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DEPARTMENT OF EDUCATION.

REPORT

OF THE

COMMISSIONER OF EDUCATION,

WITH

CIRCULARS AND DOCUMENTS

ACCOMPANYING THE SAME;

SUBMITTED TO THE

SENATE AND HOUSE OF REPRESENTATIVES JUNE 2, 1868.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1868.

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1867-68
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HARVARD UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
MONROE C. GUTMAN

1868. Dec. 9

DEPARTMENT OF EDUCATION,
Washington, D. C, May 30, 1868.

SIR: I have the honor to submit herewith to the Senate the report required of the Commissioner of Education by an act to establish the Department of Education, approved March 2, 1867.

Very respectfully, your obedient servant,

HENRY BARNARD,
Commissioner.

Hon. B. F. WADE,
President of the Senate.

IN THE SENATE OF THE UNITED STATES,

July 27, 1868.

Resolved, That 3,000 copies of the annual report of the Commissioner of Education be printed for the use of the Commissioner; and that 1,500 copies of the accompanying documents, or so many of them, not exceeding 1,500, as he may deem proper, be printed and furnished to the Commissioner, either separately or together, as he may elect; and that 3,000 copies of his report upon educational interests of the District of Columbia be printed separately for the use of the Senate.

Attest:

GEO. C. GORHAM, *Secretary.*

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REPORT

OF THE

COMMISSIONER OF EDUCATION

FOR

THE YEAR 1867-'68.

REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF EDUCATION,

Washington, D. C., March 15, 1868.

AT the close of the first year since he received from the President of the United States authority to organize and administer the affairs of this Department, the Commissioner of Education has the honor to submit his first or preliminary Report, "embodying the results of his investigations and labors, together with a statement of such facts and recommendations, as will in his judgment subserve the purpose for which this Department is established"—as is provided for in the following Act, approved March 2, 1867.

AN ACT TO ESTABLISH A DEPARTMENT OF EDUCATION.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That there shall be established, at the city of Washington, a Department of Education, for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.

SEC. 2. *And be it further enacted*, That there shall be appointed by the President, by and with the advice and consent of the Senate, a Commissioner of Education, who shall be intrusted with the management of the Department herein established, and who shall receive a salary of four thousand dollars per annum, and who shall have authority to appoint one chief clerk of his department, who shall receive a salary of two thousand dollars per annum, one clerk who shall receive a salary of eighteen hundred dollars per annum, and one clerk who shall receive a salary of sixteen hundred dollars per annum, which said clerks shall be subject to the appointing and removing power of the Commissioner of Education.

SEC. 3. *And be it further enacted*, That it shall be the duty of the Commissioner of Education to present annually to Congress a report embodying the results of his investigations and labors, together with a statement of such facts and recommendations as will, in his judgment, subserve the purpose for which this Department is established. In the first Report made by the Commissioner of Education under this Act, there shall be presented a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same, as far as the same can be determined.

SEC. 4. *And be it further enacted*, That the Commissioner of Public Buildings is hereby authorized and directed to furnish proper offices for the use of the Department, herein established.

Approved, March 2, 1867.

After consulting State and City Superintendents of Public Schools,

and other friends of education who had taken an active interest in the establishment of the Department, so far as they could be reached by letters, or call, within the first month, a general plan of operations was formed, the rooms furnished by the Commissioner of Public Buildings were occupied, the three clerks provided for were appointed, and about the middle of April the special work assigned to the Department was begun.

The general and special work of this Department, as defined in the Act of March 2, 1867, are,

First.—"To collect such statistics and facts as shall show the condition and progress of education in the several States and Territories"—and

Second.—"To diffuse such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country."

Third.—Besides giving his attention to these general subjects, the Commissioner is directed to present in his first report to Congress, "a statement of the several grants of land made by Congress to promote education, the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same, as far as the same can be determined."

Fourth.—By a Joint Resolution, approved March 29, 1867, the Commissioner is further directed to ascertain the condition of the public schools in the District of Columbia, and submit a Report on the relative efficiency of the system now in force, and on such additional legislation as he may deem necessary to secure the advantages of said system to all the children of the District.

The magnitude and delicacy of the work assigned to this Department both in the general and the specific provisions above recited, are such as to compel the Commissioner to invoke in advance a charitable judgment on any apparent deficiency in his plans, or in any delay in reaching, or in making public the results of his first year's labors. None save those who have had personal experience in this field of labor can appreciate fully the difficulty of obtaining complete statistics, or even general information, of the organization and operation of systems and institutions, located in forty-six different States and Territories occupying half of the American Continent—these systems, where they do exist, differing from each other in organization, management, and returns; and these institutions, whether in or out of the general system of the State,

differing from each other in all the great centres of population. This difficulty of obtaining precise and uniform statistics, not inconsiderable even where there is legal authority for requiring the information, and forfeiture of some kind, or pecuniary advantage is attached to withholding or giving the same, becomes almost insuperable, when, as with this Department, there is no organic connection with systems or institutions in the several States; no authority to require, no pecuniary advantage for furnishing, no forfeiture for declining or neglecting to furnish the information sought, and no means to supply the deficiency of written returns by personal inspection. If a comprehensive and exhaustive inquiry, on some general plan, was instituted every year in each State, into its educational condition and progress, including institutions of every kind and grade, a compilation and comparative view of the results would be very easy and satisfactory; and it is hoped that one of the results of the labors and publications of this Department, and of the annual Conferences of State and City Superintendents already inaugurated, will be the adoption of some uniform plan of gathering annually the statistics of schools of every kind, both in States, and in all large cities. At the present time, there are no two States or cities, in which the statistical returns as published, include the same particulars, or between which a rigid comparison as to schools can be instituted; in more than one half of the States the returns are so incomplete as to institutions, or omit so many vital points in the condition of the schools returned, as to be worthless, as indications of the real work attempted, or done, in individual schools, or by all the schools of the State; in nearly all of the States, no attempt is made to secure inspection or returns of private, denominational, or incorporated institutions; in nearly one half of the States no efficient system of public schools is in operation, and no sufficient number of good private or denominational schools exists; and of those which have a precarious existence, not even their locality, or the name of the teachers and the number of pupils are known to any public officer; and with a single exception, no efficient measures are enforced by State or municipal regulations as to the non-attendance of children at some school, public or private, to stop the growth of absolute illiteracy, or diminish, by evening and adult schools, the still larger amount of practical ignorance of letters and books, which abounds, even in States where the most attention is paid to education. It is only when a searching inquiry is instituted by the National Census, or under State or municipal authority in the same form, or by societies and individuals in restricted portions of large

cities, for some ecclesiastical purpose, or the antecedents of the victims of vice, pauperism, and crime, are investigated, that the amazing deficiencies in our systems, means, and methods of universal education appear. The startling and humiliating statistics of the National Census of 1840, 1850, and 1860, as to the number of the white adult population unable to read and write, in certain States, and for the whole country, will be found in Official Circular, No. XIII.

In the present condition of the educational statistics of each State, and in the full occupation of the clerical force at his command in other directions hereinafter set forth, the Commissioner has not attempted, beyond the statistics of public schools in the principal cities of the country, in reference to the practical efficiency of the systems in operation in the District of Columbia, to exhibit by any statistical summary, the condition and progress of education in the several States and Territories. If he has been reasonably successful in indicating the method by which a national agency, like this Department, can obtain a record of the educational systems and institutions of the several States, and put himself into communication with their managers and teachers—can throw light on the deficiencies as well as excellencies of our systems, and impart greater activity to all the agencies which determine the education of a people—can contribute in the experience of States, systems, and institutions, and in the views of eminent teachers and educators, the material for a thorough discussion and wise solution of educational problems—he has done all that he has thus far attempted, or that could reasonably be expected. Should it be his privilege to continue the investigations already instituted—should he be authorized to get, by personal inspection, the material for a comparative view of the same class of institutions in different States—he believes that in a subsequent Report he can submit, with a comprehensive view of the organization and operations of systems and institutions, such reliable facts and statistics, and the generalizations authorized by the same, "as shall show the condition and progress of education in the several States and Territories," shall aid the people in those States in which, for the first time, systems of public schools are established, "and otherwise promote the cause of education throughout the country."

I. PLAN OF OPERATIONS FOR 1867–68.

The first step taken was to make known the provisions of the Act, by which and the avowed purposes for which, the Department was established; and at the same time, to map out the field of inquiry into which the Commissioner was about to enter—specifying the

subjects on which facts, information, and suggestions, were desired, and the portions of the field which had been already partially explored by him; as well as the subjects which had been, to some extent, discussed by prominent teachers and educators, and on which valuable information could be given, and indicating at least the sources of such information. (*Official Circulars I, and II.*)

SCHEDULE OF INFORMATION SOUGHT.

I. GENERAL VIEW OF SYSTEMS, INSTITUTIONS, AND AGENCIES OF EDUCATION.

A. GENERAL CONDITION (*of District, Village, City, County, State.*)

(Territorial Extent, Municipal Organization, Population, Valuation, Receipts and Expenditures for all public purposes.)

