic interest and present-day usefulness are the schools at Nazareth and at Lititz, Pa. Nazareth Hall, the military academy for boys, and Linden Hall, the seminary for girls at Lititz, are both boarding schools with a widely distributed patronage.

The Moravian Church has a flourishing school system among the Indians of California in connection with its regular church work.

In Alaska the church also has an aggressive school system. The United States Government has joined its effort with that of the Moravian Church in a number of districts on the Kuskokwim River and other sections, and these schools form an important part of the work of civilizing the natives and making them intelligent citizens.

EDUCATIONAL WORK OF THE CONGREGATIONAL CHURCH.

Compiled from latest reports.

The Congregational Church, through its Home Missionary Society, sustains 415 distinct organizations among immigrant peoples in the United States. These organizations are distributed over 33 States and include the following nationalities, divided according to language: German, Bohemian, Swedish, Dano-Norwegian, Italian, Welsh, Finnish, Slovak, Spanish, Persian, Albanian, Greek, Portuguese, Polish, Bulgarian, Swede-Finnish, Turkish-Armenian, and Syrian.

The American Missionary Association, of this denomination, does work among the backward races and in backward conditions in our own country. It has 90 schools, 3 of which are theological, 6 of which are colleges, 30 secondary institutions, 27 elementary institutions, 5 affiliated schools, 19 ungraded schools. In these schools are 14,515 pupils and over 600 teachers. This work is done among the Negroes, mountain whites, Indians, Chinese and Japanese, Porto Ricans, and Hawaiians.

The Congregational Education Society has 7 mission schools and 1 industrial institute among the Mexican people in New Mexico; 3 graded schools and 2 academies in Utah. In addition to this, the society assists 10 academies and 7 colleges with financial aid. It is helping to support the university pastors at 10 State universities, is doing an extended Christian work among the students in colleges, and is assisting over 200 young men each year who are studying for the ministry.

Among special work of the Congregational Church may be mentioned in Slavic department of Oberlin Theological Seminary, designed to supply teachers and pastors for Slavic populations in the United States; also the Latin-American Institute of West Tampa, Fla., which trains teachers for the Latins, particularly for Cuba.

The work that the Congregational Church has done for years at Ellis Island consists largely in giving information concerning public schools to the bewildered immigrants that pass into America through this gateway.

SCHOOLS OF THE REFORMED CHURCH IN AMERICA.

By Mrs. JOHN S. ALLEN, Secretary of Women's Board of Domestic Missions.

The women's board of domestic missions of the Reformed Church in America sustains two well-developed schools in Jackson County, Ky. One is at McKee, the county seat. This is known as the McKee Academy. It has an enrollment of 125 pupils and the grades run through the eighth. There is also a special normal class for those who have completed the eighth grade and wish to become teachers. The school was opened in 1901. The curriculum keeps closely in view the development of community service by training in spiritual lines as well as in the cultural and industrial.

The other school is at Annville, Ky., where the board of domestic missions sustains the Annville Institute for boys and girls, with separate dormitories. There is here a daily attendance of about 130. The same general plan is in operation here as at McKee, except that industrial work is carried on more extensively through the large farm, which makes possible experiments in farming and cattle raising.

At Gray Hawk, Ky., the board has recently opened a successful primary school.

Scholarships are also provided at Santee, Nebr., for Winnebago Indian students.

EDUCATIONAL WORK OF THE PROTESTANT EPISCOPAL CHURCH.

By Rev. William E. Gardner, General Secretary of the General Board of Religious Education.

The Protestant Episcopal Church has three church colleges, and about 225 church schools. Many of these are under dioceasan authority; others are managed by boards of trustees. The parochial schools of the church are connected for the most part with parishes that are doing work among foreigners.

The church's organization for religious education includes a department of parochial education, a department of secondary education, a department of collegiate education, and a department of theological education.

The aim of the church is to unify all of the educational work of the church that there may be proper correlation in Christian nurture as well as economy in administration.

DENOMINATIONAL SCHOOLS FOR INDIANS.

By E. B. Meritt, Assistant Commissioner of Indian Affairs.

The Indian Service welcomes the cooperation of the various religious denominations in the conduct of educational work on the Indian reservations. The great assistance given by them in the civilization of the Indian, and likewise in his education, is fully appreciated. Their earnest efforts result in much educational work being done for the benefit of the Indian of which no record is ever kept and for which no credit can be given.

The following table gives the mission schools carrying on educational work on Indian reservations under the control of the various denominations and the total enrollment of each institution which reports to the Indian Office.

Indian children in mission and private schools.

States and superintendencies.	School.	Contract boarding.	Noncontract.		Total children.	Remarks.
			Boarding.	Day.		
Arizona:						
Fort Apache	Cibecue			18	849	Evangelical Lutheran.
	East Fork			14		Do
Leupp	Tolchaco		24			Mission; independent.
Navajo	Ganado			31		Presbyterian.
	Rehoboth		68			Christian.
	St. Michaels		154			Reformed Catholic.
Pima	St. Ann's (Guadalupe)			38		Catholic.
	St. John's		260			Do.
	St. Michael's			22		Do.
San Carlos	Rice			27		Evangelical Lutheran.
San Xavier	Lourdes			24		Catholic.
	San Anthony			30		Do.
	San Miguel			18		Do.
	Tucson		121			Presbyterian.

Indian children in mission and private schools—Continued.

States and superintendencies.	School.	Contract boarding.	Noncontract.		Total children.	Remarks.
			Boarding.	Day.		
California:						
Malki	St. Boniface		109		109	Catholic.
Idaho:						
Coeur d'Alene	De Smet		82		162	Do.
Fort Hall	Good Shepherd		22			Episcopal.
	Presbyterian mission			8		Presbyterian.
Fort Lapwai	St. Joseph's		50			Catholic.
Michigan:						
Mackinac	Baraga (Holy Name)		87		217	Do.
	Harbor Springs (Holy Childhood).		130			
Minnesota:						
Red Lake	St. Mary's	86			196	Do.
White Earth	St. Benedict's		110			
Montana:						
Blackfeet	Holy Family		129		678	Do.
Crow	Black Lodge			21		American Missionary Association.
	Lodge Grass			47		Baptist.
	Reno			36		American Missionary Association.
	St. Anne's			16		Catholic.
	San Xavier		55			Do.
	Wyola			17		Baptist.
Flathead	St. Ignatius		145			Catholic.
Fort Belknap	St. Paul's		105			Do.
Fort Peck	Wolf Point		68			Presbyterian.
Tongue River	St. Labre's	39				Catholic.
Nebraska:						
Santee	Santee Normal Training.		120		157	Congregational.
Winnebago	St. Augustine		37			Catholic.
New Mexico:						
Pueblo Day Schools.	Bernalillo		106		208	Do.
	St. Catherine's		65			Do.
Zuni	Christian Reformed			37		Christian Reformed.
North Dakota:						
Fort Berthold	Congregational		12		81	Congregational.
Standing Rock	St. Elizabeth's		69			Episcopal.
Oklahoma:						
Cheyenne and Arapaho.	St. Luke's			32	855	Do.
Kiowa	Cache Creek		15			Reformed Presbyterian.
	Red Stone			23		Mission.
Osage	St. Louis	49				Catholic.
Seneca	St. Mary's	40				Do.
Shawnee	Sacred Heart (St. Benedict's).		55			Do.
	Sacred Heart (St. Mary's).		77			Do.
Five Civilized Tribes—						
Chickasaw Nation.	El Meta Bond College.	15				Private.
	Murray School of Agriculture.	80				
Choctaw Nation.	Old Goodland	86				Presbyterian.
	St. Agnes Mission	59				Catholic.
Chickasaw and Choctaw Nations.	Oklahoma Presbyterian College.	56				Presbyterian.
	St. Agnes Academy	158				Catholic.
	St. Elizabeth's	74				Do.
	St. Joseph's	36				Do.
Oregon:						
Umatilla	St. Andrews (Kate Drexel).		104		104	Do.
South Dakota:						
Crow Creek	Immaculate Conception.	60			711	Do.
Pine Ridge	Holy Rosary	220				
Rosebud	St. Francis'	360				
	St. Mary's		71			

Indian children in mission and private schools—Continued.

States and superintendencies.	School.	Contract boarding.	Noncontract.		Total children.	Remarks.
			Boarding.	Day.		
Washington:						
Colville	Sacred Heart Academy.	.....	37	.....	219	Catholic.
	St. Mary's	.....	74	.....		
Cushman	St. George's	.....	108	.....		
Wisconsin:						
Keshena	St. Anthony	.....	59	.....	493	Do.
	St. Joseph's	242	.....	.....		Do.
La Pointe	Odanah (St. Mary's)	.....	115	.....		Catholic.
Oneida	Adventist Mission	.....	.....	11		Seventh Day Adventists.
	Hobart Mission	.....	.....	22		Episcopal.
Red Cliff	Bay Field (Holy Family).	.....	44	.....		Catholic.
Wyoming:						
Shoshone	St. Stephen's	91	.....	.....	110	Do.
	Shoshone Mission	.....	19	.....		Episcopal.
Grand total	.....	1,751	2,906	492	5,149	

Enrollment in mission Indian schools by denominations.

American Missionary Association (Congregational)	57	Evangelical Lutheran	59
Baptist	64	Independent	47
Congregational	132	Presbyterian	385
Christian Reformed	105	Seventh-day Adventist	11
Catholic	4,030	Private schools	95
Episcopalian	164	Total	5,149

CHAPTER XXIV.

EDUCATIONAL WORK IN THE YOUNG MEN'S CHRISTIAN ASSOCIATIONS.

By Geo. B. Hodge,

Educational Secretary of the International Committee.

Contents.—The need and purpose—Educational activities—Among different groups—The educational secretary—The educatograph—Christian service.

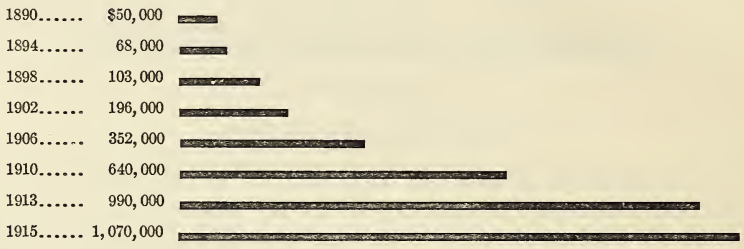
I. THE NEED AND PURPOSE.

The Young Men's Christian Association believes most thoroughly in the American public-school system, and supports its leaders and policies. It realizes that only when such privileges and opportunities are universally and effectively used can best dividends be realized. When it is considered, however, that a large proportion—nearly two-thirds—of the boys have left school by the end of the eighth grade; that the average length of a boy's schooling is somewhat less than six years; that only a small percentage of the males are fitted by definite educational training for their vocations; that illiteracy among voters in the United States is surprisingly large for a country supposed to be highly civilized; that there is relatively much less opportunity in America for definite vocational training than is found in some other nations; there comes a realization of the need of supplementary educational facilities for men and boys, even in this land of rare privilege and opportunity.

The purpose of the Young Men's Christian Association in promoting educational facilities is to help meet some of the demands of present-day complex civilization. All forms of effort, whether by individuals, by clubs, by the church, or by the Young Men's Christian Association, find opportunity for encouraging and supplementing the work of the public schools. As the church through the past 200 years has so often wisely led in providing many forms of appropriate training through colleges, technical schools, and other features, so its leaders through the Christian Associations are now striving to help meet some of the needs of the time. The object in so doing is to develop Christian manhood; to help men and boys help themselves; to inspire them to higher ideals of life and service; to acquaint them with, and help them wisely to develop, their own capabilities; to increase habits of industry and thrift; and to pre-

pare them to render more easily, willingly, and effectively, the highest type of industrial, social, and Christian service. Association educational work thus encourages and strengthens other good forms of educational effort, improves citizenship, and assists commerce and trade through appropriate facilities offered at any time of the day or night, and places emphasis upon Christian character building as fundamental.

DIAGRAM 1.—*Expense of association educational work, aside from light, heat, and rent.*



II. EDUCATIONAL ACTIVITIES.

The scope of educational effort has steadily widened from year to year as associations have increasingly sought to meet local needs. The opportunities offered, day or evening, in the association building or elsewhere, for all kinds of boys and men of varying abilities, of differing ambitions and desires, may be classified into the following groups. The figures are for the school year ended July 1, 1915.

1. *Reading rooms and libraries.*—The associations provide for and encourage the careful reading of the best periodicals, magazines, technical and trade journals. The reading of good books is steadily stimulated. The working library for study and research is the means of most efficient and permanent educational service. Public and private libraries are used increasingly. About one-half million males took advantage of these privileges daily during the year. Over 600,000 standard books were read. Table 1 shows the associations in each of which over 5,000 standard books were read:

TABLE 1.—*Associations in which 5,000 or more books were drawn and read.*

Mobile, Ala	5,631	New York (Grand Cent. Term. R. R.), N. Y	25,331
Washington, D. C	16,532	Dayton, Ohio	6,510
Washington (R. R.), D. C	6,741	Lorain, Ohio	13,200
Peoria (R. R.), Ill	6,245	Philadelphia (Cent.), Pa	6,814
Bonami, La	12,544	Roslyn, Wash	6,950
St. Paul (R. R.), Minn	7,150	Winnipeg, Manitoba	7,426
St. Louis (R. R.), Mo	5,906	Schreiber (R. R.), Ontario	5,010
Albany, N. Y	32,750	White River (R. R.), Ontario	11,793
Buffalo (Central), N. Y	5,655	Montreal (Central), Quebec	16,400
New York (23d St.), N. Y	24,055		
New York (West Side), N. Y	83,818		

2. *Lectures and practical talks.*—During the past year 14,819 lectures and talks were given, and they were attended by nearly 1,000,000 men and boys. Formal, high-grade lectures for mixed audiences, with paid speakers of national reputation, are relatively decreasing, while the number of informal, practical, and science talks or demonstrations given by local talent to small groups of men and boys at any time or place, day or night, is rapidly increasing. This is relatively the most inexpensive type of educational work and at the same time the best feeder for the definite class activities. There is no more limit to the opportunity of the association in conducting such features than there is a limit to the need of such privileges. Table 2 gives the associations reporting 30 or more educational features of this kind.

TABLE 2.—*Associations reporting 30 or more educational lectures and practical talks.*

Mobile, Ala	30	Baltimore (Central), Md	80
Phoenix, Ariz	48	Baltimore (B. & O.), Md	36
Pine Bluff (R. R), Ark	158	Boston, Mass	51
Texarkana (R. R.), Ark	31	Boston (R. R.), Mass	38
Los Angeles, Cal	134	Cambridge, Mass	166
Oakland, Cal	47	Salem, Mass	104
Sacramento, Cal	72	Worcester, Mass	51
San Francisco, Cal	136	Ann Arbor, Mich	45
Colorado Springs, Colo	33	Jackson, Mich	43
Denver, Colo	54	Duluth, Minn	36
Fort Collins, Colo	119	Durand (R. R.), Minn	66
Hartford, Conn	46	Minneapolis, Minn	75
New Britain, Conn	47	St. Paul, Minn	37
New Haven, Conn	98	De Soto (R. R.), Mo	92
Washington (R. R), D. C	128	Kansas City, Mo	85
Washington (colored), D. C	60	St. Joseph, Mo	42
Jacksonville, Fla	31	St. Louis (R. R.), Mo	58
Honolulu, Hawaii	73	Grand Island (R. R.), Nebr	31
Pocatello (R. R.), Idaho	37	Omaha, Nebr	56
Chicago (Central), Ill	32	Berlin, N. H	48
Chicago (Hyde Park), Ill	49	Camden (R. R.), N. J	48
Chicago (C. & E. I.), Ill	59	Jersey City (R. R.), N. J	42
Chicago (C. & N. W.), Ill	39	Madison, N. J	30
Chicago (Dearborn Dept.), Ill	96	Plainfield, N. J	38
Dupo (R. R.), Ill	58	Princeton (colored), N. J	93
Sterling, Ill	38	Albany, N. Y	42
Evansville, Ind	115	Binghamton, N. Y	37
Indianapolis, Ind	48	Brooklyn (Bedford), N. Y	69
Clinton, Iowa	37	Brooklyn (Central), N. Y	58
Davenport, Iowa	47	Brooklyn (E. D.), N. Y	56
Pittsburg, Kans	36	Brooklyn (Greenpoint), N. Y	30
Lexington (R. R), Ky	62	Buffalo (Central), N. Y	72
Louisville (R. R.), Ky	81	New York City (E. S), N. Y	51
East Deering (R. R.), Me	102	New York City (Harlem), N. Y	80
Portland (R. R.), Me	64	Niagara Falls (R. R.), N. Y	80

Poughkeepsie, N. Y	30	Philadelphia (Central), Pa	143
Rome, N. Y	36	Philadelphia (West), Pa	56
Yonkers, N. Y	112	Philadelphia (colored), Pa	60
Charlotte, N. C	76	Pittsburgh (Hill Top), Pa	69
Rocky Mount, N. C	101	Pittsburgh (Lawrenceville), Pa	50
Canton, Ohio	34	Pittsburgh (colored), Pa	61
Cincinnati (Central), Ohio	50	Reading, Pa	36
Cincinnati (Elmwood Br.), Ohio	35	Wilmerding, Pa	151
Cincinnati (R. R.), Ohio	40	Providence, R. I	144
Cleveland (Broadway), Ohio	54	Darlington, S. C	56
Cleveland (East End), Ohio	32	Ducktown, Tenn	38
Columbus, Ohio	53	Houston, Tex	58
Dayton, Ohio	52	Waco, Tex	41
Hamilton, Ohio	191	Richmond, Va	112
Portland, Oreg	88	Seattle, Wash	148
Chester, Pa	101	Spokane, Wash	48
Erie, Pa	107	Milwaukee, Wis	48
Lebanon, Pa	59	Woodstock, Ontario	32
Norristown, Pa	40	Montreal (Central), Quebec	80

3. *Educational clubs.*—Many different kinds of clubs or groups of men or boys are promoted for research, study, discussion, and service to their fellows. Over 27,000 were gathered in such groups the past year. While the association can meet the needs of a few males by means of its library facilities, it appeals attractively to other and larger groups of men through its reading rooms, to still other large groups of people through its lectures or its practical talks, and to still other groups comprising men who are clannish and prefer to unite in groups with their fellows, through the club work. Thus the association in a measure exemplifies the Pauline doctrine—to definitely serve each individual according to his need. Table 3 shows the associations reporting five or more educational clubs with over 100 members.

TABLE 3.—*Associations reporting five or more educational clubs with 100 or more members.*

Associations.	Number.	Members.	Associations.	Number.	Members.
Victoria, B. C	5	120	Glens Falls, N. Y	6	115
Fresno, Cal	6	171	White Plains, N. Y	5	135
Sacramento, Cal	9	162	Kannapolis, N. C	5	135
Hartford, Conn	8	140	Spray, N. C	6	450
New Britain, Conn	5	101	Ashtabula, Ohio	5	100
Jacksonville, Fla	6	151	Cleveland, Ohio (Broadway)	5	200
Chicago, Ill. (Central)	12	325	Cleveland, Ohio (East End)	8	141
Rock Island, Ill	9	208	Findlay, Ohio	6	138
Indianapolis, Ind. (Col.)	6	237	Steubenville, Ohio	5	129
Marshalltown, Iowa (R. R.)	7	100	Johnstown, Pa	6	114
Topeka, Kans. (R. R.)	5	472	Philadelphia, Pa. (Central)	6	223
Cambridge, Mass	6	202	Pittsburgh, Pa. (E. L.)	6	109
Lynn, Mass	5	117	Pottsville, Pa	5	858
Saginaw, Mich	7	113	Providence, R. I	5	109
Moberly, Mo. (R. R.)	9	173	Charleston, S. C	5	180
Thayer, Mo. (R. R.)	5	400	Knoxville, Tenn	5	269
Omaha, Nebr	6	653	Big Springs, Tenn. (R. R.)	5	403
Berlin, N. H	5	392	Richmond, Va	7	335
Albany, N. Y	5	488	Seattle, Wash	12	566
Buffalo, N. Y. (Central)	5	267			

4. Class lecture series.—Those professional, semiprofessional, and vocational courses for mature men, handled by experienced teachers and leaders, form a kind of university-extension work. The sessions differ largely from the practical talks in that they are closely related in a series of from 10 to 25 sessions under one leader. They differ from the regular class-work subjects in that the instruction is largely the same as in college or university—by the lecture methods, supplemented by quiz, reading, and study. The tuition is usually sufficient to cover the expense involved. The subjects include those of advertising, real estate, accountancy, law, salesmanship, credits, efficiency, business management, and the like. Over 9,000 business and college men are students in such courses. In other words, the association in a part of its educational department is supplementing the college and university in affording vocational training in such timely and needed courses as college and university men must have, but which up to the present time they may not yet have secured. Table 4 gives the places reporting such work where there are 50 or more students each.

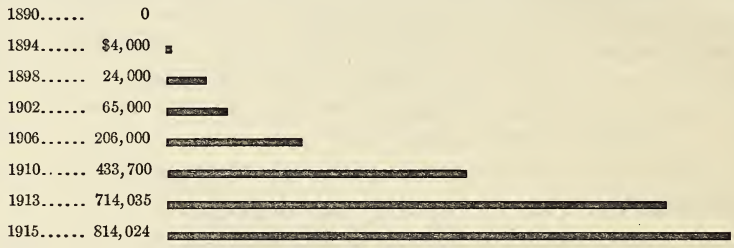
TABLE 4.—*Associations reporting class lecture series with 50 or more students.*

	Students.		Students.
San Francisco, Cal	336	Kansas City, Mo	51
Hartford, Conn	195	St. Louis, Mo	111
Wilmington, Del	160	Camden, N. J	50
Washington, D. C	550	Brooklyn, N. Y. (Bedford)	262
Chicago, Ill. (central)	152	Brooklyn, N. Y. (central)	374
Evansville, Ind	134	Dayton, Ohio	126
Baltimore, Md. (central)	418	Philadelphia, Pa. (central)	60
Boston, Mass	177	Pottstown, Pa	63
Pittsfield, Mass	63	Providence, R. I	60
Springfield, Mass	53	North Yakima, Wash	130
Worcester, Mass	80	Toronto, Ont. (central)	126
Minneapolis, Minn	171		

5. Evening classes.—These include commercial, industrial, academic, language, technical, trade, and high-school subjects, taught by experienced and successful men teachers. The courses usually run during a term of from 25 sessions to 80 or 100 sessions, depending upon the length of the course and the number of sessions per week. Students pay tuition fees for the great majority of these courses. Such fees vary from $1 per season to $50 or more, depending upon the nature and length of the course and the expense necessary to conduct it. In the elementary courses the tuition fee does not, and should not, cover the expenses. From the very nature and purpose of the Young Men's Christian Association in a community, much of this fundamental and elementary service must necessarily be conducted at a distinct financial loss over and above what the students may be able to pay.

Evening instruction is given in about 130 different subjects or courses, ranging from the A, B, C's to professional courses of university grade. The classes include males from 12 to 57 years of age, and provide for the man learning to read and interpret English as well as for the man with a university degree, and accommodate the man earning $1 a day, who often borrows money to pay his tuition fee, as well as the millionaire. Recently one course in finance and business management brought together in one association a group of men as students representing over $300,000,000.

DIAGRAM 2.—*Receipts from students' tuition fees, in addition to their membership fees.*



Nearly 3,000 men teachers are employed for this evening work. Such teachers are usually drawn from active commercial and professional life rather than from school or college. The salaries of these teachers last year was $330,000. That the students appreciate these definite privileges is shown in the tuition fees paid by them in the local associations. Such fees vary from $1 to $50 or more, and in the aggregate amount to $500,000 for the evening work alone. There are about 76,000 students in the evening classes. Table 5 shows the associations reporting over 500 students, and where such number is 20 per cent or more of the association membership.

TABLE 5.—*Students in class work—Associations reporting over 500 students and where such number is 20 per cent or more of the association membership.*

Associations.	Students.	Per cent.	Associations.	Students.	Per cent.
Los Angeles, Cal.	1,166	23	Newark, N. J.	937	35
San Francisco, Cal.	2,383	60	Brooklyn, N. Y. (Bedford)	1,139	33
Denver, Colo.	657	28	Brooklyn, N. Y. (Central)	1,303	41
Hartford, Conn.	646	22	New York, N. Y. (East Side)	666	50
Washington, D. C.	998	31	New York, N. Y. (Harlem)	660	57
Chicago, Ill. (Central)	2,109	37	New York, N. Y. (Twenty-third Street)	2,237	58
Chicago, Ill. (Division Street)	1,143	74	New York, N. Y. (West Side)	3,598	56
Chicago, Ill. (Hyde Park)	1,613	149	Akron, Ohio	1,595	117
Chicago, Ill. (West Side)	757	56	Cincinnati, Ohio	731	40
Indianapolis, Ind.	783	23	Cleveland, Ohio	1,278	31
Louisville, Ky.	524	22	Dayton, Ohio	743	33
Baltimore, Md. (Central)	1,147	44	Portland, Oreg.	1,256	29
Boston, Mass.	3,303	48	Philadelphia, Pa.	3,987	80
Cambridge, Mass.	1,202	136	Scranton, Pa.	512	41
Lawrence, Mass.	633	53	Wilmerding, Pa.	502	30
Springfield, Mass.	576	53	Seattle, Wash.	1,609	39
Detroit, Mich.	1,948	28	Toronto, Ontario (West End)	1,139	63
Minneapolis, Minn.	936	60	Montreal, Quebec (Central)	637	26
St. Louis, Mo.	760	40			
Omaha, Nebr.	837	26			

6. *Association day schools.*—Experience shows that there is an increasing opportunity for appropriate day educational facilities, as well as for evening privileges to help meet the increasing variety of demands. Table 6 shows the growth of such facilities, as indicated in the number of students reported. Forty or more associations now conduct various kinds of commercial, academic, apprentice, vocational, and college preparatory courses, with over 9,000 students. The ages of the students vary from 14 to 30, the majority being under 20 years of age. They pay from $8 to $12 tuition fee per month, depending upon the courses taken. From the results thus far it would seem that each association, in a building of its own and in a community of more than 5,000 males between 12 and 30 years of age, would have ample opportunity to conduct appropriate educational facilities in the daytime. In several cities, and for many years past, proprietors of private schools and business colleges have sought out and rented the desirable vacant rooms of the Young Men's Christian Associations in the daytime for their private schools conducting such work as a regular business venture. It is felt that if such work can be done to the advantage of the proprietor and to meet certain kinds of needs, the association, by conducting its own day schools, can largely increase the value and permanent influence of such work by conducting under its own auspices all forms of educational activity needed both day and night.

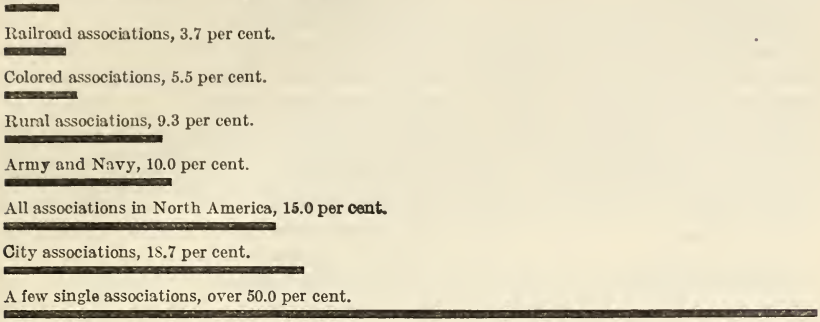
Experience shows the following to be some of the other reasons why associations conduct day schools under their own auspices: To serve employed men and boys who are not accommodated in evening classes; to meet a demand not yet supplied by public or other day schools which do not afford the additional privileges offered by the association; to utilize more fully the association capital invested in space, equipment, and supervision; to economize operation, supervision, the teaching force, advertising, and the prestige of the evening educational work; to help men who work during the night or who have irregular times of employment, of whom there is a large and increasing number; to provide for more intensive and adaptable study of special subjects than is possible in many other places; to provide for those who have physically outgrown their grades or who for other reasons are not successfully served in the public schools; to do appropriate work for men and boys in the daytime for the same reason that evening work was organized to meet needs; to meet the desire of anxious Christian parents who wish appropriate training for their boys under auspices which are permeated by the Christian spirit of the association.

TABLE 6.—*Associations reporting day work with 50 or more students.*

Associations.	Students.	Expense.	Receipts.
Pine Bluff (R. R.), Ark.	84	$1,500	.....
Los Angeles, Cal.	639	27,344	$29,033
San Francisco, Cal.	140	3,000	4,000
Denver, Colo.	346	6,647	8,579
Jacksonville, Fla.	60	2,520	1,912
Chicago (Central), Ill.	506	8,402	11,681
Chicago (Division Street), Ill.	88	2,044	2,340
Boston, Mass.	1,084	61,322	73,947
Detroit, Mich.	399	4,200	5,500
Minneapolis, Minn.	207	11,200	11,200
Orange, N. J.	51	200	100
Brooklyn (Bedford), N. Y.	301	3,446	6,050
Brooklyn (Central), N. Y.	131	3,064	2,651
Buffalo (Central), N. Y.	200	3,000	6,000
New York City (Twenty-third Street), N. Y.	266	6,644	7,047
New York City (West Side), N. Y.	714	30,000	32,000
Cincinnati, Ohio.	190	13,862	11,681
Cleveland (Central), Ohio.	328	7,938	6,703
Columbus, Ohio.	57	1,030	2,713
Portland, Oreg.	453	10,471	11,163
Philadelphia (Central), Pa.	180	2,607	3,088
Scranton, Pa.	51	30	31
Wilmerding, Pa.	77	85	125
Seattle, Wash.	378	7,000	8,939
Spokane, Wash.	156	3,060	3,300
Milwaukee, Wis.	54	200	200
Montreal (Central), Quebec.	116	2,200	2,950

As the fundamental purpose of the Young Men's Christian Association is to develop Christian character and encourage more efficient, virile manhood, the association is finding by experience that the day schools, far more than the evening privileges, help to attain this desired product. The average student in the day school attends from 4 to 5 hours per day, 5 or sometimes 6 days per week, and usually 9 or 10 months during the year, for 2 or 3 years. In the course of a single year the average day student is under the influence and in the atmosphere of the Christian institution more than 40 times as much as the evening student. The result is as to be expected—an encouragingly large number of earnest, virile, clean, effective, Christian young men entering college or business with more of that kind of preparation for Christian service and citizenship which is so very desirable. Such products react helpfully on other educational efforts. Numbers of high schools are asking the association for suggestions as to how their own courses and policies may be modified and improved to produce similar excellent results.

DIAGRAM 3.—*Percentage of association members in educational class work, among various groups of men and boys in 1915.*



The association day school has a distinctive and unique field. It does not duplicate or compete with the public schools. It is found rather to strengthen and encourage them in the same general manner in which good evening work in the association has stimulated and strengthened other evening facilities. Boys who have prepared for college and university in the association day schools are found to be doing creditable work in Harvard, Columbia, Yale, Chicago, and many of the western universities. The oldest association day school is at Twenty-third Street branch, New York. One of the departments of this school is a four-year college-preparatory course, from which students have finished to enter 10 of the leading universities and colleges of the East with much crédit, and some of them with advanced standing. Association officers are convinced that the association does not exist merely as a supplementary agency, and that it does not duplicate the work of other schools when it does a type of work and provides a kind of development plus Christian character building that many other schools do not specially attempt. If, for example, in teaching business law the association can develop a product which shall include more of character and moral application to daily life than is found in the product of many schools teaching similar subjects, then it is meeting an unmet need and rendering a real service to the community.

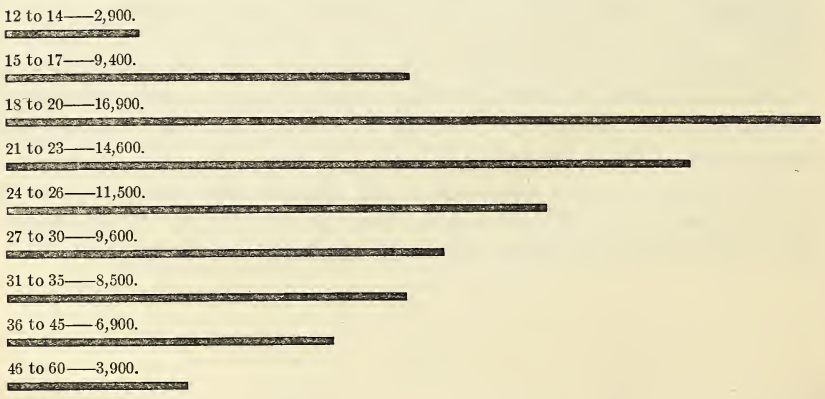
The expense of the association day schools last year, with their 9,780 students, was $261,000, aside from heat and rent. This expense was covered by the tuition fees of the students.

TABLE 7.—*Boys' summer schools, in 1914, with 25 or more students.*

Los Angeles, Cal	35	Newburg, N. Y	35
Denver, Colo	50	Columbus, Ohio	57
Washington, D. C	41	Hamilton, Ohio	41
Jacksonville, Fla	41	Lorain, Ohio	47
Honolulu, Hawaii	38	Washington C. H., Ohio	32
Chicago (Central), Ill	64	Youngstown, Ohio	65
Chicago (Div. St.), Ill	82	Greensburg, Pa	107
Chicago (Sears-Roebuck), Ill	126	Philadelphia (Central), Pa	427
Chicago (Wilson Ave.), Ill	83	Philadelphia (West), Pa	35
Lowell, Mass	35	Scranton, Pa	98
Malden, Mass	44	Providence, R. I	75
Somerville, Mass	83	Woonsocket, R. I	30
Springfield, Mass	122	Nashville, Tenn	28
St. Joseph, Mo	49	Houston, Tex	74
Omaha, Nebr	72	Seattle, Wash	180
Brooklyn (Bedford), N. Y	53	Milwaukee, Wis	208
Brooklyn (Central), N. Y	76		

7. *Extension features.*—One hundred and twenty-six associations, in addition to the privileges conducted in the building, carry on some privileges in various centers more or less remote from the association building, where groups of men and boys congregate. Appropriate adaptations of the regular educational facilities are thus offered. Depending upon local needs and circumstances, such privileges are held either day or evening in shops, offices, stores, halls, churches, homes, or elsewhere. Often such privileges in a needy section of the city develop into a kind of mission of the association, and in time a branch association is formed. In this way it is carefully estimated that at least another 100,000 employed men and boys were definitely aided educationally the past year.

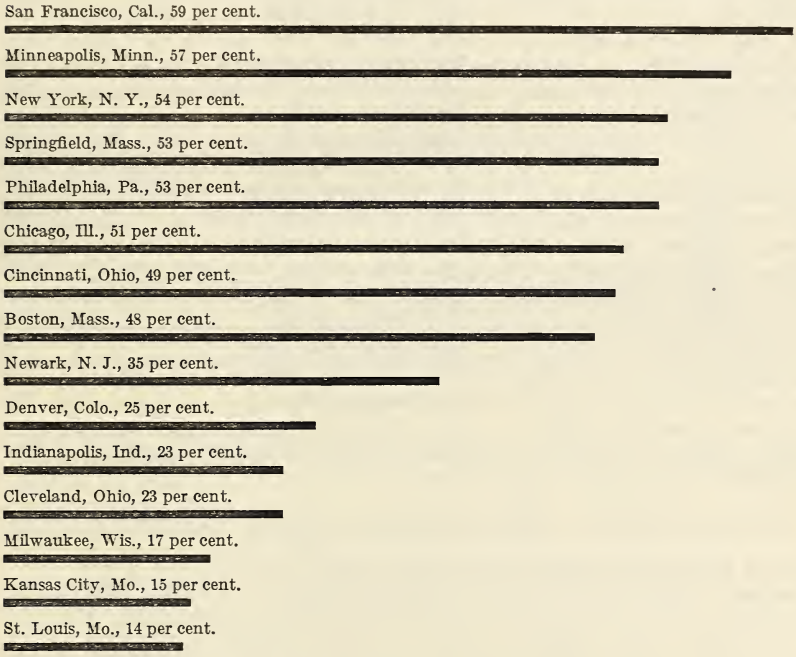
DIAGRAM 4.—*Ages of students in Young Men's Christian Association schools, in 1915.*



NOTE.—(*a*) There are 6 times as many males over 18 in this supplementary educational class work as there are under 18 years of age; (*b*) there are many more men over 31 than there are boys under 18; (*c*) there are 1,000 more students over 46 than boys 12 to 14; (*d*) the average age of all association students is 23 years and increasing; (*e*) adult vocational training in ever-increasing variety of subjects is one present need.

8. *Coming Americans.*—During the past 10 years an increasing number of associations have given more and more attention to aiding non-English speaking men and boys in learning to speak, read, and write the English language. Aside from many definite courses leading to naturalization, whereby thousands of worthy young men from foreign nations have been led into intelligent American citizenship, over 20,000 men and boys the past year have studied in the special classes in preparatory English. Much of this work has been done in centers outside the association building. The method used most successfully is that of Dr. Peter Roberts, the secretary of the international committee, for this special work.

DIAGRAM 5.—*Proportion of association membership in educational class work.*



9. *Among boys.*—A large and growing movement, with over 17,000 boys already enrolled in definite evening-class work, is to be reported. Many of these are employed boys who have left the public schools with only from two to four years of training, and among whom there is such great need for vocational training. Among these boys there is greater need than ever for appropriate apprentice schools or elementary continuation schools. The efforts made have strengthened the movement in various cities toward making education compulsory up to the age of 16 and is also aiding compulsory continuation school work up to the age of 18.

In summer schools for boys, during July and August, the association has been giving another object lesson in its helpful service, showing that educational facilities can and should be offered 12 months in the year. Slowly the public-school authorities are beginning to realize that there must be something of truth in this fact. The succession of day and night or of one's breathing while in health and vigor are not more urgent or necessary in their respective functions than educational needs in any community. Fortunately, a few cities and some colleges or professional schools are providing summer terms which are on equal basis of credit with fall and winter facilities.

TABLE 8.—*Boys' departments with 100 or more boys in class work.*

Mobile, Ala	102	Detroit, Mich	223
Pine Bluff (R. R.), Ark	102	Omaha, Nebr	234
Los Angeles, Cal	267	Brooklyn (Central), N. Y	390
Denver, Colo	213	New York (23d St.), N. Y	375
Hartford, Conn	109	Olean, N. Y	100
Wilmington, Del	176	Charlotte, N. C	260
Washington, D. C	108	Columbus, Ohio	100
Jacksonville, Fla	177	Hamilton, Ohio	173
Honolulu, Hawaii	176	Youngstown, Ohio	103
Chicago (Central), Ill	539	Portland, Oreg	113
Chicago (Div. St.), Ill	223	Philadelphia (Central), Pa	276
Chicago (Sears-Roebuck), Ill	146	Philadelphia (W. Br.), Pa	146
Rock Island, Ill	186	Scranton, Pa	176
Evansville, Ind	125	Knoxville, Tenn	131
Indianapolis, Ind	317	Houston, Tex	118
Louisville, Ky	150	Seattle, Wash	264
Baltimore (Central), Md	170	Milwaukee, Wis	208
Boston, Mass	304	Montreal (Central), Quebec	171
Springfield, Mass	122		

10. *Special courses.*—The association is rightly regarded as a pioneer in discovering special educational needs and in striving to meet these new needs with new and adapted courses. The first automobile school in America was born in the Young Men's Christian Association in 1900. The first course in window trimming began in the association in 1903. The first poultry school for boys was born in 1908. Similarly with many other special courses to meet special new needs. The past year similar courses have been organized for the first time in photoplay writing and also for "movie" machine operators. The number of students in any such group of special courses naturally varies and includes all varieties of men and boys, even those with university training.

11. *Examinations.*—The international committee has conducted annual examinations in the fundamental subjects—commercial, industrial, language, and science, since 1896. Behind each subject an

examiner of national authority and wide experience serves as the official who draws the questions and passes upon the results. The various tests are taken in the same rigorous manner as those conducted by the State boards of education, the regents of New York, or the several universities examining students for entrance.

These examinations, while not compulsory on the part of either individuals or of the local associations, materially help each teacher and student to compare their work with that of a fair standard of similar work for the country. The certificates granted in such tests are accepted at their face value in many local colleges and universities. About 4,000 men took part in such tests the past year.

TABLE 9.—*Expense of educational work—Associations reporting educational expenses over $3,000 where such amount is 15 per cent or more of the total current expenses of the association.*

Association.	Expense.	Per cent.	Association.	Expense.	Per cent.
Los Angeles, Cal	$48,363	28	Brooklyn, N. Y. (Central)	$30,645	33
Denver, Colo	15,209	17	Buffalo, N. Y. (Central)	19,190	94
Washington, D. C	16,286	15	New York, N. Y. (East Side)	6,310	17
Chicago, Ill. (Central)	33,145	23	New York, N. Y. (Twenty-third Street)	46,873	24
Chicago, Ill. (Division St.)	11,117	33	New York, N. Y. (West Side)	85,112	35
Chicago, Ill. (Sears-Roebuck)	7,594	16	Cincinnati, Ohio	27,274	49
Gary, Ind	5,696	16	Cleveland, Ohio (Central)	28,075	21
Baltimore, Md	14,927	18	Columbus, Ohio	7,288	17
Boston, Mass	150,204	45	Portland, Oreg	28,876	23
Worcester, Mass	5,030	15	Philadelphia, Pa. (Central)	24,758	16
Detroit, Mich	37,284	21	Providence, R. I	6,304	44
Minneapolis, Minn	20,040	42	Seattle, Wash	21,620	19
St. Louis, Mo	8,351	22	Spokane, Wash	6,417	17
Newark, N. J	14,261	20			
Brooklyn, N. Y. (Bedford)	27,202	25			

III. AMONG DIFFERENT GROUPS.

The Young Men's Christian Association strives to serve educationally men and boys over 12 years of age. These are naturally classified in various groups. (See summaries for these groups in Table 11.)

1. *City.*—About 75 per cent of the educational activities of the movement as a whole is found among city men and boys in what are termed the city associations. Here the variety of work conducted ranges from a few activities like the practical talk, a class in business English or arithmetic, with few students and at small expense, to large educational institutions, each involving several departments, with annual expenses from $50,000 to $160,000 and from 2,000 to 4,000 students. During the past two years such work has increased in efficiency, in the number and nature of its day-school privileges, and especially in the development of Christian character-building influences. (See summaries in Table 11.)

2. *Railroad.*—A number of the associations among railroad men give some attention to appropriate educational activity, as Philadelphia, New York, Boston, St. Louis, and others. Practical talks, edu-

cational clubs, and various appropriate technical courses form the basis of this service. In several places the associations have organized apprentice schools among railroad employees, and in some of these cases such schools have been passed over to the conduct of the railroad company.

TABLE 10.—*Railroad associations having 50 or more students in class work.*

Pine Bluff, Ark	127	Bellwood, Pa	89
Decatur, Ill	73	Jersey Shore, Pa	86
Topeka, Kans	139	Philadelphia (P. R. R.), Pa	402
West Detroit, Mich	60	Scranton, Pa	218
Albany, N. Y	125	Cleburne, Tex	56
New York (Grand Central Terminal), N. Y	128	Richmond, Va	293
Oneonta, N. Y	186	White River, Ontario	149

3. Industrial workers.—Aside from the practical educational facilities offered by city associations to industrial workers within reach of their buildings, the association has conducted educational facilities for various groups of industrial workers in communities where a regular Young Men's Christian Association has not yet been organized. In each such case, as among lumber men in the great lumber centers of America, or among men and boys in the cotton industries of the South, or among the mine workers of the mining sections of the country, appropriate facilities have been promoted where feasible and at very small expense. Over 35,000 wage earners in the industries are taking drawing, shop mathematics, applied electricity, chemistry, and many other technical courses.

4. Rural.—Among males in the small communities and country districts the association has been adapting its facilities to meet their needs. Much of this work is naturally of a popular and practical agricultural nature and serves equally well to meet the needs of its constituency, as the classes in electricity, accountancy, or other technical subjects do with the city and industrial constituencies.

5. Army and Navy.—Similarly the association, as far as possible, encourages the enlisted men in both the Army and Navy by conducting appropriate educational privileges. During the last year or two, while the new management of the Navy has been striving to encourage a complete educational system under Navy control, the association has naturally been decreasing its definite educational facilities, but in each case helpfully cooperating with the officials in encouraging their educational plans and policies.

6. Colored men.—In a number of associations among colored men and boys some appropriate facilities, including practical talks, reading rooms, and elementary class work, are conducted.

TABLE 11.—*Summary classified.*

	Kinds of associations.							
	City.	Railroad.	County and town.	Colored.	Army and Navy.	Canal Zone.	Among boys.[1]	Total.
Reading rooms.....periodicals..	25,430	9,117	.....	896	969	365	5,871	36,777
Libraries ..books drawn and read..	369,307	179,458	.....	2,855	30,541	12,158	95,018	594,319
Lectures and talks.....	8,541	3,106	2,473	488	147	64	3,798	14,819
Members of educational club.....	20,978	3,148	1,826	515	176	57	9,498	26,700
Students in class work.....	78,768	3,282	944	350	328	99	12,445	83,771
Paid teachers.....	2,500	58	.....	12	13	9	281	2,592
Total expenses all educational features.....	$1,034,606	$30,371	.....	$1,194	$2,513	$2,216	$38,811	$1,070,900
Receipts from tuition fees.....	$809,490	$2,799	.....	$364	$1,374	.....	$34,098	$814,024
International certificates.....	2,133	72	8	.....	27	.....	660	2,240
Students in class work outside building.....	21,985	668	.....	.....	.....	.....	1,053	22,653
Students in association day schools.	7,684	347	.....	.....	.....	.....	1,817	8,031
Students in boys' summer schools...	2,823	.....	.....	.....	.....	.....	2,383	2,823
Educational students in Bible classes.....	3,010	268	.....	111	.....	.....	.....	3,389
Number of chapel assemblies.....	2,467	4	.....	83	.....	.....	.....	2,554

[1] These figures under boys' departments are included in the totals under city, railroad, etc.

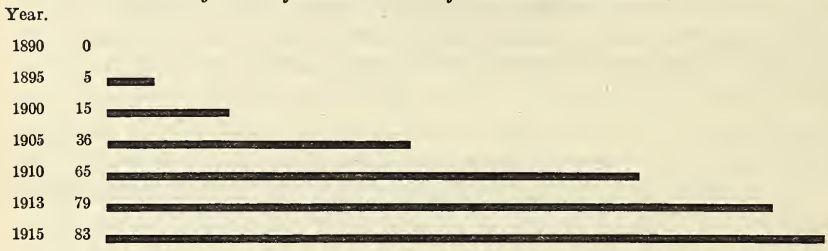
IV. THE EDUCATIONAL SECRETARY.

The proper organizing, wise promoting, and social engineering of adapted educational enterprises of the Young Men's Christian Association call for and are developing a new educational vocation, separate and considerably different from that of teaching—that of the educational secretaryship. A few association leaders recognize that inexperienced and inefficient supervision is often worse than no supervision at all, and in many cases means the speedy death of educational efforts thus treated. Of more than 400 local associations in America, in each of which it is believed there should be an officer specially trained and experienced in this service, only 83 such associations have yet added such a secretary. Each year two or three associations are added to this list. As any good work of this kind will not successfully develop of itself, as any enterprise or manufacturing plant needs a superintendent or manager to bring about the best use of such plant, so each association in a building of its own and serving any community of over 5,000 men and boys 14 to 40 years of age will find an efficient educational secretary one of its best investments.

While the local educational committee, composed of interested, cooperative, volunteer business men, is responsible for the general conduct of educational features, yet the presence of a paid secretary who is experienced in this work, as agent of such committee, is abundantly justified by the results. Eighty per cent of all the class work in the 1,300 associations of the movement as a whole is conducted in the 83 associations with educational secretaries.

Experience shows that the best educational secretaries have many of the following excellent qualities: Christian character; ability to cooperate; leadership; openness of mind; good judgment of men; strong personality; command respect, support, and cooperation of their associates and friends; conviction, born of high ideals and experience; a purpose to effectively help meet some of the educational needs of men and boys of his community (such needs vary in each community and must be specially discovered locally); permeate his efforts with Christian character-building influences. Successful educational secretaries are usually good publicity men, good salesmen, good mixers, good cooperators and are learning to be good social engineers of appropriate education enterprises. The growth of educational supervision is shown in chart No. 6. One summer school for these secretaries has been held yearly at Silver Bay, N. Y., since 1906. It includes features, methods, policies, and problems of association work, religious education, psychology, Bible study, seminar, conference, and laboratory work for five hours per day for 14 days each year.