B. SYSTEM OF PUBLIC INSTRUCTION.

C. INCORPORATED INSTITUTIONS AND OTHER SCHOOLS AND AGENCIES OF EDUCATION.

II. DETAILS.

1. ELEMENTARY OR PRIMARY EDUCATION.
(Public, Private, and Denominational; and for boys or girls.)
2. ACADEMIC OR SECONDARY EDUCATION.
(Institutions mainly devoted to studies not taught in the Elementary Schools, and to preparation for College or Special Schools.)
3. COLLEGIATE OR SUPERIOR EDUCATION.
(Institutions entitled by law to grant the degree of Bachelor of Arts or Science.)
4. PROFESSIONAL, SPECIAL, OR CLASS EDUCATION.
(Institutions having special studies and training, such as—1, Theology. 2, Law. 3, Medicine. 4, Teaching. 5, Agriculture. 6, Architecture, (Design and Construction.) 7, Technology—Polytechnic. 8, Engineering, (Civil or Mechanical.) 9, War, (on land or sea.) 10, Business or Trade. 11, Navigation. 12, Mining and Metallury. 13, Drawing and Painting. 14, Music. 15, Deaf-Mutes. 16, Blind. 17, Idiotic. 18, Juvenile Offenders. 19, Orphans. 20, Girls. 21, Colored or Freedmen. 22, Manual or Industrial. 23, *Not specified above*—such as Chemistry and its applications—Modern Languages—Natural History and Geology—Steam and its applications—Pharmacy—Veterinary Surgery, &c.)
5. SUPPLEMENTARY EDUCATION.
1, Sunday and Mission Schools. 2, Apprentice Schools. 3, Evening Schools. 4, Courses of Lectures. 5, Lyceums for Debates. 6, Reading Rooms—Periodicals. 7, Libraries of Reference or Circulation. 8, Gymnasiums, Boat and Ball Clubs, and other Athletic Exercises. 9, Public Gardens, Parks and Concerts. 10, *Not specified above.*
6. SOCIETIES, INSTITUTES, MUSEUMS, CABINETS, AND GALLERIES FOR THE ADVANCEMENT OF EDUCATION, SCIENCE, LITERATURE, AND THE ARTS.
7. EDUCATIONAL AND OTHER PERIODICALS.
8. SCHOOL FUNDS AND EDUCATIONAL BENEFACTIONS.
9. LEGISLATION (STATE OR MUNICIPAL) RESPECTING EDUCATION.
10. SCHOOL ARCHITECTURE.
11. PENAL AND CHARITABLE INSTITUTIONS.
12. CHURCHES AND OTHER AGENCIES OF RELIGIOUS INSTRUCTION.
13. REPORTS AND OTHER PUBLICATIONS ON SCHOOLS AND EDUCATION.
14. MEMOIRS OF TEACHERS, AND PROMOTERS OF EDUCATION.
15. EXAMINATIONS (COMPETITIVE, OR OTHERWISE) FOR ADMISSION TO NATIONAL OR STATE SCHOOLS, OR TO PUBLIC SERVICE OF ANY KIND.

The main objects aimed at by this Schedule are, (1) to show in the national aggregate, the magnitude of this great interest of education;

the number and variety of institutions and agencies which are at work in every neighborhood, municipal organization, and State; to determine not only the formal instruction and training of children and youth, but to affect the health, opinions and habits, intellectual, moral and political, of every member of a community; (2) to ascertain the name, residence, and special work of every person in the administration, instruction, and management of institutions and agencies of education, as material, with the official school documents of a State, to exhibit their condition and progress, and as the basis of a Register—which shall be to this branch of the State social service, what the Army and Navy Register is to those specially organized departments of the national service; and (3) to find, among the many thousands engaged as officers or teachers, the correspondents, who from a heartfelt interest, and a life consecration to the work, will gladly furnish, from time to time, desired information; contribute to the discussion of educational problems, and disseminate among those who would profit by their consultation or perusal in the preparation of addresses and reports, such documents and statistics as shall be issued by the Department for the advancement of any branch of the subject.

A brief explanation of the details of the Schedule will show the direction and method of the labors of this Department. As the ground of a proper understanding and use of the returns made, it is deemed essential to know the conditions of the community from which they come, or to which they refer; (*Schedule A*) the territorial extent, the number, occupation, and pecuniary condition of the people; the municipal organization, valuation, and public expenditures, as well as other particulars of the locality. Many of our State systems of public instruction are defective in not admitting, under regulation of a State Board or Superintendent, of adaptations in administration, to the peculiar circumstances of a city or a sparsely-populated district, to a longer or shorter experience in public schools, and to the introduction or omission of certain studies, according to the occupations of the people. While the public school in cities admits of expansion so as to embrace nearly the whole range of secondary instruction, in the rural districts it must be restricted to a few fundamental branches, and must have within itself a certain completeness, although restricted to a few subjects and to one teacher; and the branches taught and the methods must contain the elements and instruments of self-culture, because a majority of the pupils will attend no other school, and their progress in mental development and self-formation will depend on the thoroughness

and vividness with which they are taught in these elementary and intermittent schools. In such schools, scattered over the most sterile portions of every country, with the favoring circumstances of good homes, simple manners, healthy occupation, and a wise use of small advantages, have been trained, or at least started in their career of mental discipline and acquisition, a larger proportion not only of useful business men, but of statesmen, scholars and professional men, than in the same number of city schools, enjoying every advantage of scientific classification, prolonged sessions, and well qualified teachers.

Before coming to a just understanding and an intelligent discussion of particular institutions, the Commissioner deems it advisable to know something of the system to which they belong, as well as of the history and condition of existing legislation, both State and municipal, on the subject, as well as the habits of the people in this regard. (*Schedule, B. C.*) It is much easier to bring a majority of the legal voters of any town or city to provide liberally for public schools, in States which have by force of law and habit recognized the High School as part of its system of public instruction; and on the other hand, the practice of incorporating and endowing by public or private liberality, special institutions under the name of Academies and Seminaries, will account for the multiplication of this class of institutions, and the slow introduction of public schools of the same grade. The extent to which different religious societies provide schools for the children of their several connections, is an important element in the existing means of education in any community, and will determine in no small measure the direction in which improvements can be made. Having gained a full understanding of the general condition of society and education in any community, we can justly appreciate the information given respecting the schools of that locality, be it large or small. In giving the results of this information, and in any suggestions which the Comsioner may make, founded on the same, the following classification, substantially, will be adopted.

1. *Elementary Schools.*

By elementary education—(we use the words education and instruction here to express the aim and results of the same process, although, whether regarded as expressing either process or result, the means or the end, the words have a widely different meaning)—is understood, that formal instruction, first in point of time, simple in quality, small, it may be, in amount, but the most important in reference to mental habits and future progress, which can be given in schools open to all

children. On the number and character of these schools, whether public, private, or denominational, more than on any other grade of schools, no matter how organized or conducted, depends the successful solution of the problem of universal education. Its solution has been attempted in past times, as well as in the present—and never so strenuously and so universally in all countries, as at this very time—and in a variety of ways: (1) by the State; (2) by the Church; (3) by the State and Church; (4) by the State, Church, and parents; (5) by parents, with or without the aid of legal association, and governmental grants, and with and without the powerful coöperation of religious bodies; and (6) by the State as a whole, acting with the people in their municipal organizations, by which the school is brought near to parents, and maintained in sympathy with their wishes, yet subjected to State inspection, and sustained out of the common property of the whole community. In no country, by any of these systems or modes, has education, even in its lowest elementary form, been made universal; in no country has this State interest and parental duty, this civil and religious obligation, been fully met. How far, and by what systems and agencies, the several States are engaged, or have succeeded, in the solution of this great and difficult problem, the Commissioner is gathering the material to show, as well as to aid, so far as making known the experience of the most advanced communities, and the suggestions of the most eminent educators at home and abroad, can do so. There is much of encouragement in the liberality and popular favor with which the public school system, which is distinctively American—that in which State and municipal authority are both recognized, and the wishes of parents, so far as is consistent with a general system, respected—is sustained. There is ground of congratulation, that religious societies which withhold their sympathy from the public system, and in some cases denounce it, succeed so well in enlisting parental contributions to support denominational schools. But the statistics of school attendance, in all the great centres of population in every State—and no where more clearly than in this District, as is shown in the Special Report from this Department—prove that the problem of universal elementary education is not yet satisfactorily solved in this country, under the combined operation of public, denominational, incorporated, and private schools. In several States, the work is yet to be begun by imperative constitutional ordinance; in others by the adoption of an efficient school system; and in all, by securing a better attendance of children of the proper school age, the more permanent employment of qualified teachers, and the thorough inspection and fullest publicity of the

working of the system of public schools and other means of popular education.

2. *Secondary Schools.*

Under the heading of secondary schools, the Commissioner desires to obtain information respecting that class of institutions generally known as Academies, Seminaries, and High Schools, in which the work of formal instruction is taken up at the point where it is left by the elementary school, and carried on with a double purpose, viz.: (1) a general educational discipline, with special attention to studies which are preparatory to the next highest grade of our American system, the College in some of its forms; or (2) the same discipline with special attention to certain studies, considered of practical importance to the ordinary business into which a large majority of the pupils of these institutions enter on graduation. Although, historically, the first established, and found in every State under some name, and of the highest importance in reference to the schools below and above them, there is less system (except in the Public High School) in the establishment, management, and instruction of institutions of this class than in any other. Left now to the proselyting zeal and rivalry of each denomination, or to the real or fancied wants of a few families, they are started in too near proximity, without endowments, and without a definite educational purpose; frequently in antagonism and to the injury of the public school, and without sufficient reference either to the schools above, or to the pursuits of the community. The whole subject of secondary education, its institutions, studies and methods, needs investigation and discussion; and to the material already gathered or which may be contributed, the Commissioner is prepared to show how the problems of organization, management, studies, teachers, and inspection are solved in other countries, where the subject has received more attention than either elementary or superior instruction.

3. *Colleges, or Superior Schools.*

Under the head of Colleges, the Commissioner includes all institutions of a superior grade, which have been empowered by the State to confer the usual academic degrees of bachelor and master in the liberal arts or studies, and whose course of general mental discipline and instruction, though superior to the Secondary schools, does not include special professional teaching and training. The needs of society have called this class of institutions into existence in every country and in every age, but with us, their real or supposed connection with religious and local interests have multiplied them beyond any demand for higher scholarship, and it is feared, not only to the injury of each other, but to the great detriment of

the very highest culture, which is only possible under the concentration, in a few centres of a large extent of country, of a numerous body of learned and eloquent men, representing all the great departments of literature, science and art, aided by cabinets, libraries, laboratories, and other means of original and exhaustive investigation and demonstration. But whatever the facts may be, he is engaged in ascertaining their number in each State; the circumstances of their origin, the conditions of admission, courses of study, equipment of libraries and material aids of instruction, their students, profcssorships, graduates, and endowments—what they profess and what they really accomplish—as well as their relation to the schools below, and to the professional and special schools of the country. To this knowledge of the condition of superior education in the different States, contributions will be made of information respecting similar institutions in other countries, which have done so much for the advancement of literature, science, and civilization generally. Although most of them are the growth of ages, under conditions quite different in many respects from ours, a knowledge of the constitution, endowments, curriculum, and lectures of the Universities of Oxford, Cambridge and London, of Edinburgh and Dublin, of Germany, France and Holland, and of changes proposed and advocated in them, can not but aid the intelligent discussion of the whole subject of College and University education among ourselves.

4. *Professional and Special Schools.*

The obvious needs of society have led to the establishment of various institutions for professional and special education, such as schools of theology, law, medicine, teaching; of agriculture, manufactures, engineering, mining, and the like;—also for certain classes of persons whose instruction can not be as well provided for in a general system, such as the deaf, the blind, juvenile offenders, orphans, etc. All the statistics and facts going to show the number, condition, and efficiency of this class of schools, have been called for; and those which relate to schools for teachers, and colleges of agriculture and mechanic arts, have been collected, edited, and made ready for publication in such way as Congress may authorize.

5. *Supplementary Schools and Agencies.*

Besides the formal instruction given by institutions for Elementary, Secondary, Collegiate, Professional, and Special Schools, there are other institutions and agencies which in the aggregate influence very largely the education of the national mind and character. These have been grouped under the head of Supplementary Education—such as Sunday schools, mission schools, and other special religious

schools under the control of particular denominations; evening schools for the adult as well as the young, associations for lectures, debates, etc.; libraries of reference and circulation, gymnasiums and clubs for athletic exercises and sports, galleries of art and science, public grounds for popular health and recreation. On all these topics inquiries have been instituted.

6. *Societies for the Advancement of Education, Science, Literature, and the Arts.*

Passing beyond the institutions already mentioned for the development and discipline of the mind by the communication of existing knowledge, the Department has extended its inquiries to those whose special aim is the enlargement of knowledge by new contributions, and new discoveries in science, art, &c.

7. *The Press.*

The object here had in view is not only to ascertain the number, particular objects and circulation of special educational journals and periodicals, but also the number and circulation of all the periodicals published in every State throughout the country. This is done on the ground that the press of the country is one of the most powerful among the educational agencies by which the character of the nation is acted upon, and on which this Department must rely for the dissemination of information as to the actual condition of schools, and the discussion of questions affecting their improvement.

8. *School Funds and Educational Endowments.*

With the extension of the population of the country into its vast Western domain, the National government has not only provided for the territorial development of the new States, but more munificently, and with more of a parental providence than any government has ever done, for the growing educational and social needs of the people. Many States have likewise established funds for school purposes, besides making, from time to time, liberal grants to particular institutions, which have funded the same for the benefit of successive generations. To individual beneficence does the country owe the foundation and development of nearly all its higher institutions; and the aggregate amount of such donations and bequests, it is estimated, exceeds a hundred millions of dollars. To ascertain the amount and object of all these funds and endowments, the manner in which the capital is secured, and the annual income is applied, and draw practical lessons for future guidance, the Department has instituted the most comprehensive inquiries.

9. *Legislation with respect to Schools.*

From the mode in which the attempt to solve the problem of popular education in this country has been made, namely, by Na-

tional and State, by municipal and associated action, a vast amount of legislation has been rendered necessary, a history and digest of which constitutes an important part of the investigations now in progress, with a view of making the experience of each available to the benefit of all. To ascertain and note the changes in this legislation will of course constitute an important feature in the annual work and reports of the Department.

10. *School Architecture.*

The immense amount expended in the construction and equipment of buildings for educational purposes, amounting to fifty millions within the last ten years, and the great importance of a wise expenditure of the still larger sum that will be necessary in the coming ten years, with reference to the health and successful labor of both pupils and teachers, (numbering each year probably not less than four millions of persons,) makes a comprehensive investigation into the condition and needs of this department of architecture a matter of the first importance.

11. *Charitable, Reformatory, and Penal Institutions.*

Independent of the regular system of education, and growing to a considerable extent out of the neglect, defect or perversion of a good early training, is a class of institutions whose establishment and support devolves a heavy expense upon the community, and renders an inquiry into their statistics and working very important, in a pecuniary, educational, or moral point of view.

With all our State, municipal, and voluntary efforts for education, both secular and religious, there is an immense amount of absolute illiteracy, and of corrupting influences growing out of parental neglect and vice. The diminution of this illiteracy, vice, and crime, has not kept pace with our increased means of education, and the many undoubted improvements in the systems of instruction. In this connection properly comes the inquiry how far any thing has been done by public authority for the enforcement of the duty of parents to send their children to some schools, public or private, and how far the right of suffrage is denied to persons thus uneducated, or forfeited by the parents or guardians who neglect their duty in this regard.

12. *Churches and other means of Religious Instruction.*

With a view to meeting the objection made in some quarters against our systems of public education, viz., that they contain no sufficient provision for imparting religious instruction, it has been thought fit to institute inquiries into the means of religious instruction existing in our country, additional to the general religious instruction and moral influences of the public schools, and it is

believed the result will show that the amount of salutary religious instruction actually received by the young in our country in the schools and at home, and from special religious institutions, though of course capable of great increase, is not inferior to that in countries where religious instruction is enforced by the State.

13. *School Documents.*

As a contribution to the library of the Department, and as the basis of a system of distribution as well as of exchange of official documents, copies of all reports and other publications issued by State and municipal authority and by institutions, have been requested, and the inquiry made of superintendents and schoolmen generally, how far they are disposed to come into such a system, conducted without expense to the parties after the documents have reached this office. The documents are important to the Department—an analysis of the suggestions made, and a summary of the statistics contained in them will form an important part of the monthly Circulars, as well as constitute much of the authority for the generalizations of the annual reports of the Commissioner.

14. *Memoirs of Teachers and Benefactors of Education.*

Among the noblest benefactors of their race are to be numbered those men who have founded institutions of good learning or devoted their lives to the vocation of teaching, especially in public schools; and the country which fails to do honor to the memory of such benefactors, exposes itself to the charge of ingratitude, and withholds a powerful encouragement to the continued succession of such services. To preserve the memory of such men and women as have devoted themselves or their means to these objects, materials for a record in some appropriate document of this Department have been solicited.

15. *Open Competitive Examinations.*

Believing that Government—State, National, and municipal—can in no other way so well promote the cause of sound education and efficient official service, as by opening the career of public employments within its gift, to such persons only as shall present an authorized diploma of school attendance, and evince, in an open competitive examination, the possession of the requisite qualifications, an inquiry has been made how far a provision exists in any of the States for such diploma, or examination with reference to employment in its service of any kind, or for nomination for admission to our national military and naval schools.

On all these and other related topics, the results of inquiries car-

ried on by the Commissioner for the last fifteen years will be made available without cost to the Department; and if supplemented by prompt and hearty coöperation on the part of school officers and friends of education in the different States, a body of information, facts, and suggestions will be formed, such as can not elsewhere be found, the importance of which, in their bearing on the development of our educational systems and agencies, can scarcely be overestimated.

MODE OF OBTAINING INFORMATION.

1. The main reliance for full and authentic information respecting public institutions must be the annual reports, and special replies of officers charged with their administration, supplemented for purposes of comparison and generalization by opportunities of personal visitation and conference by the Commissioner, or inspectors selected with special reference to their knowledge and experience of the subject on which information is sought. From superintendents, both State and municipal, from presidents of institutions, and professors devoted to special branches, the most cordial coöperation has been promised, and the strongest desire expressed to give the fullest publicity to the aims, means, methods, and results of their work, and to obtain an account of similar work done by others.

2. The annual meetings of national societies devoted to general or special educational objects, and similar meetings of State Teachers' Associations, as well as occasional conferences of persons interested in particular allotments of the great field of popular education, afford important opportunities of making inquiries widely and in a short time, and of meeting individuals who have devoted years to the investigation of subjects under consideration. Several of these meetings the Commissioner has attended, having been specially invited, and every opportunity of communicating with them opened.

3. From a long connection with the administration of systems of public instruction, and frequent personal visits to different States and countries, for the inspection of schools, an extensive correspondence with the active schoolmen of the day, both at home and abroad, has been established, which has been made immediately available in collecting information respecting the present condition of systems of public instruction, and institutions of learning of every kind in nearly every civilized country; the results of which will be made public as rapidly as possible, and the sooner, and in the most satisfactory manner, if the Commissioner is authorized to employ the necessary clerical and editorial help.

4. As a great central repository of the results of the experience

of States, institutions, and individuals, in this work of education, on the basis of a collection commenced thirty years ago, of text-books, school documents and instructional appliances, and in exchange of his own publications for similar works, a library and cabinet of education has been begun by the Commissioner, and is already accomplishing the purpose of the law, by "collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories."

5. As the main reliance both for collecting information of all important educational movements and discussions, as well as for disseminating information, the daily and weekly press of the country, both secular and religious, must be resorted to; and with such publishers and editors as have already expressed, or may hereafter express a desire to receive circulars and documents issued by the Commissioner, a system of exchange will be established which, it is believed, will greatly promote the objects of the Department.

MODES OF DISSEMINATING INFORMATION.