DIAGRAM 6.—*Associations with one or more educational secretaries, based on official recognition of the association of educational secretaries.*



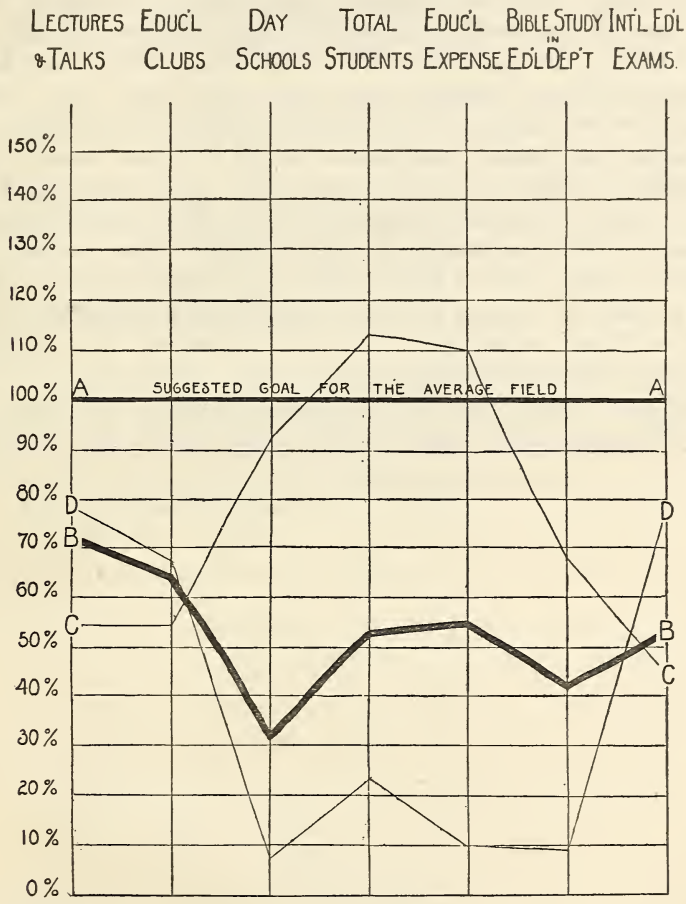
V. THE EDUCATOGRAPH.

The accompanying diagram is to aid in a comparative study of association educational work for the past year. Its only motive is to be suggestive, not critical, as local conditions materially influence results. It is based on the total membership and the total annual current expenses of the association, includes the improved goals, shows relatively the features of encouraging development as well as those needing increased effort, is equally accurate for an association of 50 members as for one of 5,000, and is absolutely impartial. To more accurately reflect the present growth and purpose of the movement, this educatograph includes association day schools, and Bible study in the educational department, in place of tuition receipts and books read.

Goal.—The following goal of 100 per cent in each of the seven items (lines A A) is based on many years' experience:

1. Lectures and talks per 100 association members 4
2. Educational club members per 100 association members 8
3. Association day-school students per 100 association members 5
4. Total students, day and evening, per 100 association members 30
5. Educational budget, one-sixth total annual current association expenses 1–6
6. Bible study in educational department per 100 educational students 10
7. International educational certificates per 100 educational students 5

Line B B shows the average per cent of the goal reached by all city, railroad, rural, and other associations. Line C C similarly



shows the average reached by the associations employing special educational supervision. Line D D shows the record of all associations without special supervision. Thus an association of about 250 members would stand at 100 per cent in columns 1, 2, 4, 7, etc., respectively, if it reported about 10 lectures and talks, 20 club members, 75 students in class work, and won 4 international certificates. Associations of other sizes are in similar proportion.

Any association may secure its educatograph made from the latest published record, shown in a red line constructed on the general diagram by applying to Mr. George B. Hodge, 124 East Twenty-eighth Street, New York.

VI. CHRISTIAN SERVICE.

To an increasing degree association leaders unite upon emphasizing the building of Christian character in all departments. They realize that efficient character is the thing most worth while in the world to-day. They also realize that while the majority of the worst men in the world may be bad men educated, yet they also realize that in the training of the world's best workers and leaders character-building influences have been large and vital factors. Hence increased emphasis is given in educational work to (*a*) securing teachers and leaders who possess strong Christian character plus the ability to teach and lead successfully; (*b*) promoting appropriate forms of normal, manly, and virile Bible study among all students in the department, the slogan being "Every student also enrolled in some form of Bible study"; (*c*) chapel exercises at least twice a week for evening students, daily for day students; (*d*) personal work and appropriate Christian interviews, the purpose of which is to help each student in his personal religious life. In some associations a teacher will not be employed in any course unless he is both willing and able to teach a Bible class if called upon to do so.

TABLE 12.—*Development of educational work from 1893, when this department of the international committee was organized.*

	1893	1897	1901	1905	1909	1912	1913	1914	1915
Number of lectures and talks	1,900	2,929	3,041	3,353	4,936	9,432	11,168	13,414	14,819
Educational club members	3,250	4,730	4,618	11,899	19,550	22,667	23,820	25,405	26,700
Number in class-lecture-series courses	.....	140	750	1,900	3,907	5,937	10,089	12,335	4,542
Expense of advertising	$2,900	$6,240	$12,607	$21,996	$59,445	$74,583	$83,756	$87,946	$81,772
Number of associations with educational secretaries	1	7	21	36	60	74	79	82	84
Expense of supervision	$2,000	$6,816	$17,739	$51,877	$130,821	$185,639	$191,328	$215,907	$211,060
Number of paid teachers	415	845	901	1,704	2,443	2,607	2,646	2,858	2,592
Total different students—day, evening	12,000	25,200	26,906	33,520	46,948	67,321	72,842	84,577	83,771
Employed boys in classes	.....	.....	1,326	2,900	7,521	11,185	11,599	12,886	12,445
Tuition receipts	$2,000	$18,000	$48,000	$158,508	$355,595	$629,534	$714,035	$785,274	$814,024
Income from endowment	$2,500	$4,771	$4,910	$6,754	$9,687	$11,553	$10,159	$13,424	$12,766
Number of international certificates won	.....	566	1,532	1,468	1,231	2,149	2,153	1,901	2,240
Students in association day courses	.....	64	560	1,860	3,060	5,464	6,934	8,213	8,031
Students in boys' summer schools	.....	.....	75	600	1,214	2,201	2,448	2,289	2,823
Students outside building	.....	.....	350	1,700	5,130	11,039	11,397	1[illegible],091	22,653
Educational men in Bible study	.....	.....	.....	.....	.....	1,300	1,800	2,607	3,389
Number of chapel assemblies	.....	.....	.....	.....	.....	400	800	1,628	2,554
Total expense, all features	$72,000	$118,000	$193,000	$305,082	$570,070	$907,047	$990,415	$1,086,763	$1,070,900

CHAPTER XXV.

EDUCATIONAL BOARDS, FOUNDATIONS, AND ASSOCIATIONS.[1]

By Henry R. Evans,

Editorial Division, Bureau of Education.

Contents.—I. Educational boards and foundations: General education board—Carnegie foundation for the advancement of teaching—Russell Sage foundation—John F. Slater fund—The Jeanes fund—Phelps Stokes fund. II. Educational associations: National education association and international congress on education—American institute of instruction—National association of school accounting officers—League of teachers' associations—Association of American law schools—Society for the promotion of engineering education—Catholic educational association—American association for the advancement of science, section L—American school hygiene association—Society of college teachers of education—Association of history teachers of the Middle States and Maryland—Association of colleges and secondary schools of the Southern States—Central association of science and mathematics teachers—Conference of academies and high schools in relations with the University of Chicago—National association of State universities—Southern association of college women—North central association of colleges and secondary schools—Music teachers' national association—National commercial teachers' federation—Association of colleges and preparatory schools of the Middle States and Maryland—National association of dental faculties—Lake Mohonk conference of friends of the Indian and other dependent peoples—Religious education association—Conference on the education of backward, truant, delinquent, and dependent children—Southern conference for education and industry.

I. EDUCATIONAL BOARDS AND FOUNDATIONS.

GENERAL EDUCATION BOARD.

The main lines of endeavor of the General Education Board are as follows: (1) The promotion of farm demonstrations in selected States; (2) the development of a system of public high schools in the Southern States; and (3) the promotion of higher education throughout the United States. Results are secured through established institutions and agencies. The corporation owns no real estate; its property, consisting of securities and money, is divided into different funds, according to the purpose for which it is to be used. According to the report filed with the Secretary of the Interior, September 23, 1915, the principal funds belonging without restriction to the board amounted to $33,958,848.40, invested in stocks and bonds.

[1] For detailed accounts of other educational meetings see the special chapters in this report. For a complete list of educational associations, national and State, consult the Educational Directory for 1915–16. (Bulletin 1915 No. 43.)

The income from the above funds, together with the income from undisbursed income, including income earned but not received, amounted during the year to $2,230,425.41. The balance of income from previous years as of June 30, 1914, amounting to $5,223,863.68, increased the total to $7,454,289.09.

DISBURSEMENTS FROM INCOME DURING THE YEAR.

To schools and colleges	$1,021,425.97
Southern farmers' cooperative demonstration work	15,947.52
Girls' canning and poultry clubs	17,345.92
Maine farmers' cooperative demonstration work	14,105.51
Maine boys' and girls' clubs	4,491.62
New Hampshire farmers' demonstration	9,998.70
Rural organization service	36.45
Rural school agents (after deducting $9,000 given by the Southern Education Board for this work)	29,952.35
Negro rural school supervisors	24,877.39
Salaries and expenses, professors of secondary education	32,644.27
Secretary's contingent fund	2,475.71
Lafayette College	257.72
Richmond College	901.86
Public Health Service conference	312.05
Maryland survey (after deducting $2,500 refunded by the Maryland Educational Survey Commission)	1,168.31
Home Makers' Club	3,598.84
Expenses	61,692.91
Total	1,241,233.10

This leaves an undisbursed balance of income on June 30, 1915, of $6,213,055.99. Against this balance there are unpaid appropriations amounting to $6,011,563.64.

The John D. Rockefeller special fund is a fund which Mr. Rockefeller controls as to principal and income. In a previous report a gift to the University of Chicago of $9,912,540.74 was announced. One-tenth of this gift (or securities and cash representing it) is payable each year. The income from the unpaid balance, however, remains the property of the board, subject to Mr. Rockefeller's direction. The principal of this fund, as mentioned in the last report, has been completely used up, so that only the income account now is open. The income earned during the year was $277,270.61 plus the profit on invested income, $691.71. The balance from previous years ($510,708.38) added to this brings the amount to $788,670.70. Disbursements during the year were as follows: Gift to the University of Chicago, $20,000; expenses, $836.57; total, $20,836.57. This leaves a balance of $767,834.13.

The Anna T. Jeanes Fund, the income to be used for negro rural schools, amounts to $200,000. The income from this fund during the year was $7,910.46. Added to the balance from the previous year, the total available income amounted to $17,910.46. Of this,

$8,812.70 was appropriated and paid to various schools and $40.10 paid out for expenses, leaving a balance of $8,307.68 in cash.

CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING.

The ninth annual report of the president and treasurer of the Carnegie Foundation for the Advancement of Teaching presents a detailed statement of the business of the year, a discussion of specific educational problems, a necrology, and the treasurer's report of income, expenditure, and endowment.

The income received during the fiscal year from the general endowment of the foundation was $696,038.60; from the endowment of the division of educational inquiry, now kept as a separate budget item, was $50,358.34. The total expenditures under the general endowment fund amounted to $669,532.99, of which $510,750.97 went to pay the retiring allowances and pensions in institutions on the accepted list of the foundation, and $124,112.80 to allowances and pensions to individual officers, teachers, and widows in institutions outside of this list. Forty-four allowances were granted during the fiscal year, being an expenditure of $70,900. The number of deaths recorded during the year was 15, making a net increase of 29 to the number of allowances and pensions in force, which at the close of the year amounted to 432, with a total grant of $687,370. The grants made during the year represented, in all, 32 institutions. At the close of the fiscal year the trustees held in trust, under the general endowment, securities of the face value of $14,129,000; under the division of educational inquiry, $1,250,000.

As regards the obligation resting upon beneficiaries upon retirement to refrain from further employment for pay, the trustees, in their definition of the rule relating to this question, stated that the rule "does not prevent the retired professor from having access to the laboratories of his institution, or from accepting compensation for occasional lectures, but it does not permit him to assume stated academic duties." In regard to professors of music, the trustees deem it necessary to restrict the award of retiring allowances to those who have shown "distinct eminence in creative work in theoretical knowledge."

Attention is called to the comprehensive studies of legal and engineering education now being undertaken. The problems of legal education group themselves under two main heads: (1) What should be the requirements for admission to the bar? (2) What should be the character of the institutional training provided in law schools? Says the report:

> It is by no means true that the conditions under which young men may be admitted to the bar provide grounds for discouragement, taking the country as a whole. A great improvement in this respect has been made during this

generation, and is still in progress. But the reports which our field workers have submitted prove conclusively that in certain States it would be utterly impossible for a law school to do honest, high-grade work and flourish.

The monograph of Prof. Josef Redlich, of the University of Vienna, on American methods of law teaching, undertaken at the request of the foundation, has already been published. Prof. Redlich's work is based upon personal experiences secured at 10 representative law schools of the United States, supplemented by reading and discussion.

The inquiry into engineering education, which has been undertaken in close conference and cooperation with the Society for the Promotion of Engineering Education, will attempt to throw light on the aims, the purposes, the curricula, the methods of teaching, the educational experiments and investigations of the engineering schools, as well as to study "the conditions into which a young engineer enters immediately on graduation, and of the estimates which the engineering profession has formed of his needs and equipment."

The question of pensions is elaborately treated by the report. In discussing municipal pensions for teachers the conclusion is reached that pension funds for teachers must rely mainly on teachers' contributions and local appropriations. The past two years have seen a remarkable increase in State pensions for public-school teachers, the number having risen in two years from 6 to 13. Regarding colleges the report concludes that a small college, with a faculty of 20, out of an endowment of $100,000 or $150,000 may administer a relief fund that will care for most cases of actual need on the part of professors or their wives.

For several years the foundation has considered the desirability of conducting an investigation into the present status of the training of teachers for elementary, secondary, and vocational schools, and has come to the conclusion that the question should be approached from a standpoint as nearly as possible identical with that of the State itself. If it can succeed in a few States or in one State in throwing light on the situation from various viewpoints—legislative, administrative, and institutional—"the result should prove valuable not only for the particular State concerned, but by analogy for all States possessing similar conditions." The report expresses the hope of accomplishing this. The governors and the departments of education of Indiana and Missouri have already invited the foundation to undertake surveys of their respective Commonwealths.

Under current educational problems the following subjects are discussed: "Standards and standardizers," "The Vermont report" (which was the first study undertaken through the agency of the division of educational inquiry), "The American Association of

University Professors," "The classification of medical schools," "Medical education on the Pacific coast," "Medicine and politics in Ohio," "State educational reports," and "Educational surveys."

In the classification of medical schools emphasis is laid upon the question of instruction, and the statement is made that "there is no other teaching institution where the art of teaching is so little considered as in the medical school." Because a man may be a good pathologist, a skillful anatomist, or a surgeon of renown does not prove that he possesses the power of imparting his knowledge. The lack of provision in the medical school for the improvement of the methods of instruction or for the elimination of ineffective teachers is deplored.

RUSSELL SAGE FOUNDATION.

The division of education of the Russell Sage Foundation (Leonard P. Ayres, director) exists for the purpose of carrying on educational research on behalf of the children of the public schools. This work is in large measure directed toward scientific tests and measurements, problems of school hygiene, and problems of administration. A considerable portion of the work of the division consists in answering the large number of inquiries received from school executives with respect to particular problems of their work. The division correspondence averages about a thousand letters a month, a large portion of which is of this character. Nearly one-fifth of all these questions deal with tests and measurements, approximately one-seventh have to do with problems of school hygiene, and about the same number take up problems of school administration. Almost one-eighth of all questions deal with surveys and exhibits, while nearly one-tenth have to do with problems of industrial education and vocational guidance.

During the past year the division has taken part in the industrial survey of Richmond, Va., and the industrial and educational survey of Cleveland, Ohio. It has published the reports of two researches in the field of scientific measurement. One of these relates to the measurement of ability in spelling, and presents the results of a study which the division carried on in cooperation with the superintendents of schools of 84 cities. In this piece of work the thousand commonest words in written English were spelled by pupils of the different school grades in several cities, until spelling norms were established which were based on some 1,400,000 spellings. These results were incorporated in the scale for measuring ability in spelling and were published together with the report of the investigation. The other research in this field produced a scale for measuring the quality of adult handwriting. In addition, the division's earlier scale

for the measurement of children's handwriting was completely revised.

The division publishes a series of reports in monograph form and sells them at prices sufficient to cover the cost of publication.

JOHN F. SLATER FUND.

The fifty-second meeting of the trustees of the John F. Slater fund was held in New York April 22, 1914. The educational committee recommended appropriations for the fiscal year of 1914–15 amounting to $69,250.

At the meeting held April 28, 1915, Director James H. Dillard gave an interesting survey of the work of the fund.

He pointed out that during its 33 years of existence the Slater fund has made appropriations amounting in round numbers to $1,625,000. Its first appropriation, for the session 1882–83, was $16,250 to 12 schools. Of these 12 schools, 3 were small private schools receiving $250 each. The balance of the appropriation went to 9 larger institutions, 6 of which bore the name of college or university. For the following session, 1883–84, the appropriation was $17,106 to 18 institutions, including no small schools. For 1884–85 the appropriation was $36,764 to 29 institutions. Coming down by periods of five years the following appropriations were made: For the session ending in 1890 an appropriation of $42,910 to 37 schools; in 1895, $42,400 to 16 schools; in 1900, $43,331 to 11 schools; in 1905, $53,550 to 27 schools; in 1910, $69,750 to 40 schools; in 1915, $69,250 to 68 schools, 5 counties, and 13 summer schools. Of the 68 schools, 17 were county training schools. In recent years there has been an increase of cooperation with State and county public schools. Up to 1902 the only instance of such cooperation was an appropriation to the State Normal School at Alabama. In that year an appropriation was also made to the State Agricultural School of North Carolina.

PRIVATE SCHOOLS.

From the first years of Negro education there have been many kinds of schools established, some by religious denominations of the North, some by Negro churches of the South, a few by white churches of the South, some by private associations or individuals. Most of the schools established with religious backing are still flourishing; many private efforts have gone to the wall; others are living a precarious existence. A few which have been able to acquire property and to establish an endowment fund are on a sound basis, but need constant aid from philanthropic individuals and associations. The small private schools, without backing and without endowment, seem

destined to die or to be turned over either to some religious body or to the public-school system.

Says Dr. Dillard:

In estimating the value and efficiency of the many Negro institutions, high and low, that have been established in various ways, opinions of inspectors and investigators will naturally differ. Each individual is likely to emphasize in his own mind this or that feature. There are four questions upon which all would probably agree. Is the school property kept in satisfactory conditions of cleanliness, repair, and sanitation? Are the accounts of receipts and expenditures kept in good shape and open to inspection? Is the work of teaching honestly conducted; that is, is the professed standard as thoroughly followed as can reasonably be expected? Does the atmosphere of the school give the impression of industry, alertness, and morality? In its 33 years of useful aid I believe that the resources of the Slater fund have been distributed with careful regard to such questions as these. Doubtless mistakes have been made, but in the main the appropriations seem to have been well used.

COOPERATION WITH PUBLIC-SCHOOL OFFICIALS.

The growing tendency to cooperate with the public-school officials arises from the increasing desire of these officials to improve the Negro schools. One of the greatest immediate needs is for even fairly competent teachers in the small public schools. The Slater fund has contributed much to the preparation of teachers, but in the past its contributions in this direction have been mainly to the larger and higher institutions. There is now great need for the preparation of teachers in a lower grade of advancement. The immediate conditions under which such work must be done may be far from ideal, but the effort faces facts as they are. It is a fact that a very large majority of the teachers in the small rural schools have got what they have of education and training in their own or a neighboring county, and many superintendents are showing much interest in the improvement of some central school in the county for the purpose of supplying a somewhat better grade of teachers. This explains the origin and the main purpose of the so-called county training schools of which the fund has aided in making a beginning. In 1912 there were three, in 1913 four, in 1914 eight, in 1915 seventeen. For the next session the trustees of the Slater fund propose to aid about 30, provided the reasonable conditions are fulfilled. These conditions, as previously approved, are as follows: (1) That the school property shall belong to the State or county, thus fixing the school as a part of the public-school system; (2) that there shall be an appropriation of at least $750 from the public funds for maintenance; (3) that the teaching shall be carried strictly and honestly through at least the eighth grade, including industrial work, and in the last year some training, however elementary, for the work of teaching. Under these conditions the Slater fund has agreed to appropriate $500 for maintenance, and in the first year, where new buildings or repairs may be necessary, to aid in supplying these in cooperation with amounts raised from other sources.

Another method in which the Slater fund has been able to assist country teachers has been through the work of summer schools, to which it has contributed for the past three years, at various points, amounts ranging from $50 to $300. These contributions have been the means of starting several summer schools, which could not have been supported without such assistance. This expenditure has been especially commended by the State superintendents.

During the past 10 years the Slater fund has cooperated with a few city or town superintendents in introducing industrial work, and such cooperation may well be extended as opportunity is offered and our resources will permit. The plan has been to start the appropriation with a certain amount ranging from $1,000 in Charleston, S. C., to $225 in Danville, Va., with the understanding that the appropriation be reduced or abolished as the work becomes securely established.

IMPROVEMENT.

All these instances of cooperation between the fund and the public schools are indications of a healthy sentiment.

State and county superintendents are manifesting a decided increase of interest in behalf of better school facilities for the Negroes. Counties are beginning to make appropriations for Negro schoolhouses, and there are expressions of desire to lengthen the short school terms and to increase the poor pay of teachers. The States are making better appropriations for the colored State normal and industrial schools. In the various denominational and private schools there is gradual improvement in the genuineness of the course of studies and in carefulness of keeping accounts. Thus it is evident that in the matter of education there are signs of improvement, both in the small public schools and in the higher institutions.

THE JEANES FUND.

The Jeanes fund for the improvement of Negro rural schools cooperated, during the session ending June 30, 1915, with public-school superintendents in 133 counties in 14 States. The supervising industrial teachers, paid partly by the counties and partly by the Jeanes fund, visited regularly in these counties 3,463 country schools, making in all 17,312 visits and raising for purposes of school improvement $73,438. The business of these traveling teachers, working under the direction of the county superintendent, is to introduce into the small country school simple home industries; to give talks and lessons on sanitation, personal cleanliness, etc.; to encourage the improvement of schoolhouse and school grounds; and to conduct gardening clubs and other kinds of clubs for the betterment of the school and the neighborhood.

PHELPS-STOKES FUND.

The Phelps-Stokes fund has cooperated with the division of Negro education of the United States Bureau of Education in two distinct lines of activity: (1) A comprehensive survey of all private and higher schools for Negroes; (2) constructive efforts to improve the work of these schools. In cities where private schools for Negroes were visited, public schools for Negroes were also investigated, and special reports were made on public high schools for Negroes, the studies being made by special collaborators from the Bureau of Education. Experts in accounting, architecture, and industrial education visited and inspected schools of importance. A fund of $100

was appropriated by the Phelps-Stokes fund to be offered as prizes in four schools for the boys who keep their rooms in the best condition. An effort was made to improve groups of schools by assembling the representatives of denominational and private boards controlling schools for Negroes in the South. The success of these experiments has led the Phelps-Stokes trustees to continue the constructive side of work of colored schools.

II. EDUCATIONAL ASSOCIATIONS.

NATIONAL EDUCATION ASSOCIATION AND INTERNATIONAL CONGRESS ON EDUCATION.

The fifty-third annual convention of the National Education Association, which was organized as the Third International Congress on Education, was held in Oakland, Cal., August 16–28, 1915. The attendance was exceptionally large, and the program varied and comprehensive. Twelve general meetings of the International Congress on Education were held, and 54 meetings of the departmental congresses. Thirty-one different countries were represented by officially accredited delegates or speakers.

At the general sessions, the topics discussed were war and peace, international educational progress, rural education, and miscellaneous problems of education. The presidential address was delivered by Dr. David Starr Jordan, on "The teacher and the war." He ascribed the war system of Europe "to the perversion of education." Dr. Elmer E. Brown read a paper on "Educational progress of the past 15 years," the dominant note of which was "public service." Prof. Frederick E. Farrington, discussing the "Educational progress of continental Europe since 1900," said that the twentieth century represents the subordination of the individual to group control, which inevitably leads to wider opportunity for the masses of the people to rise above their former level.

> In western Europe, during the past 15 years, the most significant changes have come in the field of secondary education. On the Continent, the secondary school is a school for the classes, while in the United States it is a school for the masses.

Prof. Farrington emphasized the fact that educational progress in Europe is mainly due to the spirit of cooperation which is everywhere apparent, and is "the largest single idea we can gain from European experience."

In the session on rural education, Dr. P. P. Claxton, United States Commissioner of Education, dwelt on the development of those phases of agriculture and household arts which will enable the farm boy and girl to contend with the variety and complexity of farm management. The subject of "Efficiency and preparation of rural

school teachers in the United States" was discussed by H. W. Foght, of the United States Bureau of Education, who said that recent investigations of the Bureau of Education showed that 4 per cent of all the teachers now at work in the rural schools have had less than 8 years of elementary school preparation; that 32.3 per cent have had no professional preparation whatever, and that only one-tenth of 1 per cent of these teachers report attendance at schools making a specialty of preparing teachers for rural schools. He presented a plan for hastening the change from amateur to professional teaching.

An address by William B. Owen on the importance of teachers' organizations in shaping educational policies and methods resulted in the appointment of a committee to investigate the efficiency of the National Education Association, and to formulate plans for increasing its scope and usefulness to the educational world. William T. Foster, in his paper on "Athletics as education and athletics as business," spoke of intercollegiate athletics as an American institution which provides "a costly, injurious, and excessive régime of physical training for a few students, especially those who need it least, instead of inexpensive, healthful, and moderate exercise for all students, especially those who need it most." Charles F. Thwing presented a thoughtful paper on "Higher ideals of education," and Mrs. Fannie Fern Andrews spoke on "The education of the world for a permanent peace."

In the departmental congress on school hygiene W. E. Watt made a plea for the fresh-cold-air room, and deprecated the mechanical devices and the superheating of air. In the department of elementary education, Edith K. O. Clark advocated the necessity of smaller units of supervision for the rural schools.

The sum of $4,490 was appropriated at the business meeting for educational investigations during the year 1915–16. An offer to present three cash prizes of $1,500, $250, and $100, respectively, made by Nathan Straus, to authors of an essay on the teaching of thrift, was accepted.

The department of school administration presented a strong program. In his presidential address, O. M. Plummer urged that school boards should become an important part of the National Education Association. Prof. W. E. Chancellor delivered an address on "School board members," and Dr. Elwood P. Cubberley described the "Purposes of school surveys." In treating the question of county surveys, Dr. Cubberley gave an account of two California surveys where the school facilities were largely increased, high schools provided, terms lengthened, salaries increased, and expenses reduced $13,000 and $33,000 per year, respectively. The subject "Is the board of education an incubus upon modern education?" was discussed by R. E.

Blight, who said that the board of education will miss its purpose entirely unless it functions with four factors in view:

(1) The schools are for the children, and not for the board or the teachers or for the politicians; (2) the schools must be kept free from partisan, political, and other special interests, particularly from the large taxpayer; (3) the board must restrict its activities to legislative and general supervisorial functions, reserving to the professional staff the actual conduct of the schools; (4) school boards must exhibit a real enthusiasm for education as education.

The promotion of democracy through the enlightenment of the masses was the supreme test of a school board's usefulness.

Valuable papers on school architecture were presented. Dr. H. D. Sheldon read a paper on the tenure of teachers, in which he summed up the reasons for the insecurity of the teacher's tenure in the United States. The climax to the sessions was the address of Dr. Claxton on "The city board of education—its constitution and function."

The committee on resolutions presented a declaration of principles dealing with the war in Europe, the peace propaganda instituted in the United States, and various educational problems, which were adopted. Attention was called to the question of differentiations in instruction as follows:

It seems to this association to be a thoroughly sound and just principle that every child of school age in a community should be provided with that kind of education which will be best adapted to meet his peculiar educational needs. The adoption of such an educational principle, however, calls for differentiations and adjustments in schools and in courses of instruction and for a wide diversification in our school work. What our schools have heretofore achieved for the mass they now need to set themselves to try to accomplish for groups within the mass.

An appreciation of the United States Bureau of Education was recorded with the hope expressed that Congress by increased appropriations would enable the bureau to carry on its work on a larger and more effective scale.

DEPARTMENT OF SUPERINTENDENCE.

The department of superintendence of the National Education Association met in Cincinnati, Ohio, February 23–27, 1915. The usual high average of this department was sustained. Charles H. Judd, in his paper on "The protection of professional interests," advocated the organization of a permanent committee to act as a central clearing house for professional problems, with district commissions cooperating with it. In addition, he recommended special commissions dealing with special problems, all of these commissions to prepare material for the general annual meeting of the department. The training of teachers was discussed by Calvin N. Kendall, Fred L. Keeler, Carroll G. Pearse, and Bruce R. Payne.

Commissioner Kendall said that school systems can not rise to their proper level unless the main stress is put not upon administration, but upon good teaching. In order to verify or modify his personal convictions on the training of teachers in service, Mr. Kendall sent letters to certain teachers in 10 representative school systems and to several progressive superintendents, inviting expressions of their views. In summarizing the replies received, with an admixture of his own opinions, he says that there seem to be two widely recognized means of improving teachers in service:

1. The means that bear directly upon the art of teaching; the means that make for increased schoolroom efficiency this week and next week.
2. The means employed to increase the personal worth of a teacher, to enlarge her interests, to improve her general scholarship, to widen her vision, to give her broader culture, to furnish individual resources.

He expressed his strong convictions that, in view of prevailing economic and social conditions, the question of rendering teaching attractive can not be ignored. One reason is the competition of the increased number of occupations now open to women as well as men.

The question of industrial education received marked attention. Arthur D. Dean read a paper on "A State program for industrial and social efficiency." Charles A. Prosser, discussing the evolution of the training of the worker in industry, said that we must accept the methods of production in modern industry as a fact and adjust our program of action accordingly. He remarked that educators are realizing the fact that under modern conditions—

the industrial education which fits the usual worker for his task and opportunity must be a more direct and specialized training than the all-round training for the old handcrafts. We need to-day a program of action in the protection and education of the employed child which will set up definite goals toward which we may move. These goals themselves should be variable, which will advance with social, economic, and industrial changes and with the growth of a quickened public sentiment.

The pros and cons of the Gary system were discussed by David Snedden. Former president of the United States, William H. Taft, read a paper on "Is a national standard of education practical?" The investigation of the efficiency of schools and school systems was ably treated by James H. Van Sickle, Leonard P. Ayres, Calvin N. Kendall, and William H. Maxwell.

The report of the committee on "Economy of time in elementary education—Minimum essentials of a course of study" was presented by the chairman, Harry B. Wilson. The major portion of attention in the reports of the different members constituting the committee is devoted to a consideration of the essential content of the subjects of the elementary schools which are treated.

The aim has been to determine, so far as possible, the content which is essential to social efficiency and to suggest those standards of attainment in certain

subjects from grade to grade which experimentation and current practice seem to justify. The attack throughout is positive rather than negative. The aim has been to determine what materials should enter into the curriculum in the light of social needs rather than to attempt to decide what should be omitted from the curriculum as it now stands. * * * The ideally constructed course of study for the elementary schools is clearly one stripped of all content not essential to the needs of modern life and organized so as to harmonize with the child's growth in capacity and experience.

Many interesting papers were read at the round-table conferences of State, city, and county superintendents. H. H. Wheaton, specialist in immigrant education, United States Bureau of Education, discussing the education of adult immigrants, presented some recommendations for a National, State, and city program for constructive work in immigrant education. "Illiteracy and industrial efficiency in large cities" was discussed by Albert Shiels.

Among the resolutions adopted by the department were the endorsement of the organization of bureaus of efficiency and educational measurement as adjuncts to the superintendent's office; the more complete training of teachers; organization of night schools and continuation schools for the training of adults; the creation of a national university; and the bringing of popular, recreational, social, and civic activities within the jurisdiction of the school authorities. The work of the United States Bureau of Education in its various lines of endeavor was highly commended.

The Department of Superintendence also met at Oakland, Cal., August 24, 1915, as the departmental congress on professional supervision of public schools.

NATIONAL COUNCIL OF EDUCATION.

The National Council of Education, under the guise of the departmental congress on educational investigations, held a meeting in Oakland, Cal., August 18, 1915. "The purpose of a national system of education" was presented by Carroll G. Pearse. The "History and development of American education" was discussed by Ellwood P. Cubberly, Charles E. Chadsey, and Elmer E. Brown. Other interesting addresses were made by H. B. Wilson, Payson Smith, Frank Strong, Grace Strachan, J. Stanley Brown, and Y. P. Benton.

AMERICAN INSTITUTE OF INSTRUCTION.

The American Institute of Instruction met in Cambridge, Mass., July 1–3, 1915. The opening address was delivered by Dr. Robert J. Aley, on the subject of "Education and democracy." In the conference on school administration, presided over by Prof. Paul H. Hanus, many suggestive papers were read by well-known educators. Dr. Van Sickle presented an effective contribution on the "Superintendent and the school committee." The work of the kindergarten evoked

great interest, the conference being under the leadership of Lillian B. Poor, assistant director of kindergartens, Boston, Mass. Dr. A. W. Edson, in his paper on "Practical suggestions for child study," emphasized the importance of not putting too strong pressure in any one direction in the training of the child. Addresses were also made by Catherine J. Tracey, Joseph Lee, and Prof. Henry W. Holmes.

NATIONAL ASSOCIATION OF SCHOOL ACCOUNTING OFFICERS.

The fourth annual convention of the National Association of School Accounting Officers was held in St. Louis, Mo., May 18–20, 1915. William J. Flynn, secretary and business manager school district, Erie, Pa., delivered an interesting address on "Business administration in smaller districts." William B. Ittner, architect, of the St. Louis board of education, discussing the "Cost of schoolhouse construction," spoke of the strong tendency for a wider and more general use of school properties by the public. The material reorganization of schoolhouse plans was imminent. The need for adequate auditoriums in elementary schools was apparent. Dr. George W. Gerwig, secretary of the board of education, Pittsburgh, Pa., presented a paper on "Units of service," which provoked considerable discussion. Lewis E. Larson, secretary of the Chicago board, commenting on Dr. Gerwig's paper, said that the time had arrived when the people desire to ascertain definitely what becomes of the money they expend in taxes. He asked:

> What can you show them, and how can you explain what you have gotten for their money? If you can show them by units of measurement, by standards of service, definitely what your so-called school activities mean, then they will be satisfied and will gladly give you more money.

A valuable paper was read by Edward C. Baldwin, secretary of the State board of education, Boston, Mass., on "Terminology of schoolhouse construction and repairs."

A committee composed of Messrs. Lewis E. Larson, William T. Keough, and A. L. Clinite rendered a report on the subject of statistical data to be used in arriving at the cost per hour of the various educational activities. The committee made the following recommendations:

1. The unit cost of elementary, high, evening, special, and normal schools shall be computed by dividing the cost of each class of schools by the actual total number of pupil hours—60 minutes—of sessions held in each kind of schools.
2. The total number of pupil hours' instruction given shall be based on the actual total attendance and number of hours of instruction given in the building, with the exceptions enumerated in paragraph 3 hereof.
3. The time allowed pupils for recess, or to attend medical or dental clinics, shall not be deducted from the total attendance.
4. Assumed attendance on all legal or school holidays shall not be recognized.

The secretary was requested to communicate with the United States Bureau of Education in order to secure its cooperation in carrying the above recommendations into effect. If such cooperation was not secured, the secretary was further directed to urge local boards of education to adopt the methods outlined.

The report was unanimously adopted. St. Louis and Boston reported that the "pupil hour" unit had been in vogue in those cities for sometime. Dr. Gerwig proposed that a *pupil hour* be defined as "a period of 60 minutes in which each pupil is engaged in some school activity; and that an *adult hour* shall be a like period of 60 minutes in which an adult may be engaged in some activity connected with the wider use of the school plant."

It was recommended and adopted that a central reference library, national in scope, be established to function as a clearing house for certain data relative to school administration.

LEAGUE OF TEACHERS' ASSOCIATIONS.

The third annual convention of the League of Teachers' Associations was held in Oakland, Cal., August 16–20, 1915. The president, Grace De Graff, summarized the work and purpose of the league in an effective address. The legislative committee, which has been making a collection of material and references pertaining to educational legislation for the use of clubs desiring such data, reported progress in its work. Replies to a questionnaire, sent out during the year, show, among other things, that at least 14 States now have State-wide pension laws, while about 30 cities in other States have pension provisions. Twenty-eight cities report tenure of office protection and 14 cities advisory councils.

ASSOCIATION OF AMERICAN LAW SCHOOLS.

The fourteenth annual meeting of the Association of American Law Schools was held in Chicago, Ill., December 28–30, 1914. Owing to the fact that Prof. Ehrlich was unable to be present, W. H. Page, of the Ohio State University College of Law, read a paper on the professor's work. Prof. Ehrlich's work has been accomplished at Czernowitz, in the Duchy of Bukowina, which lies to the east of Hungary, to the south and east of Galicia, and north of Roumania. The duchy is inhabited by nine different races. Said Prof. Page:

> This is the very place in which we would expect to find primitive institutions and customs and fragments of Archaic law preserved. Prof. Ehrlich tells us that in Bukowina "the old law still survives. The old law, which is the popular law and not the law of jurists, lives on under a thin veneer of modern statutes, and it dominates the transactions of people and their legal consciousness. The legal historian can find here not only much about which his sources are silent, but he can also get live points of view of many things which we generally be-

lieve to belong to a time which has long passed away." In actual practice, "the ancient principle of personality in law still operates; and it has been superseded by the principle of territoriality only on paper." It would seem inevitable, therefore, that anyone who began to investigate the law of Bukowina as it actually is would be confronted first of all with the necessity of studying these surviving fragments of the old law which still persists among the people.

What is the living law which Prof. Ehrlich studies and teaches?

The term "living law" as used by him has a very different import from the same term as used by the student of the common law. If we speak of the living law and are thinking of the orthodox analytical meaning of the term, we mean the law which is now enforced by the courts as distinguished from the law of the past which is now obsolete, and which is of value only as a matter of history.

Prof. Ehrlich speaks of the living law as that law which is not imprisoned in rules of law, but which dominates life itself. The term as used by him has a sociological rather than an analytical or historical sense. Prof. Ehrlich feels that—

a study of the living law will convince the jurists of Germany that legal history did not end with the Romans nor with the Germans of the fourteenth and fifteenth centuries. A like study of conditions in America would convince all who are not already convinced that our legal history did not stop in the seventeen hundreds or in the early eighteen hundreds. An enormous wealth of material for the student and teacher of the law, for the judge, and for the legislator would thus be brought to light.

Prof. Page declared that in an undergraduate course of three years it was not possible to use Prof. Ehrlich's methods directly, nor establish courses based upon them. Courses in pleading, evidence, or property could not be displaced, he said, in order to enable our students to investigate modern methods of production and distribution from a juristic viewpoint. "But we can, however, teach in Prof. Ehrlich's spirit and modify our methods of instruction by his views of law."

A scholarly paper was presented by Prof. W. N. Hohfeld on "A vital school of jurisprudence and law: Have American universities awakened to the enlarged opportunities and responsibilities of the present day?" He advocated an enlarged program of work. The courses and activities of a true university school of jurisprudence and law should consist of three divisions, the latter, however, not being intended to be mutually exclusive or independent: (1) The systematic and developmental study of legal systems; (2) the professional and detailed study of the Anglo-American legal systems; and (3) the civic and cultural study of legal institutions.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.

The twenty-third annual meeting of the Society for the Promotion of Engineering Education was held at Ames, Iowa, June 22–25, 1915. The presidential address was delivered by Anson Mason, dean

of the division of engineering, Iowa State College, his subject being "The relation of the engineering schools to the profession, the State, and the public." He advocated the broader activities of engineering schools, and emphasized the fact that such schools do not fulfill their duties by the training of "efficient" engineers alone. He said:

> The real object of the engineering schools is to advance engineering science, and so to disseminate engineering knowledge throughout the world as thereby to increase production, to diminish its cost and the cost of distribution, to promote health, convenience, safety, and enjoyment, and to educate and protect every citizen in all his rights which are in any way affected by engineering principles or practice.

He recommended the formation of engineering extension departments to assist local trade schools. In regard to State-supported engineering schools, the State has a right to demand effective assistance in the development of its industries. He said:

> Such assistance can most effectively be rendered through the medium of engineering experiment stations, devoted especially to the scientific investigation of the technical problems of their separate States. Such stations are already rendering invaluable service, which is provided for in no other way in America.

One of the significant aspects of the meeting was the organization and formulation of the work of the institutional delegates, which make for the unifying and standardizing of engineering education. Dean C. L. Corey presented a paper on "The education of the future engineer" and Prof. W. S. Bauer a paper on "Class and laboratory work in engineering." Dr. J. A. L. Waddell spoke on "Some important questions in engineering education."

CATHOLIC EDUCATIONAL ASSOCIATION.

The twelfth annual meeting of the Catholic Educational Association was held in St. Paul, Minn., June 28 to July 1, 1915. The president general of the association, Bishop Shahan, reviewed the educational work of the year. Monsignor McDevitt, in discussing the relations of the state to education, dwelt on the school provisions of the Massachusetts Colony as early as 1642. He emphasized the fact that religious education was then deemed imperative, and he deplored the modifications that have crept in since that period. He spoke of the national ordinance of 1787, which declared that "religion, morality, and knowledge" were necessary to good government. Rev. Edwin V. O'Hara presented a paper on the bearing of present social problems upon education in which he advocated the continuation school and industrial education. He said:

> Heretofore America has been a huge stevedore, a mighty longshoreman, bearing down to the ships of the sea crude and semicrude materials for the employment of the capital, labor, and intellect of foreign nations. But the limit of exploitation of our natural resources has been reached, and our un-

trained workmen are marching unemployed, empty handed, and sullen within the gates of every American city from Seattle to Baltimore.

The seminary department, in its initial meeting, convened in joint session with the college department for the discussion of the mutual relations between seminary and college. In the parish-school department the content of the curriculum was discussed. Father Costello spoke of the unique plan of Gary, Ind., where children of Catholic parents are free to attend churches during the auditorium hour for religious instruction. He urged the cooperation of pastors to further the movement. Among the resolutions passed was one exhorting Catholic parents—

to make every sacrifice that children may attain the highest education in high school and college and may fill the ranks of every honorable profession. But as, for the larger number of our people, this higher education is unhappily not possible, the association deprecates the overloading of the curriculum, the multiplication of subjects, the introduction of new and untried methods and means to the exclusion of the solid essentials of education.

The association recommends that every Catholic, especially our educational authorities, scrutinize carefully and limit strictly all attempts at legislation which would interfere with our educational liberties as citizens and would introduce class legislation under the guise of social welfare.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—SECTION L.

The American Association for the Advancement of Science—Section L—met in Berkeley, Cal., August 3 and 4, 1915. There was a joint session of Sections H and L and the American Psychological Association on August 3. Among the papers read were the following: "Some recent developments in the testing of intelligence," by Louis N. Terman; "Test upon students of Reed College, with reference to marks in their courses," by Elenor Rowland; "Tests for prospective students of stenography," by Le Roy W. Fike; and "Various degrees of success in public-school training of mental defectives," by Mrs. V. C. Hicks.

The meetings of Section L were devoted to the scientific study of educational problems. Among the able papers presented were: "Measuring progress in Latin," by Paul H. Hanus; "Management of the speech defect problem in the public schools," by Walter B. Swift; "The vitalizing principle in education," by Edward J. Kunze; "Ability of Porto Rican children in learning English," by L. A. Robinson; "Survey of industries in mechanical occupations in New Orleans by the division of educational research," by David S. Hill, etc.

AMERICAN SCHOOL HYGIENE ASSOCIATION.

The eighth annual congress of the American School Hygiene Association was held in San Francisco, June 25 and 26, 1915. This was the first separate meeting of the association since 1912, the meeting

for 1913 having been incorporated with the Buffalo International Congress of School Hygiene. The convention of 1914 was to have been held in connection with the International Congress of Child Labor in Philadelphia, but subsequently was abandoned, owing to the European war. Papers were read giving the results of original investigation; accounts of recent developments in the practical conduct of school hygiene; and the best methods of securing effective cooperation of the home, the school, and the medical and dental professions.

Dr. Walter S. Cornell offered a plan for the grading of school buildings, which involves the use of a "point scale," similar to the scales used in measuring intelligence. Dr. Samuel G. Dixon, commissioner of health, Harrisburg, Pa., presented statistics showing the results of the most comprehensive study of rural school children which has yet been made in the United States. The data collected offer remarkable evidence that the generally accepted idea as to the superior physical conditions among rural children compared with urban children has no foundation in fact.

Dr. D. C. Hall read a paper on the prevalence of goiter among school children in some sections of the Northwest, showing that it is a disease of the school period and entirely preventable. Dr. W. P. Lucas urged the necessity of cooperation of departments of pediatrics with the departments of education in universities. Education must go hand in hand with medical research. Dr. Elizabeth W. Allison gave the results of an interesting study of the health conditions among candidates for the teaching profession attending normal schools; and Dr. Anna W. Williams presented a paper on amebic infections in the mouths of school children of New York City.

SOCIETY OF COLLEGE TEACHERS OF EDUCATION.

The Society of College Teachers of Education met in Cincinnati, February 23, 1915. The committee on school survey was requested to furnish for the next meeting a formulation of the principles which should underlie the making of school surveys and to make a "survey of surveys" for the current year. It was also decided to appoint a committee to study and formulate guiding principles and standards relating to the requirements of teachers' State certificates based on graduation from colleges and universities. It was understood that this committee should work from the standpoint of the institutions represented in the society. The society approved of the establishment of a committee on terminology, composed of six members representing respectively the spheres of administration, physiology, hygiene, and tests, secondary education, elementary education, and the technique of teaching and general educational theory.

ASSOCIATION OF HISTORY TEACHERS OF THE MIDDLE STATES AND MARYLAND.

The meeting of the Association of History Teachers of the Middle States and Maryland was held in Trenton and Princeton, N. J., and New York City, May 2, and November 28, 1914. The subject of the teaching of local history in schools was discussed by Calvin N. Kendall and Edwin E. Slosson. Mr. Kendall thought that good supplementary reading as a part of the regular exercises in reading was a good way to acquire knowledge of local history. "Local history," he said, "is the sort of history which functions in the life of every boy and girl in the community." He also advocated the dramatic presentation of history. Arthur C. Howland read a paper on "The teaching of military history in the schools," in which he said that one of the great purposes of the teacher must be to stimulate interest in the subject. Military history does appeal strongly to the vast number of students, and satisfies a craving for action in history. Samuel Burnett Howe delivered an address on "Should military history be taught in our schools and colleges?" He thought too much emphasis was placed on military history, and made a plea for the economic and social phases of national development. "History in the country church" was discussed by William H. Allison. In a paper on "History teachers for secondary schools," William Fairley dwelt on the complaint, nation-wide, of the difficulty of obtaining teachers of history for secondary schools, and gave a résumé of the qualifications necessary to succeed in this neglected field.

ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES.

The twentieth annual meeting of the Association of Colleges and Secondary Schools of the Southern States was held in Charlottesville, Va., October 22–23, 1914. The presidential address was delivered by J. Carter Williams, who took as his subject "The provisional standing of teachers." "For several years," he said, "we have been at work making up a list of accredited schools. I propose the equally important work of making a list of accredited teachers." He suggested the formation of a guild of teachers of the Southern States which shall be a sort of honor roll, primary conditions of membership being an academic degree from a college of good standing, supplemented by not less than five years of successful teaching.

The teaching of modern languages in southern colleges was discussed by W. H. Faulkner and Glen L. Swiggett. Papers on economy of time in education were presented by Frederick P. Keppel and

William F. Russell. The status of the private school in the South received attention from William H. Davis and Thomas S. Baker.

The report of the representative of the association at the seventh conference of the national conference committee on standards of colleges and secondary schools, held in New York February 28, 1914, was read. A resolution was adopted approving the plan of the Commissioner of Education whereby the Bureau of Education will foster the promotion of secondary education and the standardization of high schools. The hearty cooperation of the association was pledged.

The report of the commission on accredited schools was presented by the chairman, J. S. Stewart. Among the benefits resulting from the influence of the commission upon the schools the following may be cited: (1) There has been shown an improvement in the teaching force; (2) there has been marked improvement in decreasing the average number of students to the teacher; (3) an improvement in decreasing the number of classes to the teacher; (4) increased equipment of the laboratories, etc.