The several agencies relied on for collecting information, the annual meetings of educational associations, national, state, and municipal; correspondence daily growing in volume and detail, with officers, teachers, and friends of educational improvement; the press, as well as personal interviews, have all been resorted to, to disseminate information as to the objects and needs of the Department. In addition to these, the following plan of publication, after such consultation as could be had, was adopted, and inaugurated, but will depend for its full development on the sanction and aid of Congress. It was set forth in Special Circular, No. 2, which is here introduced with slight verbal modifications, suggested by the experience of the Department.

PLAN OF PUBLICATION.

As at present advised, the following plan of publication will be pursued:

1. *Monthly Circular.*

To be issued monthly—each number to be devoted to such special subject as the correspondence or investigations of the Department may require; and if the requisite clerical labor can be devoted to its preparation, to a monthly summary of Educational Intelligence and Statistics in different States and Countries.

These Circulars will not be printed for general distribution, and as a general rule will be mailed, in answer or inquiry, to correspondents, or to persons known to be, or who may write, that they are specially interested in the subject.

The matter contained in them, in addition to the official, will not always be new, but such articles will be introduced from former publications of the Commissioner, or of others, as he may think illustrative of the special subject to which the Circular is devoted.

2. *A Quarterly Publication.*

It is proposed to begin a National Series of the American Journal of Education, with a view of completing the encyclopediac view of Education—its His-

tory, System, Institutions, Principles, Methods, and Statistics; begun several years since, and prosecuted thus far with a special reference to the condition and wants of our own schools, and with a studious avoidance of all matters foreign to the main object. The range and exhaustive treatment of subjects can be seen by the Classified Index, which will be forwarded if desired.

Although the Journal will remain for the present under the editorial supervision of the Commissioner, who will receive no compensation for this service, it will be entirely the private enterprise of its publisher, who will soon announce his plan and terms.

The Department will be in no way responsible for the matter or the expense, but will avail itself of this mode of printing documents prepared by, or at the request of the Commissioner, which it may be desirable to issue in advance or aside of any other form of publication.

The Numbers will be sent only to subscribers, or to special orders addressed to the Publisher, Hartford, Conn.

3. *Educational Documents and Tracts.*

The Commissioner, with such coöperation as he can enlist, will at once begin the preparation or rather the revision and completion of a series of Educational Documents (A) begun several years ago, after consultation with several of the most eminent educators of the country; each of which will be devoted to an exhaustive treatment of a particular subject, and at the same time be so prepared as to give a brief summary of the general principles and statistics connected with the same for circulation by itself.

The plan of publication (B,) will be set forth in his first Annual Report.

4. *An Annual Report.*

As is provided for in the Act establishing this Department, a Report will be submitted to Congress annually, in which, after the preliminary arrangements have been completed for obtaining full and reliable information, the progress and condition of Education in different States and countries during the year will be presented.

The following is the series of Educational Documents referred to above (A):

1. A Catalogue of the best publications on the organization, instruction and discipline of schools, of every grade, and on the principles of education, in different languages, which can be consulted in the Library of the Department of Education at Washington.
2. A History of Education, ancient and modern, with reference to original authorities, where the systems and institutions of each country can be more fully investigated.
3. An Account of Elementary Instruction in Europe.
4. National Education in the United States; or contributions to the history and improvement of common or public schools, and other institutions, means and agencies of popular education in the several States.
5. School Architecture; or the principles of construction, ventilation, warming, acoustics, seating, &c.; applied to school rooms, lecture halls, and class rooms, with illustrations.
6. Normal Schools, Training Schools, Teachers' Institutes, and other institutions, means, and agencies, for the professional training and improvement of teachers.
7. System of Public Education for large cities and villages, with an account of the schools and other means of popular education and recreation in the principal cities of Europe and in this country.
8. System of Popular Education for sparsely populated districts, with an account of schools in the agricultural portions of different countries.
9. Schools of Agriculture, and other means of advancing the special instruction of persons engaged in agriculture.
10. Schools of Science applied to the mechanic arts, civil engineering, &c.
11. Schools of Trade, Navigation, Commerce, &c.
12. Female Education, with an account of different systems and seminaries in this country, and in Europe.

13. Institutions for Orphans.
14. Schools of Industry, or institutions for truant, idle, or neglected children, before they have been convicted of crime.
15. Reform Schools, or institutions for young criminals.
16. Houses of Refuge, for adult criminals.
17. Secondary Education, including *a*, institutions preparatory to college, and *b*, institutions preparatory to special schools of agriculture, engineering, trade, navigation, &c.
18. Colleges and Universities.
19 Schools of Theology, Law, and Medicine.
20. Military and Naval Schools.
21. Supplementary Education, including adult schools, evening schools, courses of popular lectures, debating classes, mechanic institutes, &c.
22. Libraries, with hints for the purchase, arrangement, catalogueing, drawing, and preservation of books, especially in libraries designed for popular use.
23. Institutions for the Deaf and Dumb, Blind, and Idiots.
24. Societies for the Encouragement of Science, the Arts, and Education.
25. Schools and Academies of Art, Public Museums and Galleries.
26. Public Gardens, and other arrangements for popular recreation.
27. Educational Tracts, or a series of short essays on topics of immediate practical importance to teachers and school officers.
28. Educational Biography, or the lives of distinguished educators and teachers.
29. Educational Benefactors, or an account of the founders and benefactors of educational and scientific institutions.
30. Self-Education; or hints for self-formation, with examples of the pursuit of knowledge under difficulties.
31. Home Education; with illustrations drawn from the Family Training of different countries.
32. Educational Nomenclature and Index; or an explanation of words and terms used in describing systems and institutions of education in different countries, with reference to the books where every educational subject of importance is discussed and treated of.

The Commissioner has no partiality for this classification of subjects, nor does he wish to restrict the inquiries or contributions of others to them. The series embraces, in his judgment, the most important institutions and agencies by which the education of the country is secured; and the careful preparation of a special document on each, giving its present condition and the suggestions of experienced and thoughtful men, on the improvement of the same, will in the end greatly abridge the correspondence of the Department, and "promote the cause of education throughout the country."

The plan of publication alluded to (B) in the above Circular, is as follows:

1. The publication of such special documents or reports, in connection with the Annual Report of the Commissioner, as Congress shall authorize to be printed, to be circulated in the usual way, or as is suggested in paragraphs (4 and 5,) below.

2, The printing of such special documents, so far as shall be authorized by Congress, in the same way as special documents are now prepared and printed in the different departments.

3, The printing of special reports or documents by the Commis-

sioner, on any of the subjects enumerated above, (A,) as they shall be prepared, to the extent (not to exceed a specified number of copies) and manner as shall be approved by the Congressional Committee on Printing, to be distributed as suggested below.

4. Authority to furnish any person interested in the circulation of a particular document, with any number of copies, at the cost of press-work and paper.

5. The distribution by mail of single copies of any document to any State, incorporated or school library, or to any editor or school officer who shall apply for the same.

6. An exchange with any publisher, or others, for an equivalent contribution to the Library or Cabinet of the Department.

WORK DONE OR IN PROGRESS.

Having laid out the plan, by which to collect the fullest and latest information—legislative, administrative, and statistical—"to show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country," the Commissioner has labored diligently, with such force as he was authorized to employ, and such coöperation as he could enlist, to accomplish as early and thoroughly as practicable, the specific work assigned him to do, and at the same time to inaugurate measures by which the larger and wider results contemplated should, in a reasonable time, be realized.

1. *National Land Grants for Educational Purposes.*

In pursuance of the requirement of the Act establishing the Department, that "in the first Report made by the Commissioner, there shall be presented a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds as far as the same can be determined," the first step taken after organizing the Department, was to authorize and direct the chief clerk to begin at once an investigation into the history of these grants, and to ascertain what material, printed or otherwise, was to be found in Washington. Application was made, through the Secretary of the Interior, to the Commissioner of the General Land Office, and letters were addressed to the Governors of the several States and Territories, to the State officer

or board having charge of the sales, and the investment and management of the proceeds, to Superintendents of Public Schools, and Presidents of Colleges and other institutions founded or aided by the income of these proceeds—for such printed documents or statistics as would enable the Commissioner to present the results of this beneficent policy of the National Government, both for its historical importance, and for the guidance of States which have systems and institutions yet to establish or develop on the basis of these grants. But from all these official sources of information, and from special efforts made in a few of the States, the requisite material has not been gathered within the year, to enable him to comply in a satisfactory manner with the requirements of the law, except in respect to "the public lands donated to the several States to provide Colleges for the benefit of Agriculture and the Mechanic arts." As a full account of the legislation of such States as had accepted the conditions of the grant, and of the institutions which had been organized under such legislation, was the most satisfactory answer which could be made to letters of inquiry from States and institutions which had not yet acted, the information was printed as soon as collected, and edited, in Official Circular, No. VI, and the Supplement. To the report on Colleges of Agriculture and the Mechanic arts, will be added a notice of similar institutions not aided by the national grants, together with a comprehensive survey of the whole field of realistic and special scientific education in the principal States of Europe—much of the material for which has been already collected without any expense to the Department.

2. *Condition of Public Schools in the District of Columbia.*

In pursuance of a Joint Resolution of Congress, approved March 29, 1867, the Commissioner instituted an exhaustive inquiry as to the number of children of the ordinary school age; the number of the same in any school, public or private; the number and character of each grade of school, with the condition of the places where the schools were kept, the number and character of teachers, text-books and other material aids of instruction; and to form an intelligent opinion of the relative efficiency of the school systems in force in the District, and what additional legislation was necessary to secure the advantages of the best system to all the children, as he is instructed to do; he has had conference with school officers, and obtained by correspondence information respecting the organization, regulation, courses of instruction, mode of employing and training teachers, school-houses, and system of inspection, in nearly all the capitals and other principal cities of the several States.