The English committee suggested that—

> three units of credit for three years' satisfactory work in English be allowed and four units for four years' satisfactory work, the weak schools giving four years in English to be limited to three units, and that further study of contents of several subjects in the English department be made before definite requirements are announced.

The mathematics committee reported that no change should be made in the present unit requirements, but requested that a committee be instructed to urge upon the national conference committee the advisability of giving algebra the value of two units.

CENTRAL ASSOCIATION OF SCIENCE AND MATHEMATICS TEACHERS.

The fourteenth meeting of the Central Association of Science and Mathematics Teachers was held in Chicago, November 27–28, 1914. The address of welcome to the association was delivered by Dr. Ella Flagg Young, who dwelt on the development of greater power in scientific imagination to train minds to rise to the larger and greater things. The response in behalf of the association was made by Marie Gugle. The meetings of the various sections of the association were productive of many interesting contributions to knowledge. Carl Colvin's paper on "The fighting chance of agriculture" was followed by a spirited discussion. In the biology section an able paper was read by Prof. F. T. Ulrich on "The present status of botanical teaching in the normal schools." The report of the committee on practical experiments in chemistry was presented by the chairman, H. R. Smith. The point was emphasized that the teacher

with questions of every-day interest. A suggestive paper on "What chemistry should a girl have who expects to become a teacher of domestic science?" was read by G. C. Ashman. C. M. Wirick gave must have the student bring his study of chemistry into direct contact "A critical analysis of the merits of recent textbooks in chemistry."

In the earth science section, W. S. Tower spoke of "The purpose of political geography," which is to show how the various elements in a country work together in the life of the nation which occupies that country. Political geography is really the geographic interpretation of peoples.

A report was rendered in the mathematics section on "vocational mathematics," which term includes all branches of mathematics as applied to the problems of different vocations. The report embraced the work of the continuation schools of Wisconsin and the Chicago public schools. The following conclusions were drawn:

(1) Specialized courses for different trades are being given at the present time in special schools or special courses.

(2) Mathematics courses specialized in the trades are not given in academic high schools.

(3) Specialization in public-school classes for those who have not chosen their life work is neither necessary nor desirable.

(4) Specialization is necessary and desirable for those who have chosen their life work and are in attendance at trade, continuation, or evening schools.

In the physics section an illustrated lecture on "Sound waves," by Arthur L. Foley, created a great impression. The pictures completely verified Huygens's theory. Every picture exemplified in a striking manner what is meant by "centers of disturbance," "wavelets," "radius of curvature," etc.

A number of interesting papers were read in the home economics section. A resolution was adopted to appoint a committee of five to deal with the terminology of courses in the high school in home economics, the report to be made at the meeting in 1915.

CONFERENCE OF ACADEMIES AND HIGH SCHOOLS IN RELATIONS WITH THE UNIVERSITY OF CHICAGO.

The twenty-seventh conference of academies and high schools in relations with the University of Chicago was held in Chicago April 16, 1915. "The relation of the organized library to the school" was the theme for discussion. The conference was subdivided into 15 sections, organized, respectively, around subjects of mutual concern to colleges and to secondary schools. Following the sessions of the departmental sections a conference of school and university administrative officers was held, the following subjects being discussed: (1) The granting of college credit at the University of Chicago for

studies completed in the high schools in excess of the 15 units required for entrance to college; (2) Excess credit for college entrance for high-school work done at a high level of excellence. The first topic was presented by Dean Angell, of the University of Chicago, and Principal Sims, of the high school at South Bend, Ind.; the second topic by Principal Johnson, of the University high school; Giles, of De Kalb, Ill.; and Newton, of Decatur, Ill.

Arthur E. Bostwick's paper on "School libraries and mental training" was an illuminating presentation of the subject.

NATIONAL ASSOCIATION OF STATE UNIVERSITIES.

The nineteenth annual meeting of the National Association of State Universities in the United States of America was held in Washington, D. C., November 9–10, 1914. In his presidential address Dr. T. F. Kane, speaking of the demand by foreign students on our universities on account of war conditions in Europe, dwelt on the service a national university could have rendered to the cause of higher education at such a time. In regard to the problems of the junior college and the organization of the secondary school the committee on reorganization of education came to the following conclusion:

> If the purposes of the superintendents, who report at the Cincinnati meeting of the National Council of Education in February, 1915, can be brought about, the problems of the junior college and the organization of the secondary school are materially modified and must be approached from a different point of view than that now evidenced in the plans to make two years of academic college work the basis of admission to professional schools. * * * Should not this committee cooperate in the work of reducing the curricula content of the grades, while at the same time asking for the adoption of the senior and junior high school, the former assuming the two years now known as the freshman and sophomore years of college?
>
> In this process there are several steps that can be taken: (1) Cut down the work of the eight grades to six; (2) make the junior high school out of the first, second, and third years of the present high school; (3) create a senior high school of the present fourth year of the high school and the first and second years of college. The universities of this association can hasten this movement by getting out of the way of the senior high school and organizing the junior college.

The topic of educational surveys was elaborately treated. Dr. P. P. Claxton discussed "College surveys." President Edwin B. Craighead, of the University of Montana, speaking of "State control of all higher education," thought that Congress should appoint an educational commission, which, in conjunction with the great educators of the country, would be of vast service. President Charles W. Dabney, of the University of Cincinnati, made a plea for the municipal university.

SOUTHERN ASSOCIATION OF COLLEGE WOMEN.

The twelfth annual meeting of the Southern Association of College Women was held in Atlanta, Ga., April 22–24, 1915. The report of the committee on standards of colleges was presented by Emily H. Dutton, chairman. The statement was made that "in the 17 States within the territory of the association there are still 375 or more institutions calling themselves colleges, only 31 of which are members of the Association of Colleges and Secondary Schools of the Southern States, and, with the exception of a few others in the border States, i. e., Missouri, Kentucky, and also the District of Columbia, these are the only ones that can be said fully to meet the southern standards for a college."

Elizabeth Avery Colton, in her presidential address, dwelt on the misuse of the term "junior college." "An institution," she said, "that is merely a weak, struggling college, or finishing school, is not a *junior college*. With the exception of those in Missouri, there are really no junior colleges in the South." Miss Colton stated that the association was preparing tables for high-school girls and their parents, grouping all institutions for women in each State under the following heads:

1. Standard colleges—that is, those recognized by the Association of Colleges of the Southern States.
2. Approximate colleges—institutions not fully coming up to the standard set by the Southern College Association.
3. Finishing schools—institutions offering one or two years of work in advance of a high school, but not giving any real college courses.
4. Nominal colleges—finishing schools *claiming* to be colleges.
5. Normal schools—institutions whose main object is the training of students in methods of teaching.

The topic of the "Provision made by southern standard colleges for the education of women" was discussed by Dr. W. A. Webb, Emily H. Dutton, and May L. Keller.

MUSIC TEACHERS' NATIONAL ASSOCIATION.

The thirty-sixth annual meeting of the Music Teachers' National Association was held in Pittsburgh, Pa., December 29–30, 1914. The public school conference was devoted to two topics: "Credits in secondary schools for outside music study," and "The high-school orchestra as a means of increasing interest in instrumental music." Will Earhart, speaking of the high-school orchestra, advocated courses in harmony, musical history, and appreciation, in addition to orchestral ensemble, in the high schools. He said it would result in the bringing into our national life "a quality and a degree of musicianship that chorus-practice alone, even of a good kind, valu-

able and beautiful as it certainly is, can never produce." Mr. McConathy dwelt on the necessity of regarding the work accomplished in music under private teachers as equivalent to work in other high-school subjects. Waldo S. Pratt spoke on "The problems of standardization."

NATIONAL COMMERCIAL TEACHERS' FEDERATION.

The eighteenth annual convention of the National Commercial Teachers' Federation was held in Chicago, Ill., December 28–31, 1914. One of the speakers at the general federation session was Dr. S. P. Capen, of the United States Bureau of Education, who emphasized the importance of commercial education and the problems, pedagogical and administrative, which are waiting solution in that field. He dwelt on the attempt of the bureau to obtain complete and reliable statistics from private commercial schools, and the difficulty experienced. He urged the federation to bring about a better cooperation between such institutions and the national bureau.

The federation is composed of the following six constituent associations, the sessions of which were well attended: National Private School Managers' Association, National Business Teachers' Association, National Shorthand Teachers' Association, National Penmanship Teachers' Association, National High School Commercial Teachers' Association, and National Stenotype Teachers' Association.

A resolution was adopted directing the president of the federation to appoint a committee of five to cooperate with other national organizations of business men and educators for the advancement of commercial education; to perfect standards that will be authoritative; and to effect the establishment of a division of commercial education in the United States Bureau of Education.

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

The twenty-eighth annual convention of the Association of Colleges and Preparatory Schools of the Middle States and Maryland was held in New York, November 27–28, 1914. The general topic, "Has the unit system fostered or retarded sound education?" was discussed by Arthur H. Quinn, Henry C. Pearson, and W. A. Robinson. Dean Quinn, of the University of Pennsylvania, said that the advantages of the unit system lie in its inflexibility, in its usefulness in accrediting students who transfer from one college to another, and the demand of students to graduate in three years. He remarked:

> The basic evil of this system in the college lies in the effect it has on some students, who acquire the habit of looking upon their studies as so many "units" which they must take before they can obtain their degrees rather than as elements of their education.

Prof. W. A. Robinson, of Lawrenceville School, declared that the adoption of the new unit has greatly simplified the work of the preparatory schools in planning the work of prospective candidates for college entrance, but it must not be forgotten, however, that such a standard has marked limitations. "It is true that the element of time is of great importance in fixing the relative value of a course of study. But, after all, it is only one factor, and the others are so elusive and various that they defy any attempt at standardization." The unit system does not tell us what has been taught nor how the subject has been taught. In measuring units we are dealing with "a mechanical standard which takes no account of teachers or subjects or methods."

"What standards should be used in the classification of colleges" was discussed by Samuel P. Capen, Rush Rhees, and James D. Moffatt. A resolution was adopted that the executive committee of the association appoint a representative to serve as a member of a committee with other associations having to do with higher education, to discuss with the United States Commissioner of Education "the advisability of classifying colleges according to their standards and equipment, and, if deemed desirable, to decide upon a method of rating and to cooperate with the United States Bureau of Education in preparing classified lists."

The committee on comprehensive examinations reported that it had agreed upon the following definition: "A comprehensive examination is understood to be one covering the whole field of a particular subject, or group of related subjects, studied during a considerable period of time." Recommendations were made as follows:

1. *Graduate and professional studies.*—In the case of candidates for higher degrees the thesis submitted should be supplemented by a thorough and comprehensive examination covering the entire field of the candidate's study.

In the case of certain professions, such as medicine and dentistry, a practical examination, testing the candidate's ability to make use of his acquired knowledge, is desirable. In other professions it is desirable that there should be a comprehensive examination which may include problems that will test the practical power of the candidate.

2. *College and university studies.*—Comprehensive examinations are essential for honor courses such as have been recently established in Harvard, Yale, and Princeton, and they are desirable in major courses where any study is pursued for several years. The principle is applicable, also, to all studies that are pursued more than one term, in which case the examination at the close of the year would cover the essential points of the entire year's work.

3. *Secondary school studies.*—In secondary school work comprehensive examinations would be of two types:

(*a*) In subjects completed in a single year.

(*b*) In subjects carried on continuously through several years.

In both cases the term examination should be supplemented at the close of the course by a comprehensive examination covering the important points of the entire course.

In the case of pupils who might be able to do the work satisfactorily from day to day, but who might not have the power to pass a comprehensive examination on the work of a year or several years, there should be a differentiation from the regular pupils doing full work. Such pupils may wisely be continued in the class, and receive at the close a certificate of faithful work and reasonable attainment, without being awarded the regular diploma of the school.

4. *Admission to college.*—Attention is particularly called to the new method of admission recently inaugurated by Harvard and adopted with some modifications by other institutions. By this plan a student who is certified as having completed a satisfactory school course is examined in only four subjects, the examinations in these being distinctly of a character that may be called comprehensive. The plan, though still only in the experimental stage, appears to mark a decided advance on the present method of piecemeal entrance examinations, and is worthy of most careful consideration.

The committee to investigate the comparative excellence of the records made in college by students entering upon certificate and upon examination, respectively, through the chairman, A. L. Jones, made a preliminary report. Five institutions coming within the field of the association were selected, three admitting on certificate and two requiring examinations. The results of the investigation, so far as a comparison of the two methods is concerned, is inconclusive; but a few things are certain, namely: "Lax administration of either entrance plan makes it almost worthless; low standards and careless administration within the college will show unsatisfactory results whatever the method of admission."

NATIONAL ASSOCIATION OF DENTAL FACULTIES.

The thirty-second annual meeting of the National Association of Dental Faculties was held in Ann Arbor, Mich., January 25, 1915. Dr. H. E. Friesell, in a paper on "Is it desirable to have a survey of the dental colleges; and if so, how should it be accomplished?" advocated a thorough and impartial survey of the dental schools of the United States as a basis for formulating "a reasonable standard that any school must maintain to insure its right to existence or recognition as a reputable dental school."

Dr. Henry W. Morgan presented a plan for the supervision of requirements for entrance into dental colleges.

LAKE MOHONK CONFERENCE OF FRIENDS OF THE INDIAN AND OTHER DEPENDENT PEOPLES.

The Lake Mohonk Conference of Friends of the Indian and Other Dependent Peoples met at Mohonk Lake, N. Y., October 20–22, 1915. Samuel A. Eliot, member of the United States Board of Indian Commissioners, presided. O. H. Lipps, superintendent of the Carlisle Indian School, discussed agricultural work among the Indians.

Other speakers on Indian affairs were Frederick A. Cleveland, director of the New York Bureau of Municipal Research; Arthur C. Parker, New York State archæologist and secretary of the Society of American Indians; Robert G. Valentine, ex-Commissioner of Indian Affairs; J. Weston Allen, of Boston, member of the Boston Indian citizenship committee; and Jewell D. Martin, supervisor of the United States Indian Service in charge of the Fort Belknap agency at Harlem, Mont.

Gov. Arthur Yager, of Porto Rico, dwelt on social and political conditions in Porto Rico, and urged the passage of the new organic act to take the place of the temporary Foraker Act, passed by Congress in 1900, which became effective in 1901. Dr. D. W. May, superintendent of the Porto Rico Experiment Station, emphasizing the wretchedness of the agricultural laborer, suggested as a remedy education and the development of small industries which would enable the lower classes in the country district to support themselves in some other manner than working on the coffee and sugar plantations. Addresses were made also by Manuel V. Domenech, Porto Rican commissioner of interior; Jorge Dominguez, of San Juan, member of the insular board of health; Howard L. Kern, attorney general of Porto Rico; and the Rev. Dr. H. K. Carroll, resident Washington agent of the Home Missions Council and Federal Council of Churches, and formerly United States commissioner to Porto Rico.

The subject of education in the Philippines was ably discussed by Frank L. Crone, director of education in the Philippine Islands. He dwelt on the courses of study, which are divided into units, permitting pupils to leave school, if compelled to do so, at certain periods with something definite accomplished which goes far toward meeting their life needs. Despite the progress made, there still remains a large number of Filipino children of school age unprovided for under the present system.

THE RELIGIOUS EDUCATION ASSOCIATION.

The twelfth annual convention of the Religious Education Association was held in Buffalo, N. Y., March 3–7, 1915. Particular interest was manifested in the meetings of the commissions of the department of Sunday schools. Reports were read on Sunday school nomenclature, psychological data, and on social relations of youth to the church. The meetings of the council were devoted to reports on "The training and supply of professional workers in religious education." The findings of the council were presented in the following statement:

A new profession, that of religious educator, is springing up—a profession which, like that of public education, has several branches. There are 135

directors of religious education; 304 full-time workers employed by religious bodies in editorial, administrative, and field work in religious education; 189 full-time secretaries in the International Sunday School Association; over 330 boys' work secretaries in Christian associations; and a score of instructors and professors giving their entire time to religious education in colleges, universities, and theological seminaries. In addition, there is a large group of instructors of religious education in training schools for lay workers, and there are several hundred part-time workers in various fields.

But adequate training for professional work in religious education is rare. What is more serious, present opportunities for such training are utterly inadequate to meet the need. Enormous waste of resources is one result. Buildings, equipment, and human labor are not controlled by knowledge that already exists and should be made available. The children, the church, and the society that is to be are the ultimate losers.

We must free ourselves from the fallacy that the training of workers in religious education consists in transmitting to them a set of cut and dried devices. Our problems require scientific methods for their solution; our leaders must have professional training and the professional spirit. Those who attain this standard should receive recognition as specialists; they should have discretion and the right of initiative in their respective fields; they should receive professional compensation which must ever include provision for growth through books, travel, conventions, and study courses. Further, our churches must learn that religious education requires equipment in buildings, libraries, and teaching materials and apparatus, and that all expenditures in the field of religious education should be controlled by the best available knowledge as to what religious education is.

For the training and supply of professional workers we must look chiefly to educational institutions that owe their existence to religious motives. We have repeatedly requested such colleges to give courses in the rudiments of religious education, to the end that our educated laymen may know something of real life in home and church. Many colleges have responded to these requests, and the responses are increasing. We now urge a further step. It is that the privately endowed colleges adopt at once the policy of ultimately giving to religious education as extended and thorough treatment as they give to public education. Whatever theories are held as to the proper aim of the college curriculum, the fact is that preparation for a license to teach in the schools of the State is now provided in a large proportion of the colleges that were founded in the interest of religion. Let these colleges prepare to offer equal preparation to teach religion. This will result not only in sending college graduates back to their home churches ready to do a layman's work, but also in laying a foundation for advanced courses on the part of the few who should go forward to professional studies.

The addresses at the general sessions were given by the president, Rt. Rev. Charles D. Williams, Protestant Episcopal bishop of Michigan, Detroit, Mich.; Francis G. Peabody, professor emeritus, Harvard University; Rev. Walter Rauschenbusch, of Rochester Theological Seminary; Mrs. Anna Garlin Spencer, vice president of the National Child Welfare League and professor of sociology, Meadville Theological Seminary; Rabbi Henry Berkowitz, chancellor Jewish Chautauqua Society, Philadelphia; Charles S. Gardner, of the Southern Baptist Theological Seminary, Louisville; Mrs. Ella Lyman

Cabot, member of Massachusetts Board of Education, Boston; Charles F. Thwing, president Western Reserve University, Cleveland; Graham Taylor, president Chicago School of Civics and Philanthropy and editor of *The Survey;* Charles S. Macfarland, general secretary of the Federal Council and member of continuation committee of World Alliance of the Churches.

The following declaration of principles, prepared by a committee consisting of George A. Coe, Francis G. Peabody, Frederick Tracy, and George B. Stewart, was unanimously adopted by the convention:

This convention, called to consider "the rights of the child," is evidence that the conscience of the people is awakening to the fact that society is wronging its most defenseless members.

Society does not yet effectively recognize the right to be well born. The preventable physical defects with which multitudes of children start life are an invasion of rights more serious than attacks of highwaymen.

Society does not yet effectively recognize the right of children to real mothers and real fathers, or the right to be trained through responsibilities.

Society does not yet effectively recognize the right of the child to health.

It does not fully recognize the right to grow. Powers for growth and for human happiness are being turned into commercial assets.

Society does not effectively recognize the right of the child to be educated. Witness the insufficient accommodations in our schools, the elimination of pupils, the early entrance into industries.

Society does not effectively recognize the right to character. We condemn certain people of antiquity for exposing infants to the natural elements, but we expose American children to moral contagion—and we do it for gain.

Society does not effectively recognize the right of children to the religious heritage of the race. We are as yet at the beginning of the problem of providing religious education for the children of the whole Nation. We rejoice at the multiplying efforts of churches to give to the children of whole communities instruction in religion, comparable in method and in continuity to instruction in the public schools.

Our problem requires cooperation between the public school, the home, the churches, agencies of philanthropy and reform like the National Child-Labor Committee, the civic authorities, and right-minded individuals.

We can not save ourselves unless we save the children. Everyone of our great social wrongs bears most heavily upon them. Militarism means bringing children into the world to hate one another, and then to be shot to death. Sexual immorality reveals the depth of its meaning in its ruthless effects upon all that is vital to healthy, happy, and morally growing childhood. The economic injustice under which our people smart wrongs the children most of all, for it robs them at once of home and health and the right to be children until the normal period for assuming the responsibility of self-support. The inequalities of our laws as between the sexes imply this most of all—that a part of the natural protection and guidance of children is withheld.

We declare that this situation calls upon our whole people to repent, and to resolve that, through homes and churches, through occupations and industrial relations, through civic and community life, through cooperation with child-helping agencies, and through the exercise of the rights of citizenship, the full rights of the child shall be recognized and secured.

CONFERENCE ON THE EDUCATION OF BACKWARD, TRUANT, DELINQUENT, AND DEPENDENT CHILDREN.

The Conference on the Education of Backward, Truant, Delinquent, and Dependent Children was held in Memphis, Tenn., May 6–8, 1914. Franklin H. Nibecker summed up the results of 10 years of the conference. F. J. Sessions, in a paper on the "Dependent child in the institution," emphasized the point that the drink evil was the most prolific cause of juvenile dependency. Institutional experiences have large possibilities in determining the final success or failure of children subject thereto; much depends upon the "follow-up" service rendered them. Calvin Derrick read a thoughtful paper entitled "The training of juvenile delinquents for citizenship," in which he declared that the ideal as well as the practical training for institutional children demands that "they shall live on terms of almost social equality with the people in charge." He condemned the present reformatory system of training for delinquent boys—

(1) Because it attempts to deal with too large numbers; (2) because it is unnecessarily repressive and crushing, constantly dealing with the offenses rather than the offenders; (3) because the system and also the practice combine to render the boy's industrial education problematical—it is not a certainty; (4) because it permits the boy to be paroled when it is well known that he can not honestly maintain a decent standard of living, and that his inefficiency makes it probable that he can not hold his job; (5) because it tolerates an untrained low grade of employees, often little or no better than the boys themselves.

Dr. H. H. Hart spoke on the "Menace of the feeble-minded."

SOUTHERN CONFERENCE FOR EDUCATION AND INDUSTRY.

The Southern Conference for Education and Industry met in Chattanooga, Tenn., April 27–30, 1915. The conference is the result of a merger of the Conference for Education in the South, the Southern Education Board, and the Southern Educational Association. The constitution adopted provides for maintenance from active, associate, and sustaining members. An executive board was elected for stated terms of service. The various groups dealing with agricultural problems organized the Southern Agricultural Association to form a constituent body of the conference. Largely attended meetings of the Southern Industrial Council resulted in a permanent organization to further a "unit" program for the educational and industrial development of the South. Representatives of the leading women's organizations, both social and religious, together with representative

women, organized the Conference of Southern Women to bring about the cooperation of clubs and other agencies in working out the "unit" program of the conference. For the first time, representatives of practically all of the greater denominational agencies—Sunday school, home and foreign missions—gathered in the Country Church Conference to formulate plans full of promise for cooperation in a movement for the country church and country life. The college conference, attended by representatives of practically all of the leading colleges throughout the South agreed upon a far-reaching plan for readjusting the college curriculum to meet the needs of modern industry, and the teachers' conference made provision for working out a scheme of home activities to be made a regular part of the school course.

All the groups, meeting in a joint conference, heard accounts of community building by workers from all parts of the South that inspired the audience with a constructive zeal that must needs yield widespread results.

At its first session in June, 1915, the executive board formulated the conclusions and resolutions of the conference into a constructive program to bring the thought and experience of the entire South into the service of each community. It was the judgment of the board that the task of the hour centers largely upon the organization and development of community leagues for cultural and industrial development, looking to the creation of social units as sources of strength for the Commonwealth.

CHAPTER XXVI.

SCHOOLS FOR THE NATIVES OF ALASKA AND FOR INDIANS.

EDUCATION FOR THE NATIVES OF ALASKA.

By WILLIAM HAMILTON, Alaskan Assistant, Bureau of Education.

During the year 1914–15 the field force of the Alaska school service consisted of 5 superintendents, 1 assistant superintendent, 97 teachers, 7 physicians, and 8 nurses. Sixty-seven schools were maintained, with an enrollment of about 3,500; complete reports have not yet been received from the schools on the shores of Behring Sea and the Arctic Ocean.

In addition to maintaining schools for the native children in Alaska, the bureau has continued its endeavors in behalf of the entire native communities by extending medical relief, by maintaining sanitary methods of living in the villages, by promoting the industries conducted by the natives, and by relieving destitution.

Of the appropriation for "Education of natives of Alaska for the fiscal year ended June 30, 1915," more than $25,000 was used in employing seven physicians and eight nurses; in maintaining improvised hospitals at Nulato, Kotzebue, and Kanakanak; in payments under contracts with St. Ann's Hospital at Juneau, with the Good Samaritan Hospital at Valdez, with the Holy Cross Hospital at Nome, with the Fairhaven Hospital at Candle, and with the Children's Orthopedic Hospital at Seattle, for the treatment of natives; also, as heretofore, in furnishing the teachers of the United States public schools with medical supplies and medical books in order to enable them to treat minor ailments. The efforts of the bureau to secure from Congress a specific appropriation to provide for the medical and sanitary relief of the natives of Alaska have met with success, $25,000 having been granted for that purpose for the fiscal year 1915–16.

Much of the sickness prevailing among the natives of Alaska is caused by the eating of food which has not been properly prepared. The waters of Alaska teem with fish, and wild berries grow in profusion throughout its vast area, but in many villages, according to the ancient practice, fish for winter use are either dried in the sun, crudely smoked, or buried in the earth, while the berries are preserved in oil. In order to replace these primitive methods, during

the summer of 1914 steam home canning outfits for use in preserving fish and meat, as well as berries and vegetables, were sent to three of the largest villages. It is hoped that the use of such outfits will become general in the native communities.

One of the most effective agencies for the advancement in civilization of a native village is the establishment in it of a cooperative store owned by the natives and managed by them, under the supervision of a teacher of a United States public school, resulting in the securing of articles of food and clothing at equitable prices, the dividing among the natives themselves of profits which would otherwise go to a white trader, and in the acquiring by the natives of self-confidence and experience in business affairs. It is most encouraging to note the ability which the natives have shown in conducting these enterprises. According to the district superintendent, the income of the village of Atka has increased 150 per cent because of the establishment of its cooperative store. The cooperative stores at Hydaburg, Klawock, Klukwan, and on St. Lawrence Island have also met with success.

In continuation of the policy of setting aside carefully selected tracts to which large numbers of natives can be attracted, and within which, secure from the intrusion of unscrupulous white men, the natives can obtain fish and game and conduct their own industrial and commercial enterprises, and within which the bureau can concentrate its efforts, during the year reservation was made by Executive order of a tract on the Kobuk River, in Arctic Alaska, also of a tract on the northern shore of Cook Inlet, including the village of Tyonek and its surroundings. The reservation of the tract on the Kobuk River was made in compliance with the urgent request of the natives of Deering on Kotzebue Sound, who wished to migrate from the village which had been their home from time immemorial, because life in it had become increasingly difficult, the development of mining and the influx of white men having resulted in the killing off of game animals and in great scarcity of fuel. Within their new reservation on the shores of the remote Arctic river these natives can secure an abundant supply of fish, game, and timber, and can build up a new village for themselves.

In 1891, when setting apart Annette Island as a reserve for the use of the Metlakatlans and such other Alaskans as might join them, Congress empowered the Secretary of the Interior to prescribe rules and regulations for the reserve. However, this authority was not exercised, because it was felt that the advancement of the Metlakatlans could best be secured by letting them develop under the sole leadership of Mr. William Duncan, the founder of that unique colony. When it became necessary in the best interests of the Metlakatlans to establish and maintain a United States public school in Met-

lakatla, and otherwise to assume responsibility in connection with the interests of the Metlakatlans, it was deemed advisable to prescribe a code of regulations for the government of the colony, which was put into effect by the Secretary of the Interior January 28, 1915. Under these regulations the government of Annette Islands Reserve is vested in an elective council of 12 members, with power to pass such ordinances for the local government of the reserve as are not in conflict with the laws of the United States, the laws of the Territory of Alaska, or the regulations prescribed by the Secretary of the Interior.

At its recent session the Alaska Territorial Legislature passed two acts of vital importance to the Alaskan natives. The act to define and establish the political status of Alaskan natives, approved April 27, 1915, provides for the acquiring of citizenship by natives of Alaska. It empowers a United States judge to issue a certificate of citizenship to a native who has severed all tribal relations, adopted the habits of civilization, satisfied the teachers of a United States public school or a territorial or a municipal school of his qualifications for citizenship, and obtained the indorsement of his claim by five citizens. The act to provide for local self-government in native villages in Alaska, approved April 21, 1915, provides that a United States commissioner, after a proper hearing, may authorize the organization for self-government of any native village in Alaska having not less than 40 permanent inhabitants above the age of 21. The form of government provided for such villages is similar to that prescribed by the Secretary of the Interior for Annette Islands Reserve.

The following table shows the distribution of expenditures for the work of the Bureau of Education in Alaska:

Expenditures from the appropriation for "Education of natives of Alaska, 1915."

Appropriation		$200,000.00
Salaries in Alaska	$94,358.01	
Equipment and supplies	15,498.15	
Fuel and light	19,363.38	
Local expenses	1,889.33	
Repairs and rent	4,155.37	
Buildings	14,475.06	
Medical relief	25,584.80	
Destitution	1,465.00	
Commissioner's office salaries	4,870.17	
Seattle office salaries	8,042.50	
Commissioner's office expenses	125.00	
Seattle office expenses	675.00	
Traveling expenses	9,071.65	
Contingencies	426.58	
Total		200,000.00

THE ALASKA REINDEER SERVICE.

The latest complete statistics regarding the reindeer herds are those of the fiscal year ended June 30, 1914, according to which the total number of reindeer in Alaska at that time was 57,872, distributed among 65 herds. Of the 57,872 reindeer, 37,828, or 66 per cent, were owned by 980 natives; 4,113, or 7 per cent, were owned by the United States; 5,924, or 10 per cent, were owned by missions; and 10,007, or 17 per cent, were owned by Lapps. The total income of the natives from the reindeer industry during the fiscal year, exclusive of the meat and hides used by the natives themselves, was $77,934. The total, 57,872, is a net increase of 22 per cent during the fiscal year, notwithstanding the fact that nearly 6,000 reindeer were killed for their meat and hides during the year.

The reindeer enterprise in Alaska has successfully passed through two stages—the introduction of the reindeer to a new country and people, and the development of an administration which has established the industry in the coastal region from Point Barrow to the Aleutian Peninsula. There remains the successful commercializing of the industry, the advancement of the enterprise from a branch of industrial education to one of the industries of the country.

Realizing that the establishment of an export trade in reindeer products is essential to the success of the enterprise, the bureau is encouraging the shipment of reindeer meat and hides from Alaska to the States. The last steamer to leave Nome before the closing of navigation by ice brought to Seattle in October, 1914, 25 carcasses of reindeer, which were placed on sale in Seattle, retailing at from 20 to 35 cents per pound. The chief of the Alaska Division also brought from Nome 3 carcasses to be distributed among the five continental railway lines running out of Seattle, in order that reindeer meat might be given a trial on dining cars, with a view to securing for the natives contracts for the delivery of reindeer meat each season.

During the winter of 1914–15 the bureau's superintendent, who is situated at Nome, with the approval of the Commissioner of Education, distributed among the Eskimo herders in northwestern Alaska a proposal from a cold-storage company operating between Seattle and Nome to market in Seattle for the Eskimos on a commission basis the reindeer meat consigned to said company. This action will probably result in the shipment of a considerable quantity of reindeer meat from Nome during the summer. The responsibility of accepting or rejecting the proposal of the cold-storage company will rest with the native owners of reindeer, the superintendents acting in an advisory capacity and assisting in making the necessary arrangements.

Soon after the inception of the reindeer enterprise certain Lapps were brought from Lapland to Alaska and employed by the bureau as instructors of the Eskimos in the care and management of the reindeer, each Lapp receiving a certain number of reindeer in payment for his services. During the summer of 1914 a company, organized at Nome, purchased about 1,200 reindeer from one of these Lapps. This company intends to purchase other herds now owned by Lapps, and to engage in the exportation of reindeer meat and hides.

Under the supervision of the superintendent of the northwestern district a very successful convention, attended by about 200 of the Eskimos engaged in the reindeer industry on the Seward Peninsula, was held at Igloo from January 11 to 17. The main object of the convention was the exchange of experiences and opinions on matters connected with the raising and the utilizing of reindeer. The discussions included such subjects as the best way to slaughter a reindeer and prepare it for market, the most satisfactory forms of sleds and harness, and the best methods of driving reindeer. There were also shooting matches, rope-throwing contests, wrestling bouts, and many kinds of races with reindeer. The exhibits included sets of harness, sleds, halters, and clothing made of reindeer skin, for which prizes were awarded. The success of this convention will probably result in the holding of similar conventions annually in various centers of the reindeer industry.

The reindeer industry is now extending from the mainland to the outlying islands. During August, 1914, upon the request of the Department of the Interior, the revenue cutter *Manning* conveyed a herd of 40 reindeer from Ugashik, on the Alaska Peninsula, to Atka, a remote island in the Aleutian chain, where it will be a valuable factor in alleviating the deplorable conditions which have hitherto prevailed upon that desolate island. The extension of the reindeer industry into southeast Alaska was begun during October by the shipment to Metlakatla, on Annette Island, of eight reindeer from the herd in the vicinity of Nome.

Expenditures from the appropriation for "Reindeer for Alaska, 1915."

Appropriation		$5,000
Salaries of chief herders	$500	
Supplies	3,850	
Establishing new herds	650	
Total		5,000

INDIAN EDUCATION DURING THE FISCAL YEAR 1915.

(Furnished by the Commissioner of Indian Affairs at the request of the Commissioner of Education.)

During the year the Government maintained 35 nonreservation boarding schools, with an enrollment of 10,791; 73 reservation boarding schools, with an enrollment of 9,899; and 208 day schools, with an enrollment of 7,270. In one or two cases during the past year it has been possible to permit the use of Indian day schools by the public-school authorities to be conducted as district schools, on condition that Indian children were received therein on the same terms as white children.

In extending the enrollment of Indian children in public schools, it has been found wise to direct inquiry as to the circumstances of each child now enrolled and each applicant for such enrollment. Each pupil has been required to show his reasons for not entering a public school, his home conditions, and all facts bearing upon his eligibility for enrollment in an Indian school. The advantages to be obtained from this information are twofold: First, children who are not in need of Federal assistance, or who by reason of attendant circumstances may derive greater advantage from enrollment in a public school, may be eliminated; and second, by the elimination of these children Indian school facilities are increased for those who have no other educational opportunity.

The academic work at each Indian school follows, in general, the course of study in use in the public schools of that State. However, this course is modified in most schools so as to place special emphasis on essentials and to allow a greater amount of industrial training than would otherwise be possible. At boarding schools it is customary to devote one-half of each day to academic work and the other half to industrial work.

The day schools cover only the first few years of school life, and the industrial training is necessarily limited. However, mat weaving and simple sewing are taught, and at many schools the preparation and serving of a noonday luncheon, under the direction of the housekeeper, affords instruction in cooking and other simple household duties. A great deal of attention is being given the gardens at Indian day schools, and better results have been obtained by both boys and girls. In several schools the interest of the parents was enlisted, and by their assistance the gardening has been carried on during the summer vacation. The boys are also taught the use of simple tools and the care of stock. In reservation boarding schools the girls are taught the customary household duties, sewing, laundering, and baking, and the boys are taught regular shopwork, the cultivation of the soil, dairying and stock raising, a farm being conducted at each reservation boarding school.

In order to emphasize the importance of agricultural training the school farms and their management are being given special attention, and it is believed that there will be a gradual improvement each year in both agricultural methods and instruction.

It is possible to give a more extended course in domestic science at the nonreservation boarding schools, where a domestic-science cottage is provided and classes of girls take turns in doing the usual work of a household under the direction of an instructor. Twenty-nine schools have domestic-science teachers or housekeepers, and one school has a cooking teacher. At other schools this work is under the direction of the school employees in charge of the various departments.

During the past year especial attention has been given to the canning of fruits and vegetables, and, in addition, to instruction in the use of glass jars for canning in small quantities. Canning outfits have been provided and pupils instructed in preserving large quantities of fruit and vegetables, produced for the most part in the school orchards and gardens.

School papers and journals are published not only at the large nonreservation schools, but also at many of the smaller reservation schools. The publication of these papers furnishes valuable training to the pupils in the use of English and in the printing trade as well. The papers also extend a helpful influence to a large number of pupils and adults on the reservation who otherwise can not be reached.

Music is a part of the regular school work, and a band composed of students is supported at the larger schools. Phonographs are provided at some of the day schools and many of the boarding schools, and stereopticons are also furnished at day and boarding schools, both for the entertainment and instruction of the children and the adult Indians.

At about 30 of the larger boarding schools an "outing system" is maintained, under which boys and girls are sent to carefully selected homes to assist with the farm and house work. These pupils are given careful oversight by the farmer and his wife and frequently have an opportunity to attend public school. Pupils having land are encouraged to take courses which fit them to cultivate it to advantage. However, some Indian boys have no land, or show more ability along other lines. The nonreservation schools give such pupils opportunity to learn various trades, such as carpentry, woodworking, blacksmithing, electrical and stationary engineering, brick and stone masonry, plumbing, tailoring, painting, printing, baking, shoe and harness making, wagon making, and cement work. Theoretical industrial instruction has been systematized by requiring that fixed periods of time each day be devoted to instruction per se in

order that good results may be secured and that there may be full correlation between practice and theoretical training. To add interest to this phase of the school work an industrial competition has been planned for the whole Indian Service, prizes to be awarded for the best articles in each of certain classes of handicraft. A brief written history of the material used will provide a means of testing the pupil's knowledge of the material and processes involved.

The health of pupils in Indian schools receives constant oversight. A physician's certificate showing proper physical condition is a requirement for transfer to a nonreservation school. All the larger schools number a nurse among the employees. Employees are required to report to the physician any suspected case of infectious or other disease and, in addition, regular inspections are made. Indian children developing incipient tuberculosis may be sent to one of the three sanitoria, located, respectively, in Arizona, Idaho, and Iowa. Contracts for building six additional sanitoria were made during the year, and five more are to be constructed. Besides the physicians stationed at the schools, there are seven special physicians who give especial attention to trachoma work and seven dentists who visit the various schools. Three medical supervisors study health conditions at the different schools and agencies. At the larger hospitals some of the older Indian girls are given elementary instruction in nursing. Schools where homemade appliances were found insufficient to insure an adequate amount of vigorous outdoor play have been provided with playground apparatus. The use of screened sleeping porches is being steadily extended.

Besides the help in getting started at farming or following his chosen trade which is given to returned students by the superintendent, a supervisor of employment who is in touch with various projects furnishing employment suitable for Indian young men and women finds work for many of these young people who have no land or do not wish to farm and enables them to become self-supporting. The reservation superintendents lend encouragement and assistance in the formation of associations of returned students for self-help and for social and intellectual improvement.

In addition to giving the girls instruction in simple household arts, the housekeeper at the day schools can often give some time to instructing Indian women living near the school in household matters, care of children, home sanitation, etc., and in so far as practicable make the school a center of helpful influences among the older Indians. The school farms and gardens at some places have been quite successful in arousing the interest and emulation of parents, and school entertainments to which the parents and friends are invited are made a means of overcoming prejudice and securing support.

CHAPTER XXVII.

EDUCATION IN CANADA.[1]

By Anna Tolman Smith,

Specialist in Foreign Educational Systems, Bureau of Education.

CONTENTS.—Recent movements—Current problems—The bilingual question—Religious instruction—University policies—Statistics of public schools.

RECENT MOVEMENTS.

Recent educational movements in Canada have followed in the main the same direction as in the United States, and the similarity is increased by their origin in private enterprise and final transfer to public control with support from local and central appropriations. The history of the Macdonald bequest of 1899, for the promotion of instruction in manual arts and agriculture, with its large results, has been reviewed in previous reports of this series. The Strathcona trust, formed in 1913, for promoting physical training and drill in the schools, has assumed special importance by reason of the war. The work of the Royal Commission on Industrial Training and Technical Education, appointed in 1910, and its recommendations as to large Dominion appropriations for this work, bear close resemblance to the action of the Commission on National Aid to Vocational Education appointed by the Congress of the United States in 1914. The measures recommended by the Canadian commission were pending when the war broke out. Meanwhile enormous impetus had been given to the movement for agricultural education by the passage of a bill submitted by Hon. Martin Burrell, minister of agriculture, appropriating $10,000,000 to be allotted in annual installments to the several Provinces for the encouragement of agricultural instruction. These events have determined the trend of recent efforts for the development of popular education in all the Provinces. Although the war has overshadowed all other interests, it has furnished new motives for continuing local activity in the practical training intended to promote the industrial efficiency and the physical vigor of the people.

[1] As in previous years, the chapters in this report dealing with education in foreign countries have been prepared under the general direction of the specialist in foreign educational systems from official reports and correspondence, and with the assistance of various collaborators.

CURRENT PROBLEMS.

General interest attaches to certain additional problems that have agitated the Canadian Provinces during the past few years. Chief among these are the bilingual question, with the closely related denominational question, and the subject of university policies.

THE BILINGUAL QUESTION.

Ontario.—In Ontario the agitation of the bilingual question reached an acute stage in 1914. It was not in the main a religious question, but one of racial sentiment. The population of French origin in Ontario is small but devoted to the language of their race and their former motherland, which is also regarded by them as a means of preserving their religious faith against the pressure of opposing creeds. The people of Irish origin, however, who are nearly three times as many as those of French origin, and, like the latter, adherents of the Catholic faith, have no desire to see the French language made prominent in the school programs.

The controversy in Ontario turned upon the Government's policy, as set forth in regulation No. 17, issued by the education department in 1912, with the avowed purpose of improving and insuring "the use and efficient teaching of the English language in the public and separate schools of the Province." The latter, it should be stated, have been specially provided for Catholics who are not willing to send their children to the ordinary public schools. The two essential clauses in the regulations were as follows:

(1) Where necessary in the case of French-speaking pupils, French may be used as the language of instruction and communication, but such use of French shall not be continued beyond Form 1, excepting that, on the approval of the chief inspector, it may also be used as the language of instruction and communication in the case of pupils beyond Form 1 who are unable to speak and understand the English language.

(2) Instruction in French shall not interfere with the adequacy of the instruction in English, and the provision for such instruction in French in the time-table of the school shall be subject to the approval and direction of the chief inspector and shall not in any day exceed one hour in each classroom, except where the time is increased upon the order of the chief inspector.

While the controversy proceeded, the Ottawa separate school board refused to follow the regulation cited and declined to receive the official inspector. As a consequence the grant of $5,000 a year from the Government for those schools was suspended. Political parties, the public press, and the educational associations entered upon a vigorous campaign over the question which eventually developed in the legislature, where representatives of both sides of the controversy defended the opposite positions. The case of the separate school board of Ottawa was referred meanwhile to the Supreme

Court of Ontario where a judgment was rendered adverse to the board. The bilingual question was involved with other political issues, especially the temperance question, and before legislative action was secured with respect to either the house was dissolved and a new election ordered for June 29; the language controversy was thus transferred to the political campaign. The election resulted favorably for the Government party and for the time, at least, the bilingual question was disposed of.

It is of interest to note that ample provision is made in the four English-French model schools, which are affiliated with normal schools, for the preparation of teachers in the theory and art of organizing, governing, and instructing pupils in the English-French schools of the Province. These model schools graduated 42 bilingual teachers, chiefly French, the past year.

The problem of bilingual instruction causes little agitation in the remaining eastern Provinces. In Quebec the schools are all sectarian, either Catholic or Protestant, and the affairs of each are under separate education boards which determine the courses of study and the appointment of teachers for the schools of their respective divisions. Bilingual (Acadian) schools are maintained in 13 municipalities of Nova Scotia, comprised in five counties.

In the western Province of Manitoba the bilingual question was involved with a revival of the demand for separate schools, which became a prominent issue in the election that took place in June, 1914. The results indicated that by a great majority the people of Manitoba are opposed to the restoration of the separate school system. At the same time the need of bilingual teachers for the non-English-speaking population is recognized and the normal schools at Winnipeg and Brandon maintain courses of instruction for this purpose. The St. Boniface Institution is especially intended for the training of French-English teachers. The Ruthenian Polish training schools at Winnipeg and Brandon graduated 22 teachers during the year. Altogether there are 132 bilingual schools in Manitoba for this class of the population, 65 for the French, and 30 for German settlers. During the past year 2,580 bilingual readers were included among the free textbooks furnished to pupils.

In Alberta, where there are many Ruthenians, a protest was made during the year against a school ordinance which had been translated for the use of the Ruthenians in a Russian dialect disliked by them. A convention of Ruthenian missionaries held in August dwelt upon the great necessity of schools among their people for the teaching of English and condemned the bilingual system. At the same time it was admitted that some provision must be made for teaching the mother tongue or using it as a partial medium of instruction for children of their parishes.

In Saskatchewan, where separate schools are provided for, considerable opposition to this policy has been aroused chiefly in connection with the basis for the distribution of the school tax; but here, as in Alberta, efforts are made to supply the Ruthenian and other foreign settlers with some instruction in their native tongues.

RELIGIOUS INSTRUCTION.

The subject of religious instruction in the public schools of Ontario was brought into prominence as the result of a memorandum issued by Dr. Seath, superintendent of education, outlining:

A two years' course in the most suitable parts of the Bible, with selected passages for memorization, and with special moral lessons in the primary schools; the religious instruction to be given at home or in the Sunday school and not as a part of the school courses of study; the examination to be a bonus one at the high school entrance; the scheme to be first submitted to the representatives of the various denominations of the Province, and, if favorably received, to be then submitted to the minister with such amendments as were necessary.

The existing situation is described in the memorandum as follows:

(1) The regulations for both the public and the high schools provide that, at the option of the school boards, a clergyman of any denomination shall have the right to give religious instruction to the pupils of his own church at least once a week after school in the afternoon; such instruction may include denominational doctrine. (2) The regulations prescribe the reading of the Bible at the opening of school and leave it optional with boards to require such reading at the close; the repeating of the Ten Commandments and the memorization of passages from the Bible, such exercises must, however, be carried on without comment. (3) In the courses of study, provision is made for incidental instruction in manners and morals. No provision, however, is made for systematic instruction in these subjects.

Supt. Seath declared that, in his opinion, the teaching of abstract morality had not proved successful.

UNIVERSITY POLICIES.

The question of university relations to national affairs was forced upon public attention in Canada immediately after the outbreak of the European war by an apparent endeavor on the part of the University of Toronto to maintain an impartial attitude with respect to the struggle. In the midst of public excitement caused by this event the charge was made that "no distinct note of high political action or thought" was sounded from this greatest university in the Dominion. The provoking cause of the complaint was the protest uttered by professors in the university against a patriotic address by the principal of Toronto Collegiate Institute, a school attended by the sons of the associate professor of German at the university. Leading papers of Toronto called for the elimination of all German

professors from the university, on the ground that it was largely maintained by public money. Eventually a deputation, headed by leading members of the legislature, waited upon the premier of Ontario and demanded a thorough investigation of the university. In reply to this deputation the premier, Hon. W. H. Hearst, declared:

> It is the supreme duty of the Government to take measures to direct the education of our youth along lines not only calculated to prepare them for the battle of life, but as citizens of our country and our Empire. We will not evade our duty in this matter nor side-step our responsibility. You quite fairly claim that what you have submitted requires careful investigation.

The remaining universities of Canada all recognized the new responsibilities placed upon them by the war, and academic discussions soon gave way to preparations for active service, in which Toronto bore its full part. McGill University, Montreal, had been the first institution in Canada to follow the example of the English universities by establishing an officers' training corps. This was done in 1912 under joint regulation of the militia department and the war office, and when the war broke out there were 120 members having drill and lectures on tactics during the college term. Drilling was at once pushed, the membership of the corps increased, and a regiment was organized for the front. The Graduate Society collected funds to equip and train a thousand men for two years, and the university made provision for a stationary field hospital of 520 beds and 200 trained doctors and nurses and officers, which was accepted by the war office. The example was contagious, and at the close of 1914 every university in Canada had large companies, comprising at least 5,000 students, and many professors under drill or in training.

The interruption of the usual course of college activities was accompanied in many cases by diminished resources, due to the diversion of private funds and public appropriations in aid of the national cause. This was particularly felt by the University of Toronto, which by reason of its high standards and wide reputation had reason to anticipate the demand for much postgraduate work hitherto directed to European universities. In view of this possibility, Dr. Falconer said:

> Canada must be prepared, unless she is to lose her self-respect, to provide the most advanced kind of academic training for her own people. During the past decade we have been strengthening undergraduate work, and if we can get rid of the school standards of the first-year general course, this undergraduate work will be fairly well provided for. We are nearly ready for a further step. If it does not come soon, the university will lag behind her neighbors.