In explanation of the delay in presenting this document to Congress, the Commissioner would give not simply the magnitude, as well as the variety of details, embraced in the investigation and discussion, but the condition of his own health, which at the time he hoped to complete his work, became seriously impaired. As the information called for in the Resolution required a visit to every family and every school in the District, and at the same time made no provision for collecting and collating such information beyond the small clerical force provided for the general purposes of the Department in the Act; and as further information respecting the present population, and its distribution in different parts of the District, not expressly called for, was desirable for any intelligent legislation by Congress in respect to a system of public schools, application was made to the municipal authorities of Washington and Georgetown, and the county, for their coöperation in taking a complete enumeration of the inhabitants, including the statistics required by Congress, and a small appropriation in aid of the work was asked for. This coöperation and aid to the extent specified was extended, as is duly acknowledged in the Report referred to; but the expense of taking the enumeration was not fully met by such aid, and for the balance (about $600) an appropriation is respectfully asked.

3. *Constitutional Provisions respecting Schools and Education.*

Owing to the fact that Conventions to revise or frame the Constitution or fundamental law, were to be held in thirteen States within the year, numerous letters were received from delegates and others, for information respecting the operation of provisions already existing in the Constitutions of other States, and for suggestions on the subject. In answer to these inquiries, and to give the fullest information as to the action of every State, a document was prepared, intended to embrace every provision found in the successive Constitutions of each State respecting Education, Literature and Science. This document was printed in Official Circulars, Nos. IV and V, with a circular addressed to the Superintendent of Education in each State, inviting his attention to any omission, and asking his views on the operation of the existing educational clause in the Constitution of his State, in giving authority, direction, stimulus or restriction to legislative or municipal action, as well as on the desirableness of securing any or all of the following features (7 and 8 are slightly modified) of a school system in any future revision of the same.

1, The authority and duty of the Legislature to establish, aid, support, and supervise schools of every grade, and all institutions and agencies of Education, Science, and the Arts.

2, The security against diminution or diversion of all educational funds and benefactions.

3, The certainty of a minimum rate of taxation, increasing with the population, sufficient every year to secure the elementary instruction of all children within the State who shall apply, by teachers professionally trained, and in schools legally inspected and approved.

4, The distribution of all State appropriations derived from taxation or funds, on such conditions and in modes as will secure local taxation or individual contributions for the same purpose, a lively municipal or public interest in the expenditure of both sums, the constant coöperation of parents at home in realizing the work of the school, and the regular attendance of pupils.

5, A State Board of Education, having supervision of all educational institutions incorporated or aided by the State, and constituted in such way as to secure literary, scientific, and professional attainment and experience, freedom from denominational or party preponderance, sympathy with the wants of different sections and occupations, and independence of local or special influence.

6, A system of inspection, administered by the State Board, intelligent, professional, frequent, and independent of local or institutional control, with the widest and fullest publicity of results.

7, State Scholarships, securing free instruction in any higher institution incorporated or aided by the State, conditioned on fitness to enter and profit by the same, ascertained by open competitive examination.

8, A Retiring Fund, for teachers of public schools, made up of an annual allowance by the State, and an equal payment by those who register to secure its benefits, conditioned on prolonged service in the business of teaching.

9, An obligation on parents and guardians not to allow children to grow up in barbarism, ignorance and vagrancy; and the exercise of the elective franchise, or of any public office, conditioned on the ability of the applicant to read understandingly the Constitution and the laws, and forfeited by any parent or guardian of children who neglects to secure the formal instruction of such children between the ages of 6 and 14 years, for at least eight months in the year, or to pay for their maintenance, if sent to a prison or reformatory, while minors.

4. *Legislation respecting Systems of Elementary Instruction.*

In answer to inquiries from abroad respecting the legal organization of our public schools, and from States in our own country engaged in framing new laws or revising old ones on the subject, a

collection of the school codes of the several States has been prepared, embracing the earliest law of each State, and a brief notice of all subsequent modifications, and the last revision. This document, so far as relates to its historical portion, was prepared without any expense to the Department and mainly before its establishment, but will be placed at its disposal in case the publication of it is desired and authorized by Congress.

5. *European Systems of Public Instruction.*

Although not to serve as models or guides, as a whole, for our country, yet advantage may be derived from a knowledge of the manner in which attempts have been made to solve the problem of public instruction in other countries. In some features—the extent to which teaching is regarded as an art, whose methods are to be studied and practiced, the legal recognition of the professional character and public services of the teacher, the importance attached to frequent, intelligent, and independent inspection, the enforcement of parental obligation in the matter of the regular attendance of children at school, the extension of opportunities of thorough general culture by public institutions of secondary and superior education—we have much to learn from the experience of several of the European States. From most of these States the Commissioner is in possession of the fullest and latest information, gathered during a series of years; and for all, the material can readily be completed to the present time, if its publication is authorized and provided for. In connection with a series of articles on the relations of the State to Education, an account of the school system of the little republic of Zurich was published in the Journal of Education, and in Official Circular, No. VII, to illustrate the manner in which this question of the authority and duty of the State in popular education, has been met by leading statesmen and educators in different countries, as well as practically solved by a republican government of the old world.

6. *Female Education.*

In no department of American Education has greater advancement been made within a quarter of a century, or is there now greater activity, than in the education of girls and young women; and to the discussion of the problems yet unsolved in many States and cities, and yet undetermined in the minds of many parents, of the coeducation of the sexes in public or private schools of every grade, and the limitations and modifications of courses of instruction required by the peculiarities of constitution and occupation of women, the Commissioner proposes to bring the experience of systems, institutions, and individuals in different States and countries. Sources

of information on the subject now in the Department, and the experience of one leading institution, are given in Circular, No. VIII.

7. *Academic or Secondary Education.*

On the important subject of institutions for Secondary Education —including Public High Schools and Academies for either or both sexes—although the means for exhibiting their present condition in every State are not sufficiently collected, yet to aid in the further collection of materials and in the discussion of the subject, the Commissioner has already published a general view of the system as it exists in New England, (Circular IX,) as well as a full account of the system of several of the principal countries of Europe, one of which (Prussia) is printed in Official Circular, No. X.

8. *School Houses.*

Having received numerous inquiries in personal calls and in correspondence, respecting school-houses, and having given for many years his attention to the subject, and being also in possession of a large number of plans, and receiving valuable accessions to his collection of designs, the Commissioner, as an expeditious and economical mode of answering these inquiries, has commenced the preparation of a document, a portion of which is now ready for the press, containing plans of buildings recently erected for graded schools. A selection from these will be found in the official Circular, No. XI.

9. *Professional Training and Improvement of Teachers.*

It is obvious that neither constitutional provisions, legislative enactments, nor the existence of the most perfect school-houses, will secure the right education of the children of the nation, without a body of teachers devoted to the work of public instruction, possessing in a sufficient degree, the requisite qualifications of character, attainments, and skill. To help teachers in their work, and to contribute to the highest improvement of special institutions for this object, as well as to advance in every possible way, the public appreciation of their services, a document has been prepared showing what has been done, or is now doing in the different States in this direction —portions of which will be found in Official Circular, No. XII.

RECOMMENDATIONS.

In closing this statement of the preliminary operations of this Department, the Commissioner avails himself of the provisions of the law requiring this Report to be made, to recommend

1. The continued prosecution of the investigations already begun to their earliest practicable conclusion; and to this end, that authority to employ temporarily the assistance of persons specially

qualified, be granted, and that some appropriation for the expense of such personal visits as may be deemed needful to complete and verify the work in hand, be made.

2. That authority be given to publish, with such limitations as to expense and copies as Congress may impose, such documents as may be called for in aid of the establishment of public schools in States where they do not now exist, and to visit such States by himself, or others whom he may specially commission, and such educational conventions in other States, as he may think will subserve the purpose for which the Department is established.

3. With the strongest desire to keep the expenses of the Department within the narrowest limits consistent with its efficiency, the Commissioner feels compelled, in consideration of the increasing correspondence, the regular publication of the Monthly Circular, the prompt dispatch of documents, the proper collating and editing of the information and returns received, the use of the books and documents in the library, to ask for authority to employ one additional clerk of each class now allowed. The want of such help has delayed the preparation of the special reports required to be made, and thrown on the Commissioner, in addition to correspondence and studies which he cannot delegate, an amount of clerical work inconsistent with his highest usefulness, besides seriously impairing his health.

4. Thus far, the entire expense of obtaining information from abroad; all additions to the library of books and pamphlets, except the official documents of State and City Superintendents; all engraving of designs and plans for school structures; a large item in obtaining the educational statistics of the District of Columbia, and making the same ready for Congress; all the printing, and much of the editorial work on the Monthly Circulars, except Numbers III, IV, and V, besides no inconsiderable sums for the necessary incidental expenses of the Department, has been borne by the Commissioner, and for only a portion of which, an appropriation was asked in a letter to the Secretary of the Treasury submitting an estimate of expenses for the current year. Whatever action Congress may deem just in reference to the past, the Commissioner would respectfully ask, that in any future appropriation some allowance be made for the class of expenses above named, including a messenger and the necessary care of the rooms, which, not being specified in the appropriation for 1867, have been disallowed in the settlement of the accounts of this Department.

Respectfully submitted,

HENRY BARNARD,

Commissioner of Education.

APPENDIX.

Appended to a few copies of this Report, and not to the entire edition, are the Official Circulars referred to, together with a portion of the accompanying matter which was distributed with each, in some cases as specimens of the information desired in the Circular; and in others, to enforce the importance of the subject on which discussion was invited; and in their present form, to embody a portion of the returns received.

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REFERRED TO IN

REPORT OF COMMISSIONER OF EDUCATION.

1867–68.

CIRCULAR.