The universities, it should be added, have contributed greatly to the movement for practical training in vocational subjects, agriculture, home economics, etc., and in the enlarged provision for training teachers which have marked the recent record of education throughout Canada. In particular, the University of Toronto, Laval University, and McGill University, Quebec, and the University of New Brunswick have promoted progress in these directions by organizing courses of instruction leading to degrees or diplomas for specialists in the branches mentioned and to teachers completing higher courses in education. The enrollment in all the provincial universities in 1914 was about 13,000, of which number fully 8,000 are credited to the Universities of Toronto, Laval, Montreal, and McGill, Montreal.

The following table summarizes the latest statistics pertaining to elementary and high schools supported wholly or in part by public funds. It should be noted that a very large part of secondary education is provided for by academies and colleges that are not subsidized.

Statistics of public schools of Canada and Newfoundland.

Provinces.	Population.	Date of census.	Date of school statistics.	Enrollment.			Rates of enrollment to population.	Teachers.			Expenditures.
				Boys.	Girls.	Total.		Men.	Women.	Total.	
Canada:											
Ontario[1]	2,523,274	1911	1913	245,436	234,807	480,243	19.03	1,600	9,576	11,176	[1] $12,325,907
Quebec	2,002,712	1911	1913	413,239	198,545	411,784	20.56	1,952	11,649	13,601	[2] 4,538,225
Nova Scotia	492,338	1911	1914	.....	.....	106,351	21.62	272	2,620	2,892	1,556,618
New Brunswick	351,889	1911	1914	.....	.....	70,622	20.00	201	1,831	2,032	[2] 1,009,335
Manitoba	455,000	1911	1914	.....	.....	93,954	20.64	474	2,390	2,864	[3] 6,079,720
British Columbia	392,480	1911	1914	31,890	30,067	61,957	15.78	.....	.....	1,843	[4] 4,634,877
Prince Edward Island	93,728	1911	1912–13	9,186	8,359	17,555	19.00	161	422	583	207,605
Alberta	373,000	1911	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saskatchewan	492,432	1911	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Foundland	243,576	1913	1913	.....	.....	51,764	.....	.....	.....	.....	381,860

[1] Enrollment and expenditures do not include collegiate institutes and high schools, which enrolled 33,746 pupils.
[2] In 1912–13.
[3] Including $1,426,758 for buildings and $1,893,430 for payments on notes, debentures, etc.
[4] Includes $637,490 for buildings, furniture, etc.

CHAPTER XXVIII.

EDUCATION IN THE LATIN-AMERICAN STATES.

CONTENTS.—Mexico, hopeful signs—The States of Central America and Panama; current activities; statistical summary—States of South America: Introduction; notes on individual States; statistical summary.

MEXICO.

The greater portion of Mexico has been so devastated by the revolutionary war that schools and higher institutions have nearly ceased their operations. Education played a very important part in the efforts at internal improvement made by President Diaz during his long term of office, and the work thus started gives a basis for new operations as soon as quiet is restored.

The minister of public education and finance, Dr. Felix Palavicini, appointed by Sr. Carranza, executive in charge of the de facto government, has undertaken to reorganize education in the Federal District and also to restore schools in the States that were brought under the control of Carranza. Among the measures adopted by this minister was a system of traveling schools, in charge of competent teachers who formed classes and attempted to conduct schools at various points. A commission was also appointed to visit the United States and study educational systems and the conduct of individual schools, with the hope of eventually improving conditions in Mexico. Associations of philanthropic and patriotic women have earnestly labored to promote the welfare of teachers and to keep alive interest and enthusiasm in the cause of education. These facts give hopeful indications for the future development of the States that have been in the throes of revolution for the past two years.

The system of schools organized in the City of Mexico and the Federal District under President Diaz included kindergartens, primary schools, and higher primary schools. These provided a continuous course of elementary instruction covering eight years. Graduates from the higher primary schools were admitted to the normal school, where they passed five years in special training for the teacher's profession. Provision was also made at public expense for the education of professional men, doctors, lawyers, engineers, etc.

Mission schools under the charge of different religious denominations have contributed greatly to the enlightenment of the Mexican people. They were everywhere encouraged in peaceful times and have even succeeded in continuing their work in the midst of the general disturbance. In the States that have not been affected by the revolution, schools have been maintained as usual. The private schools under foreign auspices, chiefly German and English, are generally flourishing.

CENTRAL AMERICA AND PANAMA.

All the States of Central America have organized systems of public instruction comprising primary and secondary schools and higher institutions. The official regulations provide for the grading of primary schools as kindergarten covering the ages 3 to 6 years, elementary covering six years, and higher elementary covering a period of two years. The terms of classification differ somewhat in the different States, but the grading is arranged on the same general plan. Teachers are appointed by the minister of public instruction or by local authorities and, as in the United States, teachers of primary schools remain in the same grade from year to year while the pupils are promoted. The general preference is for separate schools for boys and girls or separate classes in the same building, the teachers being chosen from the sex corresponding to that of the pupils. At the present time experiments are made in the different States looking toward more flexible grading, the adaptation of primary studies to local conditions, and the instruction of boys and girls in the same classes as a means of economizing both the supply of material appliances and the teaching service.

According to a recent official statement, in some departments of Honduras mixed schools have been tried as an experiment. They have given so much satisfaction that it is probable the plan will be generally adopted for rural schools; in San Salvador, in addition to the ordinary six-year elementary school, rural schools are established which give a brief course of instruction covering three years. They provide not only for the children of the white population, but for native Indians. The same experiment has been tried in Panama, where attendance upon the rural schools is obligatory for three years only; in Costa Rica, which has made greater advance in respect to primary education than any other one of the Central American States, a very important movement in rural education has been started by the establishment of schools which are furnished with gardens, orchards, and fields, and which provide for rural industries carried on under a special program of instruction and with teachers thoroughly possessed of the community ideal.[1]

[1] For an extended account of this experiment, see the Report of the Commissioner of Education for 1914, vol. 1, pp. 665–667.

As a consequence of the special interest manifested in rural education, a decree was issued in January, 1915, providing new regulations for the normal schools. These include specific instructions respecting the preparation of teachers for the new type of rural schools.

Among proposed reforms in the system of public education are the consolidation of schools in the same vicinity, increased adaptation of the courses of study to meet local needs both in cities and the country, and the unification of primary and secondary schools. In reference to the last proposition, the secretary of public instruction says:

> The public school has a social and political mission in the country, and can not, therefore, be limited to mere primary education. It should include secondary education also, since, without the latter, popular education is imperfect and does not promote ideals of public morality and citizenship which should prevail in the modern state.

The minister of public instruction for Nicaragua, in his current report, dwells upon the hindrances to the spread of public education in that State. He recommends appropriations for the immediate construction of school buildings, which are sadly lacking, and adequate appropriations in order that salaries may be paid which shall insure the service of competent men and women in the primary schools.

The commercial and industrial activities which have been stimulated by the closer relations with the United States resulting from the opening of the Panama Canal, have directed attention to the urgent need of provision for agricultural education. With regard to Honduras a recent consular report says:

> Of a total of $1,659,304 declared exports for 1914, 89 per cent consisted of bananas. The rich coast lands, favored with heavy rains and a hot climate, make an excellent location for the production of this fruit. Attention is now being given to closer cultivation. The market demands are sharper and many of the old plantations have outlived their power of production. Those who have given close attention to the raising of the fruit have received increased returns in a finer grade of fruit. It is only recently that the planter has come to realize that rough handling of fruit is costly.
>
> The Tegucigalpa consular district is essentially not an agricultural country. The crop of corn, beans, rice, sugar, and a negligible amount of vegetables barely serve for local needs in the best years. The crops of 1914 were almost a total failure, making necessary large and continued imports of breadstuffs. The department of agriculture is endeavoring to create an increased interest in the cultivation of henequen and sugar cane, and also in irrigation in connection with pasturage for cattle.

The report concludes as follows:

> Honduras, with all varieties of climate, with its lowlands on the coast, its valleys and undulating plains, and its highlands in the interior, all covered with a rich and fertile soil, can produce all classes and kinds of fruit, grains, and vegetables, such as bananas, plaintains, coconuts, pineapples, mangoes,

aguacates, oranges, corn, beans, rice, wheat, oats, sugar cane, coffee, tobacco, indigo, etc., but most of these will never be produced on a large scale until highways are built and transportation facilities afforded the people.

This is the situation the country presents. It is rich, but undeveloped. It is easily susceptible to great development, but its population is scant and they have not the means to develop it themselves. Capital must be imported with which to do it, and those furnishing the capital will control and receive the benefits of increased trade and commerce.

The principal agricultural products of Costa Rica are bananas and coffee. With respect to the former an American consul writes:

The decrease of more than a million bunches during 1914 was no doubt caused by the ravages of the banana disease and the falling off of the demand during the last five months of the year. Many of the banana plantations that formerly shipped fruit through Port Limon have now ceased producing, and others are no longer profitable. The presence of the disease has not entirely discouraged planters, but it is an established fact, and is by all acknowledged to be a serious menace to the industry. Its results are well known, but its origin and elimination are as yet unsolved problems. The United Fruit Co. has spent large sums of money in scientific research endeavoring to find a way out of the difficulty, but no real progress has yet been made.

These statements emphasize the need of agricultural colleges in the States of Central America. Measures for their establishment are, however, comparatively recent, whereas schools of arts and trades for both boys and girls are maintained in all the chief cities, and appropriations are called for to increase and improve their equipment. There is a tendency, also, to establish departments of manual training and commercial instruction in secondary schools and normal schools.

A school of commerce is maintained at the capital of Costa Rica to which boys and girls are admitted, provided they have finished the first two years of study in a secondary school and have reached the age of 14 years.

In Honduras the institutions for secondary education under public control are the National Institute of Tegucigalpa, the National College of Santa Rosa of Copan, "La Independencia" of Santa Barbara, and "La Fraternidad" of Juticalpa. An important school of commerce is annexed to the National Institute, occupying the same building and managed by the same director.

The chief institutions for secondary education in Guatemala are the Central National Institute for Boys, with an enrollment in 1913 of 553 pupils; the Central National Institute for Girls, with 385 pupils; the National Institute and Normal School Annex for Boys, at Chiqumula, with 274 pupils; and a similar school for girls in the same city, with an enrollment of 80 pupils; the National Institute for Boys and Practical and Commercial School Annex at Quezaltenango, with 40 pupils.

Each one of the practical schools for boys is provided with complete workshops for ironwork, carriage work, carpentry, printing, binding, tinning, etc.

The practical school for girls at the capital has been recently extended and provided with a fine dining room and kitchen and the best sanitary appliances.

PANAMA.

The system of public education in Panama includes the kindergarten, attended by children 5 and 6 years of age, and primary schools for children of the compulsory school period; that is, the ages of 7 to 14. The primary schools are organized in six grades, for which an official course of study is provided. The instruction may be given in private schools or at home, but in both cases must be under official supervision. In certain localities an obligatory course of only three years is established in rural schools.

Teachers are appointed by the minister of public instruction to fixed grades or sections where they remain during satisfactory service, the pupils thus passing under different teachers as they are promoted from year to year.

The minister has proposed that in the appointment of teachers they shall not be named for specific grades in the school in which they are to teach, but that it shall be left to the inspector of schools, or the director of each school, to decide upon the advantage or disadvantage of having the same teacher for the same pupils from year to year.

Central America—Population and school enrollment.

State.	Capital.	Total population, census of 1911.	Enrollment in primary schools, 1913.
Costa Rica	San Jose	388,266	33,908
Guatemala	Guatemala	1,992,000	61,163
Honduras (British)	Belize	40,458	.....
Honduras (Republic)	Tegucigalpa	553,446	40,000
Nicaragua	Managua	600,000	30,996
Salvador	San Salvador	1,161,426	39,309
Panama	Panama	360,118	22,825

SOUTH AMERICA.

Introduction.

All advices from South America show continued activity with respect to increase of the means of public education and the extension of its scope. These activities must be regarded as a feature of the awakened industrial and commercial spirit, which is indicated by railroad enterprises, improvement of ports, formation of industrial companies, and similar undertakings.

Every State of South America has legal provision for establishing primary schools throughout its area; among the many causes which have combined to prevent the accomplishment of this purpose must be included the lack of periodical school census, without which present conditions can not be known, nor progress measured. Several States have recently accomplished complete surveys and are able to present very full statistics relating to schools and higher institutions; other States have made similar surveys of particular divisions. Statistics derived from these sources, supplemented by the annual reports of the ministers of public instruction in the several States, are summarized at the close of this chapter.

In general the official regulations provide for the grading of the primary schools, a grade corresponding to a year as in the United States. Flexible grading is provided for in nearly all the large cities, provision being made for semiannual promotions. Teachers are appointed by the local school authorities, and assigned sometimes to the grades for which they are respectively best fitted and sometimes to the charge of particular subjects.

The courses of study for primary and secondary schools are drawn up by committees or boards pertaining to the central or local departments of education; the official programs are usually supplemented by lists of authorized textbooks. These lists are extensive and provide as a rule for choice between different authors. In the area controlled by the authority prescribing the list it must be used; and, as a rule, when the list emanates from a central department, it is accepted as a model by local authorities and also by the managers of private schools. To the latter class, it may be said, belong the greater number of secondary schools.

The textbooks for the usual branches of study in both elementary and secondary schools are in the Spanish (Castilian) language. Sometimes for use in the most elementary grades a primer or easy reader in the native dialect is allowed.

In all secondary schools modern languages are taught, French being universally required, and for a second language choice between English and German. It need hardly be said that the textbooks are in the language studied.

The procedure with respect to the choice and supply of textbooks is illustrated by the following citations from current official reports. The report for Uruguay says:

> The school textbooks are adopted by a committee appointed by the general board of primary instruction, which receives from the Government the corresponding authorization for indicating to the teachers the books that ought to be used in the State schools. The judgment of that committee for the adoption of textbooks is ample and liberal, avoiding annoying exclusiveness for authors and editors, so dangerous for education. Almost all the textbooks are in accordance with the programs in force and with ruling pedagogical principles

and have been written by national authors. Their price is yet rather high, but it is hoped that competition will tend to make them cheaper.

In Chile according to the report of the minister—

> the council of public instruction provides each year a list of the textbooks between which the rector of each establishment for secondary education depending upon the Government may choose, with the agreement of the professors of the several branches, books which shall be issued in the course of instruction. The council may add new books to the official list after it is issued.

Great interest is manifested at the present time in all the leading States in the subjects of hygiene, sanitation, agriculture, and English, and textbooks dealing with those subjects are in demand.

NOTES ON INDIVIDUAL STATES.

Salient educational interests and movements in individual States are covered by the statements which follow, derived either from official reports or official correspondence.

BRAZIL.

The extreme conditions comprised in the area and population of Brazil are well known. Its vast extent, unexplored regions, immense plantations, and populous cities exercise a fascination over the minds of travelers and explorers. The most important event in the recent history of education in Brazil was the decree of April 5, 1911, which created a Federal board of education with authority to establish primary schools in the various States, which previously were entirely independent in this matter. It was proposed at the same time that a complete census of the country, including educational data, should be taken, but owing to lack of funds this survey has been postponed. The same lack of funds has interfered with the action of the Federal Government in respect to supplying the deficiency of schools in the backward States. From current advices it appears, however, that this measure, combined with the growth of public opinion as to the importance of education, has stimulated the action of the State authorities so that, in general, educational provision is increasing. The latest statistics on the subject (1910) are included in a summarized table at the close of this chapter.

Brazil is essentially an agricultural country, although only a fraction of its soil has been brought under cultivation. It furnishes 75 per cent of the entire coffee crop of the world and a very large proportion of the rubber crop. The exports of cacao are worth annually about $10,000,000. The main resources of the country—dyewoods, hardwoods, and minerals—are as yet scarcely touched. The fertility of the soil and the ease with which the natural products are grown explain in some measure the indifference to scientific agriculture and agricultural training which prevailed up to a very recent time.

It was not until 1909 that the Government manifested a serious purpose to develop and direct this industry by appointing a secretary of agriculture. In October of the following year a decree was issued providing for the establishment of a superior school of agriculture and veterinary medicine at Rio de Janeiro, and the institution was formally inaugurated July 4, 1913. By a decree of April 15, 1914, there was created a class of practical schools of agriculture, and in accordance with successive decrees preparatory schools of agriculture were established in several places and experimental stations were created. Thus legal provision was made for a great system of agricultural education under Government control.

The following particulars showing the actual results of these measures are taken from the report of the minister of agriculture, industry, and commerce for 1914:

Enrollment in agricultural schools.

	Number of students.
Superior School of Agriculture and Veterinary Medicine, Rio de Janeiro	85
Escolas Médias ou Theorico-Praticas de Agricultura:	
Bahia	43
Porto Alegre	21
Preparatory schools of agriculture:	
Barbacena, Minas Geraes	118
S. Luiz das Missões, Rio Grande do Sul	34
S. Bento das Lages, Bahia	24
Satuba, Alagoas	62

Additional preparatory schools have been authorized at Tubarao, in Santa Catharina; at Guimaraes, in Maranhao; at Igarape-Assu, in Para; and at S. Simao, in Paulo.

Experiment stations have also been established at Canna de Assucar, in Campos, and Algodao, in Coroata.

Government action in respect to agricultural education was preceded by a work of private initiative in the State of Sao Paulo. The following statement with regard to this institution was made before the Society for the Promotion of Agricultural Science at Washington, D. C., by Prof. Clinton D. Smith, who was called from the United States to assume charge of that enterprise. Prof. Smith said:

The school of the State of Sao Paulo, most progressive of the States, is the result of the gift of a wealthy and patriotic citizen, Dr. Luiz Vicente de Souza Queiroz, who, in 1892, presented his plantation to the State government for the purpose. It was as director of this institution that I was appointed in 1908 and had good opportunity to study the Brazilian boy at close range.

Many of the students were sons of wealthy planters and did not greatly relish the idea of personally handling a plow. This was a performance they had associated only with their fathers' laborers—not with sons of gentlemen. I got them interested by doing it myself first. I tried to make it apparent that the proper handling of a plow was an art. I threw an "atmosphere" around

it and soon had them not only willingly but anxiously waiting their turn at the handles. On the other hand, many of the boys had never in their lives seen a plow in action or driven any sort of a team and the novelty made it attractive. As a rule, the work with cattle and horses proved a delight and the young men soon learned to judge both with a good degree of self-assurance.

In connection with the exhibit of a series of handsome photographs, Prof. Smith said:

You can see by these pictures how really beautiful the campus is. The imposing white buildings, the turf and the wonderful variety of plants, trees, and shrubs that decorate the grounds make it most attractive. The grounds are such a favorite resort for visitors on Sunday in automobiles and carriages that every Saturday the roads through them receive a thorough sweeping in preparation for the event.

This [indicating another] shows the students playing football. They are very fond of American games, and the playing fields are usually well occupied. The personal contact in the rugby game is not, however, relished, and the soccer game has the call. They are mighty good players, too.[1]

ARGENTINA.

Argentina comprises 14 Provinces and 10 Territories, with a population in round numbers of 7,500,000, which is nearly double the population of 1895. This growth is largely due to immigration, a large proportion of immigrants (at least 80 per cent) coming from Italy and Spain.

The Government has published at intervals during the last two decades the results of comprehensive surveys of the educational provisions of the State and is, therefore, possessed of the data for showing progress as indicated by the following comparative statistics:

School statistics.

	In 1894.	In 1914.
Primary schools:		
Number, public and private	3,000	7,077
Teachers	7,800	26,000
Pupils	280,000	890,000
Expenditure[1]	$3,935,400	$23,786,700
Normal schools:		
Number	35	70
Students	1,376	8,970
Expenditure[1]	$840,000	$4,200,000
Secondary schools:		
Number of students	3,000	10,000
Expenditure[1]	$420,000	$2,520,000

[1] Expenditure given in United States currency.

Each Province has independent control of its primary schools, but on account of the failure of several to provide adequate school accommodation for the children of school age a law was passed in 1907 authorizing the Federal Government to establish schools where local

[1] As reported in the *Evening Star*, Washington, D. C.

conditions made this necessary. As a result the more backward communities have been aided and stimulated to new endeavors in this direction.

The development of technical and vocational education under the auspices of the Government is indicated by the following statements derived from a special report:[1]

TECHNICAL EDUCATION.

Technical schools are a matter of recent development. Two distinct kinds of such schools have been organized and are now maintained in flourishing condition. One kind provides technical training in the various trades for young men from 12 to 15 years, while the second type serves to train the young men for positions of foremen and superintendents. For this purpose these schools give a more extensive and intensive instruction along theoretical and practical science, as far as it applies to these various trades. There are four large schools of each one of these types, supported by the National Government at a yearly expense of 1,500,000 pesos ($630,000). In addition to these, there are 15 trade schools for girls, also under the control of the National Government, giving instruction in the trades in which girls predominate, such as millinery, dressmaking, flower making, telegraphy, typewriting and stenography, glove making, and so forth.

COMMERCIAL EDUCATION.

Of recent development and also under the control of the National Government are the commercial schools for men and women, which provide adequate modern instruction in salesmanship and bookkeeping. These schools graduate pupils with the rank of bachelors of commercial science and train the certified public accountants. A more recent addition to the scope of these schools is the degree of doctor given for advanced work in economic sciences. The National Government spends about 1,500,000 pesos for this branch of education.

MILITARY EDUCATION.

Military education comprises seven army and nine naval schools for mechanics and machinists, for the officers of the army and navy, and for pilots and seamen, to which 2,000,000 pesos ($840,000) are devoted. Practical naval instruction is offered in warships and particularly in the training ship *Presidente Sarmiento*, which recently visited the Panama-Pacific International Exposition at San Francisco during her fifteenth cruise of instruction.

AGRICULTURAL EDUCATION.

Agricultural education in Argentina is of a twofold type, general and special. The special schools, so-called "regional schools," look toward the education of future workers in special fields, such as those who engage, for example, in the sugar industries of Tucuman. These schools specialize on the development of industries all over Argentina. The curriculum of the schools is intensely practical and covers a sufficient scientific background such as these practical studies require in the various fields. These schools are under the control of the National Government through the department of agriculture.

The schools which provide for the thorough scientific instruction underlying all agricultural occupations are under the control of the National Universities of Buenos Aires and La Plata.

[1] Prepared for the Panama-Pacific International Exposition.

The annual cost of all agricultural schools is about 3,500,0000 pesos ($1,470,000), including the expenses incurred in the maintenance of experimental stations, excursions, and university extension teaching.

The manner in which public authorities and private bodies are working to promote the agricultural interests of the State are illustrated by the following statements from current consular reports.

The President of the Republic, in his annual message to the Argentine Congress, says:

The invasion of locusts which began in June, 1914, is considered the worst since 1910 and was scattered over an area of 1,000,000 square kilometers (386,100 square miles). In spite of this fact, the united efforts of the National and Provincial Governments and private individuals succeeded in reducing loss to an insignificant percentage.

Formerly the locust plague was combated almost exclusively by the numerous permanent and special employees of the Defensa Agrícola. This service maintained in some years approximately 4,000 agents and spent as much as $3,800,000 annually in salaries, traveling expenses, and freight. In 1914 the Government decided to enforce strictly the law which made the cooperation of property owners compulsory in the destruction of locusts. It was thus able to conduct a successful campaign with the 300 permanent employees of the Defensa Agrícola, with an expenditure of approximately $260,000.

In prevision of a still more important invasion of locusts in 1915 the Government is making arrangements to furnish gasoline and other supplies to farmers as cheaply as possible.

In view of the ravages caused in fruit groves and other vegetation by the diaspis pentagona, the Government decided in 1914 to adopt the method prescribed by Prof. Berlesei, which is said to have given satisfactory results in Italy and the United States.

An honorary commission of leading fruit growers was appointed to introduce and propagate the Berlesei prospaltella.

The Government of the Province of Cordoba has proposed to the provincial legislature the establishment of a model farm, to include the agricultural industries of the region—orcharding, dairying, poultry, pig and bee raising, and the preparation of fruit and vegetable preserves.

Private societies.—The Sociedad Rural, of Rafaela, Province of Santa Fe, expects to open in the near future a school which will give practical instruction in the handling of agricultural machinery.

According to press reports an agricultural cooperative society, with 200 members, known as the Economía Agrícola, has been formed at Casilda, in the Province of Santa Fe. The society proposes to store and sell the produce of its members, dealing directly with exporters. It has sheds and machinery for shelling corn.[1]

UNIVERSITY EDUCATION.

With respect to higher education the special report already cited says:

The universities of Argentina maintain the traditional faculties of jurisprudence, belles lettres, philosophy, and pure and applied sciences, developing also the newer departments of university work, such as agriculture, pedagogy, etc. The enlargement of the activities of these universities, especially the crea-

[1] Report by Consul William Dawson, jr., Rosario, May 28, 1915.

tion of the University of La Plata, is proof of Argentina's advancement in this field. The La Plata University has been instrumental in the exchange of professors and has encouraged the visits of public men of note from Europe and the United States of America, thus recognizing the desirability of maintaining the most pleasant relations with Europe and North America.

In connection with higher education in Argentina, it is a point of interest that the number of university graduates in the city of Buenos Aires is in proportion with the population larger than in other cities of the world. The budget of the three or four foremost important universities of Argentina reaches 8,500,000 pesos ($3,570,000) a year, and their combined attendance was 9,100 students in 1914.

The budget of Argentina for the current year carried for ordinary expenditures a total of $136,781,723. Of this amount $27,779,865 was appropriated to the minister of justice and education.

PARAGUAY.

The educational system adopted by the Government of Paraguay in 1902 provides for the following classes of elementary schools: Rural schools, with three grades; elementary schools, with four grades; and more complete schools having six grades. Instruction of the same character is given in these different classes of schools, the last-named class carrying the student two grades higher than the elementary and three grades higher than the rural schools. Pupils who do satisfactorily the work of one grade in a scholastic year are promoted to a higher grade; the teachers remain in the same grade; the pupils therefore are under a new instructor with each change of grade.

The number of scholars in the first three grades of the complete schools is limited to 50 for each grade, in the three upper grades the number is limited to 40.

Classes in the subjects taught in the graded schools are held at night for the benefit of children who are employed during the day, the majority of the pupils of these night schools being newsboys, bootblacks, etc.

The system of employing teachers for special subjects, which prevails throughout the secondary schools in South America, is applied to a certain extent in the elementary schools of Paraguay.

URUGUAY.

Uruguay is the smallest State of South America, comprising an area of 72,153 square miles and a population of 1,279,359 (census 1913). Of the total, about 18 per cent were foreigners, the Italian and Spanish contingent making up nearly two-thirds of this number. The population, while varied, is really more homogeneous than that of the majority of the South American States.

As regards its economic and financial condition, Uruguay is regarded as one of the most fortunate of the South American Republics. The chief causes of its stable condition are (1) the character of its main products, which are the necessities of life, the demand for which has been strengthened by the war; (2) the relatively slow and steady economic development of the country; (3) the relatively small amount of foreign capital and the fact that it has been conservatively placed; (4) the scrupulous care taken by the Government for over 20 years to maintain its credit and to keep its currency on a sound basis.

In 1908 a very complete census of the State was taken, which disclosed alarming conditions with respect to illiteracy. At that time the illiterates 5 to 14 years of age comprised above 50 per cent of the population, and the adult illiterates, that is, 15 or more years, 35 per cent; even in Montevideo the ratio of illiterates 5 to 14 years of age was 27 per cent, and for adults above 15 years of age 21 per cent. These facts and the rapidly increasing interests of agriculture and trade gave a new impetus to efforts for extending and improving public education.

Between 1908 and 1913 the enrollment of pupils in primary schools increased from 60,863 to 91,746, an increase of 23 per cent, which was a little greater than the increase in population, showing that the deficiency in school accommodation which existed at the earlier date was reduced. The enrollment in 1913 was very nearly 8 per cent of the population.

The law with respect to compulsory education has been well enforced in cities, towns, and villages, and in rural districts having sufficient population to support a school. There has been no occasion for inflicting penalties upon parents for violation of the law, since applications for admission to the schools are generally far in excess of the school accommodations. The State is largely agricultural, and nearly half the population live in rural districts covering a territory of 74,000 square miles; under these conditions particular interest attaches to the efforts for providing adequate schools for the rural population and maintaining their efficiency. The nature of these efforts is indicated by the following particulars drawn from the latest report of the minister of public instruction:

> The State has established mixed schools in almost all the rural districts which have sufficient number of children of both sexes to average an attendance of not less than 30 pupils. Scholastic obligation extends to all boys who reside at a distance not exceeding 4 kilometers from the school. For girls the distance is 2 kilometers. The pupils go to school on foot, in any vehicle, or on horseback, which is the most usual way.
>
> The rural schools are almost all mixed and are installed in properties belonging to the State, granted temporarily and gratis, or rented, and have a capacity for 40, 50, or 60 pupils, although there are some that have more.

Rural schools are directed by married schoolmasters or by schoolmistresses, married or single, who have their residence in the establishment they direct. When the attendance of pupils exceeds 60, an assistant is allowed.

Since the permanence of pupils in rural schools never exceeds three years, a simple program has been outlined which can be developed in that short period, so that when the pupil leaves school, he knows how to read, write, to perform the principal arithmetical operations, and something of geography, history and the Constitution of the Republic, and he has been impressed with notions of the purest morality. Experience shows that the stay of the rural pupil in school can not be continued longer, because as soon as his strength permits he is at each moment required by the daily works of the country, with which he helps his parents procure their living. The struggle for life is the strongest reason for taking him so young from school.

The number of rural schools rapidly increases; in 1906 it was 400, in 1910 the total was 760. This increase is partly due to a law of 1906, which appropriated $1,000,000 for the erection and improvement of school buildings. In the application of this fund great attention has been paid by the general board of primary instruction to the choice of sites for the new schools and their suitable equipment.

The system of school inspection is so ordered that every school in the State is visited three or four times a year by a principal or subinspector, who reports directly to the minister of public instruction. The spirit and method of this service are admirable, and most cordial relations exist between teachers and inspectors. The general inspection is supplemented by medical inspection, which is well organized and comprises at the present time six physicians.

The obligatory course of instruction in the primary schools, as already explained, covers three years. Endeavors have recently been made to extend the period of instruction for children in the country, and to increase their advantages by changes in the system of secondary education which would enable pupils to enter the "liceos" (departmental secondary schools) upon the successful completion of the brief course of the rural primary school. The law authorizing this relation was secured in 1912 and has hardly yet passed the experimental stage. It appears, however, that additional preparation would be required in order that pupils from the rural schools might keep pace in the liceos with those who enter from the urban schools.[1]

The high degree of illiteracy to which reference has been made is the result of the scarcity of schools in the past, and also in great part of the scattered nature of the rural population. A serious endeavor has been made to overcome the evil by the establishment of schools for adults, incorporated with the educational system. This action was authorized by a law of 1907, which was well supported by public

[1] See Bu. of Educ. Bull., 1915, No. 26, "Secondary Schools in the States of Central America, South America, etc.," pp. 19–20.

opinion and has resulted in the establishment of about 50 evening schools at different centers. These have an average attendance of 2,000 pupils. In the classes for women, instruction is given in sewing and cutting garments, and weekly conferences are held for both sexes, in which the teachers endeavor to impart ideas of public affairs, good citizenship, etc.

The importance of agricultural teaching has been recognized by including the subject in the curricula of the normal schools and in all examinations for public-school teachers. Unfortunately, however, the instruction in this subject has been largely theoretical. An improvement in this respect is reported by the Department of Rocha, which has established a "park for schools" adapted for field and garden cultivation. The same Department has also established a higher commercial school, the only institution of the kind maintained by the State that has successfully adhered to the purposes indicated by its title.

Montevideo, the capital of Uruguay, is the seat of a university of the highest order of secondary schools and of several national institutions which illustrate the broad conception of education that has been in the minds of the leaders of the State. Among the special institutions is the National Institute for the Deaf and Dumb, which was established in 1910. There are also two normal schools at the capital, one for boys and the other for girls, both of which are highly developed and well equipped with laboratories, drawing-rooms, and models for drawing, manual workshops, and the latest illustrative material.

The normal schools sustain intimate relation to the rural schools of the country. The greater proportion of their students come from the interior Departments, and after obtaining the diploma of master of first grade the graduates are obliged to exercise their profession for at least two years in the Departments to which they belong. By this means it has been found possible to secure trained teachers for the public schools of the smaller villages, and even rural districts. The course of study in the normal schools is completed in four years, and during the period State pupils enjoy a pension of $15 a month in order to meet the expenses of residence in the capital. The average attendance at the institutions is 50 in the school for boys and 250 in that for girls. Normal institutes are also maintained in six Departments of the State.

The pedagogical library and museum at Montevideo has recently established a circulating section. By this agency teachers who do not reside in the capital can secure upon request pedagogical books which are loaned gratis for a stated term.

CHILE.

The latest annual issued by the Chilean bureau of statistics comprises several volumes, of which one is devoted to public instruction. The survey is very complete as regards the schools and higher institutions of Chile and their classification and relations to public administration, as will be seen by a summary of the statistics included in the tables at the close of this chapter. The Government has recently extended the provision for industrial and technical training and has also adopted measures for unifying the courses of instruction for primary and secondary schools.

In 1913 two commissions were appointed by the department of industry and public works—one to investigate and report upon the agricultural schools of the country, and the second a commission of mining experts, to advise as to the exploitation of unworked mines and increased provision for training mining engineers. The work of these commissions, although not yet completed, has excited discussion of their purposes in educational meetings and journals. This is particularly the case in regard to instruction in agriculture, which has for many years been included in the official program for primary schools.

A recent article in the principal educational journal declares that no practical results have come from the requirement as to elementary instruction in agriculture, but it has served to fix the idea in the minds of educators and to prepare the way for more fruitful efforts in the future. The author of the article believes that reform must begin with the normal schools. The cooperation of the agricultural society and of the national education association has been sought in support of a plan providing for an agricultural normal school with experimental fields adjoining and for a few model rural schools with gardens attached. It is also suggested that prizes be offered for articles on the subject written by agricultural experts in Chile.[1]

The budget passed by the Chilean Congress for the current year (1915–16) carries $122,450 (U. S. currency) for public instruction. This is less than 1 per cent of the entire budget and represents a mere fraction of the public expenditure for education, which is supplied mainly by the provincial governments.

BOLIVIA.

Bolivia is characterized by the large proportion of parochial and private schools which are subsidized by the State or municipal governments. The country has been slow to recognize the need of modern education, although the normal school at Sucre is a recognized center of research and educational progress.

[1] Revista de Educacion Nacional, Decembre, 1914 (pp. 519–526).

During the present year the Government has sought information as to the conduct of schools and higher institutions in the leading foreign countries, as a preliminary step in plans for the improvement of the existing schools. The budget for 1914 carried nearly a million dollars for public instruction.

PERU.

Peru has an area exceeding 700,000 square miles, and a population estimated in 1908 at four and one-half millions, not including the uncivilized Indians. The State has been called the "treasure chest" of South America, principally on account of its mineral wealth, although it is also rich in agricultural resources, the exported products including rubber, cotton, cane sugar, and alpaca wool. The abundance and nature of these natural resources indicate the great importance to the State of scientific knowledge and its practical applications to agriculture, grazing, mining, and engineering.

Special provision for technical education was begun in 1874 by the establishment of a school of mines and civil engineering at Lima. This action was followed by the establishment of a national agricultural school and more recently a school of arts and trades. With this development the importance of enforcing the law making elementary instruction obligatory became evident, and finally the need of modernizing the general scheme of public instruction and especially the programs of the normal schools and the public secondary schools. The serious endeavor in this direction which was made in 1909 and the influences that prevented its immediate success have been considered in previous reports; there are, however, signs of its effects in a gradual change in the prevailing ideals and methods of education.

The current year has shown a revival of efforts for the general improvement of the system of public instruction. These efforts are taking the practical form of surveys of particular departments as a basis for improvement and progress. An important survey was conducted last year by the inspector of primary instruction for the Department of Lima and the Province of Callao. The results are presented in a report giving detailed statistics of primary education in the sections surveyed and extended discussion of the general conditions and the principles that should direct future activities.

With respect to physical education, which is generally provided for in all public schools, the inspector says:

> No one system of physical education is followed, but methods are adapted to the different ages and conditions of the pupils, and are, therefore, somewhat diversified. Outdoor games and exercises such as football, basket ball, volley ball, and swimming are especially prominent. Physical exercises for girls are considered of no less importance than those for boys.

Vocational education in Peru is divided into technical, commercial, agricultural, industrial, and domestic. The training is intended to overcome the want of correlation between the education of the school and the demands of daily life. The inspector advises that a commission be appointed to investigate the conditions and plan the work before attempting to develop it on a large scale throughout the country.[1]

ECUADOR.

Ecuador has an area of 116,000 square miles, divided into 17 Provinces. The estimated population is 1,500,000, of whom the great majority are Indians; inhabitants of pure European blood are few, and those of mixed blood are about one-third the total. Under these conditions the general diffusion of education has been impossible. The General Government has taken special measures during the past few years to promote the cause of primary education. Secondary and higher education are fostered by the church (Roman Catholic), and there are flourishing schools at Quito and Guayaquil.

The superior council of public instruction has just created a school of commerce at Bahia de Caraquez, the second school of the kind organized by the department of education.

The budget for primary education submitted by the department for 1915 amounts to 1,250,000 sucres ($607,500), an increase of $57,000 over the budget for 1913.

COLOMBIA.

The Republic of Colombia comprises a population of 5,071,000 (census 1912), of whom 30,000 are uncivilized Indians. The State is organized in 14 Departments, 2 "intendencies," and 7 minor divisions. The control of education throughout the State is centralized in a cabinet officer, the minister of public instruction, who is represented in each Department by a director general. This organization facilitates the general survey of educational conditions, although a complete census of schools and pupils is still wanting. In general, private schools are more flourishing than public schools; the former, however, draw their pupils from the better classes of society, while public schools offer the only provision within the reach of the poorer classes. In the more advanced Departments there has been a decided increase of school attendance within the last few years, and in two Departments, viz, Caldas and El Valle, the enrollment in schools exceeds 10 per cent of the population, whereas in the State as a whole the percentage is only 5.3 per cent. The following particulars from a recent consular report showing conditions in the Department of

[1] Estudios sobre la instruccion primaria. Joseph Byrne Lockey, inspector of instruccion primaria del departmento de Lima y de la Provincia Constitucionel del Callao, Lima, 1914.

Bolivar, capital Cartagena, may be taken to illustrate the status of schools in the more advanced Departments. This report says:

The private schools in this Department number 33, with a total enrollment of 2,137 pupils. The four secondary schools have an enrollment of 520 pupils. A recapitulation of the number of schools and the attendance shows:

258 primary schools (7,103 boys, 6,228 girls)	13,331
4 secondary schools	520
33 private schools	2,137
295 schools	15,988

In the municipality of Cartagena there are 27 public schools as follows:

1 boys' high school.
8 boys' primary schools.
10 girls' primary schools.
2 boys' night schools.
6 alternate (coeducational) schools.

The average attendance is 1,024 boys and 871 girls (for the year 1913). In 1914 the average attendance was about 2,000. The schools are maintained at an expense of $20,448 annually. Most of the school buildings are leased property. The teachers, numbering 54, receive salaries which average a little less than $27 a month, while the highest salary paid is $50 a month and the lowest is $15.

Public instruction reaches its highest point in the University of Cartagena, which was founded by a decree of October 6, 1827, and formally opened November 11, 1828.

The university comprises five departments, as follows: (1) School of philosophy and letters; (2) school of science; (3) school of medicine and natural sciences; (4) school of law and political science; and (5) school of mathematics and civil engineering.[1]

Theoretically, all schools and institutions in the Department are adjuncts of the university. For example, schools of fine arts and primary schools are regarded as annexes of the university school of philosophy and letters; schools of commerce, telegraphy, agriculture, etc., as annexes of the university department of science.

A recent decree issued by the minister of agriculture provides for the foundation of a National Institute of Agriculture at Bogota, with an experimental farm annexed. The program includes normal courses to prepare students for teaching agriculture with practical demonstrations. The courses will be specialized as required for horticulture, floriculture, etc.

One scholarship will be granted by the Government to each Department, and six at large to be assigned by the minister of agriculture and commerce.

Bogota, the capital of the State, is the seat of the National University,[2] comprising four faculties: Natural sciences and medicine, law and political science, mathematics, and dental surgery. The preparation for admission to the specialized courses of the university

[1] From report by Consul Ross Hazeltine, Cartagena, Colombia, Mar. 26, 1915.

[2] By a clerical error a paragraph relating to higher education in Colombia was included in an account of Venezuela in the Report of the Commissioner of Education, 1913, vol. 1, pp. 7–10.

is made in two affiliated colleges, San Bartolome and San Bernardo. Bogota is also the seat of two public normal schools, a national conservatory of music, a school of arts and trades, and a school of fine arts. The two last named are in charge of private associations, but subsidized by the State.

At Medellin, the capital of the Department of Antioquia, there is a school of mines which is maintained by the National Government.

By a recent decree the Government has authorized the establishment of a national institute of agriculture and veterinary science at the capital, and the choice of a location for an auxiliary school of agriculture and animal husbandry. A scholarship will be awarded in each department of the two schools.

By a decree issued during the current year it is declared that physicians, graduates of schools not in Colombia, must submit to the following regulations:

(1) Present a diploma or diplomas obtained from a foreign college well known for the thoroughness of its course. These diplomas must carry the certificate of the minister or of a consul general accredited by this Republic;

(2) Submit to a clinical examination before a council composed of one professor of internal clinics, one of clinical surgery, and one of another member of the faculty;

(3) Present a printed thesis on some national medical theme, on which the medical council will require the author to explain orally what may seem to the council proper in a public examination; and

(4) The councils of professors before which the clinical examination and the thesis be presented, and the fees which they may charge, will be in accordance with the regulations which the faculty may provide in the ordinary preparatory examinations.

VENEZUELA.

The systematic efforts on the part of the Venezuelan Government to extend the school provision and improve the entire system of education have been noted in previous reports of this series. These efforts are still continued, but under great discouragement by reason of the apathy of many of the States and the want of financial support. The decrease of the customs receipts and the internal revenue, which is attributed to the European war, has forced the executive departments to cut down their estimates for the current fiscal year. The department of public instruction has reduced its original estimate of $736,447 to $442,897, or 40 per cent, and the appropriations by the several States are likely to fall off proportionately.

The Federal Government has, however, indicated its intention of pushing a few practical measures for improving the elementary schools under its immediate direction.

The latest report of the minister of public instruction dwells upon the need of a new order of rural education, but points out certain

difficulties in the way of attempting at once to distinguish between urban and rural conditions. On this subject he says:

Rural schools.—Connected with the question of school construction is the foundation of rural schools provided with a special program. By the decree of February 10 this kind of institution was authorized. It is not, however, desirable to complicate the classification of the schools, programs, regulations, and laws, which would be the result of creating the special rural school. It is not enough, in effect, to establish a conventional distinction, calling "urban" the schools situated within the limits of the population of the capitals of the States and other municipalities and "rural" those which are outside these same limits.

Persons who have traveled in the interior of Venezuela and noticed the gradual transition between the different sections, between urban and rural groups; who have observed the capitals of States which are simply collections of humble homes and, on the other hand, rural centers of second order which have an importance greater than or equal to the capital of the State will easily comprehend that the proposed distinction is not practicable. It would only convert almost all the schools into rural ones. But there is another reason more weighty which is based upon the psychology of the people. Not one of the new small centers of populations would be reconciled to be treated as a village and to have its school called "rural." On the contrary, all will aspire to apply the term "college" to their schools, although only the first elements are taught in them. The term "rural" is understood as a disparagement. For this reason it is necessary to proceed in an inverse way in this matter. The first rural school should be established in the environs of Caracas under the immediate inspection of the minister of public instruction. There will be no difficulty in calling one of the new schools with only one teacher "rural" when there are added to its programs the principles of agriculture and for the instruction in the field work a small farm is attached, or, better, a model farm. The teachers on their part should know the fundamental principles of agriculture and how to teach them, and the pupils should cultivate the soil with their own hands.

If this plan is followed throughout the Republic and the small farm schools provided with competent instructors, the benefit in the development of agricultural industry, the basis of new public wealth, will be great.[1]

NATIONAL SCHOOLS OF ARTS AND TRADES.

The National School of Arts and Trades for boys maintained at Caracas offers a select course in the general subjects of primary education, together with training for various trades. In the general course mathematics is extended to include geometry, and lineal drawing forms a special feature. The trade courses are numerous, including typewriting, lithographing, industrial modeling, bookbinding, metal work, ironwork, carpentry, tapestry, woodwork, forging, electrical engineering, telephoning, management of automobiles, etc.

The monthly salaries range from 1,000 bolivars ($200) for the director to 100 bolivars ($20) for the teacher of arithmetic. It is noticeable that the salaries for the trade teachers average higher than those for the general subjects.

[1] Memoria del ministerio de instruccion publica 1914, tomo primero, p. XLV.

The Woman's School of Arts and Trades, Caracas, is also a national institution, under the control of the minister of public instruction. The program of the school comprises at present the following subjects: Cutting out garments and needlework, making hats and artificial flowers, tailoring, white embroidery, washing and ironing, cooking, weaving hats, bookbinding, stenography and typewriting, bookkeeping, photography, gymnastics, drawing, gardening, and horticulture. The school year is divided into two semesters, the first from September 15 to February 15, and the second from February 15 to July 15. The school hours are from 7 to 11 a m. and from 1 to 5 p. m. The arrangement of the course of instruction is as follows: Two semesters for photography, washing and ironing, and two school years, or four semesters, for the other subjects.

Applicants for admission to the school as regular students must have completed the five years' course of elementary instruction as shown by a certificate of proficiency. Pupils can enter the classes for washing, ironing, and hat weaving without the certificate, provided they can read and write.

Young women may come to the classes in the capacity of hearers, but without having the rights of the regular pupils in relation to examinations, certificates, and diplomas.

SCHOOL FOR NURSES.

A school for nurses was established by a ministerial order of February 25, 1914, as an annex to the School of Arts and Trades for Women, and opened with impressive ceremonies the 24th of March following. The minister calls attention to the fact that the importance of such a school is not generally recognized, as the social customs and sentiments of the country relegate women to private life and domestic duties. At the same time the action received the support of many representative men and women, and 17 candidates presented themselves for admission. The course of instruction is arranged for two years, beginning with the 16th of September each year and ending with a general examination in the month of July. The subjects of the course and their distribution among the semesters are as follows:

First semester: General anatomy and pathology, their application to the more common diseases and treatment of the latter.

Second semester: Practice of minor surgery—bandages, healing, operations, local applications, etc. First aid in case of accident. Care of the sick in general.

Third semester: Completion of the studies of anatomy and physiology applied, especially of the nervous system. General pathology and practical hygiene, special care of women at childbirth, and infants.

Fourth semester: Elementary pharmacy and cooking for the sick; special care of the insane; economy, administration, and regimen of hospital.

Entrance conditions.—The candidate for admission must be not less than 18 nor more than 40 years of age, and must have had at least an elementary education. She must be of good physique, healthy, and with no notable physical defect, and must have been vaccinated and recently revaccinated. She must also present a certificate of good moral character.

Those completing the course will receive the title of "enfermera" (trained nurse).

Relations were established between the school for nurses and the Hospital Vagas.

LEADING NEWSPAPERS OF SOUTH AMERICA.

Newspapers play a very important part in the formation of public opinion in South America, a fact which has not escaped the notice of travelers from the United States, several of whom have recently given extended accounts of this phase of intellectual activity in South America. The following notices of leading journals are cited from recent articles on the subject:

A visitor from North America is struck by the peculiar conditions obtaining in the newspaper world of South America. With prices higher than our own, with a much more restricted circle of readers, circulations of 100,000 and 150,000 daily are reached in such centers as Buenos Aires and Rio de Janeiro.

"*La Prensa*" (*The Press*).—One of the most remarkable institutions in the world is the Buenos Aires organ, "La Prensa" (The Press). It is housed in a $5,000,000 building, and besides its function of giving up-to-date news it supplies free medical service to all subscribers, offers prizes in many fields of intellectual endeavor, has its own weather bureau, a department of first aid to farmers, and what not. Its cable service is one of the best in the world, and despite its uninteresting appearance—a fault all too common in South American newspapers—it is the greatest journalistic power in the Argentine Republic.

"*La Nacion*" (*The Nation*), also of Buenos Aires, performs a generous service by publishing, in cheap form, good translations of the best foreign books.

"*El Mercurio*" (*The Mercury*), published simultaneously in Santiago and Valparaiso (Chile), is more lively than its distinguished Argentine contemporary and every bit as influential. Founded by an Englishman in 1827, its career has been one of uninterrupted success. Under the editorship of Carlos Vildosola it has risen to a preeminence in the life of Chile which entitles it to the sobriquet, "The Times of South America," and its career is quite as imposing, in its way, as that of any of Lord Northcliffe's leading organs in England. Vildosola, by the way, has done excellent service as Paris and London correspondent for his paper, has written on the function of the press in modern society, and is the possessor of a charmingly simple, yet powerful, style.

"*O Jornal de Comercio*" (*Journal of Commerce*), founded in the same year as the Chilean Mercurio, has had at its head some of Brazil's most noted writers. Rodriguez, one of its greatest editors, is known in this country for his book (written in English) on the "Panama Canal."

Names like Coelho Netto, Joas do Rio, Olavo Bilac (prince of Brazilian poets), Machado de Assis, and others stand for men who are or have been intimately bound up with the country's journalism.

Machado de Assis, first president of the Brazilian Academy of Letters, and now some years dead, was one of the leading literary influences of the Republic. His Portuguese is of remarkable lucidity; whether as a journalist, critic, or

novelist, his work adorns the nation's letters. Ruy Barbosa, who succeeded him as president of the academy, comes also from the field of journalism.

Important technical journals and medical journals are also published in the leading cities.

Statistics of primary and normal schools of South America.

States.	Year of statistics.	Enrollment in primary schools.		Enrollment in schools for special classes.	Enrollment in normal schools.		Expenditure for primary education.
		Public.	Private.		Public.	Private.	
Argentina	1913	622,781	123,944	6,874	7,226	.....	[1]$29,022,497
Bolivia	1913	(58,865)		.....	60	.....	.....
Brazil	1910	634,539	.....	.....	.....	.....	.....
Chile	1913	321,298	60,188	2,506	2,633	160	7,912,625
Colombia	1913	253,017	12,072	.....	(1,357)		.....
Ecuador	1914	84,654	10,365	.....	453	.....	[2] 607,500
Paraguay	1911	50,000	.....	.....	.....	.....	.....
Peru	1913	146,272	.....	.....	.....	.....	.....
Uruguay	1913	91,746	21,874	.....	.....	.....	1,999,137
Venezuela	1913	47,132	.....	.....	.....	.....	1,700,000

[1] Argentine currency. [2] Government appropriation.

Secondary and higher education.

States.	Year of statistics.	Number of general secondary students.		Technical and vocational secondary students.		University students.	Students in higher technical schools.	Total expenditure for public education.
		Public.	Private.	Public.	Private.			
Argentina	1913	8,788	3,200	6,550		7,491	.....	[1]$42,433,977
Bolivia	1913	(2,583)		.....	.....	1,291	.....	1,011,080
Brazil	1910	30,258	.....	.....	.....	.....	.....	.....
Chile	1913	25,286	18,103	9,354	6,000	3,918	.....	.....
Colombia	1913	6,510	16,049	877	351	1,730	502	611,545
Ecuador	1913	1,228	634	(226)		437	.....	[2] 1,154,340
Paraguay	1911	528	.....	.....	.....	.....	.....	.....
Peru	1913	4,674	.....	.....	.....	.....	.....	10,216,235
Uruguay	1913	3,252	.....	185	.....	580	46	.....
Venezuela	1913	.....	.....	.....	.....	.....	.....	.....

[1] Argentine currency. [2] Government appropriation.

Summary of educational statistics of Chile, 1913.

Classes of schools.	Public.		Private.	
	Schools.	Number of pupils.	Schools.	Number of pupils.
PRIMARY EDUCATION.				
Elementary and higher primary schools	3,039	317,415	504	60,188
Normal schools for men and for women	16	2,633	2	160
Model schools attached to normal schools	15	3,883	.....	.....
Evening schools	15	3,470	.....	.....
Schools for recruits:				
Army	37	6,158	.....	.....
Navy	9	1,339	.....	.....
Total	3,131	334,898	506	60,348
SECONDARY EDUCATION.				
Lyceos (for boys and girls)	86	25,286	121	18,103
HIGHER EDUCATION.				
Universities and university schools	12	3,065	8	853
TECHNICAL AND VOCATIONAL.				
Commercial institutes	11	3,728	10	1,787
Agricultural institutes	1	67	.....	.....
Agricultural schools	5	345	1	159
Mining schools	2	114	.....	.....
Industrial schools	3	438	.....	.....
Schools of arts and trades	30	4,652	36	4,532
PHYSICAL AND MANUAL.				
Higher institute of physical education	1	199	4	464
Central schools of manual training	4	1,114		
MILITARY TRAINING.				
Special schools of the army	6	1,016	.....	.....
Special schools of the navy	7	1,232	.....	.....
SPECIAL EDUCATION.				
National conservatory of music	1	959	.....	.....
Various establishments	2	68	7	871

CHAPTER XXIX.

EDUCATION IN GREAT BRITAIN AND IRELAND.

CONTENTS.—England: Evidences of progress—Advisory council for industrial and scientific research—The official report—New demands in education—Scotland: Medical inspection—Ireland: Central authorities for education—The committee of investigation—Department of agriculture and technical instruction—System of agricultural instruction—Technical instruction—Central institution.

ENGLAND.

EVIDENCES OF PROGRESS.

The last important official act on the part of Mr. Pease, president of the board of education, was his speech in committee of the House of Commons, May 13 (current year), supporting the demand for the sum of £9,906,378 ($49,531,890) to complete the amount necessary to defray the expenditure for public education for the year ending March 31, 1916.

On account of the depletion of his staff, 321 members having joined the colors, Mr. Pease was unable to supply the statistics which generally accompany the presentation of the budget estimates. In place of these he dwelt upon the way in which the work of the board had been affected by the war during the nine months since its outbreak. His speech covers all salient particulars of the record of public education during this important period.

Among the causes of the increased expenditures noted was the necessity of feeding twice as many children as the number reported a year ago. Immediately after the outbreak of the war the number was raised to 200,000 and in May was still 70,000.

Intimately connected with this work is that of providing schools for mothers. During the year the board of education was helping 151 schools of this character, and at the same time the local government board came to the assistance of the work by grants for maternity and child welfare.

In order to prevent overlapping and waste, the presidents of the two boards named entered into an agreement to the effect that all matters connected with institutions provided by a sanitary authority should be supported out of grants by the local government board, and all matters connected with schools for the collective instruction

of mothers should be in the province of the board of education. In this connection Mr. Pease said:

> It is a platitude, I know, when I say that it is a waste of effort to try to educate children who are not physically fit. Our great object is to get children to the schools in a healthy condition. If we get them thus and maintain them in a healthy condition, depend upon it they will learn a great deal more, and there will be much less waste of public money than there has been in the past. The demand for women in many directions has produced also a demand for women who have babies or very small children in their homes. One of the great social dangers in the country has been that these children should be not properly provided for when their mothers were at work. By a system of creches which have been supported by the board of education, and by grants, we are doing a very good work. We have now 77 institutions in the country. During the past year we have contributed something like £5,000 in grants in helping to look after these tiny tots while their mothers were at work. I do not think the value of that kind of work can be easily overrated.

In respect to the activities of the board in the province of higher education, it was announced that no moneys would be called for during the year to aid in building grants for training colleges. At the same time the need of additional aid for higher institutions was distinctly recognized.

The number of secondary schools in relation with the board of education increases rapidly with a corresponding increase of the grant allowed them by the Government. The total appropriation for this purpose, which 10 years ago was only £163,000 ($815,000), in 1914 reached £730,000 ($3,600,000).

In regard to the future of the secondary schools, so liberally aided by public money, the president of the board said:

> Improvement depends on five things: An earlier entry in the secondary school; the imposition of some test, so that those only of reasonable ability should go forward into these schools; an undertaking by the parents that the children shall attend the full course in the schools; a better system of scholarship, so that the ladder may be improved to enable more able children to go forward to the university; and more vocational courses should be attached to those schools. We have at the present moment eight of these secondary schools with engineering courses, which lead up to the technical institutions, and I think money can very well be spent by local authorities, assisted by the Government in vocational courses in many of our secondary schools.

The education estimates for the year 1915–16 carry a total for the schools sharing in the annual grants of £15,481,378, as against £15,245,621 for the financial year 1914–15, a net increase of £235,757 ($1,175,000). Additional grants for 1915–16 in favor of higher education, promotion of science, etc., amount to £740,807.

Naturally almost every item of normal expenditure shows some increase. Special interest, however, attaches to the increase by £33,000 of the annual grants for the education of defective children and an increase of £145,000 ($725,000) for medical inspection and medical treatment. This includes $490,000 allowed for school meals.

ADVISORY COUNCIL FOR INDUSTRIAL AND SCIENTIFIC RESEARCH.

The most important event of the year as regards education is the formation of an advisory council in the board of education charged with the interests of industrial and scientific research. The causes and purposes of the council were explained by Mr. Pease in his address on the budget. In introducing the subject he said:

> The war has brought home to us and to our notice that we have been far too dependent for very many processes and many materials upon the foreigner, and we have realized that it is essential, if we are going to maintain our position in the world, to make better use of our scientifically trained workers; that we must increase the number of those workers; and that we must endeavor to secure that industry is closely associated with our scientific workers and promote a proper system of encouragement of research workers, especially in our universities. The fault in the past, no doubt, has been partly due to the remissness on the part of the Government in failing to create careers for scientific men. It has also, I think, been due partly to the universities, who have not realized how important it is that pure science ought to be utilized with applied science and brought into close contact with manufacturing interests. I think it was also partly due to the fact that the manufacturers themselves undervalued the importance of science in connection with their particular industries. It was partly due, too, to the fact that the ratepayers have been too niggardly in making provision in connection with their technical institutions and colleges.

In support of his position Mr. Pease cited many cases which went to prove the vast importance of an appropriation for this purpose, and which starting at a comparatively small figure ought to develop into substantial sums of money in the future. The proposition excited animated discussion in which eminent representatives of science and technical industries, now members of the House of Commons, participated. The scheme was approved by Parliament and the sum of £25,000 granted for the initial fund. The body to be responsible for this work is a committee of the privy council, which is to be assisted by a small advisory council composed mainly of eminent scientific men and men actually engaged in industries dependent upon scientific research. The administrative chairman of this latter body is Sir William S. McCormick, LL.D.

In the subsequent reorganization of the Government Mr. Pease vacated the office of president of the board of education, and was succeeded by Mr. Arthur Henderson, M. P., for the Barnard Castle division of Durham and chairman of the Parliamentary Labor Party. The change afforded occasion for a review of the admirable work accomplished by Mr. Pease, which is universally recognized. It is particularly noted that schools for mothers received official sanction and grants through his efforts. His more recent endeavor to bring scientific knowledge to the service of conditions brought about by the war have given an immense impetus to this important work, and it is announced that his successor will give hearty support to the work of the advisory council as outlined by Mr. Pease.

THE OFFICIAL REPORT.

The latest report of the Board of Education in England, issued early in 1915, is introduced by a brief summary of the important effects of the war upon schools and higher institutions within the province of the board. From this survey it appears that at the outbreak of the war, when the majority of schools were having vacation, the authorities of some areas, notably London, thought it desirable to terminate the vacation and resume the work of the schools earlier than usual; in a few other cases it was suggested that the vacation might be prolonged in order that the elder children could help in harvest work; neither of these expedients, however, was found to be generally necessary. On the contrary, the resolution was expressed on all sides—

> That in the national crisis it was the first duty of all concerned in the public system of education to see that that system was carried on as far as possible without interruption and with undiminished efficiency, and this feeling was emphasized in a letter publicly addressed by the president of the board to his colleagues in the service of national education.

The difficulties arising from the war are considered under the following heads:

Depletion of teaching staff.—Up to the 30th of September, 1914, 3,877 men, or 9.2 per cent of the total number of men teachers, had been called to naval or military service and 5 women teachers to the duties of nurse. The great majority of the men were certificated teachers. Since the date named the numbers given have been greatly increased. In the elementary schools the gaps thus occasioned have been filled to a large extent by what are called the reserves of the profession. This includes many qualified teachers who left the service upon marriage and whose offer of service in this emergency has been gladly accepted.

Decrease in number of students.—Returns relative to the 34 universities and university colleges in England and Wales which are aided by Government grants show that 2,530 full-time students, or about 30 per cent of the total number of men students, had joined the forces by the end of January. In the training colleges for men about 645 out of a total of 1,420 students had joined the forces. It was anticipated that these numbers also would be greatly increased during the spring and summer.

In regard to the technical, art, and evening schools which receive grants from the board the loss of students can not be exactly given, but appears to range at points up to 50 per cent and averaging for all these institutions about 25 per cent.

Occupation of buildings.—The school buildings occupied for hospital purposes which involved the transfer or discontinuance of the school activities, as reported in April, 1915, included 60 elementary

schools, 17 secondary schools, 9 training colleges, 2 universities, part of one university college, and 4 technical schools.

The occupation of school buildings for billeting has varied at different times according to the movements of the troops. The reports show that the premises of at least 705 elementary school buildings, 33 secondary, 15 technical, and 4 training colleges have been so occupied at different times.

So far as possible these exigencies have not been allowed to stop the work of the schools.

Provision for special demands.—It was impossible at the time of the report to ascertain the number of Belgian and French children, whose families have taken refuge in England, that had been received into some of the schools within the province of the Board, but it was known that a very large number of such children were happily at work in the schools. The need of forming camp classes for recruits was recognized very early in the war and facilities both for instruction and recreation of the soldiers were provided by many local authorities and assisted by voluntary bodies, notably the Young Men's Christian Association. From a report issued in December, 1914, it appeared that up to that time 41 local education authorities had maintained such classes and were entitled to the special grants offered by the board for this work.

Administrative measures.—The necessities of the war have caused various modifications in the conditions laid down by the board upon which various classes of schools share in the Government grant. The exceptional cases affecting the efficiency of elementary schools or training colleges will be taken into account in rewarding the grants, and training colleges and local education authorities have been notified that trained teachers who are under an obligation to serve in approved schools for not less than 7 out of the 10 years following the completion of their training, and who proceed on military service, will be allowed to count the period of their military service during the continuance of mobilization toward the fulfillment of their obligation. Eventually, also, it is proposed to reimburse the schools and universities for loss sustained by the occupation of their buildings.

NEW DEMANDS IN EDUCATION.

The meetings of educational associations during the year have been marked by forecasts of new demands that must be met as a consequence of the war. In these discussions emphasis has been placed upon the need of larger provision for technical training, and in particular for a large extension in respect to the teaching of modern languages and literature. The first of these considerations simply reiterated the convictions that have been pressed upon the

attention of Government and local authorities for the last decade. The question of modern languages has been brought into an entirely new relation to educational thought by the events of the war. It formed the chief subject of discussion at the July meeting of the London Education Committee, at which a resolution was moved and adopted that classes for foreign languages and literature should be at once formed in six institutes for young women. At the meeting of the Modern Language Association, held at the University of London in January of the present year, this subject gave the keynote to the inaugural address by the president, Mr. W. W. Vaughan, the master of Wellington College, who said, in part:

> Besides the stake that we as citizens and teachers have in the war, it touches us still more closely as teachers of French and German. The vast majority of our members have spent weeks and months, possibly years, not as tourists, but as residents in one or other, if not in both, of the countries that are the protagonists in this great war. We, if any, should understand the tragedy of what is happening, and we pay for that complete understanding by a deeper heartache. Some of us have sung "Deutschland uber alles" in a German Kneipe. Some have watched from the great Dresden River the Whit-Sunday sun gilding the Saxon highlands. Some have cheered, with their contemporaries, the burning eloquence of the Spanish democrat, Castelar, in the Collège de France. Some have enjoyed the freedom of the Quartier Latin and tramped with buoyant French students through the forest of Fontainebleau till the boots which were sold to us as students, with price and sole alike reduced, gave us a respectable excuse for calling for a halt and food. Some have felt the spell of Wagner in the opera house at Bayreuth. Some can never forget how they laughed with Jeanne Samary, how they cried with Bartet, how they thrilled at the voice of Got and le Bargy as they listened to Molière or Racine or Émile Augier in the parterre of the Théatre Français. Memories such as these—imperishable sweeteners of national bitterness—have been crowding into my mind while thinking of those days when I tried to qualify as a teacher of modern languages, and therefore as a member of this association; and as they come in their battalions I find it hard to compose a fitting presidential address. The great subjects that might have appealed to me, if not to you, in an ordinary year seem trivial now. Questions, merely academic, have lost their savor.

SCOTLAND.

The report of the education department of Scotland for the school year 1914–15 shows that local school boards generally endeavor to carry out the provisions of the education act of 1908 extending the field of their activities. These extensions relate (1) to the enforcement of compulsory school attendance and the prolongation of the period of school life; (2) to welfare services for promoting the health of children and their social and industrial conditions.

Under the first head the report considers particularly the need of adequate school provision in districts presenting exceptional conditions, such as large cities where unforeseen demands arise from the

influx of workers required for new or increased industries and sparsely populated sections of outlying districts. In cities, apart from the demands created by shifting population, are those arising from the improved standards of sanitation and comfort and the altered conditions of school organization and courses of instruction. Buildings which were regarded as ample and excellent at the time they were built are now condemned because they fall below the required standard in regard to lighting and ventilation or do not provide facilities for the physical exercises and manual training which have become indispensable.

In order to reach the school children in remote districts two methods have been adopted. Under one a teacher is engaged to instruct the children in or near their own homes; in the other case arrangements are made for the conveyance of children to and from school. The latter plan, which has proved successful in the United States, has proved to be nearly impracticable in Scotland, where the children are generally not conveyed daily, but at the beginning and end of the week, thus obliging them to be away from home for five nights in the week. To this plan parents naturally object. With regard to the instruction of children in or near their own homes by a temporary teacher the report says:

> The arrangement is, at the best, a makeshift; a certificated teacher is rarely procurable for this class of school, and, generally speaking, it must be admitted that the education given is distinctly inferior, both in quality and quantity, to that which the children would obtain by regular attendance at the ordinary classes of a fully recognized public school.

Some improvement in this method of instruction has been secured by increasing the salaries offered to the temporary teachers.

It will readily be seen that the conditions explained prevent the complete enforcement of compulsory school attendance; at the same time steady improvement in this particular is reported and clearly indicated by the high percentage of average school attendance.

The education law of 1911 fixes 14 years as the age for leaving elementary schools. Children above 12 years of age may, however, be exempted from attendance at an earlier age at the discretion of the local school board with the approval of the department. Systematic efforts are made to retain all children up to the leaving age, and longer so far as possible. For this purpose supplementary classes and high schools are established, the programs in both cases providing for continuance of the elementary branches with the addition of special subjects having an industrial bias.

The supplementary classes reach children who are not able to meet the conditions for admission to the higher grade schools. These classes are most successful in the large cities, and experience shows that the best results are attained by their centralization. In respect

to Glasgow, the largest city in Scotland (population 784,500), the official inspector says:

In the large town school, and especially in the school in which supplementary work is concentrated or centralized, the problem of classification and differential treatment of the pupils is much less complicated, and in some cases, as in the recently opened Onslow Drive School, Glasgow, the provision made for a number of separate classes may even contribute to the rapid promotion of the pupils. * * *

It is interesting in this connection to observe that in recent years, while the stream to higher grade schools in Glasgow has practically not varied in volume, there has been the very marked and gratifying increase of no less than 50 per cent in four years in the number of children who have entered supplementary courses.

During the period 1910–1913 the average attendance of pupils in the supplementary courses in Glasgow rose from 4,047 to 6,061; at the same time the attendance in higher grade schools remained very nearly stationary, about 2,500.

Govan Parish, a suburb of Glasgow, having a population of about 90,000, is following the example of the larger city and as rapidly as possible centralizing the supplementary classes.

In Dundee concentration of classes has also proved advantageous. This city or burgh is situated in the northern and highland divisions of Scotland, which form one inspection area comprising 13 counties and a population of 1,021,572 largely rural in character. The school districts of this division are generally small and scattered, and therefore present peculiar difficulties in the way of maintaining the supplementary classes. Peculiar interest therefore attaches to the report of one district in this division, comprising North Forfarshire and two smaller counties. With respect to supplementary classes, the inspector reports:

According to the returns at the end of the school financial years the percentage of supplementary scholars to the total enrollment is 9.4 in North Forfarshire, 10.9 in Shetland, and 11.4 in Kincardineshire. The following table gives (*a*) the number of pupils who left school, (*b*) the number of these who spent more than one year in a supplementary course, and (*c*) the percentage of (*b*) to (*a*).

Statistics of supplementary classes.

Counties.	(*a*) Number of pupils who left school.	(*b*) Pupils who spent more than one year in a supplementary school.	Ratio of (*a*) to (*b*).
			Per cent.
North Forfarshire	601	240	40
Shetland	403	204	51
Kincardine	506	256	52

During the past session there has been a further increase in the number of schools in the district in which provision has been made for instruction in practical subjects. The progress made in the three sections of the district is shown by the following comparative tables:

Number of schools teaching certain practical courses.

Counties.	Session.	Cookery.	Horticulture.	Laundry work.	Navigation.	Woodwork.	Practical household management.	Dairying.	Dressmaking.	Experimental science.	Total number of schools.
Shetland	1913-14	17	23	2	12	2	2	1	1	.....	60
	1912-13	15	19	2	3	2	1	.....	.....	.....	42
Kincardineshire	1913-14	27	9	2	1	17	2	.....	.....	2	60
	1912-13	18	8	2	.....	16	2	.....	.....	.....	46
North Forfarshire	1913-14	12	9	5	.....	5	1	.....	.....	.....	32
	1912-13	8	3	5	.....	3	.....	.....	.....	.....	19

The subjects for the supplementary classes are indicated by the table already given. In addition the Scotch code requires that every school shall make adequate provision for physical exercises, singing, drawing, nature knowledge, geography, history, and (for girls) sewing, all of which are regarded as auxiliary and to be so conducted that they will not interefere with, but will "subserve in large degree the purposes of the main instruction in English and arithmetic."

In regard to the relation between the usual branches of elementary instruction and the practical branches which find place in the extension courses, the official report says:

At no time has primary education been regarded in Scotland as simply a matter of instruction in reading, writing, and arithmetic, and at the present time less than ever is it so regarded. The problem is how to use the various subjects of instruction so as to develop all the faculties of the child, to elicit his sympathies, regenerate his impulses, cultivate his faculty of observation, exercise his intelligence, and improve his powers of expression. This is a high and difficult art, demanding for its practice thoughtful, devoted, and well-trained teachers. Provided the art be skillfully employed, proficiency in reading, writing, and arithmetic will be secured as a matter of course, as an incidental result, within the usual limits of school life in the case of normal children. But to aim at this incidental result, principally or directly, may well be to stultify the whole educational process without securing more than an evanescent, because mechanical, proficiency in the subjects on which instruction has been concentrated.

Still, for practical purposes, reading, writing, and arithmetic may be taken to be the main subjects of instruction in the primary-school curriculum. All the others are to be regarded as auxiliary. That is, they are valuable for the discipline they afford and the variety of means they offer for exercising the intelligence of the children, rather than for the amount of positive knowledge or of proficiency acquired, even although that may not be inconsiderable.

MEDICAL INSPECTION.

Organization of the service.—The service is conducted under the general supervision of Dr. Lewis D. Cruickshank, medical officer of the Scotch education department. The local authorities directly responsible for the work are the county education committees formed in accordance with the education act of 1908. These committees represent the education authorities in each county, including school boards and secondary school and the general health authority for the county, namely, the county council. As a rule the county medical officers of health is at the head of the school-inspection service in his area, and the medical men appointed to carry on the examination of the children and schools are assistants to this officer. In a very few counties the school medical officer is independent of the county medical officer of health, but in all counties the health service and the medical inspection are coordinated. The county education committees frame schemes for medical inspection which must be approved by the department. If a scheme is accepted by a school board, that board receives from the Government one-half of the cost incurred for the medical examination and supervision of the pupils.

Assistants.—In connection with the work of medical inspection, 56 school nurses are employed. Of this number, 26 are employed by 12 counties and 30 by 10 cities or towns. With the single exception of Ayr, all the "burghs" that have separate schemes of medical inspection now employ nurses. There are also part-time school nurses employed in several counties, and it is recognized that this branch of the service is of the utmost importance in following up the results of advice given by the medical officers and in the continued supervision of defective cases. The success of this service leads to the hope that secondary education committees will make arrangements for the employment of nurses and thus bring about closer relations between schools and homes throughout the country.

Invaluable assistance is also rendered by teachers whose attention to the physical well-being of the pupils increases in a most encouraging manner. They not only take great interest in defective children, but show constantly increasing appreciation of the careful hygienic supervision of all the children under their charge. The medical officer says: "It is through the medium of the teacher that we must look for the success of any scheme of school-health administration."

Conduct of the inspection.—The systematic medical inspection of the school children is carried on during the school hours. The attempt is not made to examine all the children annually. Experience indicates that such examination three times during school life, together with an examination of all special cases selected by

the teachers or the parents, is sufficient to enable the medical officer to detect and keep under supervision all defective children. The great purpose of the service is "to discover those ailments of subacute or chronic nature that may render the child physically or educationally inefficient." As a rule, cases of acute illness are easily recognized by parents and teachers and the urgency of such cases usually leads to the necessary medical treatment.

Three age periods are selected for systematic inspection, namely: (1) From 5 to 7 years, or "entrants"; (2) from 12 to 14 years, or "leavers"; and (3) an intervening age group taken from about the middle of the school period, or "intermediates."

Summary for the year.—For the latest year reported (ending July 31, 1913), systematic inspection was applied to 236,169 children, the number of special cases was 158,550, total 414,429 children inspected out of a total average of attendance of 839,049; that is, nearly 41 per cent of the school children were examined by the medical inspectors. The activities of the members of the medical service are indicated by the following examples:

In Edinburgh the medical officers, four in number, paid no fewer than 2,480 visits to the schools of the city for the purposes of systematic and special examinations, while the nurses, four in number, paid 2,656 visits to homes in connection with the supervision and "following up" of defective cases. In Govan, where a somewhat different procedure is followed, the medical officers paid approximately 1,572 visits to schools, and the nurses 5,800 visits to the homes. In Dundee, 579 visits were paid by the medical officers and 1,251 visits by the nurses during the year. In each of these towns there are also arrangements for the inspection of "special" cases at appropriate centers, which are usually known as "attendance clinics" or "inspection clinics." The above figures do not therefore convey anything more than an approximate idea of the work of the school medical service in the towns.

The work in counties is illustrated by the following particulars:

In Lanarkshire the medical inspectors, four in number, paid 238 visits to schools for the purpose of systematic inspection, and 472 special visits, while the nurses paid no fewer than 414 visits to homes in connection with verminous children. In Clackmannan the medical inspector paid approximately 180 visits to schools, and the nurses, three in number, paid 225 visits to schools and 550 visits to homes, in addition to assisting in the work of treatment at the school clinic. In Stirlingshire seven nurses are reported to have paid 4,949 home visits in connection with defective children, and in Linlithgowshire one nurse paid 625 visits to homes.

The opinion is expressed that similar activity has been displayed in all the medical inspection districts.

The medical officer expresses the opinion that approximately 4 per cent of the school children suffer from defective nourishment, which he regards as the most important cause of general physical and educational inefficiency and its prevention as one of the first and most important steps in child hygiene. The principal causes of mal-

nutrition he summarizes as follows: (1) Insufficient or unsuitable food; (2) insanitary surroundings; (3) out-of-school occupation; (4) insufficient sleep; (5) other causes.

Each of the above topics is extensively discussed and illustrated by impressive instances. The conclusions of the medical officer are as follows:

With the exception of the relatively small percentage of cases which are the direct result of poverty, it seems evident that the majority of cases of malnutrition arise from parental ignorance—ignorance of the relative value of foods, ignorance of the value of a clean and wholesome house, ignorance of the value of quiet refreshing sleep, ignorance of the value of play during out-of-school hours. Where parental neglect is the cause the outlook is less hopeful, but neglect is also too frequently the result of ignorance.

While education authorities may do a good deal to meet the immediate needs of the situation by providing meals and by regulating the employment of children outside of school hours, and while nurses and school doctors may help by visiting the homes of the school children and giving lectures to the parents, the principal factor in the campaign against physical inefficiency must be educational, information must be disseminated through the homes, and the rising generation must have a practical training in the methods of healthy living. But as one medical officer says, "Education may point the way, but society must make the journey itself."

Following up and treatment.—The report emphasizes the great importance of following up children found defective at the medical inspection, and the difficulties of this part of the service are considered in detail. In addition to the medical officer, school nurse, and teacher, the attendance officers and voluntary workers give large assistance in this work. The percentage of defects remedied, treated, or improved given for 29 areas varies from 26.9 per cent in Forfar County to 75 per cent in Ross and Cromarty Counties.

School clinics.—During the year school clinics or centers for special treatment were maintained at 14 places, and in addition 159 school boards provided a certain amount of medical treatment. Of this number, 124 made provision for treating defects of vision, 62 for dental treatment, 58 for minor ailments, and 9 for the treatment of ringworm by means of X-rays. In closing this section of the report, the medical officer says:

It seems clear that defective vision and defective teeth can not be treated, either economically or efficiently, upon a parochial basis, and the only hope of their successful treatment in the rural districts would appear to rest upon the establishment of efficient organizations under the secondary education committees (appointed for counties).

IRELAND.

CENTRAL AUTHORITIES FOR EDUCATION.

Education in Ireland is fostered by public funds which are administered by the following bodies: The commissioners of national education, the intermediate education board, and the department of agriculture and technical instruction. A fourth body, styled the commissioners of education in Ireland, constituted under provisions of the educational endowments (Ireland) act of 1885, is charged with the supervision of education endowments, their management, accounts of schools and boards sharing in them, and the approval of the schemes of education adopted by these schools and boards. The schools themselves may pertain to the national system of elementary education or to the class of intermediate schools.

THE COMMITTEE OF INVESTIGATION.

The chief complaint that has arisen in connection with the national system of education in Ireland relates to the status of teachers, including their salaries and the system under which they have been graded and promoted. This subject was committed to a special committee appointed in January, 1913. This committee consisted of representative men and by the terms of the reference they were directed—

> To inquire and report whether the rules, regulations, and practice of the commissioners of national education in Ireland with regard to the inspection of schools and to the awarding of increments and promotion to teachers and the methods adopted by the inspectors in carrying out their inspection are conducive to sound education, to efficiency on the part of the teachers, and to fairness and uniformity in their treatment; and whether any, and if so what, changes are desirable in the system of inspection; and also to report upon the relations of the commissioners and their inspectors to the teachers and upon the rules and regulations of the commissioners with regard to the conduct of the teachers, and especially as to whether such rules and regulations unduly restrict the liberty of the teachers in any respect, and whether in any cases some notice of the intention to make new rules should be published, and whether due facilities for appeal and means of access to the board are allowed to the teachers.

The investigations and inquiries of the committee were continued for over a year, testimony was heard from persons representing every phase of the question under consideration, and the conclusions of the committee are embodied in a series of recommendations which promise, if adopted, to remove many of the disabilities under which the teachers of Ireland have worked. The liberal spirit of the committee is indicated by the final resolution, which is as follows:

> That in the interests of education in all parts of the country all responsible proposals to vary the program to suit the special circumstances of each locality should be met with a generous as well as a careful and discriminating consideration. The committee note that in England there is no such thing as a compulsory subject.

DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION.

One of the greatest contributions to the development of public education has been made by Ireland in the system carried on by the department of agriculture and technical instruction. The main features of this work as adopted under the direction of Mr. (now Sir) Horace Plunkett are still continued. A central department develops the general plan of action and disburses the Government fund for the work. In respect to agriculture the department has the advice of a council constituted for that branch of the service, and with respect to technical education the advice of a technical instruction board and a consultative committee of education. The income of the department consists of an annual appropriation of £166,000 ($830,000) and the interest on an original endowment of £205,000 ($1,025,000), together with such additional appropriations as are allowed from time to time. The distribution of the funds is determined by an act of 1899 [agriculture and technical instruction (Ireland) act].

A few central institutions are maintained by the department, but its great objects, namely, the promotion of scientific agriculture throughout the country and of technical industries under favorable conditions, are pursued by means of a well-developed plan of cooperation with local authorities and agents. This principle is steadily maintained in the educational work of the department.

SYSTEM OF AGRICULTURAL INSTRUCTION.

The principal features of the system of agricultural instruction fostered by the department are as follows: Itinerant instruction, agricultural schools and classes, the training of instructors and teachers, and the maintenance of higher agricultural institutions and experiment stations. These various agencies were all in successful operation throughout the year 1914. The scope of work in charge of the itinerant instructors and its increase over the preceding year are indicated by the following table:

	Agriculture.		Horticulture and beekeeping.		Poultry keeping.		Butter making.	
	1912–13	1913–14	1912–13	1913–14	1912–13	1913–14	1912–13	1913–14
Number of instructors appointed	45	45	40	41	36	39	35	3
Number of lectures delivered	627	757	190	126	144	153	131	110
Estimated attendance at lectures	28,180	37,250	7,600	4,662	10,061	3,256	1,682	1,650
Number of courses conducted	81	84	0	0	131	139	213	195
Number of students admitted to courses	1,244	1,281	0	0	1,778	1,801	1,863	1,881
Number of visits to farms, gardens, dairies, etc	17,065	19,000	34,815	36,068	15,167	18,966	6,286	6,754
Number of demonstration plats	2,003	2,132	372	360	.....	.....	.....	.....
Number of field experiments	760	787	.....	.....	.....	.....	.....	.....

TRAINING OF TEACHERS.

Courses of training for appointments under the schemes of itinerant instruction and in agricultural schools and colleges were continued in the agricultural faculty of the Royal College of Science, Dublin, at the Albert Agricultural College, and at the Munster Institute. Arrangements were made to enable students of the Ulster dairy school to complete at that school the course of training for teacherships in agricultural schools for girls. Twenty-one students completed their training during the year and obtained appointments in connection with the agricultural work of the department. No less than 166 students trained at the institutions mentioned are now employed on the department's staff or as county instructors or teachers.

TECHNICAL INSTRUCTION.

In accordance with section 16 of the act of 1899, the annual sum of £55,000 allowed for the purposes of technical instruction is to be divided into two parts, one part of which must be distributed, in proportion to their respective populations, among the county boroughs in aid of approved schemes of technical instruction, and the other part is applicable to schemes of technical instruction elsewhere than in county boroughs and for certain other purposes mentioned in the act, such as the collection of information for the purposes of technical instruction.

At the meeting of the board of technical instruction held on May 31, 1912, the question of the fifth triennial division of the funds was considered, and the board unanimously concurred in the department's proposal that the arrangements made in respect of the fourth triennial period should be renewed for the fifth triennial period. Accordingly the allocation of funds for the three years ending March 31, 1915, is as follows: For technical instruction in county boroughs, £26,000; for technical instruction elsewhere than in county boroughs and for central purposes, £29,000.

The board therefore controls the expenditure of an annual sum of £29,000, which is applicable for technical instruction elsewhere than in county boroughs and for certain central purposes. The balance of the £55,000, viz £26,000, allocated, with the concurrence of the board, for technical instruction in the six county boroughs, is applied in aid of schemes in these boroughs subject to the approval of the department alone.

The year reviewed was marked by extensions of the work, every urban district of importance having framed a scheme for technical instruction approved by the central board.

The system of itinerant instruction in domestic economy, manual training, etc., received new impetus from the regulation under which grants are paid for single subjects at a lower rate than those applicable to courses of instruction. The time seems to have come when

the county schemes must be intrusted to organizing secretaries having qualifications for the work and able to devote their whole time to it. The department insisted upon the employment of such a secretary in a particular county during the year, and will undoubtedly adopt this as a settled policy as rapidly as circumstances permit.

Progress is also reported in the work of the organized technical schools in county boroughs and urban districts, an effect, apparently, of the increased adaptation of the courses of instruction to local needs and the system of examinations recently adopted. Special difficulty is experienced in the effort to maintain technical schools in small centers. In this connection the report says:

> One of the disadvantages under which we labor is due to the absence of the industrial atmosphere that characterizes and encourages the efforts of technical educators in other countries. A youth not unnaturally seeks to know how he can apply the knowledge he acquires in the technical school. In this connection it is encouraging that employers are taking greater interest in the work of technical schools than was formerly the case. Undoubtedly much more requires to be done in this direction. The strain thrown upon young employees who work during the day and attend the technical school for several hours on several evenings in the week is considerable. The instruction they receive is certainly such as to make them more efficient and more valuable to their employers, and these should be prepared to bear their share of the strain. * * *
>
> In parts of the country, as, for example, County Cork, the smaller technical schools are without responsible head teachers, the work being done by traveling teachers, who undertake instruction in a group of schools. Such a system has in many cases been the only possible arrangement in the past. Its drawbacks, however, are obvious. Not only is it difficult or impossible to secure local enthusiasm for a school worked wholly by visiting teachers, but "intensive" organization is impossible. For the due development of many of these schools we must look forward to the appointment of responsible teachers for each school.

The opinion is expressed that the only satisfactory remedy for these difficulties would be a compulsory-attendance law applicable to both employees and apprentices.

The arrangements for training teachers carried out by the cooperation of the department with the national education board and local technical committees have been extended during the year. Recently the department have undertaken the training of national teachers in rural science (including school gardening), and by arrangement with the national board have undertaken the inspection of this subject wherever taught in the national schools.

CENTRAL INSTITUTION.

The Royal College of Science for Ireland completed its forty-seventh annual session in June, 1914. This institution comprises both technical and agricultural departments, and during the year under review took possession of new buildings which provide for the extension of many branches of the college work which were in need of necessary accommodation and up to date apparatus. The engineering division has been supplied with the most recent machines, engines, and testing appliances and is now very completely equipped. The plant of the chemical division has also been greatly extended. The total registration of students in the year was 133, including 49 in the agricultural faculty. The summer course of instruction maintained in the interests of teachers of secondary and technical schools was attended by 397 students.

CHAPTER XXX.

EDUCATION IN THE SCANDINAVIAN COUNTRIES.

CONTENTS.—Introduction. Sweden: Current interests—Primary education—Secondary and higher education. Norway: Distinction between rural and urban schools—Course of primary study—Continuation and high schools. Denmark: Special agencies of education—Welfare services—Relation to school hygiene—Sanatoriums and open-air colonies—School lunches—Public gardens for children—School gardens—Public playgrounds, swimming pools, gymnasiums, etc.—School excursions—A school association.

INTRODUCTION.

The Scandinavian countries are all characterized by the completeness of their educational provision and the attention paid to practical training without the sacrifice of cultural ideals. Primary education is compulsory in the three Kingdoms referred to, covering the period 7 to 14 years of age; its enforcement is facilitated by the combination of official agencies, parental interests, and the adaptation of schools to the industrial needs and social conditions of different classes of pupils. At the opening of the European war, measures were pending in both Sweden and Norway looking to improvements in the general scheme of elementary education through an extension and readjustment of the provision for training teachers. The serious purposes of the two Governments in this matter were indicated by the increased appropriations for elementary education. Although not directly involved in the war, its effects in these neutral countries are indicated by the interruption of many plans looking to the general welfare, including those relating to education.

The following particulars relate to current conditions in the separate Kingdoms, as reflected in official documents and periodicals:

SWEDEN.

The educational system of Sweden was described in detail in the Commissioner's report for 1913[1] and a survey of more recent activities in the report for 1914.[2] By reference to these accounts it will be seen that the development of the elementary schools, and more

[1] Vol. 1, chap. 33, Current Educational Movements in Sweden, by Dr. N. G. W. Lagerstedt.

[2] Chap. 32.

particularly that of the normal schools, in view of modern conditions has become in Sweden, as in other countries, a matter of great interest. The entire province of teacher training was the subject of investigation by a royal committee which was appointed in 1906 and continued its investigations down to 1911. As a result of the report of this body, three Government bills were laid before the Riksdag in 1913. The bill relating to the improvement of normal schools or teachers' training colleges was passed essentially as submitted, and its provisions have occupied the attention of the teachers' associations and educational journals down to the present time.

PRIMARY EDUCATION.

Primary instruction is given in the lower schools (smaskolor), having two or three classes, or in the ordinary primary schools (folkskolor), having three or four classes; and in some districts in schools combining the lower section and the more extended section. Intermediate between these two classes of schools are special schools for children living in isolated villages or on farms. These schools, which may be ambulatory, are found almost exclusively in the districts of the extreme north. In the larger cities the primary schools are generally completed by upper grades comprising from five to eight classes. For children who only finish the obligatory period of four years, continuation courses are maintained for six months in the year. Attendance upon the latter, as also upon the higher division of the primary schools, is optional.

Distinct from the primary schools, properly so called, there are also higher primary schools which generally offer courses of practical training differing slightly in that respect from the higher grades of the schools with eight or nine classes.

As a rule a separate teacher is employed for every class both in the lower primary schools and in the complete primary schools.

At the end of 1912 the number of primary schools of the various classes indicated above was 15,345, of which 1,568 were ambulatory schools and 33 organized as higher primary schools. The total number of teachers was 20,634, of whom 5,927, or $28\frac{7}{10}$ per cent, were men. The number of children of school age (7 to 14 years) was 892,327; of this total 774,873, $86\frac{8}{10}$ per cent, were enrolled in the various classes of primary schools. The children attending secondary schools, schools for special classes, private schools, or instructed at home raise the total number under instruction to 819,438. The remaining number, 72,889, includes 51,518 who had finished the obligatory course of instruction; 3,269 sick or infirm; 14,408 were temporarily prevented from attending school by family conditions, including poverty, extreme distance from school, etc. The close supervision of the school population shows that only 3,694 children,

$5\frac{1}{10}$ per cent, were without instruction. The total expenditure for primary education was 44,788,092 crowns ($12,003,208). Of the total the State contributed 28 per cent; the remainder was provided by local authorities.

SECONDARY AND HIGHER EDUCATION.

The principle of adaptation, which is clearly shown in the classification of primary schools, is equally marked in the provision for secondary education. The schools of this order comprise the lower secondary school (realskola) which has four one-year classes and leads to the higher secondary school examination (studentexamen). The course of the higher secondary school (gymnasium) comprises four years in continuance of the fifth year of the realskola. Thus the complete course of the higher secondary schools covers nine years of study. The gymnasium itself is divided into two parallel sections, one a Latin section, the other modern. In 1913 there were 77 public secondary schools, 39 belonging to the lower class (realskola), and 38 to the higher. Of the latter, 4 offered only the Latin course, 7 only the modern course, and 27 were organized with parallel sections. The registration in both classes of secondary schools was 24,129. Of this number about 73 per cent were in the lower schools, 15 per cent in the modern section of the gymnasium, and 12 per cent in the Latin course.

The universities were attended in 1913 by 3,734 students; 2,419 at Upsala; 1,315 at Lund. There are also a State faculty of medicine in Stockholm (395 students) and private universities in Stockholm (philosophical and law faculties with 675 students and 97 auditors) and Göteborg (philosophical faculty with 224 students).

The growing importance of increased provision for technical and commercial education led to the appointment of the technical commission already referred to and measures are pending for increasing the number of schools of this order.

NORWAY.

DISTINCTION BETWEEN RURAL AND URBAN SCHOOLS.

The special need of government intervention and support in respect to rural schools has been recognized in Norway by making them the subject of laws and regulations distinct from those applicable to urban schools. The official statistics continue the distinction and thus emphasize the principle of local adaptation. For the latest year reported (1910) the elementary rural schools numbered 5,987, with 280,121 pupils and 5,838 teachers (men, 4,297; women, 1,541). The urban schools were organized in 3,241 classes, with 96,602 pupils and 2,725 teachers (men, 923; women, 1,802).

The expenditure for both classes of public schools amounted to Kr. 15,845,302 (about four and one-fourth million dollars). Of this total Kr. 8,972,666 (a little more than two and one-half million dollars) went to the rural schools. Thus it appears that the public rural schools in 1910 enrolled 74 per cent of all elementary pupils, employed 68 per cent of the teachers, and expended 56 per cent of the public funds allowed for the service. These proportions differ little from those of 1905.[1] As regards the number of years, the period of compulsory school attendance is the same for all schools. The period of annual attendance, however, is much shorter in the country than in the cities. Recent efforts of the Government have been particularly directed to extending the school life of country children and improving the qualifications of rural teachers.

The adaptation of the rural schools to the conditions of country life is accomplished in two ways: (1) By the organization of a school in two or more classes attending separately; (2) by means of ambulatory schools. The former arrangement makes it possible to meet the needs of children of varying degrees of advancement or differing in industrial needs. Ambulatory schools are for the children of isolated farms, the traveling teacher passing from one to another according to a fixed schedule. In 1910 the schools of 4,380 districts were organized in sections for separate classes corresponding to half-time schools in the United States. There were also 91 ambulatory schools reported. The remaining district schools, 1,607 in number, were conducted as full-time schools. The period of compulsory school attendance covers the ages 6½ to 14 in rural districts as against 7 to 14 in the cities; the annual term in the country school, however, is only from 12 to 15 weeks against 40 weeks in the cities. A large proportion of the children (52 per cent) in 1910 attended the rural school for the shortest period; the average number of days of school attendance for each pupil in the country was 73.8 as against 235 days for each pupil in urban schools. The corresponding figures for 1905 were 72 days for the rural pupil and 231.3 for the urban.

Distinction between rural and urban schools is indicated by the difference in the salaries of the teachers, which is the more noticeable because practically all the teachers have special preparation for their work. For instance, in 1910, of the whole number of rural teachers only 118 (66 men, 52 women) had not secured the State diploma. In the cities the annual salaries, as reported in 1910, ranged for men from 1,200 crowns ($321) to 5,200 crowns ($1,393), and for women from 800 crowns ($214.40) to 2,150 crowns ($576.20); for the rural schools the average salary only was reported, namely, 935 crowns ($250), an increase of 204 crowns ($54.67) since 1905.

[1] The statistics are published quinquennially.

The particulars given show plainly the need of improvement in the system of primary education. A movement in this direction was begun by the law of 1909, effective January 1, 1910, which provided for the increase of all salaries with a further augmentation after a certain term of service. This law also raised the contribution from the State treasury for this purpose from 33 to 45 per cent of the amount locally raised for salaries. For the year 1914 the State appropriated 4,400,000 crowns ($1,258,400). Of this amount a little more than one-half, 2,340,000 crowns, was assigned to rural schools.

The obligatory subjects of instruction are the same for all primary schools. They include religion, Norwegian, arithmetic, writing, geography, history, natural sciences, and singing. Every school is obliged also to furnish instruction in manual work, physical exercises, or drawing. Provision is also made for optional branches, which are taught in extra hours. In 1910 about one-fifth of the pupils in rural schools availed themselves of this provision.

As regards the language of instruction, it is stated that in 1910, 4,630 districts had adopted the ordinary language (riksmaal); the remaining 1,360 districts used the literary language (landsmaal).

CONTINUATION AND HIGH SCHOOLS.

Endeavors were also made to increase the number of continuation schools and county (amt) high schools accessible to children in the country, and to adapt the courses of instruction to their special requirements. The number of county high schools having subventions from the State in 1910, was 63, of which 25 were private. These schools are all coeducational and have courses of instruction lasting from six to seven months in the year. Short courses of two to three months are also arranged for young women. The enrollment in the year referred to was 2,996 (1,630 boys, 1,366 girls). Continuation schools were also maintained in connection with 182 rural schools. The courses offered were followed by 1,893 boys and 1,071 girls.

While the need of equalizing school provision for country and city children is apparent, the instruction is so excellent that illiteracy is practically eliminated from the Kingdom. Great attention has also been paid in Norway to industrial or vocational education. The schools of this class, however, have recently been placed under the department of agriculture and do not come within the scope of the report here considered.

Liberal provision is also made for secondary education leading to specialized courses of the university of Christiania. The road to these higher advantages is open to all classes of the people.

DENMARK.

SPECIAL AGENCIES OF EDUCATION.

The system of education in Denmark and its main features have been the subject of extended accounts in recent publications of this office. Attention has been particularly called to the Danish folk high schools, maintained by private enterprise and State subsidies, which have had a remarkable effect in preserving among the country people the spirit of patriotism and the sense of their public relations and responsibilities. Extended accounts have also been given of the agencies for promoting scientific agriculture and distributive cooperation. It is recognized that these agencies have depended for their success upon the general intelligence of the people. Public efforts in Denmark, however, have not been limited to the elements of industrial prosperity and the means of intellectual development, the physical well-being of the people has also been a subject of great interest.

WELFARE SERVICES.

Relation to school hygiene.—The service of school hygiene and medical inspection in Denmark is supplemented by various agencies concerned in the welfare of the home and the continued promotion of the health of the young after the school period is completed. The school physician and sanitary expert act as intermediaries between the school, the home, physicians, hospitals, and other institutions. The agencies for promoting the physical well-being of children outside of school include sanatoriums for scrofulous and tubercular children, fresh air colonies for anaemic and underfed children, and charitable societies and institutions for the care of poor and needy children while they attend school.