U. S. DEPARTMENT OF EDUCATION,
Washington, March, 1867.

For convenience of communication with many individuals interested in the same subject, (either of inquiry, or of reply,) in different parts of the country, the Commissioner of Education has adopted the publication of a Monthly Circular. Each number, as issued, will be forwarded by mail to persons supposed to be interested in the subject to which it is devoted. In addition to such Circulars, and information relating thereto, as the Commissioner may find it necessary or convenient to issue in these monthly numbers, he proposes to give, from time to time, as he may find space:

1. Acknowledgment of the receipt of all books, documents, and donations, of any kind, forwarded for the use of the department.
2 The contents of all educational, literary, and scientific periodicals which the publishers may send regularly to this office.
3 Notice in advance of the anniversaries or special meetings of educational associations, when authoritatively advised of the same.
4. Abstract of the proceedings of educational meetings when officially communicated.
5. Discussion and action of constitutional conventions, legislatures, municipal bodies, boards of education, and school committees, relating to schools and education.
6. Statistics, benefactions, and reliable items of educational movements in different States and countries.

HENRY BARNARD,

Commissioner.

SECOND EDITION.

Having occasion to re-issue the original Circulars, giving information of the "Act to establish the Department of Education," and the Schedule of Information sought by the Commissioner, together with the first of a series of articles on the successive efforts to secure from Congress the recognition of Education as a great national interest, the Commissioner adds a documentary history of the American Journal of Education, with a Classified Index of its contents, with a view of eliciting an expression of opinion as to his continuing his editorial charge of the same, until the original purpose of its publication is more fully attained, and as a repository of such official papers as may be in harmony with its original plan.

H. B.

I. EDUCATION:—A NATIONAL INTEREST.

NATIONAL ASSOCIATION OF SCHOOL SUPERINTENDENTS.

MEMORIAL TO THE HONORABLE THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES.

At a meeting of the National Association of State and City School Superintendents, recently held in the City of Washington, D. C., the undersigned were appointed a committee to memorialize Congress for the establishment of a National Bureau of Education.

It was the unanimous opinion of the Association that the interests of education would be greatly promoted by the organization of such a Bureau at the present time; that it would render needed assistance in the establishment of school systems where they do not now exist, and that it would also prove a potent means for improving and vitalizing existing systems. This it could accomplish:

1. By securing greater uniformity and accuracy in school statistics, and so interpreting them that they may be more widely available and reliable as educational tests and measures.

2. By bringing together the results of *school systems* in different communities, States, and countries, and determining their comparative value.

3. By collecting the results of all important experiments in new and special methods of *school instruction and management*, and making them the common property of school officers and teachers throughout the country.

4. By diffusing among the people information respecting the school laws of the different States; the various modes of providing and disbursing school funds; the different classes of school officers and their relative duties; the qualifications required of teachers, the modes of their examination, and the agencies provided for their special training; the best methods of classifying and grading schools; improved plans of school-houses, together with modes of heating and ventilation, etc.,—information now obtained only by a few persons and at great expense, but which is of the highest value to all intrusted with the management of schools.

5. By aiding communities and States in the organization of school systems in which mischievous errors shall be avoided and vital agencies and well-tried improvements be included.

6. By the general diffusion of correct ideas respecting the *value* of education as a quickener of intellectual activities; as a moral renovator; as a multiplier of industry and a consequent producer of wealth; and, finally, as the strength and shield of civil liberty.

In the opinion of your memorialists, it is not possible to measure the influence which the faithful performance of these duties by a National Bureau would exert upon the cause of education throughout the country; and few persons who have not been intrusted with the management of school systems can fully realize how wide-spread and urgent is the demand for such assistance. Indeed, the very existence of the Association which your memorialists represent is itself positive proof of a demand for a national channel of communication between the school officers of the different States. Millions of dollars have been thrown away in fruitless experiments, or in stolid plodding, for the want of it.

Your memorialists would also submit that the assistance and encouragement

of the General Government are needed to secure the adoption of school systems throughout the country. An ignorant people have no inward impulse to lead them to self-education. Just where education is most needed, there it is always least appreciated and valued. It is, indeed, a law of educational progress that its impulse and stimulus come from *without*. Hence it is that Adam Smith and other writers on political economy expressly except education from the operation of the general law of supply and demand. They teach, correctly, that the demand for education must be awakened by external influences and agencies.

This law is illustrated by the fact that entire school systems, both in this and in other countries, have been lifted up, as it were bodily, by just such influences as a National Bureau of Education would exert upon the schools of the several States; and this, too, without its being invested with any official control of the school authorities therein. Indeed, the highest value of such a Bureau would be its quickening and informing influence, rather than its authoritative and directive control. The true function of such a Bureau is not to direct officially in the school affairs in the States, but rather to coöperate with and assist them in the great work of establishing and maintaining systems of public instruction. All experience teaches that the nearer the responsibility of supporting and directing schools is brought to those immediately benefited by them, the greater their vital power and efficiency.

Your memorialists beg permission to suggest one other special duty which should be intrusted to the National Bureau, and which of itself will justify its creation, viz., an investigation of the management and results of the frequent munificent grants of land made by Congress for the promotion of general and special education. It is estimated that these grants, if they had been properly managed, would now present an aggregate educational fund of about five hundred millions of dollars. If your memorialists are not misinformed, Congress has no official information whatever respecting the manner in which these trusts have been managed.

In conclusion, your memorialists beg leave to express their earnest belief that universal education, next to universal liberty, is a matter of deep national concern. Our experiment of republican institutions is not upon the scale of a petty municipality or State, but it covers half a continent, and embraces peoples of widely diverse interests and conditions, but who are to continue "one and inseparable." Every condition of our perpetuity and progress as a nation adds emphasis to the remark of Montesquieu, that "it is in a republican government that the *whole power of education is required*."

It is an imperative necessity of the American Republic that the common school be planted on every square mile of its peopled territory, and that the instruction therein imparted be carried to the highest point of efficiency. The creation of a Bureau of Education by Congress would be a practical recognition of this great truth. It would impart to the cause of education a dignity and importance which would surely widen its influence and enhance its success.

All of which is respectfully submitted.

E. E. WHITE, State Commissioner of Common Schools of Ohio.
NEWTON BATEMAN, State Supt. Pub. Inst., Illinois.
J. S. ADAMS, Secretary of State Board of Education, Vermont.

WASHINGTON, D. C., February 10th, 1866.

The memorial, with a bill, was placed in the hands of the Hon. Mr. Garfield, of Ohio, who, on leave, February 14, 1866, introduced the bill in the House of Representatives, and it was read twice, and referred to a select committee of seven, consisting of Messrs. Garfield, of Ohio, chairman; Boutwell, of Massachusetts; Moulton, of Illinois; Patterson, of New Hampshire; Donnelly, of Minnesota; Goodyear, of New York; Randall, of Pennsylvania. Both the memorial and bill were ordered to be printed.

AN ACT TO ESTABLISH A DEPARTMENT OF EDUCATION.

On the 14th of Feb., 1866, Gen. GARFIELD, in the House of Representatives, presented the Memorial of the National Association of School Superintendents, which met in Washington, Feb. 6th, 7th and 8th, asking the establishment of a National Bureau of Education, and at the same time a bill providing for such a Bureau in the Department of the Interior, and both memorial and bill, on his motion, were referred to a Select Committee of seven. The Committee, consisting of GARFIELD, of Ohio, PATTERSON, of New Hampshire, BOUTWELL, of Massachusetts, DONNELLY, of Minnesota, MOULTON, of Illinois, GOODYEAR, of New York, and RANDALL, of Pennsylvania, reported back the bill on the 5th of June, with an amendment in the nature of a substitute, by which an independent Department, instead of a Bureau of Education, was created. The bill thus amended, was advocated, on the 5th and 8th of June, by Mr. DONNELLY, of Minnesota, MOULTON, of Illinois, Mr. BANKS and Mr. BOUTWELL, of Mass., and Mr. GARFIELD, of Ohio, and opposed by Mr. ROGERS, of N. Jersey, Mr. RANDALL, of Penn., and Mr. PIKE, of Maine; but final action was not reached till June 19th, when the question being taken by yeas and nays, it was passed as reported by the Committee, by a vote of 80 yeas to 44 nays.

The Bill, in the Senate, was referred to the Standing Committee on the Judiciary, who recommended its passage without amendment; and, after a debate on the 26th of Feb., 1867, on a motion to substitute Bureau for Department, was passed as received from the House, without division, on the 1st of March, and signed by the President on the 2d.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established, at the city of Washington, a Department of Education for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.

SEC. 2. *And be it further enacted*, That there shall be appointed by the President, by and with the advice and consent of the Senate, a Commissioner of Education, who shall be intrusted with the management of the department herein established, and who shall receive a salary of four thousand dollars per annum, and who shall have authority to appoint one chief clerk of his department, who shall receive a salary of two thousand dollars per annum, one clerk who shall receive a salary of eighteen hundred dollars per annum, and one clerk who shall receive a salary of sixteen hundred dollars per annum, which said clerks shall be subject to the appointing and removing power of the Commissioner of Education.

SEC. 3. *And be it further enacted*, That it shall be the duty of the Commissioner of Education to present annually to Congress a report embodying the results of his investigations and labors, together with a statement of such facts and recommendations as will, in his judgment, subserve the purpose for which this department is established. In the first report made by the Commissioner of Education under this act there shall be presented a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same, as far as the same can be determined.

SEC. 4. *And be it further enacted*, That the Commissioner of Public Buildings is hereby authorized and directed to furnish proper offices for the use of the department herein established.

On the 11th of March, HENRY BARNARD was nominated by President JOHNSON, and on the 16th was confirmed by the Senate, Commissioner of Education.

NATIONAL DEPARTMENT OF EDUCATION.

The undersigned desires to obtain, as early as practicable, accurate but condensed information of the designation, history, and present condition of every Institution and Agency of Education in the United States, and of the name, residence, and special work of every person in the administration, instruction, and management of the same. Any response to this Circular in reference to any Institution, Agency, or subject included in the following Schedule, addressed to the *Department of Education, Washington, D. C.*, and indorsed "*official*," is entitled, by direction of the Postmaster General, to be conveyed by mail *free* of postage, and will be thankfully received by

HENRY BARNARD,
Commissioner of Education, Washington, D. C.