Of the entire population of Denmark (two and one-half million) nearly one-third live in Copenhagen, where all forms of poverty are encountered. Naturally, here, too, are located the principal charitable institutions for the care of children. As the winters in Denmark are humid and not adapted to outdoor sports as in Norway and Sweden, efforts for giving poor and sickly city children the benefits of outdoor life are necessarily limited to the summer months.

Sanatoriums and open-air colonies.—The maritime hospital of Refsnæs is so organized that the children admitted may be kept out of doors whenever possible. For those too feeble for such exposure open balconies are provided where they lie and breathe the tonic air of the sea. The open-air treatment is combined with good food, regular walks, and other exercises. For children who remain long, school instruction with appropriate gymnastics is provided; manual work, carpentry, brushmaking, etc., are also taught, the purpose being to amuse and divert the children while their minds and bodies are developed. Similar in organization are the maritime hospital

of Juelsminde and the maritime sanatorium for scrofulous children of the commune of Fredericksburg.

The movement for establishing open-air colonies was started in Copenhagen in 1905 by private effort and has become the object of four or five flourishing societies. Among them is a colony founded by the journal *Politiken*, of Copenhagen, and a second by the public-school teachers of the city. The colonies have steadily developed and accommodate at present about 500 children every year.

School lunches.—The work of providing school lunches at a very small cost, or free if necessary, is carried on very systematically in Copenhagen. It was started by a public school teacher whose sympathies were excited by the appearance of poor children in her own classes, and at present is maintained by several societies. The city grants subsidies for this work, and the King and Queen both contribute liberally to its support. It is estimated that in the winter about 17 per cent of the school children of Copenhagen are thus nourished. Other societies give aid in the way of clothing and shoes. From Copenhagen this charitable work has spread to other cities of the Kingdom.

Public gardens for children.—In agreement with the idea of Froebel that a child should be educated according to the natural faculties and tendencies, 12 public gardens for children are maintained by local societies. The majority of the gardens are situated in the suburbs of Copenhagen; instruction is given in them four hours daily (ordinarily from 9 to 1 p. m.) by women teachers specially prepared in the Froebel Normal School. Children from 3 to 6 years of age are admitted to the gardens, and mothers may come with them, bringing their sewing and similar work. Meetings of the parents are also held when lectures are given on educational subjects and the care of children.

School gardens.—The Danes are an agricultural people and the idea of school gardens has been adopted by them with great enthusiasm, State, commune, and private citizens all cooperating for its promotion. Each pupil receives a plat to cultivate; the teacher furnishes the seeds and plants, gives advice, and maintains order. Special lectures in agriculture prepare teachers for the work. The children go to their gardens regularly at appointed times each week, without compulsion; if, however, a child is absent a certain number of times he loses his plat of ground. The main point, and that which constitutes the attraction of the garden, is the sense of being a cultivator and proprietor, for all that is raised belongs to the young gardener. This healthful and easy work imparts new impressions to the children and a taste for simple pleasures. It is for them a "return to nature."

Public playgrounds, swimming pools, gymnasiums, etc.—The Playground Society of Copenhagen, founded in 1891, receives aid

from the city. Through its efforts places in the public parks of the city are generally reserved for the sports of children, and also in the large athletic park which was opened to the public in 1908. Swimming is universally taught and is compulsory in 18 public schools of the capital. Ample facilities for this exercise are provided even in small communes. Besides instruction in gymnastics in the public schools, voluntary societies are formed throughout the Kingdom for encouraging the practice of shooting and gymnastic exercises. There are at least 200 gymnasiums in Denmark, maintained at an average annual expenditure of about 6,500 crowns ($1,700). In 1907 the legislature passed a law providing that one-half the cost of gymnasiums created by the communes should be borne by the Government.

School excursions.—School excursions are arranged for periods of two to eight days, and even for longer periods. In the latter case they become extended itineraries into adjoining countries, occupying two or three weeks. Generally 30 boys, accompanied by three or four professors, make up the excursion party; they travel on foot or by bicycles. One of the main purposes of these excursions is to give the boys familiarity with matters that can not be learned at school, such as the operations of industrial establishments, works of art, etc., all of which are explained by the professors in an informal way, the pedagogical results of the excursions being considered more important even than the physical exercise. For the smaller boys and for girls, vacation excursions to the country are arranged, or longer visits when the children may remain from four to five weeks, living in families which offer them hospitality. Excursions to the capital city, lasting from one to four days, are fostered by a society which receives a grant from the Government.

A school association.—The Voluntary Union of Boys is the most notable of school societies and resembles both in its organization and purposes the Boy Scouts. The union brings together boys of all classes; all submit to the same discipline; smoking and the use of alcoholic drinks are prohibited. Boys are admitted from the age of 11 to 12 and are advanced each year to a higher grade or class. Every 15 days each section meets to sing, hold conferences, or hear instructive lectures.

This association promotes gymnastics and walking exercises, rowing and swimming, and extended excursions. Several sections have ambulance classes for instruction in first aid to the sick and injured.

The society has 45 branches in different parts of Denmark; the membership is about 6,000.

The underlying principle of all hygenic efforts in the interests of the youth of Denmark, whether related directly to the schools or carried out by agencies outside of the school, is that of assuring the future welfare of the Kingdom by protecting and providing for the rising generation.

CHAPTER XXXI.

SIGNIFICANT EVENTS IN THE COUNTRIES OF WESTERN AND CENTRAL EUROPE.

GENERAL CONDITIONS.

Since the breaking out of hostilities in August, 1914, no comprehensive reports dealing with education have been published in the countries of western and central Europe involved in the war. The current educational journals in all the countries referred to are almost entirely given over to discussions of the struggle and records of the devotion and bravery of students and teachers who have gone to the front and the roll of the honorable dead whom their surviving comrades pledge themselves to keep in perpetual memory. Under these circumstances it must suffice to note here significant events and activities pertaining to education that occurred in the scholastic year 1914–15.

FRANCE.

SIGNIFICANT EVENTS.

The budget for the minister of public instruction in France for the year 1914 carried a total of 345,040,345 francs (in round numbers $69,000,000), not including 21,526,064 francs ($4,300,000) for fine arts. The estimates for education proper exceed those for 1913 by above $7,000,000, irrespective of a special grant of 168,000 francs ($33,000) to be used in relief of men of letters disabled by the war and in aid of the widows and minor orphans of teachers who have given their lives for their country. Of the total amount for education proper above 77 per cent was for the service of primary instruction.

Great efforts have been made during the year to maintain and increase the attendance upon elementary schools as a means of guarding children against the dangers arising from the disturbed condition of nearly all communities. These efforts seem to have been successful in respect to the children of very tender years, but industrial necessities have forced a large proportion of the older boys and girls of school age to take up work in shops, on farms, etc. It need hardly be said that the majority of professors and students in the higher institutions and in the upper classes of the secondary schools have been called to the seat of conflict.

According to a report of April, 1915, 134 colleges in France out of a total of 200 (not including those of the Academy of Lille) had been occupied for hospital purposes either wholly or in part. It was therefore necessary to provide temporary accommodations for the pupils, which was accomplished by the hearty efforts of the communal authorities and private citizens and associations.

At the same time it was reported that the places of a large proportion of professors who were serving in the army were supplied from various sources. Professors that had been retired on account of age were called back to the service, and in places where there were colleges for young girls the women professors assisted freely in the classes of the colleges for boys. The same willingness to serve was shown by men in various lines of professional life who had passed the age for service in the army. Engineers became professors of mathematics, and pharmacists and dentists professors of chemistry and natural sciences, and lawyers and judges revived their classical studies and took classes in Latin and history. In a few cases young university students also gave their services as teachers in the colleges and pursued their studies in the evenings.

The annual meeting of the Institute of France convened under the presidency of Dr. Paul-Emile Appell, one of the most distinguished scientific men of Europe. In his inaugural address Dr. Appell characterized as follows the extraordinary circumstances under which the meeting was held. He said:

> The greatest honor of which a savant can dream is that of presiding at a public session of the Institute of France, that illustrious society which among all groups of academies existing in different countries presents a unique feature of uniting in one letters, arts and sciences, grace, beauty, truth—a union essentially French, a characteristic of the genius of our nation.
>
> By chance it has happened that under circumstances the most tragic which the modern world has known this presidency is occupied by an Alsatian, a citizen of Strassburg. Thus Alsace finds itself in the person of one of its sons in the first place in this august assembly.
>
> For three months our country has been engaged in a gigantic drama without precedent in the history of the world; this has brought into a desperate struggle two opposite conceptions of the future civilization of our planet, this little globe lost in space whose ephemeral inhabitants have nothing to live for apart from that vision of the ideal which they carry in their souls.

Among the scientific events of the year which were specially noted by Dr. Appell were the following:

> The unveiling of the monument of our colleague, Marcy, one of those men to whom modern physiology owes so much.
>
> The construction by French physicists of a huge electromagnet, in which the intensity and dimensions of the field were to be much greater than those of the most powerful apparatus in current use.

Struck with the importance of this work the council of the Faculty of Science of Paris contributed a sum of 50,000 francs to

its support, and Prince Bonaparte, who has always responded generously to every demand of this nature, secured the appointment of an official committee to study the conditions necessary for the completion of this undertaking. The results of the consideration of this study were summed up by Dr. Appell as follows:

> Without quoting any names, the conclusions may be summarized thus: It is desirable that an important laboratory of magnetic research should be created; this laboratory should be placed under the patronage of the academy and administered by the University of Paris; in this laboratory should be installed the most powerful electromagnets of the types chosen.

The opening address was followed by an eloquent discourse by M. Henri Bergson, president of the Academy of Moral and Political Sciences, who traced the movement of the German mind from the idealism of Kant to the influences which have precipitated the present struggle.

The union of Latin countries was celebrated with brilliant ceremony at the Sorbonne, February 12, 1915, under the direction of M. Paul Deschanel, the president of the French Chamber of Deputies. In his opening address M. Deschanel characterized as follows the nations represented in that assembly:

> Here in our ancient Sorbonne behold the Latin family reunited.
>
> First, the eldest, the grand initiator, Greece, source of all light, Pallas Athene, who saved European civilization from Asiatic barbarism; then Italy, who saved it from the African invasion—Italy, which sends us to-day its great historian, its great poet, its great soldier Ferrero, who vivifies history by sociology, pictures the men of antiquity as if they were alive, and recently celebrating at the capitol the anniversary of the foundation of Rome, evoked with pious fervor the Latin tradition; d'Annunzio, the fervent poet of the Eternal City, born upon the shores of the Adriatic and mourning Trieste exiled; Ricciotti Garibaldi, whom Paris honors to-day, whose father fought in 1859 in the Alps while we were struggling at Magenta and Solferino; Ricciotti Garibaldi, who has generously given for us his own son.
>
> Then our other sister, glorious Spain, the soul of chivalry, teacher of valor and honor, represented here by its courageous romancer, Blasco Ibanez; and Portugal, who also has borne to distant shores the ardor of the Latin spirit.

Belgium and Roumania were included in similar characterizations, and the Latin countries were described as a "family united in its magnificent diversity, united to-day because the ancient rivalry between the Latin peoples has no longer reason for existence, the shadows have disappeared, all the interests are united."

SWITZERLAND.

NATIONAL EXPOSITION AT BERNE.

In the summer of 1914 a national exposition was held at Berne, Switzerland, to celebrate and exploit the progress of the nation. An important feature of the exposition was the educational exhibit

which set forth in a very striking manner the chief elements of national strength in the confederation. Deprived of great natural resources, this country has succeeded by its determination and ingenuity in creating national industries which have secured for it an important place in the world's trade. These industries have been fostered and developed by the aid of industrial and technical schools. More important yet are the social institutions for mutual aid and succor and the labor legislation and bureaus which are worthy of imitation by all other countries. In few countries of the world is public education so highly developed, but the dangers of official routine have been avoided by the encouragement everywhere given to private initiative, fo rit is in private schools that scientific education finds a fruitful field for its experiments and new departures.

One of the most instructive divisions of the educational exhibit referred to was that in which the private schools were displayed. Among the collections that excited special attention were a series of charts contributed by the College of Geneva, illustrating the use of pictures in the teaching of literature. They included movable pictures comprising portraits, caricatures, views of buildings, costumes, monuments, etc., relating to the author or the period studied. In this collection naturally pictures relating to Rousseau were prominent. The scientific college of Lausanne contributed a collection formed by the pupils themselves, illustrating the development of artistic glassware. Similar collections were shown by other schools, indicating the manner in which the pupils are induced to develop the subjects that they are studying by illustrative collections. The prevailing interest in educational psychology was indicated by monographs from different institutions treating of modern psychological methods and features. Among the subjects thus elaborated were the tests of Binet and Simon, experimental tests of memory, and psychologic observation of pupils from 12 to 15 years of age. Gymnastic training, which has been carried to high perfection in Swiss schools, was illustrated by a chart from the secondary school of the Canton Thurgovia, and a program of school excursions by a chart from the school for boys in Fribourg.

The Society for the Promotion of Manual Training made a graphic exhibit of its admirable methods as applied to pupils of different ages in the schools for both general and vocational education.

A NOTABLE INTERNATIONAL CONFERENCE.

One of the most remarkable meetings held during the year was the International Conference of Socialist Women, which convened at Berne in March, 1915. It is a forecast of the new responsibilities that are coming to women as a consequence of the war.

The meeting furnished an occasion for reviewing the measures planned and carried out by organized bodies of women for meeting present social exigencies in the several nations. In these efforts teachers have been especially active; their knowledge of the child population has enabled them to direct relief services in the most practical and economical manner, while at the same time their professional training has been of great value in the work of instructing women of the humbler classes in various forms of remunerative labor.

The conference called together representative women from the neutral States of Holland, Italy, and Switzerland, and from the belligerent countries, England, France, Germany, and Russia. Resolutions were passed denouncing war and calling for a solid basis of peace.

EDUCATION FOR COLONIAL SERVICE AND ACTIVITIES.

In that era of expansion which preceded the catastrophe of war and which found its highest expression in scientific researches and their practical applications to social and industrial activities which promised to bind all men together by the sense of their common humanity and needs, preparation for colonial service and activities occupied the attention of humanitarians and statesmen in the leading countries of Europe. This interest led in several quarters to an examination of the existing agencies for this special purpose. The importance of the subject has been enhanced by the war and it still holds a place in public discussions of future Government policies. A brief consideration of existing centers for this work may, therefore, well claim attention.

Although the colonial possessions of the British Government greatly exceed those under any other power, England has no institution devoted entirely to the preparation of candidates for service in the colonies. The need of such an institution, particularly in the interests of the Indian Empire, has been prominent in discussions and projects for the organization of London University and was foreshadowed by the establishment of the Imperial Institute.

At present the higher civil administration of British India is recruited from the following sources: (1) Open competitive examination in England; (2) the Indian army; (3) the patronage of the secretary of state; (4) the patronage of the local governments. The universities and higher technical schools of Great Britain and Ireland bear a part in the preparation of candidates for this service. At Oxford there is a special delegacy for superintending the instruction of India civil-service candidates, and one of the most important adjuncts of the university is the India Institute, which has a corps

of curators all of whom are specialists in some one of the departments in which are comprised the collections of the institute.

At Cambridge a board of Indian civil-service studies is constituted, the principal function of which is—

> to provide from time to time, for Indian civil-service students resident at Cambridge, such assistance in preparing for their final examinations, and also such special supervision, as they may think necessary, applying for that purpose such funds as may be assigned to them from time to time by the senate.

Trinity College, Dublin, is on the list of institutions in which selected candidates for the civil service of India are permitted to reside during their year of probation which follows the passage of the open competition examination for the Indian civil service. During this period the students at Trinity have facilities for completing their studies in Oriental languages and Indian law and history.

In France provision for the preparation of men for colonial service has grown out of the passion for knowledge which developed in the early part of the eighteenth century and which led to the establishment of highly specialized schools. Among these were the School of Living Oriental Languages, the Museum of Natural History, a great school of research equipped with facilities for instruction and investigation in every department of organic and inorganic matter, and the École Pratique des Hautes Etudes, which in the departments of history, philology, and the section on religion added in 1885, promoted comparative study of the sciences relating to the social and spiritual development of the human race. These schools were maintained in the interests of savants and not for administrators, directors of industry, or agriculturists. The more recent extension of the universities by means of faculties, laboratories, libraries, etc., has vastly multiplied the provision for these various orders of specialized study.

The possession of Algiers awakened the French Government to the importance of the practical preparation of young men for the development of that tropical country, but provision for this purpose was directed to preparation for the climatic conditions and changed environment and for the direction of agricultural enterprises. The modern colonial policy of France originated with Jules Ferry, minister of foreign affairs from 1883 to 1885, and represented in Indo-China by Paul Bert, governor general. Under this administration a system of education for the natives was organized, having for one of its purposes their preparation for official positions; in 1885 a company of young Cambodians specially selected was sent to the École Coloniale at Paris in order that they might be prepared for public service upon their return. The school, which is maintained in part by subventions from the State, has had large development in the last decade, and at present comprises sections for the study of matters pertaining to Indo-China and to Africa, including special courses

in penitentiary administration and the customary forms of native civil tribunals.

Among other centers in France affording a high order of preparation and the direction and administration of colonial affairs and enterprises should be mentioned the colonial institutes auxiliary to the Universities of Bordeaux and Nancy; the Institute of Colonial Medicine at the University of Paris and the School of Colonial Medicine of the University of Marseille; the Higher School of Colonial Agriculture at Nogent-sur-Marne and the Colonial Schools of Agriculture at Tunis and Phillipeville in Algeria. The higher commercial school at Paris (École des Hautes Études commerciales), which requires the same preparation for admission as the universities, includes an important section of colonial commerce.

In the development of this work in France there was a noticeable lack of attention to administrative science. This deficiency was met by the establishment at Paris of the École Libre des Sciences Politiques, which from the first directed its efforts toward this higher purpose, emphasizing in its program the matters relating to colonial conditions. The course of study for the colonial section is comprehensive and the scope of each subject precisely defined. The school was founded by M. E. Boutmy, and includes in its faculty many distinguished French pubilicists and economists, among them Pierre Leroy-Beaulieu, R. Georges Levy, René Pinon, and Émile Bourgeois.

The colonial possessions of the Dutch in Malaysia form the greatest empire of dependent people in the world, excepting only that of the British Empire in India. The preparation of officials for the East Indian administration and of managers for plantations, etc., has long occupied the attention of the Netherlands Government; measures recently adopted for the education of the natives of East India have increased the services for which special preparation is required.

The Polytechnic School at Delft has been distinguished by the number of its graduates who have been appointed to posts in the East Indies. These young men generally complete their preparation by a post-graduate course of two or three years in the school maintained at Leyden for this special work. Here they are taught the Java, Malay, and Boegine languages. This institution is under the direct control of the minister of the interior, and the head master and teachers are appointed by the sovereign. The State Agricultural College at Wageningen offers a thorough course in colonial agriculture, which is intended for students who desire to go out to the East Indies as assistants or managers of great plantations and who require, in addition to the knowledge of the products to be cultivated and marketed, i. e., sugar, coffee, tea, etc., an elementary knowledge of colonial laws and customs.

In 1892 the Government organized a complete system of education in the East India possessions, which includes two divisions, one for the colonists modeled upon the home system and the other for the natives.

An important feature of the system of native education is the establishment of training schools for native officials. As a rule these schools include a normal department for training native teachers, and a higher section, with courses in jurisprudence, public and administrative law of the Indies, political economy, land surveying, waterways, etc. In 1909 a professional school intended to prepare native magistrates was opened at Batavia.

The last event in the history of colonial education in the Netherlands is the establishment of a university of commerce at Rotterdam, which was opened with imposing ceremonies on November 8, 1913. The university offers extended courses of training for consular and diplomatic examinations and has already applied to the Government for the right of instituting a doctorate in commercial science. This will be open also to students taking the course mentioned. The university is maintained by private funds.

The Hamburg Colonial Institute, Germany, was founded in 1913 largely through the efforts of citizens whose wealth and enterprise gave Germany a place among colonial powers. The project for raising this institute to the university plane has been delayed, but in its equipment for its specialties and in the scheme of study it is unsurpassed. The elaborate scope of instruction may be indicated by an outline of the main subjects comprised in the fourth year of study. These are as follows:

(1) General colonial history of the present time. (2) Colonial historical exercises.—Bookkeeping and knowledge of balances.—Plant nourishment, cultivation and principles of fertilizing.—General zoology, with special study of the animals of different colonial possessions.—Utilization of fishing waters on the coast and in the interior.—Experimental chemistry, particularly concerning the technic of agriculture.—Geological conditions in the German protectorates.—Geography of the German colonies.—Economical geography of Mexico, Central America, and West Indies.—General knowledge of Islam, including the law of Islam.—Ethnology of German colonies.—Studies of English colonial territory.—Hygiene in the Tropics.—Introduction into general phonetic languages, especially considering the African, followed by courses in specified languages.—Construction of houses, roads, and bridges in the colonies.

This comprehensive program is worked out in elaborate detail, each topic being arranged for successive or parallel courses under different professors. For instance, colonial law is treated in three separate courses comprising principles, their application to various situations, and court methods, and extending to administrative practices in colonies under different European Governments. The most original work in charge of the institute is research carried on by the branch for ship and tropical diseases. Of equal importance, and greater popular interest is the systematic study by phonetic

methods of various African and Asiatic languages existing hitherto in unwritten form. Grammars, dictionaries, and textbooks are being compiled for the study of such languages, with the aid of natives resident in Hamburg and of professors who make frequent visits to the countries where such languages are spoken. The broad spirit in which the curriculum has been developed is indicated by the permanent place given to the study of missionary work, which is considered in respect to its intrinsic importance and its relation to national undertakings. The budget of the institute in 1913 amounted to 105,833 marks (about $26,000) and its faculty comprised 21 professors with 14 assistant instructors; the students numbered 83.

GERMANY.

Among the manifestations of vigor on the part of Germany during the past year those relating to education are important, although overshadowed by military affairs. The appropriations by the Prussian Government for education for 1914 amounted to 281,103,937 marks (in round numbers $70,000,000). This was an increase of nearly 10,000,000 marks over the appropriations for 1913. These appropriations form a comparatively small part of the entire expenditure for education, which falls largely upon local authorities or is supplied by the income of invested funds. It is stated that the budget for 1915 shows no decline in this particular.

The amount carried in the budget of 1914 for elementary schools was 180,897,761 marks, which is a little more than one-third of their annual cost. How far local contributions promise to meet the balance is not known at present, excepting in the case of the large cities, which are not only liberally supporting their schools, but providing also for extra welfare services in behalf of children.

Advices indicate that both cities and rural districts have made strenuous efforts to maintain their elementary schools and to insure the attendance of all children not forced by industrial exigencies into various fields of labor. As regards secondary and higher institutions the situation is depressing. It is estimated that 70 per cent of the students of the German universities and at least 80 per cent of the students of the technical high schools are in the conflict; every educational journal recounts deeds of heroism performed by teachers and students, and mourns the losses that are decimating their ranks.

The condition of children bereft of parental guardianship by the war has excited the sympathy of teachers, many of whom have planned excursions, improvement clubs, and social recreations for their pupils out of school hours. In Berlin a kindergarten has been established to care for children from 2 to 6 years of age whose mothers are either unable to support them or must neglect them for their daily work.

In the events of the year the opening of the new university at Frankfort on the Main (Oct. 18, 1914) challenges special attention.

The institution marks a departure from old ideals scarcely less notable than that accomplished by the establishment and operations of the great technical universities. In particular the provision for medical research places the new university among the foremost centers of the world in this respect. It comprises no less than 10 scientific institutions, amply endowed for research and instruction, among which are the Royal Institution of Experimental Therapy and the George Speyer House, under the direction of Dr. Paul Ehrlich. The university starts with an endowment of $2,000,000, and will probably receive liberal annual appropriations from the city. It is estimated that Frankfort already expends above half a million dollars a year on higher education, and the amount could easily be increased. This sum with the original endowment would enable it to rival the chief universities of the ancient type.

Peculiar complications affect the new institution from the fact that the wealth of the city is largely in the hands of Jews and its future depends somewhat upon equal recognition for them in the faculty appointments.

This situation and the civil purposes which have determined in a measure the proposed scope of the university curriculum present a problem of unusual interest in university movements in the Kingdom.

Probable changes in the drift of educational effort as a result of the war have formed the subject of numerous and extended discussions in the educational press of Germany. An article contributed to the Archiv für Pädagogik dwells upon the subjects that will be emphasized in the education of the future, supporting the contention in each case by impressive argument. In the opinion of the writer, technical education will assume new importance; in the teaching of ethics greater stress will be placed upon the rights of the State; and larger recognition, he predicts, will be given to the philosophical elements of the Herbartian pedagogics.

CHAPTER XXXII.

EDUCATION IN SOUTHERN AND SOUTHEASTERN EUROPE.

CONTENTS.—Italy: Educational survey, 1914–15; new commercial school at Milan; international prize contest; statistical summary; illiteracy; the National Association for Pedagogical Studies—Other countries of Southern Europe.

ITALY.[1]

The past year has been noteworthy in Italy for the destruction of elementary schools by the earthquake that devastated large portions of central Italy and the subsequent efforts to provide school facilities for the pupils, by the attempt to make the higher institutions attractive to foreigners, and by discussion of the need for practical experimental schools of agriculture, both of inferior and superior grade. Finally, the war has led to a readjustment of teachers and students to the new conditions.

After arguments by various professors and the Associazione Universitaria Italiana the minister of public instruction has given authority to superior institutions to issue to students inscribed as simple auditors with single courses a certificate for certain sciences or groups of sciences which will be without any legal value in Italy. This is as far as the laws of the country permit him to go. A law is now being sought that will give authority to the superior institutions to confer the doctor's degree in science on anyone who has followed a course for a number of years and has sustained before a university committee a scientific thesis on any subject whatever.

The proposed law is apparently intended to permit a foreign student to make a selection of studies directed toward work of his own liking or work that is more suited to the conditions of his own country, and to make this selection count for him as full credit for the degree of doctor of science. It is contended that while a few Italians may take advantage of this privilege—which is not regarded as altogether desirable in the present state of affairs—certainly all foreigners will do so, and more foreign students will be attracted to Italian institutions of higher learning for the very reason that the privilege of selecting their own studies is granted to them.

[1] By W. W. Sniffin, of the office staff.

As early as July, 1914, numerous requests were being received at the Ministry of Public Instruction from communes desiring to obtain autonomy in the administration of their schools. At least 4,000 such requests were made. Agitation by the clericals also has been made in the past year for the same purpose.

The preponderance of women over men in the position of teacher is demonstrated by the fact that in conformity with the law of June 4, 1911, and the regulation of April 6, 1913, out of 10,179 vacant positions 8,911 were for women and 1,268 for men. No position for men was vacant in Sardinia.

A change in the ministry took place in November of last year when Signor Grippo, who had been minister before, was given the portfolio again. One of his first acts was to issue a circular to the officials of his department urging them to promote the institution of infant schools.

Moving pictures are now coming to be used in Italy for educational purposes. A moving-picture establishment was opened last November in Rome in the "Calidarium" of the Thermal Baths of Diocletian under the auspices of the national institute "Minerva."

Various educational congresses have been held in Italy during the past year. On July 26 and 27 an important congress was held at Naples for the purpose of discussing in detail questions relative to the economic condition of teachers and to the organization and daily program of the classes. Teachers' congresses were held in September in Calabria, the Marches, and Piedmont, and in December one was held at Terni in Umbria.

NEW COMMERCIAL SCHOOL AT MILAN.

With the first days of January, 1915, there was opened at Milan a special autonomous commercial school, which is intended to furnish rational medico-pedagogical assistance to the real abnormal students (weak-minded and those of unstable nervous systems) who are excluded from the elementary commercial schools. The school was founded by the efforts of a private committee and is assisted by the commune. It is named in memory of Prof. Zaccaria Treves, who in the short time that he devoted to the studies of pedagogy and applied psychology during his term of office as director of the Civic Laboratory of Psychology and Pedagogy of Milan had applied himself sincerely and seriously to the problem of assisting abnormal pupils and had laid the fundamental bases for the creation of the first school. The committee, taking its inspiration from Prof. Treves's ideas, pushed the work forward, and now, in due recognition of his work, the school rises with his name.

Children of both sexes, from 6 to 12 years of age, will be received up to the limit of 50 pupils. They will be selected by a suitable

commission. The school will give accurate medical assistance, with the application of the hygienic ideas of work, gymnastics, life outdoors, feeding, baths, medicinal treatments, electrical applications, etc.; the education of defectives in the matter of language, of attention, etc.; the instruction to those judged capable of receiving it. For this purpose the school includes a preparatory course. The various categories of students will be instructed by the De Sanctis method of scholastic rotation.

The control of the school is entrusted to the school physician of the office of hygiene, Dr. Alfredo Albertini, and the instruction to two teachers of literary subjects, two extra teachers, and also a teacher of physical education. The treatment for correct phonetics is entrusted to Prof. Giulio Ferreri, director of the National Institute for Deaf Mutes, who, with the personnel of that institute, will assist in the special commercial school.

INTERNATIONAL PRIZE CONTEST.

The Ministry of Public Instruction has been enabled through the generosity of Emilio Treves, an Italian civil engineer, to offer a prize of 10,000 lire to the successful contestant in an international contest to be held with the view of combating racial and religious hatred, and especially antisemitism. Conditions governing the contest have been established by the Minister of Public Instruction in a decree issued during the past year. The contest will close on February 1, 1916.

Statistical summary.

SUBELEMENTARY INSTITUTIONS AND ELEMENTARY SCHOOLS.

School year.	Subelementary institutions.			Elementary day schools.			
	Infant schools.		Orphan asylums.	Public.		Private.	
	Number.	Pupils.	Pupils.	Classes.	Pupils.	Classes.	Pupils.
1901–2	3,314	355,594		53,259	2,578,583	8,518	184,766
1907–8	3,576	343,563	34,900	61,497	3,002,168	6,534	148,081

EVENING, HOLIDAY, AND AUTUMNAL SCHOOLS.

School year.	Old style.			New style.		
	Number of evening schools.	Number of holiday and autumnal schools.	Pupils.	Number of evening and holiday schools.	Number of pupils enrolled.	Number of pupils in constant attendance.
1901–2	3,010	2,394	178,311	.....	.....	.....
1907–8	3,068	769	.....	3,469	182,373	127,948

Secondary education, 1911–12.

Classes of institutions.	Number of institutions.		Number of pupils (including auditors).				
	Public.	Private.	Public schools.	Private schools.	Total.		
					Boys.	Girls.	Total.
Normal schools {Male	39	2	20,264	697	3,727	17,234	20,961
Normal schools {Female	96	39					
Complementary schools	104	102	21,500	2,754	.....	24,254	24,254
Gimnasi	293	236	39,115	9,291	42,837	5,569	48,406
Licei	164	73	14,173	1,694	14,994	873	15,867
Technical schools	342	188	85,476	8,555	70,219	23,812	94,031
Technical institutes	79	22	21,137	1,044	20,555	1,626	22,181
Nautical institutes	20	.....	1,730	.....	1,730	.....	1,730

Special secondary schools, 1912–13.

	Number.	Students.
Special and practical schools of agriculture	35	1,716
Mining schools	3	59
Industrial and commercial schools	510	[1] 50,550
Institutes of fine arts	26	4,362
Institutes of conservatories of music	51	5,569

[1] Exclusive of students in commercial schools; figures not known.

Universities and other higher institutions.

Classes.	Number.	Students.
Universities and university schools annexed to royal licei	24	23,376
University institutes, schools of higher education for women, and special higher institutes	28	7,251

MILITARY INSTITUTES.

Military schools	12	3,630
Naval schools	4	586

ILLITERACY.

Between 1872 and 1911 illiteracy was reduced from 68.8 per cent to 37.6 per cent.[1] The highest rate of illiteracy in 1911 was found in Reggio di Calabria (70.6 per cent) and the lowest was in Torino (7.8 per cent). Forty-eight and a half per cent of the population of Italy over 6 years of age was illiterate in 1901. The actual number of illiterates over 6 years of age was reduced from 13,351,058 in 1901 to 11,050,454 in 1911. Recent advices indicate that the decline in illiteracy since 1911 has been accelerated, but no statistics are available.

[1] Statistics are from Annuario statistico italiano for 1913 (latest published), issued by Direzione Generale della Statistica e del Lavoro.

Illiteracy in Italy in 1911.

ILLITERATES 6 YEARS OF AGE AND OVER.

Males.		Females.		Both sexes.	
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
4,671,674	32.6	6,378,780	42.4	11,050,454	37.6

ILLITERATES 21 YEARS OF AGE AND OVER.

Males.		Females.		Both sexes.	
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
3,165,345	34.7	4,747,082	48.5	7,912,427	41.8

There has also been a substantial decrease in illiteracy among conscripts for the military and naval forces and among persons applying for marriage licenses. The following table shows the number of such illiterates:

Year.	Married couples.					Conscripts.				
	Number.		Per cent.			Army.			Navy.	
	Husbands.	Wives.	Both sexes.	Husbands.	Wives.	Entire number.	Enrolled.	Per cent.	Entire number.	Per cent.
1907	73,229	104,701	34.2	28.2	40.3	136,659	54,737	31.1	6,610	48.5
1908	80,344	115,381	34.6	28.4	40.7	133,003	53,530	30.5	7,128	49.2
1909	68,178	100,089	31.6	25.6	37.6	155,262	70,757	34.8	7,405	45.0
1910	65,746	98,905	30.8	24.8	36.8	136,477	68,274	32.3	6,662	41.6
1911	61,347	91,179	29.3	23.6	35.0	132,312	63,608	30.5	7,074	40.3

THE NATIONAL ASSOCIATION FOR PEDAGOGICAL STUDIES.

The first part of the year 1915 witnessed a two-day convention of the National Association for Pedagogical Studies (Associazione Nazionale per gli Studi Pedagogici). The president of this organization is Prof. Luigi Credaro, and the vice presidents are Profs. P. Vecchia and S. de Sanctis. Among the councilors are such well-known Italian educators as G. Vidari, F. Orestano, T. Armani, P. Grossi, R. Resta, L. Sferra-Carini, and G. Cabrini.

Plans for the administrative reorganization of the association were discussed. The suggestion was made and widely supported that the association put into action a program of ideas which might be a common policy for those filling the office of president, or otherwise, it was claimed, the presidency would remain the expression of a simple administrative organization.

Discussion then followed regarding the purposes of the association. Prof. De Sanctis proposed the immediate resumption of the study of certain problems, vital to the school, which have hitherto been opposed unjustly or poorly applied—for example, the question of school physicians, of afternoon instruction, and of children's gardens. Prof. Vecchia urged that the association contribute in the work of the revision of the programs of instruction in secondary and normal schools.

Prof. Armani, at the instance of the president, set forth the program proposed at the preceding convention of the association. The salient points of this program that he regarded as still valuable are the following: The internal reorganization of the association with a view to renewing the membership of the associates and extending the term of the committees; the compilation of an inventory of the property belonging to the association now deposited in the Pedagogical Museum of the Royal University; the distribution of the work of the committees in such a way that each councilor would be responsible for the progress of a group of committees; the plan to entrust the committees with historical studies concerning the local scholastic institutions; and the study of the science of educational motion pictures, to which Prof. Orestano has given the benefit of his learning and experience.

Prof. Vidari dwelt especially on the theme of agreeing on a fixed policy for the association. He maintained the necessity for attracting into the ranks of the association the professors of secondary schools, who had remained away from it perhaps because it had seemed that the work developed by the association had not till then touched on problems vital to the secondary school. He ended by proposing that the association should seek to arouse the consciousness of the Italian people concerning the importance of national culture, to reorganize the committees, and to study what connections the association could have with allied associations which are continually coming into existence.

Prof. Orestano urged the association to formulate a program with themes and relative rewards to be proposed to the various committees and to students of scholastic and pedagogical subjects. In this connection he suggested the following: The history of Italian pedagogy and the study of scholastic institutions in the various regions before the unity of Italy in 1870. He considered it desirable to come to an understanding with the university supervisors of pedagogy to entrust to doctorate students themes concerning studies of local scholastic institutions, and recommended that they agree with some publisher for the reproduction of the classical works of Italian pedagogy. The subject of the expense involved in this undertaking was not

considered serious, because, it was argued, publication would bring economic advantages to the association in the future.

The president, Prof. Credaro, concurred fully in the need of having the history of pedagogy in Italy studied and affirmed the desirability of beginning these studies with the Renaissance. He then spoke of the national and scientific value of a history of Italian pedagogy and maintained that along with these studies of historical research others of an experimental and scientific character ought to be cultivated, which Prof. De Sanctis could indicate. He proposed the nomination of a committee which would prepare the program for work in the direction set forth by the various speakers.

After some discussion it was agreed to prepare a circular containing these ideas to be sent to the committee and to the members. The preparation of this paper was intrusted to Profs. Vidari and Orestano. On the second day of the convention this circular was submitted by Prof. Orestano, and approved. The purpose of the association, as set forth in the circular, is—

to maintain the consciousness of national ideals and of the civil duties which belong to the people, especially in an hour like the present; to unite the teachers of every order around the standard of conscious, vigilant, and strong national education; to promote by publications, congresses, and historical studies the sense of national work and cordial sympathies toward other people; in short, to fuse all the living though dormant elements of the rising national consciousness into a strong, compact unity of spirit.

To this end the directing council invites the cooperation of all leaders in education thought and activity and in particular seeks to promote the publication of an ample history of Italian pedagogy, a work requiring researches that have never yet been attempted, but which promise rich returns.

PORTUGAL.

Portugal was declared a Republic October 5, 1910, and the new government formally recognized by the powers in September, 1911. The reform of primary education and its extension throughout the country were made prominent in all announcements of the purposes of the new government. A decree providing for the rigid enforcement of the compulsory provision of the school law was one of the first measures adopted, but the continued internal disturbances have made it difficult to carry into effect reform measures. An educational survey authorized by the Government in 1911 disclosed the fact that there were in operation at that time 7,120 primary schools, of which 6,320 were public; neither the enrollment nor the number of teachers employed was ascertained. The lack of school buildings and the totally unsuitable condition of many showed the impossibility of enforcing compulsory school attendance until these conditions should

be remedied. On the contrary secondary schools (numbering 32) were reported as in a flourishing condition. They enrolled in 1911 9,749 students, increased to 10,621 in 1912. The number of university students in 1913 was 2,373, distributed as follows: Lisbon, 823; Coimbra, 1,350; Oporto, 200. The technical school registered 232 students, and the higher school of agriculture 87, both at Lisbon.

SPAIN.

The population of Spain, estimated in December, 1913, at 20,355,986, is comprised in 49 Provinces, varying in population from 97,692 in the Basque Province of Alava to Barcelona with 1,163,242 inhabitants. Prior to 1900 each Province had independent control of primary education, which was so little encouraged that above 40 per cent of the population were at that date illiterate. The alarm excited by this condition caused the Government to intervene as a controlling authority in this interest; in 1900 a ministry of education was created; in 1902 the State assumed the payment of teachers' salaries and provided for the erection of school buildings in cities or districts neglecting this duty; in 1909 a law was passed increasing the authority of the State in respect to the appointment of teachers and the internal conduct of schools; and in 1911 a decree was passed creating the office of general director of primary education. That these measures have had the effect of increasing the number of primary schools and improving their general condition is evident from occasional reports pertaining to particular areas. The latest statistics dealing with the country as a whole are for the year 1908, at which time there were 24,861 public primary schools and 5,212 private primaries, with a total enrollment estimated at about 2,100,000. The total number of schools was an increase of 6,000 over the number given in the census of 1900.

The great industrial and commercial activity in the more progressive Provinces, and particularly in the Province of Barcelona, has stimulated local and private enterprise in respect to the establishment of commercial and industrial schools and led to an increased appreciation of the need of primary education as a factor in the public welfare, and it is believed that the next census will show very decided increase in respect to all the agencies of popular education.

The movement for modern education proceeds slowly, as the educated classes adhere tenaciously to their preference for the long-established literary studies. Secondary education is supplied by 59 institutions, with a registration of about 38,000 pupils. The great purpose of these schools is preparation for the universities.

The Government also supports special schools of engineering, agriculture, architecture, fine arts, music, etc. The development of tech-

nical education is hindered by the want of adequate preparation of students for the higher orders of this special training.

Efforts have been recently made to increase the interest of foreigners in the facilities for study offered by the higher institutions of Spain. Under the auspices of the Minister of Public Instruction and Fine Arts holiday courses for foreigners were opened in the summer of 1912, and the experiment proved so successful that a third course was announced for the summer of 1914, at which time arrangements were made for a continuance of the work in 1915. The holiday courses were organized in general and special sections, the former providing for the study of grammar, literature, history, and the social life of Spain, with intensive study of the nineteenth century. The special section was intended for persons wishing to specialize in the philology and literature of the Spanish language. Visits to the principal museums and art collections of Madrid and other centers of art form a part of the general program.

GREECE.

As a result of changes brought about by the wars with Turkey and Bulgaria nearly 17,000 square miles were added to the territory of Greece and the population very nearly doubled. In 1907 the estimated population of the old territory was 2,765,000; including the new territory it was estimated in 1914 at 4,821,000. This expansion greatly increased the difficulty of making elementary education universal throughout the kingdom, and subsequent events have prevented the carrying out of plans for this purpose. Before these events the compulsory education law, which covered the years 6 to 12, had not been well enforced, as appears from the fact that 30 per cent of the army recruits were illiterate and an additional 15 per cent could only read. In 1912 the Government appropriated some 10,000,000 drachmai (about $2,000,000) for elementary schools. The secondary schools of Greece included 41 gymnasia modeled after those of Germany, 284 middle schools, and 6 commercial schools, having a total enrollment of 31,399, of whom 1,221 were girls. There were also at Athens and Patras Government trade schools, well equipped and supported.

The education of girls has been for a decade or more the subject of great effort on the part of private associations, and this interest gradually engaged the attention of the Government, in view of the growing demand for teachers and the industrial conditions in the chief cities. Early in 1915 arrangements were completed for the construction in the suburbs of Athens of an important school for girls to be known as the Charocopeion Trade School. The proposed course of studies included those usually taught in a high school, with special classes in domestic sciences, household economy, and

trades for which women are especially qualified, such as weaving, spinning, etc. It was expected that the institution would draw pupils from all parts of Greece and that in turn they would instruct their neighbors in the practical arts thus acquired. The patronage of the Queen of Greece seemed to assure the success of this enterprise.

Greek Macedonia, acquired as a result of the recent wars, includes a population of a million and a quarter. Agriculture is the principal industry of this region and yields rich returns in spite of primitive methods of cultivation. The Greek Government immediately took measures for developing this industry and improving the condition of the tenant farmers.

During the year 1914 the ministry of national economy of Greece expended more than $16,000 for repairing and equipping the so-called "Model farm of Saloniki," and it was understood that this institution would be designated by the minister as the principal agricultural school in Greece. The school was established about 20 years ago but was little developed under the Turkish régime.

The model farm has three buildings for scholastic purposes (one of which contains a museum and also a chemical laboratory), a station for stock-breeding purposes, and several outbuildings. The new plans include on the material side the construction of a large school building, the supply of modern agricultural machinery and chemical fertilizers; on the industrial side the improvement of the farm lands, the development of the nursery, and provision for a model dairy and vineyards.

An official in charge of the viticulture visits the surrounding villages to give advice to the vine growers. He may also officially quarantine fields infected with phylloxera by directing that no plants from the infected regions shall be brought in contact with healthy plants.

The Thessalonica Agricultural and Industrial Institute is an American mission school and was incorporated in October, 1904, under the laws of the State of New York. The object of this mission school is to give to Macedonian boys an ideal education, which shall include agricultural and industrial as well as spiritual training.[1]

The particulars above given relative to movements in Portugal, Spain, and Greece have been derived chiefly from official correspondence. Even this source of information, for obvious reasons, has failed in the case of the Balkan countries.

[1] From report of the American consul, John E. Kehl, Saloniki, January, 1915.

CHAPTER XXXIII.

EDUCATION IN RUSSIA.[1]

CONTENTS.—Administration—Statistical summary—Higher education—Technical education—Appropriations for education—Work of the laboratory of experimental psychology—Special institutions.

ADMINISTRATION.

The peculiar system of educational administration in Russia was described by Prof. A. Netschayeff, of the Petrograd Laboratory of Experimental Pedagogical Psychology, in a recent address as follows:[2]

Schools in Russia have no administrative center. The various ministries among which, over a hundred years ago, the administration of Russia was divided, have each their own educational institutions. Owing to a long series of complicated historical conditions, the distribution of educational institutions among separate ministries is not subjected to any strict and logical plan. The polytechnic institutes are under the jurisdiction of the ministry of commerce and industry, and the St. Petersburg Technological Institute is under the ministry of public instruction. The schools for agricultural education are, independently of one another, controlled by the ministry of agriculture and the ministry of public instruction. The medical faculties of the universities and the Women's Medical Institute are controlled by the ministry of public instruction; but the Imperial Medical Academy, which, until recently, has trained our most eminent scientists, is under the ministry of war. The Imperial Alexander Lyceum, the purpose of which is to train candidates for the diplomatic service and for the higher administrative positions, is under the department for benevolent institutions. One part of the primary schools is controlled by the ministry of public instruction, and the other of the administration of the Orthodox Church.

The curricula of educational institutions under the various ministries diverge greatly from one another, and consequently the passing over of a pupil from a school of one type to one of another type is attended with great difficulty. Especially difficult is the passage from a primary school to a grammar school (classical or modern side).

As a consequence of the too early specialization in education many Russian educators and public men advocate the idea of one sole school of general education as being the necessary foundation for the subsequent special education.

[1] Sources of information: Russian Year Book, 1914; consular reports, 1915; Report of the Proceedings of the British Association for the Advancement of Science, annual meeting, 1914.

[2] Address delivered before section L of the British Association for the Advancement of Science at the Sydney meeting in August, 1914.

Prof. Netschayeff observes, however—

that this dispersal of Russian schools under different ministries has also had its good side. * * * Fortunately for the Russian schools, the courses followed by separate ministries on educational questions have often differed one from the other; that which was forbidden to schools under one ministry was allowed to the schools under another; that which one minister considered to be untimely, another minister regarded as necessary. In view of this, public men and pedagogues succeeded, through one ministry or another, in introducing gradually their ideas into educational life. In this respect the great importance of the ministry of commerce and industry in the history of the latest period of Russian school life is particularly noteworthy. This ministry, by allowing public organizations willing to open commercial schools to exercise serious influence over the general work of their schools, by granting liberty for the creation of the educational staff, and by assisting a close rapprochement between the family and the schools, has spread over Russia within the course of some 25 years an entire network of educational institutions, maintained exclusively by social and private means. Many reforms recently carried through in the programs of the schools under the ministry of public instruction have been the result of those accepted in the commercial schools.

The difficulty of obtaining a complete view of education in the Empire on account of its enormous extent and vast heterogeneous population is greatly increased by the distributed administration. Although the minister of public instruction has oversight of the great body of elementary and secondary schools and of higher schools of liberal education, still the reports of this official, published at intervals, do not cover the entire province of education. Even with respect to the schools under this ministry complete statistics are seldom obtained, as will readily be understood when it is considered that for purposes of local educational administration the Empire is divided into 15 districts, each comprising a number of governments varying from 3 to 15; the average density of population in the governments of European Russia is only 64.6 inhabitants per square mile and falls in Siberia to 1.8.

STATISTICAL SUMMARY.

The latest summary comprising all classes of schools and higher institutions was published by the statistical commission of Russia January 1, 1911. According to this authority there were at the time in the 15 educational districts of the Empire, with the eight Finnish governments, a total of 7,901,477 pupils and students. Of this number—

6,322,725 (83.2 per cent) attended elementary schools; 446,136 (5.9 per cent) secondary schools; 241,495 (3.2 per cent) special elementary and secondary schools; and 67,863 (0.9 per cent) higher educational establishments. The remaining 518,400 (6.8 per cent of the total number) attended private schools, foreign church schools, and various non-Christian schools of religious character.

Thus it appears that out of every 1,000 inhabitants of both sexes in the Empire, 46.2 pupils were under instruction. In Finland the proportion was 69.3 per cent; in European Russia, omitting Finland, 53.1 per cent; in Siberia, 35.6 per cent; in central Asia, 21.7 per cent. Omitting Finland, the percentage of illiterates for the population above 9 years of age was 73 per cent for Russia as a whole; in the Vistula Provinces, 59 per cent; in central Asia, 94 per cent. As regards the sexes, the number of illiterate females is twice as great as the number of illiterate males.

HIGHER EDUCATION.

The following particulars pertain to institutions of higher education under the minister of public instruction:

Students in universities, 1913.

	Students.
Petrograd	8,446
Moscow	9,940
Kharkof	5,274
Kasan	3,484
St. Vladimir (Kiev)	4,098
Saratov	197
Warsaw (Poland)	1,556
Yuryeff (formerly Dorpat)	2,749
Novorassiysk (Odessa)	3,193
Tomsk (Siberia)	1,347
Total	40,284

A popular university, the General Alphonse Shaniavsky, was opened at Moscow in 1908, the expenses of which are defrayed from a fund left by Gen. Shaniavsky for that purpose.

An institution, founded by the munificence of Peter Makoushin, which aims at the instruction on a large scale of the people of Siberia, has been inaugurated in Tomsk. The institution in question is called the House of Science, and is meant to be a popular university where anyone may obtain instruction, from the elementary to the secondary standard, free of charge. It includes also a section for instruction of the kind usually given at universities.

Admission to the universities is confined to those who have obtained the leaving certificate (attestat zrelosti) from the gymnasium.

Attendance at the universities is promoted by scholarships and funds in aid. The value of the former as reported in 1914 was 556,597 roubles ($284,000), and the value of the funds in aid, 117,821 roubles. The treasury estimates of appropriations for the university amounted in 1913 to 7,652,000 roubles (about $5,000,000).

The universities of Russia are closed to women, but education of the university standard is provided for them in classes maintained in Petrograd and Moscow, which together have an annual attendance

of about 11,000 students. The medical institute for women established at the capital has about 1,400 students. In 1910 a department of medical science for women was opened in the University of Kharkof.

Similar classes for women, but not on the same permanent basis, are maintained in nearly all the university towns of the Empire. Among the most striking signs of intellectual activity are the efforts made by private agencies to meet the universal demand of Russian women of the middle and upper classes for education of the higher order.

The increasing regard for women is indicated by the appointment during the current year of Mme. Staraiszewska as privatdocent in the chair of pathology of the University of Odessa. The appointee completed her studies in France at the faculty of medicine of Nancy in 1899.

TECHNICAL EDUCATION.

Russia has given important lessons to the world in respect to the organization and management of higher technical institutions intended to prepare experts for the service of the State. The development of technical schools for artisans and the directors of industries is of comparatively recent date. Schools of this class were first established under private auspices and gradually brought under the direction of different ministers, but in 1881 these schools were all transferred to the minister of public instruction, and under this direction a graded system of technical education has been organized, comprising (1) lower technical schools which combine with the elements of knowledge technical training required for the ruder kind of mechanical work—for machinists, draftsmen, etc.; (2) technical schools which provide for general education of the secondary order, combined with technical training required for assistant engineers or foremen in the smaller industrial enterprises.

As a result the scope of the higher institutions has been increased and additions made to their number. Attendance at these schools is fostered by scholarships and grants in aid, as in the case of the universities. The following table pertains to these higher technical schools which are of university grade having advanced entrance requirements and the right to confer degrees.

Students in technical institutions.

	Students.
Petrograd Technological Institute	5,215
Kharkof Technological Institute	1,400
Moscow Technical School	3,000
Novo-Alexandriyski Institute of Agronomy and Forestry	704
Riga Polytechnical Institute	2,088
Tomsk Technological Institute (Siberia)	1,171
Total	13,578

There are also three mining schools supported by the Government, situated, respectively, at Petrograd, Ekaterinoslav (Donetz mining district), Ekaterinburg (Urals mining district).

APPROPRIATIONS FOR EDUCATION.

The State appropriations for education in 1912 were: Ministry of public instruction, 114,436,072 rubles ($58,934,577); other ministries, 17,289,039 rubles ($8,903,855); total, 131,725,111 rubles ($67,838,432). The estimated appropriations for 1913 were as follows: Ministry of public instruction, 136,734,000 rubles ($69,734,340); other ministries, 58,339,000 rubles ($29,752,890). Of the increase for the ministry of education, one-half was intended for elementary education. It is noted in this connection that, during the whole period of the 100 years prior to the establishment of the Imperial Duma, the budget for public instruction only increased by 35,000,000 rubles (about $17,000,000). In the five years since the session of the first Duma the appropriations to education have exceeded the amount allowed for that purpose during the entire century preceding.

At the opening of the European war it was apparent that Russia had entered upon an era of industrial and educational development in which the Government was bearing an important part, in cooperation with the zemstvos (local administrative authorities) and private enterprise.[1]

WORK OF THE LABORATORY OF EXPERIMENTAL PSYCHOLOGY.

The passion for scientific investigation for which Russian scholars have been distinguished has been manifested not only in the exact sciences but in respect to the departments of knowledge which have to do with man and the social institutions that he has developed. This innate tendency, intensified by the protest against the formalism of the schools, has resulted in important researches bearing directly upon the work of education. The work of Ushinsky, who was called "the father of Russian pedagogical psychology," has been continued by a series of notable savants whose ideas found concrete expression in the educational pamphlets and experiment by Count Leo Tolstoy. The laboratory of experimental pedagogical psychology which was opened at Petrograd in 1901 is one of the chief centers of that class of investigations in Europe. In his address before the British association already cited, Prof. Netschayeff, who was intrusted with the organization of this work, described in detail the nature and methods of the investigations there conducted. These comprise tests of mem-

[1] For particulars relative to the recent activities, see Repts. of Commr. of Educ., 1912, vol. 1, ch. 23; 1913, vol. 1, ch. 39; 1914, vol. 1, ch. 36.

ory, of processes of association, stability of attention, conditions of fatigue, response to suggestions, the hygiene of intellectual work, the relative advantages of visual, auditory, and motor memory, and the relative value of object teaching and of the so-called natural method of teaching foreign languages as compared with book instruction.

The investigations outlined above follow, it will be seen, the usual course of similar work in the United States, but the work at Petrograd has been characterized by its steady direction toward the elucidation of certain well-recognized educational problems. Most prominent among these is that of "the changes in the moral life of children dependent on their age and sex," and as auxiliary to this the problem of coeducation. In respect to the last-named the conclusions stated by Prof. Netschayeff are of unusual interest. He says:

> The comparison of the results of tests on association, conducted simultaneously in schools of the same type, both with separated education and with coeducation, revealed the favorable influence of coeducation on the general tendency of the imagination of the pupils. In coeducation the general tendency of association among girls loses that extremely emotional character which is observed in girls' schools. In this case the inspiring influence of boys is quite obvious. This is particularly noticed in the first stage of the transitional age, when there is generally observed in children an easy yielding to the suggestions of environment. Seeing that the period of sexual ripening begins earlier with girls than with boys, then, while submitted to the psychical influence of their boy comrades of the same age, who have not yet entered into that period, girls in coeducation retain longer the general tendency of imagination natural to a child's age, and do not display that acute tendency toward concentrating their attention on organic sensations and indefinite emotions, which are so often noticed during the period of ripening in separate education. A study of association in boys revealed the favorable influence of coeducation over the purity of their imagination, and the calmer course of the first period of sexual ripening.

In regard to the relation of teachers to research work the address presents the following suggestions:

> There is no doubt that in studying the problems of pedagogical psychology, over and above other data, the daily observation of the children by pedagogues is of great importance. In order, however, that one could with certainty benefit by the results of such observation, it is required to study the degree of their objective authenticity, and to ascertain the sources of the pedagogical illusions possible in this respect. In characterizing the pupils, the teachers describe them often as "attentive" and "inattentive," "progressing" and "non-progressing," "interested" or "not interested." What do such descriptions signify, and on what first impressions of the teacher are they mostly founded?
>
> Certainly the elucidation of such questions brings great difficulty. Two conditions before all are required—(1) that the teachers who characterize their pupils should have reached the level of conceiving the child's psychology; and (2) that the pupils characterized should be submitted, independently of their teachers, to psychological study, the results of which should be submitted to statistical treatment.
>
> In order to create the conditions for the successful study of such complicated problems of pedagogical psychology, I organized, in 1910, a special school (at

the St. Petersburg society of experimental pedagogics), the whole personnel of which consisted of persons who had received well-grounded psychological training of the same type (they were my male and female classes at the Pedagogical Academy). At the same time a school hygiene cabinet and a psychological laboratory were organized at the school, where the pupils (and latterly the pedagogues of the school also) were submitted to systematic observation. This experimental school serves at present as the center point of my psychological pedagogical research. We endeavor as much as possible in this school to carry into life those methods of upbringing and education which seem to us at present to be the most perfect.

SPECIAL INSTITUTIONS.

The laboratory of experimental psychology is an interesting addition to the group of special institutions for the promotion of scientific research in different departments of knowledge. The most important of these institutions are as follows:

1. Historico-Philological Institute, St. Petersburg.
2. Bezborodky Historico-Philological Institute, Nezhin.
3. Demidoff Lyceum for Study of Law, Yaroslaff.
4. Lazareff Institute of Oriental Languages, Moscow.
5. Institute of Oriental Languages, Vladivostok.
6. Imperial Lyceum of the Tsarevitch, Moscow.
7. Archæological Institute, St. Petersburg.
8. Imperial Alexander Lyceum, St. Petersburg.
9. Imperial School of Law, St. Petersburg.

Russia is also noted for associations and academies which encourage research by prizes for the results of original investigations and by their publication. At the head of these institutions is the Imperial Academy of Sciences. Russia also possesses 633 public libraries: In European Russia, 509; in Polland, 40; in Caucasus, 35; and in Siberia, 49. These libraries usually receive grants from the zemstvos; only 11 are subsidized by the Government. The Imperial Public Library is one of the most important in Europe.

CHAPTER XXXIV.

MODERN EDUCATION IN BRITISH INDIA AND CHINA.

CONTENTS.—*British India:* Extent and organization—Inception and progress of the system of modern education—Recent events—Important reports—Proofs of success—Statistical summary. *China:* General trend of efforts—Reports from provinces: Kwangtung; Fengtien (dependency); Yunnan—National education conference—Ministerial order—General policy of the minister of education—Schools for modern education (classification and summarized statistics)—Detailed statistics for certain provinces and dependencies—Peking—Universities under foreign auspices—Important pending measures—American activities in respect to the welfare of China—Chinese indemnity students.

I. BRITISH INDIA.

EXTENT AND ORGANIZATION.

British India extends over an area of 1,093,000 square miles, with a population exceeding 244¼ millions; it comprises 15 Provinces, within which local self-government is maintained through the agency of elected boards, rural and municipal. The supreme executive authority is vested in the governor general, or viceroy, appointed by the Crown and assisted by a council, the ordinary members of which are also appointed by the Crown; additional members may be nominated by the viceroy. The governors of the chief Provinces are appointed by the Crown. The chief executives of the smaller Provinces are appointed by the governor general, with the approval of the Crown.

INCEPTION AND PROGRESS OF THE SYSTEM OF MODERN EDUCATION.

The system of modern education in India is not of native or spontaneous origin, like the corresponding work in Japan and China, but imposed upon it by external force. It presents, therefore, lessons of great import to all nations that must endeavor to bring into intellectual sympathy and practical cooperation with themselves a people of alien civilization and traditions. This work was assumed directly by the British Government in 1853, with no precedents to guide and no centers of support excepting scattered missionary schools and a few institutions established under the rule of the East India Co. The fundamental principles by which the system was governed down to a late period were set forth in the Dispatch of 1854.[1]

[1] See Rep. of Commis. of Ed., 1906, vol. 1, p. 124, for outline of the Dispatch.

The educational commission appointed in 1882 to inquire into the workings of the system confirmed these principles in the main, but dwelt upon the need of more vigorous efforts to bring the mass of the vast population under instruction and of more positive activity on the part of the central government for the accomplishment of this purpose.[1] The report of this commission led to the creation of the office of director general of education for India. A third stage in the development of this system was marked by the report of the education commission appointed by Lord Curzon, which disclosed the weakest points of the system and led to the resolution issued by the governor general, March 11, 1904.[2]

The resolution of 1904 imparted a new impetus to the work of elementary education, efforts for the education of girls, and measures for promoting industrial and technical education.

RECENT EVENTS.

Progress in the directions indicated has been greatly stimulated since the announcement of the new Government policy with respect to education in India, which was made on the occasion of the Delhi "durbar" December 12, 1911, and by the address of the British King delivered before the Calcutta University in 1912, during his visit to his eastern empire. The new purposes of the Government were eventually defined by a resolution (published in the *Gazette of India*, February 22, 1913) which set forth large plans for the extension of primary education, the improvement of the condition of teachers, and the adjustment of technical education to the special conditions of India. The declaration was confirmed by the increased grants for education from the public treasury. These increases amounted to 50 lakhs of rupees ($1,620,000) for popular education and an extra grant of 10 lakhs ($324,000), which have had the effect of stimulating the provincial governments to new efforts.[3]

The tendency to central control excited much opposition in provincial centers of great influence, but fortunately the direction of the work was entrusted to Sir Harcourt Butler, appointed as member of the council of the governor general of India in charge of education in 1910. His judicious administration completely disarmed all opposition, and the announcement of his retirement from the post brought forth universal expressions of regret.

It has been the policy of the British Government in India to leave the actual control of education to the provincial governments, and consequently the success of plans for the general diffusion of elementary education and for promoting technical education depends

[1] See Rep. of Commis. of Ed., 1906, vol. 1, p. 125.
[2] Ibid., pp. 126–129.
[3] See Rep. of Commis. of Ed., 1913, vol. 1, pp. 873–876.

upon the support which they receive from those governments. The central government, however, both by the increased aid from the public treasury and by the activities of the director general, gives a constant impetus to the local efforts.

Higher education was for a long time the supreme interest of the central administration, and in the latest plans it still holds prominence. These plans comprise projects for the establishment of teaching and residential universities at four centers: Dacca (Province of Bengal), Patna (Provinces of Behar and Orissa), Nagpur (Central Provinces), Rangoon (Province of Burma), and in addition the Hindoo University at Benares (Northwest Provinces). These universities will supply a force in India life that has been wanting in the previously existing universities of India, which were almost exclusively examining bodies. The university projects which have been somewhat severely criticised in England have been warmly supported by the British Government in India, and accord with the aspirations of the provincial authorities. Sir Harcourt Butler, who made a brief visit to England before his final retirement from the Indian council, returned to his post to pilot the Hindoo University bill, which passed October 2 of the current year.

The sincerity of the oft-repeated purpose of the British Government to advance Indians to prominent positions in the civil service has been signally attested by the appointment of Sir C. Sankaran Nair, an Indian distinguished for his "breadth of view and sanity of judgment," as the successor of Sir Harcourt Butler in the Indian council. The latter has been appointed lieutenant governor of Burma.

IMPORTANT REPORTS.

One of the chief outcomes of the commission of 1882 was the reduction of provincial reports on education to a general scheme of statistical presentation. This scheme, carried out in a succession of quinquennial reports, has made it possible to form some conception of the state and progress of modern education in India. The office of the director general (created in 1902) has issued a series of occasional reports dealing with particular phases of education, pointing out defects, furnishing suggestions, and recording the results of expert inspection. To these important publications there has just been added a report on Indian education in 1913–14, the first of a promised series of annual reports pertaining to the Empire. From this latest publication it appears that even statistics give decided proofs of progress. Between 1911 and 1914 the extra grants (termed nonrecurring grants) from the imperial exchequer for educational extension amounted to £3,161,000, and the additional recurring grants to £826,000. The total expenditure on education in 1913–14 amounted to £6,681,000, as compared with £4,588,000 in the year before the ap-

pointment of the education member of the council and a little over £3,000,000 ten years ago, an increase of over 120 per cent in the decade.

The number of persons under instruction is rapidly rising; seven years ago the total number of children in the elementary stage of instruction was 4.7 millions; at the end of the year under review it was 6.6 millions. The figures quoted show that instruction is imparted to no less than 28.7 per cent of the boys and 5.4 per cent of the girls of school-going age. In regard to the growing demand for free primary education for boys, it may be noted that public funds are taking an increasing share, amounting last year to seven-tenths of the whole cost of elementary schools.

The chief characteristic of secondary education, says the report, continues to be the surprising increase in the number of those who seek it.

Meanwhile, as pointed out by Lord Hardinge, in an address as chancellor of the University of Calcutta, there has been a phenomenal increase in the number of students in arts colleges. He stated that the number of matriculates within the area of his own university had grown during his viceroyalty from 3,000 to 7,000 annually, and that the number of graduates had trebled.

PROOFS OF SUCCESS.

The success of this work in India can not, however, be measured by statistics; this critical period of the world's history has afforded other proofs of its stability and effects, which are admirably summed up by *The Times* as follows:

> The experiment upon which the British rulers of India embarked when they introduced western education is without a parallel in the world's history. * * * This wonderful experiment has produced wonderful results. Western education has not only fulfilled its original purpose, which was to train up Indians capable of rendering efficient help in the work of administration. It has created an entirely new caste of Indians, still small in numbers, but of growing influence, more or less familiar with western thought and western methods, who have found in the English language a common medium of expression which the many different races inhabiting a vast subcontinent had hitherto lacked. It has produced not a few distinguished thinkers and philosophers, and at least one great poet; some able judges and lawyers amongst a whole legion of astute barristers and pleaders; many keen politicians and too many political journalists; and, of late years especially, a few men of real scientific attainments, as well as men of business who have made their mark in commercial and industrial pursuits. If we were to appraise the value of western education in India only by its best products, we might rest satisfied with such an achievement. But the real test is not to be sought in the brilliant successes of a select minority, but in the effect upon the mass, and if we apply this test to our educational system in India our satisfaction must be sensibly lessened.[1]

[1] The Times Educational Supplement, Tuesday, Nov. 3, 1914.

STATISTICAL SUMMARY.

The total number of scholars in public institutions in 1913–14 was 6,854,324, and in private institutions 681,241, making a total of 7,535,565, or an increase of 21 per cent in the last quinquennium. Male scholars were 6,431,200 in 1913–14, as against 5,383,041 five years ago; female scholars in the same year were 1,104,365, as against 831,954 five years ago. This is an increase of 19 per cent in the case of the former and 33 per cent in the case of the latter. The total number of institutions in 1913–14 was 185,584, of which 145,725 were public. Of these institutions only 18,370 were for female scholars. The total number of villages served by these schools was 569,761, and the number of towns (i. e., towns with 5,000 inhabitants or more) was 1,596. The number of students in each class of school or college was as follows:

	In 1913–14.
Public primary schools	5,522,043
Private elementary schools	619,507
Public secondary schools:	
Middle vernacular	248,704
Middle English	339,549
High schools	487,471
Private advanced schools	60,842
Schools for special instruction	206,062
Arts colleges:	
English	37,603
Oriental	1,669

II. CHINA.

GENERAL TREND OF EFFORTS.

The effort in China to establish "western learning" on a firm basis, as authorized by the imperial decree of September 5, 1905, is one of the most striking events in the history of education. In a measure the Empire was prepared for such an undertaking through the long-continued influence of mission schools and the rude awakening from delusions of national security caused by the issue of the Boxer War and the overthrow of the long-established régime. There was for a time an irresistible reaction against the traditional education and a feverish haste to grasp the new intellectual forces that gave success to foreign armies and ideals. In a measure these were transient experiences and in many Provinces a reactionary movement had set in before the revolution of 1911 which resulted in the declaration of the Republic. Since that event, and especially since the dissolution of Parliament by the mandate of President Yuan, January 11, 1914, the educational fevor has abated, and at the same time

the system of education formally organized by decree of December 6, 1905, has been the subject of radical changes.

General statements, it is true, convey only a partial idea of conditions in this vast country, which comprises 18 Provinces and 7 dependencies, with a population estimated at 325,000,000. By the decrees of 1905 the provincial authorities were given independent control of education in their respective areas and naturally they varied greatly in respect to their support of the new system. The greatest change effected in this system by recent presidential mandates is the provision for a high degree of centralization in the ministry of public instruction. In the opinion of many authorities this transfer of responsibility is unfortunate, since it has caused a decline in provincial activities which the Government has no means of replacing. A contrary opinion is expressed by many others familiar with the Government policies. Dr. Jeremiah W. Jenks, who rendered expert services in connection with the reform of currency in China, expresses the opinion that the measures adopted by President Yuan "for the unification of finance, justice, and education" are of great importance for the future progress of this vast country. The provincial boards, he says, "for centuries kept the people in the Chinese Provinces absolutely apart from the Government at Pekin."

REPORTS FROM PROVINCES.

An intimate view of the effect of changing policies and current conditions in the chief Provinces of the Republic is furnished by consular and other official reports from which the following survey is derived:

PROVINCE OF KWANGTUNG.[1]

Kwangtung (estimated population, 23,700,000) has long been famous for its political, commercial, and industrial leadership; but although Protestant missions and hence also modern education first began there, Kwangtung is to-day in many respects considerably behind some of the more northern parts of China in respect to education, either under the Government or under the missions.

September 2, 1915, is the tenth anniversary of the abolition of the old-style literary examining system. Since then the educational policy of Government has suffered many variations. First, there was a time of great enthusiasm for popular education of the new style and all through the country, especially in south China, temples were dismantled, temple and monastery funds were diverted and heavy taxes were levied—all for the new schools. Some modern school buildings were erected and much apparatus secured from Japan and elsewhere. The Government and the people seemed to think that in providing the building and apparatus the problem was solved. Schools were opened by the hundred and an elaborate curriculum was prepared on paper; but there

[1] From reports on education in Kwangtung Province, 1915, by Dr. C. K. Edmunds, president of the Canton Christian College. Forwarded by F. D. Cheshire, American consul general, Canton.

were no teachers who could impart the new knowledge. The people were soon undeceived and a great reaction set in. Riots ensued when tax collectors and census enumerators came around. The monastery and temple priests protested with much popular approval, and the old-style school seemed entrenched again in the hearts of the people. Then came the revolution when a very large number of the schools were closed, and education fell to a low ebb. The revolution successful, the people, recognizing that western learning and western-trained men had been the main spring, were aroused to another burst of enthusiasm for the learning which had done these wonderful things. This time also, at least in Kwangtung, there was a strong man at the head of the educational office, W. K. Chung, a Kui Yan, and trained in the Canton Christian College.

Since the second revolution and the resultant centralizing of power in the hands of the governor, the office of commissioner of education has been abolished and a secretary for education has an office in the yamen of the civil governor of the province. The scholarships have not been discontinued for the students already abroad, but no new scholarships have been issued. The lecturships have been discontinued. But the work for the elementary schools has been kept up as well as the smaller income and influence of the present office will allow. Each district has now an educational committee with the magistrate at the head. There are inspectors appointed to oversee the schools and to collect statistics.

The fact of reactionary tendencies is noted also in a report by Consul-General Heintzleman,[1] under date of June 19, 1915, with reference to the Fengtien Dependency (population, 5,830,000). He says:

Since the revolution of 1911 educational work in this province has suffered greatly through lack of funds to pay the salaries of instructors and for the maintenance of school buildings and equipment. The commissioner of education informs me that the annual grant for education in this Province has been reduced in two years from $1,400,000 to $700,000, an amount which he states is totally inadequate for the satisfactory conduct of the educational work in this Province.

The opinions above cited are confirmed by the following statement from the China Yearbook for 1914:

The system of education promulgated by the Manchu Government was fully described in the 1912 issue of this yearbook, and tables were given showing the extent to which the scheme had been realized. The revolution of 1911–12 completely disorganized the entire system. All Chinese universities and colleges closed their doors, partly on account of lack of funds wherewith to continue; but mainly because the disturbances throughout the country led the students to throw up their studies and leave for their homes. With the great majority of the schools it was the same. If they were not compelled to close by the desertion of their pupils, they were only able to continue their work for so long as funds lasted. Consequently, in education, as in many other fields, the Republican Government has to start completely anew. Schools reopened as conditions became settled, but for the last two years educational affairs in China have been in a transition stage. The main principles which are to govern education in China were set forth anew, and during 1913 some progress was made in giving effect to them.

[1] Mukden, China.

PROVINCE OF YUNNAN.

In the Province of Yunnan (population about 9,000,000) recent reactionary tendencies have been less noticeable. A report[1] by an American citizen long resident in the capital of this Province says:

The first steps looking to the organization of a system of modern education in this Province were taken about 10 years ago, following a series of edicts issued by the then Empress Dowager upon the subject of modern education. The present educational system is greatly in advance of the industrial development of this Province. Yunnan, with a great territory of rugged, mountainous country and a population variously estimated at from 9 to 13 millions, has less than 300 miles of railroad. Hundreds of students, who each year come to Yunnanfu to attend the schools at the capital, have to travel, by chair or on foot or horseback, anywhere from two to four weeks from their homes in distant parts of the Province. When it is remembered that a modern system of education has been grafted upon social institutions and industrial conditions somewhat corresponding to those which existed in England in the days of Queen Elizabeth, the progress thus far made is quite commendable. Furthermore, this Province has less than 20 schools under missionary or other foreign patronage, so that the present state of advancement has been effected by the Chinese themselves.

The Government public schools are supported by the revenues of the Province or of the district in which the schools are located. They are subject to certain rules and regulations laid down by the ministry of education at Peking, particularly relating to the courses of study prescribed. For students whose homes are not located in the town in which they are attending school free lodging is provided. Two school uniforms are supplied each year and some of the textbooks are furnished free. Certain of the schools supply uniforms, shoes, and all articles of clothing free, but charge a small tuition fee.

NATIONAL EDUCATION CONFERENCES.

The most important event in the domain of national education that has taken place since the Revolution of 1911 was the meeting of the national education conference assembled at the invitation of the minister of education. With respect to this conference the China Year Book for 1914 states:

The minister invited 96 delegates, all of whom were graduates of normal colleges in China or abroad, were teachers of three years' standing, or were educators of some renown. Of these 96, 44 were deputed from the Provinces, including Mongolia and Thibet; 1 represented Chinese residing abroad; 15 came from colleges under the direct control of the ministry of education; 10 were delegated by the ministries of interior, finance, agriculture and forestry, commerce and industry, war, and the navy; and the remainder were specially invited by the minister.

The conference opened at the ministry of education on July 12 and was formally closed on August 11. Mr. Wang Shao-lien was chairman. While in session the conference discussed upward of 43 bills upon various matters connected with education submitted by the ministry, of which 23 were approved in their original or a modified form. The conference was summoned in an advisory capacity only, and it was left to the Government or Parliament to give effect to its recommendations.

[1] Forwarded by Consul General Cheshire.

MINISTERIAL ORDER.

September 5 of the same year an order was issued by the ministry of education setting forth the general principles to guide in the conduct of schools, the classes of institutions authorized, etc. The following citations indicate the scope of this order:

1. DISCIPLINARY REGULATIONS.

A. Educational aim.—The educational aim of the Republic of China is to pay special attention to the development of morals, supplementing it with technical and military training, and completing it with a cultivation of the esthetic powers.

B. School discipline.—1. This order contains principles on which school discipline should be based.

2. The rules of discipline, which are intended for the building up of character, should be strictly observed by all students.

3. All principals, schoolmasters, and proctors have educational responsibilities, and their precepts and advice should be respected by the students.

4. All principals should, in accordance with the nature and the peculiar circumstances of their own school, draw up a number of rules to maintain discipline. The rules for classrooms, preparation rooms, drill grounds, dining rooms, dormitories, and other matters of discipline should be carefully and separately stipulated. The rules for the government schools should first receive the sanction of the minister of education, while those for private schools and schools maintained by local funds should be submitted to the local governmental authority.

5. Students, during their leisure hours, may be permitted to organize associations of athletics, of physical training, of music, and of other useful and literary purposes. These associations, however, should receive the approval of the principal, and be under the direction of the officials of the school.

6. When students have some really valuable suggestions concerning the methods of teaching, discipline, or any other matters in the school, they may submit them to the principal and the faculty either in writing or in person, and they should leave them free to act. The students should not be obstinate, nor should they find any pretext to impede the educational progress of the school.

7. When a student's conduct is in violation of any of the rules of discipline, the principal should inflict due punishment on him.

8. When a student has, on account of serious breach of discipline, been discharged from school, and if he shows no real evidence of repentance and of eager desire to reform, and has no reliable guardian, he will not be allowed to reenter any other school.

9. This order is applicable to all kinds of schools with the exception of elementary schools, whose principals should rewrite the same in simple written style, and explain the same orally to the students.

10. This order shall take effect on the day when it is promulgated.

GENERAL POLICY OF THE MINISTRY OF EDUCATION.

Accompanying the above order an announcement was made of the administrative policy of the ministry of education of which the main features are as follows:

The ministry should exercise direct control over all branches of special education.

For general education the ministry will prepare schemes to be carried out by the local educational organizations, but will send inspectors to supervise the methods adopted.

Private schools shall be promoted and protected by the ministry.

Funds for education.—Funds for special educational institutions shall be provided by the Central Government or by utilizing Government property as capital.

Funds for general education shall be supplied by local taxation or by utilizing local common property as capital.

Educational policy in the Peking district.—The Peking educational bureau shall have control over general education in the district, and the expenditure upon this organization, and the schools and colleges under it, shall be temporarily borne by the ministry of education.

High schools and colleges having similar courses of studies shall be amalgamated in order to economize expenditure and increase the number of students.

The ministry will endeavor to develop and reform the university and the public library.

Policy in regard to students abroad.—As higher education is to be controlled by the ministry direct, arrangements in regard to the sending of students abroad shall be in the hands of the Central Government. Students sent abroad shall have qualifications which will enable them to enter a college, or a special educational institution, or shall have completed a course, and be duly qualified, in a college or special educational institution in China.

Education of Mongolians, Tibetans, and Mohammedans.—As the five races have been combined into one nation, each must receive an equivalent training except the Manchus, who have become accustomed to the written and spoken Chinese language, and do not require special treatment. For the Outer Mongolian,[1] Tibetan, and Mohammedan tribes, which continue to use their respective dialects, special educational methods will be adopted, in order to train them for the union of the five races.

SCHOOLS FOR MODERN EDUCATION.

CLASSIFICATION AND SUMMARIZED STATISTICS.

Modern schools at present existing in China are classified as Government schools—that is, established by the provincial or local authorities, mission schools, and private schools. According to the latest statistics published by the board of education (Peking), there are 35,998 Government schools of all grades, with 875,760 students. These figures are proof of the decline that has been reported since

[1] Outer Mongolia has since declared its independence under the Hutukhta of Urga.

the second revolution. In the Province of Chekiang, however, there has been, it is stated, an "increase of threefold both in the number of schools and students in the last three years, and a corresponding advance also in school expenditures." This is attributed to the richness of that Province, which is the chief silk and tea producing region of the Republic and noted for the intellectual spirit of its people.

The present Government places special stress upon the need of primary education for all the people. This is an enormous undertaking, not only on account of the immense population to be reached but the difficulty of raising the necessary funds. In 1913 the Government appropriated only $5,207,215 for education, the rest must be raised by local appropriations and private subscriptions. The effort which this would imply is indicated by the fact that in 1910 the total income for educational purposes in China was 23,331,171 taels (about thirteen and one-fourth million dollars). At that time the educational property owned by the Government amounted to 70,367,882 taels (about $40,000,000).

Apart from the financial difficulty, the greatest problems resting upon the Government arise from the need of supplying teachers for at least a million schools, and the very complicated language problem.[1]

All reports agree in respect to the importance of the mission schools in the Republic, the extent of their patronage and influence, and the confidence they inspire. Statistics for 1912 showed that under the Protestant missions alone there were 3,798 primary and day schools with an enrollment of 86,241 pupils, and 5,537 intermediate and high schools with 31,384 pupils, and as many as 42 institutions that had assumed the name of university or college. Statistics of the Catholic missions are not available, but their educational activities are scarcely less important. It has been estimated that there are at least 100,000 pupils enrolled in all the mission schools. Private schools are also highly esteemed and well patronized, but no general statistics of these are attainable.

DETAILED STATISTICS FOR CERTAIN PROVINCES.[2]

PROVINCE OF KWANGTUNG.[3]

The number of elementary schools, primary and grammar, under the Government, is 4,100 with 123,000 students. The remaining Gov-

[1] Particulars cited from address delivered before the Third International Congress of Education, Aug. 25, 1915, Oakland, Cal., by Z. T. Nyi, M. A., president eastern section, Chinese Students' Alliance, U. S. A.

[2] Particulars compiled or cited from consular reports.

[3] Report by F. D. Cheshire, American consul general, Canton, Aug. 4, 1915.

ernment schools are classified as follows, statistics of attendance not being given:

Middle schools (11 in Canton, none for girls)	46
Normal schools (3 for men, 2 for women in Canton; 1 for men, 1 for women in Heungshan; 1 in Chaochaofu; 1 in Toi Shaan)	9
Law schools (4 in Canton, others scattered)	9
Agricultural schools (1 in Canton, 1 Shiuchow, and 1 Mau Ming)	3
Silk-culture schools (San Wui)	1
Industrial schools (Canton, Heungshan, etc.)	5
Commercial schools (Canton, Swatow)	5

There is no college; no school above the high-school grade.

Catholic missions in Kwangtung report 67 schools for boys and 39 for girls. Their primary aim is to provide instruction in Catholic doctrine to the children of Christian villages. There is also one middle school for boys and one for girls. There is also a theological seminary. Except in the middle schools and in the seminary, the teachers are all Chinese. The numbers of foreign teachers and of pupils in these higher schools have not been reported. The Sacred Heart College, Canton, enrolls 305 students, and the Holy Ghost School, for girls only, 40 students. Both are under the French bishop of Canton, who also has control of the Shin Tak Chinese Primary School for girls only.

The total number of schools under Protestant missions (American, British, and German) is 658, with 928 teachers and 22,483 pupils. As in other Provinces, the Protestant mission schools are gradually evolving a unified system and combining in a Kwangtung educational association.

The outstanding feature in education in Kwangtung is the Canton Christian College, which not only antedates any efforts of the Chinese Government at providing modern education, but is the first and best-developed school under mission auspices. The institution was started by Rev. A. P. Happer, D. D., an American missionary, in 1885, on the earnest solicitation of over 400 Chinese officials, gentry, literati, and merchants.

The college is unique among the educational institutions of China in that, while it is a Christian missionary enterprise, it is strictly nondenominational and depends entirely for its support upon individuals who appreciate the kind of work it is doing. Yet it has a larger foreign staff and has received larger financial support from the Chinese than any other school in China. It is chartered under the regents of the University of the State of New York.[1]

[1] The office of the board of trustees is at 156 Fifth Avenue, New York City. The president of the board is Charles A. Stoddard, D. D., LL. D.

The college has received signal proofs of the appreciation of the Chinese themselves for this American institution. To quote a recent report from Dr. C. K. Edmunds, the president of the college:

Not only have the students always paid relatively high fees for tuition, which have amounted to about half of the total budget for current expense, but since 1907 Cantonese at home and abroad (notably those in America) have contributed no less than $160,000, Chinese currency, with which all four of the permanent dormitories for students and two primary school cottages have been built. Chinese friends have also provided a launch and telephone line to connect the college with Canton City.

During the spring recess, 1915, the students themselves undertook a campaign for the college and secured from Chinese in Hongkong, Macao, and Canton $19,100, Chinese currency. A general association in China for helping this college has just been inaugurated and already over 30 prominent and wealthy physicians, merchants, and others in Hongkong have formed an organizing directorate of a Hongkong chapter. A Canton chapter is also being formed, with the civil governor, a nephew of the famous Li Hung Chang, as honorary president.

KIANGSU AND CHEKIANG PROVINCES.

University education.—Of schools of strictly university grade there are none in this district (consular). There are two educational institutions of college grade in the Shanghai district, namely, that of Soochow, under the control of the board of missions of the Southern Methodist Church of America, and St. John's University, at Shanghai, under the Methodist Episcopal Church of America, known in China as the American Church Mission. The most important innovations in connection with these two schools are the establishment by the former of a graduate law school, which is to be opened in Shanghai during the coming autumn, providing for instruction in both Chinese and foreign law, and the establishment of the "Pennsylvania Medical School" by the latter one year ago. St. John's University, previous to the inauguration of this new medical department, had a school of science and a school of theology.

In addition to the foregoing, the "Harvard Medical School" has been established in Shanghai in connection with the Red Cross hospital. This school has been selected by the Rockefeller Foundation for Medical Research in China for financial aid during the coming year.

A report by Crawford M. Bishop, American vice consul in charge, Shanghai, dated August 4, 1915, describes education in the Kiangsu and Chekiang Provinces, as follows:

The Shanghai Baptist College and Theological Seminary of the American Baptist Mission, the Christian College at Hangchow, and Trinity College at Ningpo, in Chekiang Province, are the remaining institutions of college grade under foreign missionary control.

To provide for technical education there is at Shanghai "The Government Institute of Technology," formerly known as the "Nanyang College," which employs as teachers several graduates of American colleges, and the "Nanyang Railway and Mining College."

Of purely graduate work, greatest progress has been made in the establishment of schools and hospitals for medical work. The recent China medical conference, held in Shanghai in the spring of the present year, gave great

impetus to this work, while the carrying out of the plans there formulated has been powerfully aided by the Rockefeller Foundation recently established with former Consul General Greene as the resident director in China. Theological schools have been established for a long time, but they do not appear to be on the increase. Graduate instruction in law will be offered for the first time in China in the coming fall.

Preparatory education.—In schools of academy and high-school grade considerable progress has been made both in the number and the standard of the schools opened. Noteworthy is the recent opening of the Shanghai American school for both sexes, the teachers of which are all graduates of American colleges. This school, however, is open to children of foreign parentage only. Of preparatory schools for Chinese, in addition to those already established by various missions in Shanghai, the Young Men's Christian Association have recently built a dormitory in connection with their high school (day) and evening school work. The educational work of the Y. M. C. A. is directed toward training Chinese for practical business life and its curriculum corresponds to that of the city "business colleges" in America. The Y. M. C. A. conduct an evening school also at Hangchow.

In addition to the foregoing there are high schools in the foreign settlement and in the French municipality of Shanghai, which are maintained by the respective municipalities and are open only to children of foreign parentage. There is as yet no institution of college grade in this district for children of foreign parentage of either sex.

By far the larger part of educational work for Chinese, aside from that conducted by the Government of China, is done by American missionaries or American colleges, the entrance of Harvard, Pennsylvania, and Yale into the China field constituting the most notable recent innovation.

Foreign educational institutions for Chinese women.—Of foreign educational institutions for Chinese women there are in Shanghai the school conducted by the Y. W. C. A.; the Bridgeman Memorial School, located in the Chinese native city; the St. Mary's Hall, the women's department of St. John's College; and the MacTyiere School for Chinese Girls, all of preparatory grade. There is no institution of college grade for women in this district except the Women's Medical College at Soochow. Educational facilities for Chinese women are as yet far behind that provided for the men, both in number and grade of schools.

The most important steps that have been taken in recent years toward the improvement of the educational system in this part of China have been the movements among the various missionary bodies represented here looking toward the establishment of union institutions representing the various organizations in any given locality, and the adoption of a uniform curriculum with uniform entrance requirements and grade of examinations in the various schools.

PROVINCES OF KWANGSI, KWAICHOW, AND YUNNAN.

The following information with regard to the Provinces of Kwangsi, Kwaichow, and Yunnan is furnished by the officers in charge of the respective Provinces:[1]

[1] Forwarded by Consul General F. D. Cheshire, Canton, Aug. 25, 1915.

List of scholastic institutions in the Kwangsi Province.

Description of school.	Number.	Number of students.	Government or private institution.
Law colleges	2	996	Government.
Normal schools	2	357	Do.
First-class agricultural school	1	67	Do.
First-class school of labor	1	98	Do.
High schools	23	4,282	Do.
Normal schools of lectures	6	342	Do.
Girls' normal schools of lectures	2	112	Do.
Second-class agricultural schools	3	96	Do.
Girls' second-class agricultural school	1	7	Do.
Girls' second-class school of labor	1	4	Do.
Preliminary schools	298	16,315	Do.
Girls' preliminary schools	13	405	Do.
Primary schools	1,099	44,401	Do.
Girls' primary schools	44	2,323	Do.
Law schools of lectures	2	311	Private.
Preliminary schools	58	2,180	Do.
Primary schools	480	12,878	Do.
Girls' primary schools	3	160	Do.

KWAICHOW.

It appears that Kwaichow Province has upward of 1,050 Government schools, with an enrollment of more than 42,500 students; and upward of 290 private schools, with an enrollment of more than 9,750 students.

The subjects taught are strictly in accordance with the rules prescribed by the ministry of education.

The above figures do not include schools established by private tutors.

YUNNAN—TABULATED STATISTICS.

List of scholastic institutions in Yunnan Province during 1913 and 1914.

Names.	Number.	Number of students.	Number of graduates.	Number of teachers.	Number of officers in charge.	Annual receipts.	Annual expenditures.	Endowment.
Military school	1	200	.....	.....	.....	.....	.....	.....
Law college	1	510	203	22	11	$22,279	$16,959	$41,214
Commercial college	1	143	.....	.....	.....	.....	.....	.....
High school	3	1,363	28	96	26	112,710	108,319	83,970
Normal school	7	1,477	59	145	47	186,719	167,336	253,120
Normal school of special subjects	1	208	203	.....	.....	.....	.....	.....
Normal school of lectures	25	1,304	619	73	34	33,301	28,590	13,500
Scientific experimental school	1	30	24	7	1	3,281	3,281	1,850
Girls' normal school	2	129	27	77	11	26,945	26,946	18,396
Agricultural school	1	412	62	38	15	55,989	55,987	50,543
School of labor	1	305	.....	26	9	45,491	45,491	56,596
Girls' silk worm rearing school	1	82	20	.....	.....	.....	.....	.....
Primary schools	4,140	162,182	10,660	4,954	4,007	496,717	501,037	2,385,363
Preliminary schools	217	15,984	2,000	622	289	160,128	163,153	1,205,123
Girls' primary school	224	13,616	729	361	181	39,660	39,854	166,352
Girls' preliminary school	18	787	.....	41	16	5,008	5,080	20,317
Kindergarten	1	185	92	6	1	2,741	2,736	.....
Agricultural school	43	1,888	274	106	48	22,636	22,204	107,893
Schools of labor	3	235	11	6	4	5,629	5,662	13,233
Girls' school	2	278	.....	18	5	9,595	9,076	4,221
Total	4,693	201,318	15,011	6,598	4,705	1,227,829	1,201,711	4,421,691

Apparently the above are all Government schools. It is stated that in the Province of Yunnan there are less than 20 schools under mission or foreign patronage. The largest school under Protestant

missions is that of the United Methodist at Chiotung, with about 300 students and 4 foreign teachers. The Catholic missions have several schools for boys and girls, the principal being at Lu-Nan-Chow. At Yunnanfu the French Government supports a school for boys of 120 students and a school for girls of 80 students; there is also a private middle school for teaching English only conducted by the English-speaking Chinese.

Canton is the site of the True Light Seminary, comprising elementary, intermediate, industrial, and normal departments.

FENGTIEN DEPENDENCY.

A report by Consul General P. S. Heintzleman, Mukden, dated June 19, 1915, gives the following data regarding the various kinds of schools throughout the Fengtien Dependency for the year 1914:

Schools in the Fengtien Dependency.

Classes of schools.	Number.	Number of pupils.
Primary and intermediate (boys)	4,737	187,155
Normal (boys)	33	1,819
Middle (boys)	14	976
Agricultural (boys)	8	290
Industrial (boys)	6	216
Commercial (boys)	10	365
Primary and intermediate (girls)	217	10,341
Normal (girls)	14	785
Total	5,039	201,947

The total expenditure for education in 1914 for the whole Province was $1,214,800, the actual cost to the Government having been $928,885.

PROVINCE OF FUKIEN.[1]

There are 16 Government schools in this district. One normal school has an enrollment of 250 students and receives an allowance of $4,000 monthly, or $6,000 for each class annually, there being eight classes in the school. One normal school for girls, with an enrollment of 100, receives $1,000 per month, or $3,000 for each class per annum, there being four classes in the school. Tuition and board at both these institutions are free. One law school having an enrollment of 800 students receives an allowance of $3,000 monthly, or $4,500 for each class per annum, there being eight classes in the school; an annual tuition of $14 is charged in this school.

An average monthly allowance of $1,000, or $3,000 for each class, there being four classes in each school, is granted to three middle schools, four industrial schools of a higher grade (technical, com-

[1] Compiled from report of American Consul Albert W. Pontius, Foochow.

mercial, agricultural, and sericulture), and one girls' industrial school of a lower grade; the number of students in these schools runs from 100 to 200, a tuition of $14 per annum being charged. Five primary schools receive a monthly allowance of $300, or $600 for each class, each school having six classes; the tuition at these schools is $6 per annum, the number of students at these schools ranging from 60 to 150.[1]

Private schools.—In addition to the Government schools, there are one private law school and 100 primary schools. Altogether the Government expends annually in this district the sum of $220,000 in its support of the Government and private schools.

Mission schools.—The American Board of Missions has an extensive educational work in this district, including the Foochow College, with 280 students. The American Methodist Episcopal Mission also supports many schools, with an estimated enrollment of 8,110 pupils in primary schools, 1,197 in intermediate schools, 257 in normal schools, and 115 in colleges. The Union Theological School represents a combined effort of three different local Protestant missions, viz, one British and two American. An Anglo-Chinese college is also maintained by the two British missionary societies in the district, which also carry on many day schools. The total number of students under their charge, as reported in 1915, was 4,164 (boys, 2,247; girls, 1,917).

In this consular district, as in nearly all others from which reports have been received, attention is called to the important educational work carried on by the Young Men's Christian Association in the chief cities of the respective districts.

LEASED TERRITORY OF KIAOCHAU.

The Territory of Kiaochau, which has been prominent in the recent history of China, was acquired by the German Government in 1898, and passed under the control of the Japanese November, 1914. During the German occupation modern education was imparted in a few schools under German and American missionaries and in schools of low grade maintained by the local government and designed principally to fit pupils to earn their living in the various German enterprises. The most important institution established during this period was the Government German-Chinese high school, which was opened October 25, 1909, and gradually supplied with a fine group of buildings, admirably equipped for the purposes of a high school. At the time of the capture of Tsingtau by the Japanese, the preparatory department (course five years) of this

[1] All values are quoted in Mexican dollars, 100 Mexican dollars being equal to about $40 United States currency.

institution contained 332 students, and the advanced department (courses three and four years), 88. The latter were enrolled in the following courses: Medicine, law, agriculture, engineering. The latest plans of the present government outlined in July, 1915, relate to the establishment of a university at Tsingtau.[1]

PEKING.

By reference to the statement of the administrative policy of the Government it will be seen that the control of education in Peking is centralized directly in the ministry. The following table pertains to conditions in the year 1910:

Government colleges and high schools in Peking under the ministry of education.

	Foreign teachers.	Chinese teachers.	Students.	Income (taels).[1]	Expenditure (taels).	Average cost per student (taels).
Imperial university	6	13	200	92,780	91,692	430
Law college	10	32	594	73,104	71,545	120.446
College of languages	5	20	323	96,852	91,521	283.377
Eight banners' high school	.....	26	367	196,300	154,321	141.716
Manchu and Mongolian languages high school	.....	21	240	40,306	44,085	169.937
Shuntien high school	.....	19	209	79,032	64,436	278.622
Higher normal college	1	8	76	47,755	36,126	422.711

[1] The value of a tael in Peking is about 56.5 cents.

UNIVERSITIES UNDER FOREIGN AUSPICES.

The Imperial University, named in the table, should not be confounded with the Peking University maintained by Protestant missions.

Special reference should be made to the Tsing Hua College, founded by the Government near Peking for the preparation of students to be sent at the Government's expense to America, in accordance with the undertaking given by China when the United States Government announced its intention of returning a large part of the Boxer indemnity claim. This college was closed as a result of the revolution of 1911, but resumed operations in May, 1912.[2]

The latest addition to higher institutions in China is the University of Hongkong, which was opened in 1912 and which, although on British territory and under British influences, is destined to exercise a great influence on progress in China. Measures have also been taken for establishing Hankow University in central China under the auspices of an Oxford and Cambridge committee.

[1] From report of the American consul, Willys R. Peck, Tsingtau, July 26, 1915.

[2] For extended accounts of this institution see Rep. of Commiss. of Ed., 1914, ch. 37, pp. 769–770.

IMPORTANT PENDING MEASURES.

The Government has under consideration three important propositions suggested by the national conference: (1) Attendance at primary schools to be made compulsory; (2) determining the relation of mission schools and private schools to the Government; (3) the appointment of scholars versed in phonetics, and representative of all the Provinces, to invent or adopt an alphabet for the Chinese language.

AMERICAN ACTIVITIES IN RESPECT TO THE WELFARE OF CHINA.

Through the action of the Rockefeller board, China has in prospect a remarkable system of medical education. This purpose is the outcome of the work of a special commission appointed last year to investigate and report upon the needs of China. The members of the commission were Harry Pratt Judson, president of the University of Chicago; Roger S. Greene, United States consul general at Hankow; and Francis W. Peabody, of the Harvard Medical School. The commission met in Peking in May, 1914, and spent four months in a study of the existing medical schools, hospitals, and dispensaries in China, and in conference with Government officials, missionaries, and other competent advisers.