SCHEDULE OF INFORMATION SOUGHT RESPECTING SYSTEMS, INSTITUTIONS, AND AGENCIES OF EDUCATION.

A. General Condition, (*of District, Village, City, County, State.*)
Territorial Extent, Municipal Organization, Population, Valuation, Receipts, and Expenditures for all public purposes.

B. System of Public Instruction.

C. Incorporated Institutions, and other Schools and Agencies of Education.

I. ELEMENTARY OR PRIMARY EDUCATION.
(Public, Private, and Denominational; and for boys or girls.)

II. ACADEMIC OR SECONDARY EDUCATION.
(Institutions mainly devoted to studies not taught in the Elementary Schools, and to preparation for College or Special Schools.)

III. COLLEGIATE OR SUPERIOR EDUCATION.
(Institutions entitled by law to grant the degree of Bachelor of Arts or Science.)

IV. PROFESSIONAL, SPECIAL, OR CLASS EDUCATION.
(Institutions having special studies and training, such as—1. Theology. 2. Law. 3. Medicine. 4. Teaching. 5. Agriculture. 6. Architecture, (Design and Construction.) 7. Technology—Polytechnic. 8. Engineering, (Civil or Mechanical.) 9. War, (on land or sea.) 10. Business or Trade. 11. Navigation. 12. Mining and Metallurgy. 13. Drawing and Painting. 14. Music. 15. Deaf-mutes. 16. Blind. 17. Idiotic. 18. Juvenile offenders. 19. Orpnans. 20. Girls. 21. Colored or Freedmen. 22. Manual or Industrial. 23. *Not specified above*—such as Chemistry and its applications—Modern Languages—Natural History and Geology—Steam and its applications,—Pharmacy—Veterinary Surgery, &c.)

V. SUPPLEMENTARY EDUCATION.
1. Sunday and Mission Schools. 2. Apprentice Schools. 3. Evening Schools. 4. Courses of Lectures. 5. Lyceums for Debates. 6. Reading Rooms—Periodicals. 7. Libraries of Reference or Circulation. 8. Gymnasiums, Boat and Ball Clubs, and other Athletic Exercises. 9. Public Gardens, Parks and Concerts. 10. *Not specified above.*

VI. SOCIETIES, INSTITUTES, MUSEUMS, CABINETS, AND GALLERIES FOR THE ADVANCEMENT OF EDUCATION, SCIENCE, LITERATURE, AND THE ARTS.

VII. EDUCATIONAL AND OTHER PERIODICALS.

VIII. SCHOOL FUNDS AND EDUCATIONAL BENEFACTIONS.

IX. LEGISLATION (STATE OR MUNICIPAL) RESPECTING EDUCATION.

X. SCHOOL ARCHITECTURE.

XII. PENAL AND CHARITABLE INSTITUTIONS.

XII. CHURCHES AND OTHER AGENCIES OF RELIGIOUS INSTRUCTION.

XIII. REPORTS AND OTHER PUBLICATIONS ON SCHOOLS AND EDUCATION.

XIV. MEMOIRS OF TEACHERS, AND PROMOTERS OF EDUCATION.

XV. EXAMINATIONS (COMPETITIVE, OR OTHERWISE) FOR ADMISSION TO NATIONAL OR STATE SCHOOLS, OR TO PUBLIC SERVICE OF ANY KIND.

{ SPECIAL CIRCULAR, No. 2.

CIRCULAR RESPECTING PLAN OF PUBLICATION.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., May, 1867.

As at present advised, the following plan of publication will be pursued:

I. OFFICIAL CIRCULAR.

To be issued monthly—each number to be devoted to such special subject as the correspondence or investigations of the Department may require; and if the requisite clerical labor can be devoted to its preparation, to a monthly summary of Educational Intelligence and Statistics in different States and Countries.

These Circulars will not be printed for general distribution, and as a general rule will be mailed, in answer or inquiry, to correspondents, or to persons known to be or who may write that they are specially interested in the subject.

The matter contained in them will not always be new, but such articles will be introduced from former publications of the Commissioner, as he may think illustrative of the special subject to which the Circular is devoted.

II. A QUARTERLY PUBLICATION.

It is proposed to begin a National Series of the American Journal of Education, with a view of completing the encyclopediac view of Education—its History, System, Institutions, Principles, Methods and Statistics—begun several years since, and prosecuted thus far with a special reference to the condition and wants of our own schools, and with a studious avoidance of all matters foreign to the main object. The range and exhaustive treatment of subjects can be seen by the Classified Index, which will be forwarded if desired.

Although the Journal will be for the present under the editorial supervision of the Commissioner, it will be entirely the private enterprise of its publisher, who will soon announce his plan and terms.

The Department will be in no way responsible for the matter or the expense, but will avail itself of this mode of printing documents prepared at the request of the Commissioner, which it may be desirable to issue in advance or aside of any other form of publication.

The Numbers will be sent only to subscribers, or to special orders addressed to the Publisher, Hartford, Conn.

III. EDUCATIONAL DOCUMENTS.

The Commissioner, with such coöperation as he can enlist, will at once begin the preparation or rather the revision and completion of a series of Educational Documents (A) begun several years ago, after consultation with several of the most eminent educators of the country—each of which will be devoted to an exhaustive treatment of a particular subject. The plan of publication will be set forth in his first Annual Report.

IV. AN ANNUAL REPORT.

As is provided for in the Act establishing this Department, a Report will be submitted to Congress annually, in which the progress and condition of Education in different States and countries during the year will be set forth.

HENRY BARNARD,
Commissioner.

PLAN OF THE AMERICAN JOURNAL OF EDUCATION.

The *American Journal of Education* will be found, on examination, to embrace:

1. A CATALOGUE of the best publications on the organization, instruction and discipline of schools, of every grade, and on the principles of education, in the English, French, and German languages.
2. A HISTORY OF EDUCATION, ancient and modern.
3. AN ACCOUNT OF ELEMENTARY INSTRUCTION IN EUROPE, based on the reports of Bache, Stowe, Mann, and others.
4. NATIONAL EDUCATION IN THE UNITED STATES; or contributions to the history and improvement of common or public schools, and other institutions, means and agencies of popular education in the several States
5. SCHOOL ARCHITECTURE; or the principles of construction, ventilation, warming, acoustics, seating, &c., applied to school rooms, lecture halls, and class rooms, with illustrations.
6. NORMAL SCHOOLS, and other institutions, means and agencies for the professional training and improvement of teachers.
7. SYSTEM OF PUBLIC EDUCATION FOR LARGE CITIES AND VILLAGES, with an account of the schools and other means of popular education and recreation in the principal cities of Europe and in this country.
8. SYSTEM OF POPULAR EDUCATION FOR SPARSEDLY POPULATED DISTRICTS with an account of the schools in Norway and the agricultural portions of other countries.
9. SCHOOLS OF AGRICULTURE, and other means of advancing agricultural improvement.
10. SCHOOLS OF SCIENCE applied to the mechanic arts, civil engineering, &c.
11. SCHOOLS OF TRADE, NAVIGATION, COMMERCE, &c.
12. FEMALE EDUCATION, with an account of the best seminaries for females in this country and in Europe.
13. INSTITUTIONS FOR ORPHANS.
14. SCHOOLS OF INDUSTRY, or institutions for truant, idle or neglected children, before they have been convicted of crime.
15. REFORM SCHOOLS, or institutions for young criminals.
16. HOUSES OF REFUGE, for adult criminals.
17. SECONDARY EDUCATION, including 1. institutions preparatory to college, and 2. institutions preparatory to special schools of agriculture, engineering, trade, navigation, &c.
18. COLLEGES AND UNIVERSITIES.
19. SCHOOLS OF THEOLOGY, LAW, AND MEDICINE.
20. MILITARY AND NAVAL SCHOOLS.
21. SUPPLEMENTARY EDUCATION, including adult schools, evening schools, courses of popular lectures, debating classes, mechanic institutes, &c.
22. LIBRARIES, with hints for the purchase, arrangement, catalogueing, drawing and preservation of books, especially in libraries designed for popular use.
23. INSTITUTIONS FOR THE DEAF AND DUMB, BLIND, AND IDIOTS.
24. SOCIETIES FOR THE ENCOURAGEMENT OF SCIENCE, THE ARTS AND EDUCATION.
25. PUBLIC MUSEUMS AND GALLERIES.
26. PUBLIC GARDENS, and other sources of popular recreation.
27. EDUCATIONAL TRACTS, or a series of short essays on topics of immediate practical importance to teachers and school officers.
28. EDUCATIONAL BIOGRAPHY, or the lives of distinguished educators and teachers.
29. EDUCATIONAL BENEFACTORS, or an account of the founders and benefactors of educational and scientific institutions.
30. SELF-EDUCATION; or hints for self-formation, with examples of the pursuit of knowledge under difficulties.
31. HOME EDUCATION; with illustrations drawn from the Family Training of different countries.
32. EDUCATIONAL NOMENCLATURE AND INDEX; or an explanation of words and terms used in describing the systems and institutions of education in different countries, with reference to the books where the subjects are discussed and treated of.

The Series, when complete, will constitute an ENCYCLOPEDIA OF EDUCATION.

I. THE AMERICAN JOURNAL OF EDUCATION.

DOCUMENTARY HISTORY.

ORIGINAL ANNOUNCEMENT.

Issued as a Circular in May, 1855, and published in August following, with the first number, and again with a Postscript in January, 1856.