As a result of this preliminary investigation the foundation has established a Chinese medical board, of which the director is to be Dr. Wallace Buttrick, executive secretary of the General Education Board, and Roger S. Greene, resident director in China. A plan of action recommended by Frederick T. Gates and tentatively adopted by the board is briefly outlined in the report of the foundation as follows:

> Within the chosen area the plan organizes into one present organic whole the work and growth of many decades, every man, every dollar, every institution, every item of equipment now existing for medical work without loss or waste.
>
> As the system proves practicable and efficient, we may extend it to other similar centers, or it will perhaps extend itself and China will be in a fair way to lead the world in medicine, for to-day no land, whether in America or Europe, has any system of medicine at all comparable in efficiency or promise.[1]

CHINESE INDEMNITY STUDENTS.

According to the Chinese educational mission, there were 325 Chinese students in the United States, in 1915, maintained from the indemnity fund. Colleges and universities enrolling 10 or more of these students were as follows: Cornell University, 35; Massachusetts Institute of Technology, 35; Columbia University, 32; University of

[1] Third annual report of the foundation.

Michigan, 22; Harvard University, 20; University of Wisconsin, 16; University of Illinois, 15; University of Pennsylvania, 11; and University of Chicago, 11. The remaining students were scattered through 52 colleges and secondary schools; 1 was attending the United States Military Academy at West Point. Full scholarship students ($960) numbered 250; partial scholarship ($500), 58; special students, 17.

As to courses of study pursued by the indemnity students, it appears that 38 were taking academic courses; 104, various branches of engineering; 11, medicine; 5, railway administration; 8, business administration; 10, law; 17, chemistry; 3, forestry; 19, agriculture; 1, architecture; 5, naval architecture; 9, education; 7, banking and finance; 16, economics; 18, political science; 7, mining and metallurgy; 1, military science; philosophy, physics, and pharmacy, each 3; 1, psychology; 4, sociology; 3, manufacturing; 25, preparatory.

CHAPTER XXXV.

SYSTEM OF PUBLIC INSTRUCTION IN JAPAN.

CONTENTS.— Introduction — Administration — Elementary education: Teachers; school year; textbooks; school organization; schoolhouses; compulsory attendance; sources of income; programs—Schools for special classes—Training of teachers: Higher normal schools—Middle schools: Curriculum; high schools for girls—The higher (secondary) schools: Curriculum, students—Professional and industrial education for girls—Universities: General characteristics; admission requirements, fees, etc.; supplementary establishments—Technical education—Auxiliary agencies of education—Extension of the system to Chosen—Art education—Statistical summary—Expenditures.

INTRODUCTION.

The system of public instruction in Japan has long commanded attention because of the remarkable power shown by the Government in adapting features derived from western systems to an oriental nation. This interest has been greatly increased since Japan has been recognized as a world power, with a voice in the solution of many international problems and destined to exercise enormous influence on the development of China.

The present system of education was developed for the most part during the reign of the late Emperor Meiji. The main features of the system were established by a series of ordinances which showed at first the predominant influence of French ideals and models; later these were replaced by those of England and America; finally German influences prevailed. After the Treaty of Portsmouth, in 1905, which brought to a close the war between Russia and Japan, there was a marked tendency in the latter Empire to rise above foreign influences and to exalt the national spirit in the conduct of all institutions.

While foreign influences prevailed, attention was repeatedly called to the fact that, although the modern system of education in the Empire was European in its spirit and organization, the code for that country adopted in 1872 provided for a course of instruction in morals "which was then unknown in any American or European school." The importance of this subject was set forth in the imperial rescript

of 1890, and still more impressively in the rescript of 1908, which is as follows:

Know ye, Our subjects:

Civilization is advancing day by day and progressing month by month, and the nations of the whole world, east and west, through mutual dependence and help, alike share in its benefits. We confidently anticipate a lasting enjoyment of its blessings, along with other powers, by improving our relations and strengthening our friendship with them. But in order to move onward with the main current of the world's progress and to share in the blessings of civilization, it is obvious that we must depend upon the developmnt of our national resources. Our country has not yet had time to recover from the effects of the late war, and improvement and expansion are necessary in various branches of our administration. Therefore, with one mind, let all men, high and low, faithfully pursue their callings, be diligent and frugal in the acquisition and management of their property, maintain good faith, continue in righteousness, live simple and sincere lives, shun ostentation and cleave to reality, mutually warn one another against negligence and idleness, and brace themselves to ceaseless activity.

The precepts of Our Sacred Imperial Ancestors and the facts of our glorious history shine like the sun and the stars. Indeed, the development of our national resources has its root in reverently hearkening to these precepts, learning the lessons of these facts, and steadfastly acting up to them. In view of the circumstances of the present time We purpose, relying on the cooperation of Our good and loyal subjects, to enlarge the Imperial Plan of the Restoration and to exalt the august virtues of Our Imperial Ancestors. Ye, Our subjects, take to heart these Our wishes.

[Imperial sign manual. Imperial seal.]

The 13th day of the 10th month of the 41st year of Meiji.

[Counter-signature of the Minister President of State.]

Loyalty to the Emperor, morality, industry, and thrift, the necessary qualities of good citizenship, are the purposes toward which the instruction in all schools and higher institutions is constantly directed, and this final purpose is kept steadily in view in the administration and organization of the system of education. The main features of this system have been described in publications easily accessible to American students of education. They are briefly stated here in order that certain particulars which will be emphasized may be seen in proper perspective. This purpose is facilitated by a handbook of the system recently issued, from which the particulars given are derived.[1]

ADMINISTRATION.

The system of education is under the control of a department created in 1871. This department comprises three bureaus, to which are assigned, respectively, special education, general education, and religions. The bureau of religion, transferred in 1913 from the department of home affairs, is charged with the supervision of the ecclesiastical affairs of the country. These, however, are kept entirely distinct from educational affairs.

[1] Japan, department of education: Education in Japan, prepared for the Panama-Pacific International Exposition, 1915.

At the head of the department is the minister of education, who is assisted by a cabinet which deals with the financial and business side of the educational institutions. Each of the bureaus mentioned is organized under a director, who is assisted by councillors, secretaries, etc. To the central department belong superintendents appointed for local areas, and inspectors either permanent or temporary. An education investigation committee, under the control of the minister of education, was appointed in 1913. The duty of this committee is:

> To investigate important matters relating to education, to express an opinion upon questions submitted to it by the minister, as well as to present to him its own opinion upon various matters. The committee is composed of representatives not only of educational authorities, but also of all circles outside of them, and consequently it is many-sided in its nature.

The 47 Prefectures into which the Empire is divided are local agencies of educational administration. The governor of each Prefecture is at the head of its educational affairs, and is represented in the civil districts of his Prefecture by inspectors. Within the jurisdiction of the Prefecture are districts, cities, towns, and villages; the heads of these civil divisions control schools established by them. Educational committees are appointed which help in securing the legally required attendance of children at school. In all Prefectures, districts, or cities there are also educational societies; and though these are private institutions, they help in the advancement of education in the localities to which they belong.

ELEMENTARY EDUCATION.

The elementary schools are regulated by imperial ordinances, but are under the immediate direction of the local authorities. Provision is made for kindergartens and for special elementary schools under private control which are sanctioned by the authorities. The present consideration of elementary education will be limited to the public schools, which are classed as ordinary elementary and higher elementary.

Teachers.—The law prescribes explicitly the conditions under which teachers may be employed, their qualifications, and the duties which they must perform. An elementary-school teacher must have a license testifying to his qualifications for the service. The license is granted by the local governor to the graduates of the normal school or other schools appointed as such by the minister of education, or to persons who have successfully passed the elementary teachers' test examination; such a license is available all over the country and for life.

A teacher is authorized to conduct the business of the school under his care without any other interference than the supervision of the proper controlling authorities; that is, the local governor or the dis-

trict headman; to inflict necessary punishment upon the children for purposes of education (corporal punishment being forbidden by law); to suspend from attendance children suffering from contagious diseases or exposed to such, and also children who are unmanageable; to arrange the school hours, and in general to adjust the program of the school to local conditions.

The power of appointing or dismissing a teacher is vested in the local governor, but the appointment in each case is made on an application from the mayor or chief magistrate of the town or district which is in need of a teacher. The law makes special provision concerning the cases in which a teacher may be temporarily suspended from duty or permanently dismissed.

The importance of liberal provision for teachers is fully recognized, but the difficulties in the way of adequate salaries are similar to those experienced in other countries. Present salaries and emoluments are as follows:

By the law now in force a regular teacher of the regular course is paid a salary varying from 12 to 95 yen ($6 to $47) per month (for distinguished services it may be raised to 120 yen—$60); a regular teacher of the special course gets from 8 to 50 yen ($4 to $25); and an assistant teacher from $8 to 25 yen ($4 to $13).

In addition to the above salaries paid from the city, town, or village revenues, increased salaries for long service, and special additional salaries, are paid from the State treasury. The former are given to those who have served satisfactorily for more than five years in a public elementary school within the same Prefecture, while the special additional salaries are paid to such regular teachers as belong to single-classed schools, or have under their charge a class formed of children from the first to the fourth, fifth, or sixth school year in many-classed schools, or have to carry on their work as teachers in some out-of-the-way place. Besides the above, the law provides that an allowance shall be granted to those teachers who teach over 32 hours per week; a bonus may be given to those who have rendered distinguished service, and also to those who take night duty; medical expenses are allowed to those who are taken sick during the performance of their duties, and an official residence may be provided according to local circumstances.

An elementary-school teacher is entitled to a retiring pension and family pension. The pension on retirement is a life pension granted to such regular teachers of an elementary school of the city, town, or village establishment as are ordered, after 15 or more years of service, to retire on account of old age, illness, abolition of the school, etc., or to those who, though with less than 15 years' service, have retired on account of physical disability owing to wounds inflicted or some disease contracted in the discharge of their duties, assistant teachers having the same privilege in this latter case. Even those who are not entitled to a retiring pension, but who retire after over one or more years of service, are granted a lump sum of money according to the number of years of the service. A family pension is granted to the surviving members of the family in the case of the death of regular teachers of an elementary school of public establishment who were in receipt of, or were entitled to, a retiring pension, or who, though not having completed 15 years of service, have died in the discharge of their duties.

School year.—The tendency toward flexible arrangements suited to local conditions is shown by the fact that whereas the school year begins as a rule on the 1st of April and ends on the 31st of March of the following year, it may begin as late as the 1st of September and end on the 31st of the following August. This matter is left to the discretion of the local governor. The number of holidays in elementary schools must not exceed 90 per annum, exclusive of Sundays. The most important holidays are the anniversary of the accession of the Emperor Jinmu, the imperial birth celebration day, and New Year's Day. On each of these days the schools are assembled for a solemn ceremony, which consists of exercises intended to excite the national spirit and feelings of loyalty. The program includes the national anthem sung in chorus by all the school; homage done to the portraits of the Emperor and Empress; recitation by the schoolmaster of the imperial rescript on education; the schoolmaster's remarks respecting the foregoing; singing in chorus of some song proper for the occasion by the whole school.

Textbooks.—The State system of textbooks adopted in 1903 provides that the copyright of the books and charts to be used in an elementary school shall belong to the department of education. When there are several books on the same subject the local governor is to use his own discretion in making a selection. The minister of education may sanction books in a few subjects other than those copyrighted by the department. A special committee appointed in September, 1908, has the entire subject of textbooks under investigation, with the purpose of exciting competition between book sellers and the authors of textbooks.

School organization.—The imperial ordinance requires that there shall be one regular teacher for each class, but when circumstances do not allow this, the system of one regular and one assistant teacher for every two classes or two regular teachers for every three classes may be resorted to. The ordinance also requires that, except in some special cases, the number of classes in an elementary school shall be not more than 18, and that when local circumstances make it necessary to establish a branch school, the classes in each branch school shall not exceed 3.

The law places the highest limit to the number of children in one class at 70 in the ordinary elementary school, and 60 in the higher elementary school. Under special circumstances an addition, not exceeding 10 pupils, may be made to the normal number.

Discrimination is made in regard to sex. Girls are generally kept in a separate class from boys in the ordinary elementary school, when a class can be formed of girls of the same school year, and in the higher elementary school, when a class can be formed entirely

of girls. The younger children, however, of both sexes, belonging to the first and second school years in the ordinary elementary school may be formed into one class.

Where circumstances require, the pupils of the school may be divided into two sections, so as to be taught at different times of the day. Care is taken, however, that this half-time system shall not be carried to excess, and in all cases permission to make this arrangement must be obtained from the local governor.

An elementary school may provide a supplementary course of instruction, the aim of which is the maintenance and extension of the results attained during the course of elementary education and provision for practical instruction. There are two supplementary courses, one for the ordinary elementary school and the other for the higher elementary school; the course of supplementary instruction must not extend over more than two years.

Schoolhouses.—The law requires that the schoolhouse in each district shall be a plain strong building well suited to the requirements of instruction, control, and sanitation. The use of the school building, ground, furniture, and playground for other than their proper purpose is forbidden, except in the case of public calamities or for some special purposes which cause no hindrance to education. Thus the schoolhouse is occasionally used for public meetings, and the playground is sometimes open to the public for the purpose of exercise.

The teacher's residence shall be attached to the school, whenever local conditions permit.

Compulsory attendance.—The earliest ordinances made elementary education compulsory for all children for a brief period; by an ordinance of 1907 this period was extended to six years. The legal school period begins the day after the child reaches its sixth year of age and ends when it reaches its fourteenth year. Exemptions from the compulsory provisions are allowed for sickness, feebleminded-ness, etc. Elementary instruction may be given either in a public school or at home or elsewhere, but in the latter cases permission must be secured from the chief magistrate of the city, town, or village. A register of all children of school age is kept by the mayor or headman of every community, and the names of children who should enter the school are communicated to the local teacher at the beginning of each school year. An attendance register is also kept by the teacher, and if any of the children whose names have been given to him do not appear within seven days after the day appointed for their entrance, the fact is reported to the chief executive of the district. Similar notification is lodged in case of the absence, for seven successive days, of children who have entered the school. Measures are taken to impress the parents or guardians with the

necessity of correcting this delinquency, and if no notice is taken of this first warning, the matter is carried to the higher authorities. That this system is effective is shown by the fact that in 1912-13 the rate of school attendance throughout the Empire was 98.23 per cent of all children of school age, and the rate of daily average attendance 92.47 per cent.

Sources of income.—The support of elementary schools is derived from the community (city, town, or village), the larger areas of local administration (counties and Prefectures) of which the community forms a part, and from the national treasury. The initial cost of establishing elementary schools must be borne by the city, town, or village. If the resources of the community are not adequate, aid must be given from the larger area, the amount being determined by the governor of the Prefecture, and in cases of uncertainty submitted to the decision of the minister of education. The amount of money to be disbursed from the national treasury is fixed at 2,000,000 yen ($1,000,000) per annum, which is distributed to all the Prefectures of the country.

Further contributions are received from the "educational stock fund," 10,000,000 yen ($5,000,000), the amount from this source being determined in making up the annual budget. This money is applied to the equipment of schools and for the encouragement of general education by means of lectures, bonuses for teachers, etc. Each Prefecture is obliged to maintain a special account for this fund.

With the enforcement of compulsory education, measures are taken to do away with tuition fees, but these are still allowed in localities in which the sudden abolition of the fees would greatly reduce the school income. At present only 3 per cent of the ordinary elementary schools make a charge for tuition.

The higher elementary schools do not come within the compulsory period; therefore it is left to the option of the city, town, or village whether or not tuition fees shall be charged in these. In any case, however, the fees must not exceed 60 sen (30 cents) in a city and 30 sen (15 cents) in a town or village; the rate must be uniform through all the years of the school course.

Programs.—In the ordinary elementary school the following subjects are continued throughout the entire course: Morals, the Japanese language, arithmetic, drawing, singing, and gymnastics. Additional subjects are manual training, which may be given as local circumstances require, sewing for girls introduced the third year, Japanese history, geography, and science, introduced the fifth year. The Japanese language occupies the most time, from 10 to 14 hours a week being assigned to it; arithmetic follows, with 4 to 6 hours a week; morals have 2 hours a week throughout the entire course and also the same in the higher elementary schools which continue the

course of the lower schools as arranged for the fifth and sixth years. The higher elementary schools are of two classes, schools having two-year courses and those having three years, the courses being identical for the first two years. The following conspectus shows the complete course of the three-year higher elementary schools:

Course of instruction and number of school hours of the higher elementary school for three years of study.

Subjects of study.	Hours a week.	First year.	Hours a week.	Second year.	Hours a week.	Third year.
Morals	2	Principles of morality.	2	Principles of morality.	2	Principles of morality.
Japanese language.	8	Reading, writing, and composition.	8	Reading, writing, and composition.	8	Reading, writing, and composition.
Arithmetic	4	Fractions, percentages, proportion. (Abacus arithmetic of four rules.)	4	Proportion. (Abacus arithmetic of four rules.)	Boys, 4; girls, 3.	Supplements of the preceding year, mensuration, bookkeeping for daily use. (Abacus arithmetic of four rules.)
Japanese history.	3	Outlines of Japanese history.	3	Sequel of the preceding year.	2	History of Japan during Meiji era (the restoration).
Geography		Outlines of world's geography.		Supplementary lesson on geography.		Supplementary lessons on geography.
Science	Boys, 2; girls, 3.	Vegetables, animals, minerals, and natural phenomena; elements of physics and chemistry; simple machinery; elements of physiology and hygiene, and for girls domestic science.	Boys, 2; girls, 3.	Subjects of first year extended.	3	Supplementary lessons on science; elements of domestic science (for girls).
Drawing	1	Figures (various)	1	Figures (various) (easy geometrical drawing).	1	Figures (various) (easy geometrical drawing).
Singing	1	Solo singing (easy singing with staff).	1	Solo singing (easy singing with staff).	1	Solo singing (easy singing with staff).
Gymnastics	3	Gymnastic exercises; drill; sports.	3	Gymnastic exercises; drill; sports.	3	Gymnastic exercises; drill; sports.
Sewing	5	Sewing, mending, and cutting of common garments.	5	Sewing, mending, and cutting of common garments.	7	Sewing, mending, and cutting of common garments.
Manual training.	Boys, 6; girls, 2.	Easy workmanship and drawing.	Boys, 6; girls, 2.	Easy workmanship and drawing.	Boys, 6; girls, 2.	Easy workmanship and drawing.
Agriculture	Boys, 6; girls, 2.	Agriculture, general principles of agriculture; marine products, general principles of marine products.	Boys, 6; girls, 2.	Agriculture, general principles of agriculture; marine products, general principles of marine products.	Boys, 6; girls, 2.	Agriculture, general principles of agriculture; Marine products, general principles of marine products.
Commerce	Boys, 6; girls, 2.	General principles of commerce (English language).	Boys, 6; girls, 2.	General principles of commerce (English language).	Boys, 6; girls, 2.	General principles of commerce (English language).
Total	Boys, 30; girls, 32.		Boys, 30; girls, 32.		Boys, 30; girls, 32.	

N. B.—Time for practice may be extended out of the hours above indicated. Two hours or less may be deducted from manual training, agriculture, and commerce for boys, and these hours may be given to other subjects of study according to the local circumstances.

By reference to the conspectus given above, it will be seen that the girls have two more school hours a week than the boys. This is allotted to sewing and an extra hour in science. The same arrangement is made in the course of the lower elementary school after the second year. The regulations prescribe that although in special cases some deviation in the number of school hours a week is allowed, they shall in no case exceed 30 or be less than 18 in the elementary school, and in the higher elementary not more than 32 nor less than 24, except in half-time schools and in the case of younger children. For the latter school hours may be reduced to 12 a week in the elementary course.

The standard of the courses of instruction and the number of school hours having been determined, the schoolmaster must arrange the details of instruction for each subject of study. Previous to 1900 the results of the school instruction were tested by examination, but since that year this has been accomplished by considering the daily work of each pupil. The change was made with the hope of avoiding—

excessive application just before the examination on the part of children whose mental and physical development was still incomplete, but who were often driven thereto by the strain of competition, with results highly injurious to both mind and body. At the end of each school year, when the course has been completed in the ordinary as well as in the higher elementary school, the schoolmaster must give a certificate to each of those who have passed through the course satisfactorily.

SCHOOLS FOR SPECIAL CLASSES.

Provision for the education of the blind and the deaf and dumb is made by both public and private schools, and great attention is given to the practical training of the pupils in order that they may be prepared for industrial life. At Tokyo there is a school for the blind and a school for the deaf, both maintained by the General Government and under the direct supervision of the department of education. The former is noted for the successful adaptation of the Braille system to the Japanese "syllabary" which was worked out by Mr. K. Ishikawa, an instructor in the school. In this institution, which has naturally become a model for others in the Empire, there are two industrial courses, music, acupuncture, and massage. The course of general study extends over five years, with an additional year for those who specialize in music. With respect to acupuncture the report says:

Acupuncture being a medical art peculiar to our country, and having been for a long time the occupation for the blind, it has, together with massage and Koto playing, been introduced into the industrial course for the blind, along with some principles of anatomy, physiology, and hygiene.

The institution provides a training course of one year for students who show ability as teachers.

The Tokyo school for the deaf also serves as a model for institutions of this order throughout the Empire. The curriculum is divided into ordinary, industrial, and training courses. The industrial courses are drawing, woodwork, and sewing. With regard to the system of teaching speech the report says:

> Reading, pronunciation, and conversation are taught by Bell's system of visible speech to those dumb pupils only in the ordinary course who show quickness enough in learning. It is not taught to all of them for the following reason: Our characters in common use having been originally introduced from China and subsequently developed in this country, have each of several pronunciations and almost as many or more meanings, and each has three forms in writing; moreover, the spoken and written languages are entirely different, and a great variety of styles are used in composition, so that the task of teaching the language is beset by overwhelming difficulties, and some of the pupils would make little or no progress in pronunciation and reading.

The institute for the blind and dumb maintained by the city of Kyoto has achieved much distinction. Its teachers have made many improvements in the methods of imparting instruction to young people deprived of their normal senses.

TRAINING OF TEACHERS.

Provision for the training of teachers is made in normal schools, which in accordance with the latest ordinance on the subject must be established by each Prefecture throughout the Empire, within its own jurisdiction. The number of these local normal schools is at present 90—45 for young men, 34 for young women, and 11 coeducational. The course of study is divided into two parts: The preparatory and the regular. The regular course is again subdivided into a first and second section. The preparatory course, which covers only one year, forms a link between the higher elementary schools and the regular normal schools. The official regulations prescribe the subjects of instruction and the distribution of time among them, but modifications are allowed according to local conditions. The following conspectus pertains to the first section of a typical normal school for men. The figures in parentheses show the changes in the curriculum adapting it to the normal schools for women.

Program of typical normal school.

Subjects of study.	Preparatory course, hours a week.	Regular course (first section), hours a week.			
		First year.	Second year.	Third year.	Fourth year.
Morals	2	2	1	1	1
Pedagogics			2	4	Pedagogics.. 3 Practice..... 9
Japanese language and Chinese classics	(9)10	6	4	3	2
English		3	3	3	2
History		2	2	2	
Geography		2	2	1	
Mathematics	(5)6	(3)4	3	(2)3	2
Natural history		(2)3	2	1	
Physics and chemistry			2	(2)3	4
Civics and domestic science				(2)	(2)2
Handwriting	3	2	1	1	
Drawing	2	3	3	3	3
Manual training					
Music	2	2	2	2	1
Gymnastics	(4)6	(3)5	(3)5	(3)5	(2)3
Agriculture, or commerce	(4)	(4)	(4)2	(4)2	(3)2
Sewing					
Total	31	34	34	34	34

The maximum number of students in each of the schools is 500, all of whom reside in dormitories. The majority secure scholarships, and after graduation they are required to serve for a certain number of years as teachers in normal schools, middle schools, or high schools for girls. A middle school and an elementary school are attached to each normal school, serving as practice schools for the students, and also as model schools for the benefit of the entire country.

The higher normal schools for women are organized in three sections, viz, literature, science, and domestic science. The subjects included in the curriculum of the domestic science section are morals, pedagogics, domestic science, science, sewing, the Japanese language, a foreign language, manual arts and drawing, music, and gymnastics. The arrangement of the curriculum as regards sequence of subjects and time assigned is modified according to circumstances. Candidates for admission must be graduates from the normal school for women or from the high school for girls. The maximum number of students is 300. As in the case of the schools for men, the students reside in dormitories; they have the benefits of scholarships and are pledged to teach after graduation. Model schools attached to the higher normal schools for women include a high school for girls, an elementary school, and a kindergarten.

The second section of the regular course in the normal schools for men extend over one year, and the corresponding course in the schools for women over a period of one or two years. These sections are intended for more advanced students than those who enter the first section, and in them more time is given to professional training in pedagogics or the theory and art of teaching.

HIGHER NORMAL SCHOOLS.

Higher normal schools are maintained to prepare teachers for the ordinary normal schools and also for the service of middle schools and the high schools for girls. The normal schools of this class comprise two for young men exclusively and two for women. For admission to the schools for men, students must be graduates either of the ordinary normal schools or of middle schools and must pass successfully a test of physical strength, proficiency in studies, and must have testimonials showing their high moral character.

The higher normal schools for men include a preparatory course and the regular course, the latter organized in five sections as follows: Japanese language and Chinese classics; English language; geography and history; mathematics, physics, and chemistry; natural history.

A postgraduate course extending over one or two years is provided for the benefit of those graduates of the regular course who wish to pursue their studies in scientific and educational subjects.

The higher normal schools rank next to the imperial universities, their faculties consisting for the most part of university graduates who have pursued their studies in Europe or in America.

The need for teachers of technical subjects both in secondary schools and secondary technical schools has created a demand for a different order of training, which is temporarily met by professional courses given in the technical schools of high grade.

MIDDLE SCHOOLS.

The system of education established in 1872 comprised provision for secondary education. For this purpose the country was divided into 8 university districts, each of which was subdivided into 32 middle school districts. In each of the latter it was proposed to establish a school of general education for pupils who had finished the elementary course. The purposes and scope of the middle schools were not clearly defined at the outset and they were the subject of experiment and changes for nearly 30 years. Eventually it was determined to limit the middle schools to the general education considered as a preparation for the ordinary duties and responsibilities of life and to provide, in a still higher grade of schools, courses of instruction preparatory to the universities. In accordance with the provisions of the law now in force, boys who have completed the six years' course of the elementary schools are eligible for admission to middle schools. The course of study for the latter is arranged for five years, with a supplementary course of not more than one year. The teachers of the middle schools have special training for their duties and a higher range of salaries than those paid in the elementary schools.

CURRICULUM.

The subjects of instruction for the middle schools are shown by the following conspectus, covering the first and fifth years:

Subjects in the middle schools—Hours per week.

Subjects.	First year.	Fifth year.
	Hours.	*Hours.*
Morals	1	1
Japanese language and Chinese classics	8	6
Foreign language	6	7
History and geography	3	3
Mathematics	4	4
Natural history	2	.....
Physics and chemistry	.....	4
Civics	.....	2
Industry	.....	(2)
Drawing	1	1
Singing	1	.....
Gymnastics	3	3
Total hours	29	31 (33)

By comparing the above conspectus with the program of the higher elementary schools the distinctive character of the middle schools is clearly seen. The practical subjects of the higher elementary schools are represented in the middle school by an optional course in industry occupying two hours in the fourth and fifth year each. The elementary branches are more highly developed. Foreign languages are introduced, election being allowed between English, German, and French. Natural history occupies two hours a week from first to fifth year. Physics and chemistry are introduced in the fourth year, with four hours a week, as in the fifth.

HIGH SCHOOLS FOR GIRLS.

High schools for girls, like the middle schools for boys, have passed through various modifications and at present are regulated by ordinances of 1907, 1908, and 1910. The first of these ordinances provided for a four-year obligatory course, to which was added an optional course of one year. The ordinance of 1908 extended the scheme of optional study, and the ordinance of 1910 authorized a course in which the chief subjects throughout should be such as relate to household management. As a result of these regulations, secondary education of girls is now provided for by high schools established by the Government or by local authorities, by private high schools of the same character, and by domestic high schools either by public or private origin. The subjects of instruction in the girls' high schools are similar to those in the schools of corresponding grade for boys, with less time given to mathematics and the sciences and special stress placed upon morals, the Japanese language, and sewing. The domestic high schools offer a three years' course in which domestic science and sewing occupy half the time; provision is also made for schools

having a two years' course in which domestic science, sewing, and industries of various kinds occupy nearly all the time.

In 1912–13 the number of high schools for girls was as follows: Public schools having the general course, 162; private, 55; domestic high schools, public, 115; private, 15. They registered about 65,000 pupils.

HIGHER (SECONDARY) SCHOOLS.

The "higher schools" prepare students for admission to the university colleges. They are organized in three departments, varying in their programs according to the division of the university for which the students intend to enter.

The scope of the higher schools is shown by the accompanying conspectus of the studies of the three departments. So far as reported, there are eight higher public schools, which are named from the towns in which they are located (see list). There are many private schools in the Empire of the same general character.

Program for higher schools—First department.[1]

Subjects.	Hours per week.		
	First year.	Second year.	Third year.
Morals	1	1	1
Japanese language and Chinese classics	6	5	4
English	(9)	(9)	(8)
German	(9)	(9)	(8)
French	(9)	(9)	(8)
History	3	3	3
Logic and psychology	.....	2	.....
Principles of law	.....	.....	2
Political economy	.....	.....	[2]
Gymnastics	3	3	3
Total	31	32	29 31

[1] Figures in parentheses show the number of hours given to elective subjects, and the figure in brackets show the number of hours for applicants for admission to the college of literature.

Program for higher schools—Second and third departments.

Subjects.	Hours per week in second department.			Hours per week in third department.		
	First year.	Second year.	Third year.	First year.	Second year.	Third year.
Morals	1	1	1	1	1	1
Japanese	3	.....	.....	3	.....	.....
English	8	7	4	.....	.....	.....
German or French	8	7	4	.....	.....	.....
German	.....	.....	.....	13	13	10
English or French	.....	.....	.....	3	3	3
Latin	.....	.....	.....	.....	.....	2
Mathematics	5	4	6	3	2	.....
Physics	.....	3	3	.....	3	(1)
Chemistry	.....	3	(2)	.....	3	(1)
Geology and mineralogy	.....	.....	2	.....	.....	.....
Zoology and botany	.....	.....	.....	4	(3)	.....
Drawing	4	4	2	.....	.....	.....
Gymnastics	3	3	3	3	3	3
Total	32	32	30	30	31	31

[1] Lecture, 3; experiment, 3. [2] Lecture, 3; experiment, 2. [3] Laboratory work, 3.

Curriculum.—The great importance attached to the teaching of foreign languages is indicated by the number of hours assigned to them. This is necessary, because books that must be used in the courses preparatory to university education are found only in European languages. Throughout the entire period of study in the higher schools great attention is given to the moral and spiritual development of the students, and also to their physical training. This purpose is fostered by the provision of dormitories, which enable the faculties to keep constant oversight over the students.

Students.—Candidates for admission to a higher school must be graduates of a middle school, or give proof of equivalent attainments. The pressure for admission is so great that in many cases a competitive examination is ordered as a means of keeping the number admitted within the limits of the accommodation. The report calls attention to the fact that although the number of special schools of every kind, public and private, has been greatly increased as a result of the recent wars, this fact has not interfered at all with the number of middle-school graduates applying for admission to the higher schools. This shows the growing appreciation of general education, and is regarded as a direct result of the spread of primary education.

PROFESSIONAL AND INDUSTRIAL EDUCATION FOR GIRLS.

Among the notable developments of recent years is the demand for the services of women in different departments of life requiring special preparation either directed to earning a livelihood or to meeting the needs of various forms of public service. In response to these demands there have arisen various classes of special schools, among them schools for training kindergarten teachers, sewing schools, schools for teaching the feminine arts—such as weaving, dyeing, cookery, and manual crafts—and also schools for music and the fine arts. A feature of this development is the provision of special medical schools in which women are prepared to secure licenses to practice, and also diplomas as nurses and sanitary experts.

Up to the present time no provision has been made by the Government for the higher education of women. The Japanese Woman's University, a private institution at Tokyo, has made remarkable progress and given special impetus to the general cause of woman's education. An advanced school for women of the nobility was established at Tokyo by the "Noblemen's Association," but in 1884 it was placed under the control of the imperial household department. This institution comprises a kindergarten, elementary and secondary departments, and a course for special study. In 1913 the students numbered 616, including 10 members of the imperial family.

UNIVERSITIES.

General characteristics.—At the head of the elaborate system of general, liberal, and professional education fostered by the Government of Japan are the four imperial universities. These institutions are intended to provide instruction in literature, science, and art, and to provide facilities for modern research. They are organized in colleges, with the addition of a university hall, which is common to the students of all the colleges who are engaged in special lines of scientific research.

The universities have all been established and are maintained by the Government. The control of each is vested in a president and council. The latter body consists of the deans of all the colleges and one professor from each who is chosen by vote.

Admission requirements, fees, etc.—Graduates of the preparatory schools are admitted to the universities without further examination. Other applicants must prove equivalent attainments; in case of excessive candidates for admission, competitive examinations are held.

Students pay their own college expenses, the admission fee being 5 yen and the tuition fee 50 yen annually. Students distinguished for their attainments enjoy the privilege of exemption from the fees, and there are also scholarships and loan funds for the benefit of promising students whose private means are insufficient to meet the college expenses.

A university student enjoys the privilege of postponing his army conscription or of becoming a one-year volunteer.

Graduates from the professional colleges are admitted to practice in the Empire without further examination and may also be granted licenses to teach special branches in secondary schools. The university diploma is inscribed with the special degree corresponding to the course pursued by the student.

The following table shows the personnel and student body of the several universities and their distribution in the constituent colleges as reported for 1912–13:

Imperial universities.

Colleges.	Tokyo.		Kyoto.		Tohoku.		Kyushu.	
	Professors.	Students.	Professors.	Students.	Professors.	Students.	Professors.	Students.
University hall	.....	262	.....	78	.....	1	.....	3
College of law	62	2,269	23	382	.....	.....	.....	.....
College of medicine	52	684	38	321	.....	.....	28	284
College of engineering	72	647	.....	.....	.....	.....	24	83
College of literature	73	368	42	162	.....	.....	.....	.....
College of science	46	135	[1] 55	[1] 283	14	34	.....	.....
College of agriculture	67	619	.....	.....	88	823	.....	.....
Total	372	4,984	158	1,226	102	858	52	370

[1] Science and engineering combined.

Supplementary establishments.—The Tokyo Imperial University has been in existence for many years, and its equipment has been brought to a high pitch of perfection.

In addition to the ordinary lecture rooms, there is a library attached to the university, a large supplementary hospital is attached to the college of medicine, an institute for historical compilation is attached to the college of literature, and the Tokyo astronomical observatory, the botanical garden, a seismological laboratory, and a marine laboratory are attached to the college of science. The college of agriculture has four large forests—in which the students are trained in the science of dendrology—a pomological garden, a college farm, etc.

There are also laboratories of various kinds belonging to the colleges of medicine, engineering, science, and agriculture.

The Imperial University of Kyoto has a comparatively short history, but the equipment of each of its colleges has been almost completed. A library is attached to the university, and a supplementary hospital to the medical college. Laboratories are provided where necessary, so that nothing is lacking to the students of the university to assist them in their researches.

The college of agriculture in the Tohoku Imperial University has had a long history of 40 years as the Agricultural School of Sapporo, and has consequently become an institution of considerable importance. It has eight farms and three extensive forests, where the students may receive practical lessons in agriculture and forestry. Besides these, the university has specimen rooms, a botanical garden, a library, and a museum.

The Kyushu Imperial University, though of recent establishment, has had a remarkable development. There is a large hospital attached to the college of medicine, as in the Tokyo and Kyoto Universities.

The work carried on at the astronomical observatory belonging to the college of science of the Tokyo Imperial University consists of astronomical observations and the compilation of almanacs, from which the public derives great benefit.

The object of the institute for historical compilation, belonging to the college of literature of the same university, is to collect and to compile materials for Japanese history. Forty-three volumes of the Dai-nihon-shiryo (Japanese historical materials) and 40 volumes of the Dai-nihon-Komonjo (old Japanese documents) have already been published, and continuations of these two works will be published from time to time. The copies made of materials collected from all quarters, and the matter compiled, amount to 46,000 volumes in all. In addition, there is an enormous mass of pictures of historical personages and old maps, all copied from originals, and of

photographs taken from old pictures of noted personages, from old historical illustrations, from old documents, etc.

TECHNICAL EDUCATION.

Interest in technical education was of comparatively slow growth in Japan until after the close of the Japan-China War. Since that time technical schools have increased in all the principal Prefectures, their progress having been greatly accelerated by the war with Russia. As a consequence of this development, the Government has issued a special school ordinance, bringing all schools of this character under public supervision. The classification and specific purposes of the schools of this character are indicated by the following tabulation:

Classification and purposes of the technical schools.

HIGHER OR SPECIAL TECHNICAL SCHOOLS.	
Technical	9
Agricultural	5
Commercial	7
Total	21

TECHNICAL SCHOOLS OF SECONDARY GRADE.	
Technical	35
Agricultural	82
Marine products	6
Commercial	69
Nautical	11
Total	203

TECHNICAL SCHOOLS OF PRIMARY GRADE.	
Apprentices'	106
Agricultural	165
Commercial	30
Marine products	7
Total	308

TECHNICAL CONTINUATION SCHOOLS.	
Technical	167
Agricultural	5,061
Commercial	213
Nautical	2
Marine products	121
Others	1,176
Total	6,740

MEASURES FOR PROMOTING TECHNICAL EDUCATION.

The following citations from the official report pertain to special measures for the promotion of technical education:

State aid.—The Government allows pecuniary aid as an encouragement to those public technical, agricultural, commercial, nautical, apprentices', and technical continuation schools which are acknowledged to have done much toward the advancement of technical education. The aid is given for three years; but at the expiration of this term it may be renewed if this is thought necessary.

The sum thus given is at present 276,000 yen ($55,200) and the number of the schools amongst which the money is distributed is as follows:

Special technical schools	2
Technical schools of secondary grade	145
Technical schools of primary grade	246

Privileges.—Amongst the special technical schools and technical schools of secondary grade, whether public or private, those schools receive official sanction, according to the regulations, in which the discipline is good and firmly maintained, and in which teachers and equipment are alike adequate to the task of instruction in the various fixed courses of study. In the case of these

sanctioned schools the students enjoy the privilege of postponing their period of conscription and the graduates may become civil-service officials of hannin (ordinary) rank.

These sanctioned schools, classified according to privileges, are as follows:

	With both privileges.	With one privilege.
Special technical schools	4	1
Technical schools of secondary grade	191	162

RELATION OF TECHNICAL SCHOOLS TO MEN OF BUSINESS.

The relation between technical schools and men engaged in business has lately been becoming closer and closer, scientific theory has been brought into harmony with practice, and the two have been exerting a mutually beneficial influence, the result being on both sides progress and improvement. Business men of every kind have paid visits to technical schools, have seen the students at study or doing practical work; have handled articles of the students' manufacture or the products of school farms; have wondered at machines, implements, and tools of the newest kind; or have asked questions regarding the experiments and investigations carried on in the schools. Thus they have been enabled to appreciate the importance of this kind of education. The schools have furthermore sent out invitations to business men and have explained to them what things have an important bearing on practical business; have published the results of experiments and investigations, have lent or distributed implements, machines, manufactured articles, specimens, seeds, etc., and have thus greatly assisted various branches of industry, or have exhibited to the public what has been manufactured in the school or been produced on the school farms. Thus the schools have endeavored both directly and indirectly to assist and promote all branches of industry. Further, the schools have sent out teachers, at the request of different bodies of business men, to deliver important lectures; they have invited educators or business men of much learning and experience to deliver lectures which have been open to the public; the teachers have taken the students to workshops, farms, banks, companies, or private stores, where they have given practical lessons to students; and when they have found some things in these places open to improvement, they have kindly pointed them out to the people of the workshops, etc. In this way, as time goes on, the schools and men of business will be a help to each other.

AUXILIARY AGENCIES.

Auxiliary agencies for promoting education are supported both by the General Government and local governments. The most important of these agencies are as follows:

Libraries.—The Imperial Library, which is the only one established by the Government, was opened in 1872 and has kept pace with the progress of education in the country. It contains 437,414 volumes of Japanese and Chinese books and 85,473 volumes of foreign books, making a total of 522,887 volumes.

The number of readers in one year, according to the latest returns, was 225,325, giving an average of 696.9 per day.

The public and private libraries number about 700. They are scattered over various parts of the country and contribute much to the diffusion of knowledge.

Local governments and public or private schools affording a higher course of education also have their own libraries. Of these the most extensive and completely equipped is the library attached to the Tokyo Imperial University. This library contains 274,000 volumes in Chinese and Japanese and about 230,000 volumes of foreign books, making a total of 504,000 volumes.

Museums.—The largest of the educational museums belongs to the department of education. As explained in the official report, the object is to collect and to display for public inspection various educational articles, together with books and pictures, obtained both at home and from abroad, in such a manner as shall best afford means for the improvement and development of education. The articles as at present collected and exhibited are those illustrating school architecture, school equipments, apparatus for teaching, and specimens of work done by pupils, etc.

Together with the Educational Museum, there is a Museum for Popular Education. In this museum are collected and exhibited simple apparatus, specimens, models, pictures, photographs, etc., that relate to natural sciences, accompanied by explanations of their application, with the object of imparting useful knowledge to the public at large. In connection with this institution a public libary is provided with 25,000 volumes, besides magazines and newspapers. The number of visitors to this institution was about 150,000 during last fiscal year, among whom about 11,000 were readers in the library.

The college of agriculture in the Tohoku Imperial University has a large museum admirably classified for the display of the products of the country for purposes of study, and also for illustrating the historical development of agricultural industries. While its main purpose is to serve the needs of students, it is open to the general public for a certain period each day, in order to diffuse a general knowledge of the productions of that section.

There are also three imperial museums situated, respectively, at Tokyo, Kyoto, and Nara. In these museums exhibits are displayed principally of historical relics and specimens of the fine arts and of arts and industries, so arranged as to illustrate the changes that have taken place in both the fine and industrial arts.

Educational societies and scientific associations.—The Imperial Educational Society, which was founded in Tokyo in 1883, is the most important organization of its class in Japan. The society publishes a journal, maintains a popular library, lecture classes, and general conferences, and also confers honors upon persons of educational merit.

The department of education maintains a system of lecture institutes or summer schools in the interests of teachers. These are generally in charge of professors of some one of the universities and deal in the main with the subjects taught in the higher schools.

The Imperial Academy has for its object the advancement of science and the encouragement of learning and culture; it also serves as an organ of inquiry for the minister of education on all matters re-

lating to its specialties. The number of its members is fixed at 60. They are elected from the general body of candidates by the members of the respective departments, and are appointed by the Emperor himself on the recommendation of the minister of education.

Foreign scholars who have rendered distinguished service in the advancement of learning in this Empire may be appointed as honorary members.

The science of meteorology is fostered through the agency of the Central Meteorological Observatory and its stations, and is supplemented by local meteorological stations, which number at present 118. The latter are maintained out of the local budgets and controlled by the local governor under the supervision of the minister of education.

Japan has contributed to the interests of science throughout the world through the agency of the earthquake investigation committee, the geodetic committee, the special observatory for the measurement of latitude, and the committee for the compilation of catalogues of scientific literature. These are all Government institutions.

Agencies for promoting popular education.—Popular lectures are found to be the most efficacious means of reaching adults and young people who have passed the school age. The magic lantern and the cinematograph are widely used in connection with these lectures, and in aid of this work the department of education has a committee for examining books and pictures, magic-lantern slides, and cinematograph films.

Instruction by correspondence is maintained by private professional schools, the lessons relating chiefly to politics, law, and economics, though literature, language, mathematics, and the natural sciences are also taught by this means. Some of these schools hold periodical examinations for promotion, and to such of their correspondents as successfully pass the examination certificates of qualification are issued.

EXTENSION OF THE SYSTEM TO CHOSEN.

The Government of Japan has developed a school system in Chosen modeled after its own system with adaptations to the native conditions. According to statistics for 1914, the total number of educational institutions maintained in that Province was, for the Japanese, 286, with 1,169 teachers and an enrollment of 31,636 pupils. For Koreans the number of educational institutions was 1,729, with 7,119 teachers and 129,919 pupils. The annual expenditure for the Japanese schools was 928,086 yen ($464,000) and for the Korean institutions 2,193,116 yen ($1,096,000).

The practical spirit which has characterized the development of education in Japan is equally marked by the work in Chosen. Particular attention has been paid in that peninsula to the promotion of agriculture and the encouragement of afforestation, both of which are being systematically developed.

ART EDUCATION.

From the earliest times art has played a very important part in the religious, social, and industrial life of Japan, and naturally under the present conditions great attention is paid to art education. The administrative division to which this interest is committed is charged with preserving the specimens of ancient art and the general supervision of the system of art education. In addition to maintaining the principles and methods which have distinguished the national system of art, provision has been made under the direction of the minister of education for introducing the principles and methods of European art. The Tokyo Fine Art School is the only institution of the kind maintained by the Government. It comprises at present eight courses of instruction, as follows:

Japanese painting, European painting, sculpture, designing, engraving on metals, metal casting, lacquering, photomechanical printing, and the training course of teachers. The length of each course is five years, preparatory course included, while the last two courses extend over three years. Applicants for admission must be graduates of middle schools, and are admitted after an examination.

Kyoto was formerly the captial of the Empire, and is still regarded as the center of fine arts. A school of painting was established in that city before the Government school existed. In 1908 the standard of the Kyoto school was raised, and it has since been known as the special school of painting. In addition to these two institutions, Japanese painters maintain art studios (kajuku), in which students practice under the guidance of great artists.

Public interest in art works and art education is promoted by the Japanese Fine Art Association and by several associations for the promotion of industrial art, among them the Tokyo Metal Workers' Association, the Tokyo Lacquer Ware Association, and the Tokyo Sculptors' Association.

In 1907 the first public exhibition of works of fine art was held under the auspices of the educational department, and a similar exhibition has been held in each succeeding year with ever increasing success.

Provision for art education is completed by the Tokyo Academy of Music, which receives an annual endowment from the Government. The curriculum is divided into two courses, one for training professional musicians and the other for the purpose of training teachers

of music. The teachers of music in normal schools and girls' high schools are mostly graduates from the normal course of this academy. The music in the elementary schools improves steadily under the instruction of teachers who have profited by the special training. It is an interesting fact that the Tokyo Academy of Music was called into existence by the desire to introduce western music into the schools. There is no school, however, for teaching Japanese music. This art is preserved by the efforts of private music teachers. A very recent extension of art education is in the form of schools for actors and actresses, and at these native music is taught somewhat after the school system.

Summarized statistics, 1912–13.

Classes of schools.	Number of schools.	Instructors and teachers.	Students.	Graduates.
Elementary schools	25,673	158,601	7,037,430	1,093,515
Schools for blind and dumb	57	348	2,669	354
Normal schools	86	1,619	27,653	11,268
Higher normal schools	2	124	1,091	241
Higher normal schools for girls	2	99	659	148
Special institutes for the training of teachers	2	23	122	.....
Middle schools	315	6,220	128,973	19,246
High schools for girls	209	3,818	75,128	16,585
High schools	8	358	6,537	1,775
Imperial universities	4	792	8,946	1,865
Special schools	66	1,962	27,048	4,193
Special technical schools	19	681	6,896	1,536
Technical schools, secondary and primary grades	519	4,505	74,869	18,081
Technical continuation schools	7,386	2,319	346,767	111,587
Institutes for the training of technical teachers	3	.....	170	60
Miscellaneous schools	2,333	7,498	148,761	42,537
Total	36,774	188,967	7,893,719	1,322,991

EXPENDITURES.

The actual amount of ordinary expenditure for the department of education for the year 1912–13 was yen 9,481,047 ($4,740,000); the amount of extraordinary expenditure was yen 1,311,042 ($655,000), a total increase over the previous year of yen 343,758 ($172,000). Of the entire amount for ordinary expenditure, the imperial universities and their dependent institutions received yen 5,717,257 ($2,857,000). The amount of ordinary expenditure for public schools of Prefectures, districts, cities, towns, and villages was yen 64,365,352, and of extraordinary expenditure, yen 16,502,240, the total being yen 80,867,592 ($40,484,000). Of this total expenditure, yen 11,392,740 were derived from tuition fees and other income for educational purposes; the balance was defrayed by prefectural taxes, local rates, district rates, city, town, and village taxes, and other sources of income.

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