In the great educational movement now going forward on this Continent, and especially throughout all the states in which the English language prevails, there has seemed for many years to the undersigned to exist, if not a demand, at least the want, not only of an American association of the friends of universal education, but of a series of publications, which should, on the one hand, embody the matured views and varied experience of wise statesmen, educators and teachers in perfecting the organization, administration, instruction and discipline of schools, of every grade, through a succession of years, under widely varying circumstances of government, society and religion; and on the other, should harmonize conflicting views, expose real deficiencies, excite to prudent and efficient action, and serve as a medium of free and frequent communication between the friends of education, in every portion of the great field.

In furtherance of these objects, a *Plan of Central Agency for the increase and diffusion* of knowledge on this subject was submitted to the American Association for the Advancement of Education, at its annual meeting in Washington in 1854. One feature of this plan was the publication of a Journal and Library of Education; the former to be issued in monthly or quarterly numbers, to embrace the current educational intelligence of the world, and the discussion of topics of immediate and pressing interest;—the latter to consist of a series of independent treatises, each devoted to the development of an important subject, or department, and embodying the reflections and experience of many minds, and the working and results of many institutions; and the whole, when complete, to constitute an Encyclopedia of Education. The plan was referred to a committee—considered and approved; and the Standing Committee were authorized to carry it into execution as far and as fast as the funds of the Association should admit. In the absence of any funds belonging to the Association, and of any pledge of pecuniary coöperation, on the part of

individuals, the Committee have not taken any steps to establish a central agency for the advancement of the objects for which the association was instituted, or felt authorized to provide for any publication beyond the proceedings of its last annual meeting. Under these circumstances, the undersigned has undertaken on his own responsibility, to carry out the original plan submitted by him, so far as relates to the publication both of the Journal, and the Library—relying on the annual subscription of individuals in different states, and interested in different allotments of the great field, who desire to be posted up in the current intelligence and discussion of schools and education, to meet the current expenses of the former; and on special contributions in aid of the latter, by persons or institutions interested in particular treatises, as their preparation shall be from time to time advanced and announced.

The First Number of the American Journal of Education will be issued in August, on terms which will be set forth by the publisher. As it will be devoted exclusively to the proceedings of the American Association for 1854, it will not present the usual variety and arrangement of topics, which will characterize the succeeding numbers.

The first treatise or volume of the Library of Education will be published in the course of 1856, under the following title, "NATIONAL EDUCATION IN THE UNITED STATES; or *Contributions to the History and Improvement of Common or Public Schools, and other means of Popular Education in the several States,*" on terms which will be hereafter announced.

HARTFORD, CONN., May, 1855.

HENRY BARNARD.

P. S. After much of the copy for this Number of the American Journal of Education was in type, a conference was held with the Rev. Absalom Peters, D. D., in reference to the plan of an Educational Journal contemplated by him under the title of The American College Review and Educational Journal, which has led to the combination of our respective plans, and a joint editorship of THE AMERICAN JOURNAL OF EDUCATION AND COLLEGE REVIEW.

NOTE TO NEW EDITION.—The agreement for the joint proprietorship and editorship of the American Journal of Education and College Review, having been dissolved by mutual consent and for mutual convenience, the undersigned has resumed the publication of the American Journal of Education on his original plan. A portion of the material intended for the first volume of the American Library of Education, will be published in the American Journal of Education.

Dr. PETERS will continue the publication of an educational periodical to which he has given the joint name. H. B.

HARTFORD, January 7, 1856.

PLAN OF CENTRAL AGENCY

FOR THE ADVANCEMENT OF EDUCATION IN THE UNITED STATES.

The following Plan for "the Increase and Diffusion of Knowledge" of Education, and especially of Popular Education, and plans for its improvement through the Smithsonian Institution; or the American Association for the Advancement of Education was submitted to the Association by Hon. Henry Barnard.

The Institution [or Association] to appoint a secretary or agent; with a salary, and to furnish a room for an office and depository of educational documents and apparatus, and beyond this not to be liable for any expense.

Agenda by the secretary or agent:

1. To devote himself exclusively to the "increase and diffusion of knowledge" on the subject of education, and especially of the condition and means of improving Popular Education, and particularly

2. To answer all personal or written inquiries on the subject, and collect and make available for use, information as to all advances made in the theory and practice of education in any one State or country.

3. To attend, as far as may be consistent with other requisitions on his time, and without charge to the funds of the institution, [or Association] Educational Conventions of a national and State character, for the purpose of collecting and disseminating information.

4. To edit a publication, to be entitled the American Journal and Library of Education, on the plan set forth in the accompanying paper (A.)

5. To collect

   (a) Plans and models of school-houses and furniture.
   (b) Specimens of maps and other material aids of education.
   (c) Educational reports and documents from other States and countries.

6. To institute a system of educational exchange between literary institutions in this and other countries.

7. To make arrangements, and effect, if practicable, at least one meeting or conference of the friends of educational improvement in Washington [or elsewhere] every year.

8. To submit annually a report in which shall be given a summary of the progress of education, in each State, and as far as practicable, in every country

A.

PLAN OF PUBLICATION.—A quarterly or monthly issue under the general title of the AMERICAN JOURNAL AND LIBRARY OF EDUCATION.

I. A JOURNAL OF EDUCATION, to be issued in quarterly or monthly numbers, embracing articles on systems, institutions and methods of education, and the current intelligence of literature and education, and to make an octavo volume annually of at least 600 pages.

II. A LIBRARY OF EDUCATION; to consist of a series of independent treatises on the following [among other] subjects, to be issued in parts, and to be forwarded with the Journal to subscribers; the several parts or treatises to make an octavo volume of at least 600 pages per year.

4. Among modern nations as reached by the teachings of Christianity, in the gradual unfolding of the present received ideas of school organization, and of the principles and methods of instruction,—through (*a*) the peculiar organization and distinctive teaching of the early Christians; (*b*) the first popular school of the Christian Fathers, Chrysostom and Basil; (*c*) the Catechist schools of Clement and Origen; (*d*) the seminaries and cloister schools of Tertullian, Cyprian, Jerome and Austin; (*e*) the Monastic institutions of Benedict, Dominic and Francis; (*f*) the court schools and educational labors of Charlemagne and Alfred; (*g*) the modifications wrought by Arabic culture which followed the incursions of the Moors; (*h*) the rise and expansion of universities; (*i*) the demand of chivalry for a culture for man and woman distinct from that of the clergy, and of incorporated cities for schools independent of ecclesiastical authorities; (*j*) the revival of the languages, and the literature of Greece and Rome; (*k*) the long-protracted struggle between Humanism and Realism, or between, on the one hand, the study of languages for the purposes of general culture and the only preparation for professions in which language was the great instrument of study and influence, and on the other, the claims of Science, and of the realities surrounding every one, and with which every one has to do every day, in the affairs of peace or war; (*l*) and the gradual extension and expansion of the grand idea of universal education—of the education of every human being, and of every faculty of every human being, according to the circumstances and capabilities of each. While thus aiming to give in each number, contributions to the History of Pedagogy and the internal economy of schools, we hope in this series to complete our survey of—

II. Systems of National Education, and especially an account of Public Schools and other Means of Popular Education in each of the United States, and of all other governments on the American Continent.

III. The history and present condition of Normal Schools and other special institutions and agencies for the Professional Training and Improvement of Teachers.

IV. The organization and characteristic features of Polytechnic Schools, and other institutions for the education of persons destined for other pursuits than those of Law, Medicine and Theology, including a full account of Military Schools.

V. The history and courses of study of the oldest and best Colleges and Universities in different countries.

VI. The life and services of many Teachers, Promoters and Benefactors of Education, whose labors or benefactions are associated with the foundation and development of institutions, systems, and methods of instruction.

HENRY BARNARD.

Hartford, March, 1862.

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III. Studies and Methods of Teaching; School Organization and Government.

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I. EDUCATION:—A NATIONAL INTEREST.

HISTORICAL DEVELOPMENT.

In the ordinance of the Congress of the Confederation in 1785, respecting "the disposing of lands in the Western territory," "section sixteen of every township" was reserved for the maintenance of public schools.

The ordinance of 1787, "for the government of the Territory northwest of the river Ohio," confirmed the ordinance of 1785, and declared "that religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged."

The Constitution of the United States, after setting forth in the Preamble in words of sublime import the national objects for which the people of the United States had ordained this fundamental law, expressly grants to Congress the power "to dispose" of the public lands and other property—"to exercise exclusive jurisdiction" over the district to be ceded as the seat of government—and "to lay and collect taxes, &c., to provide for the common defense and general welfare."

In the Convention of 1787, which framed the Constitution, Mr. Charles Pinckney, of South Carolina, on the 29th of May and the 18th of August, and subsequently Mr. Madison, of Virginia, submitted propositions "to provide for the establishment of a National University at the seat of government," "for the advancement of useful knowledge," "and the promotion of agriculture, commerce, trades and manufactures." On the 14th of September, both of these delegates moved to insert in the list of powers vested in Congress, "to establish a university in which no preference or distinction should be allowed on account of religion." This motion was opposed by Gouverneur Morris, of New York, and was lost, as reported by Mr. Madison, expressly on the ground that the power to establish such a university was included in the grant of exclusive legislation over the district in which the government should be located. And as we learn from other sources, and from

the subsequent recommendations by President Washington, the power to encourage agriculture, trade, manufactures, and education, was understood by him, and other statesmen, to be included in the first clause of the enumerated powers of Congress "to lay taxes and to provide for the common defense and general welfare of the United States."

GEORGE WASHINGTON.

Fresh from the discussions of the Convention which framed the Constitution, of which he was the presiding officer, and called by the unanimous voice of his countrymen to inaugurate, as its chief executive, the national government, George Washington, in his first formal recommendation of special measures to both Houses of Congress, on the 8th of January, 1790, after commending further legislation for an efficient and uniform plan of military organization, as well as of a national judiciary, calls attention to the necessity of "uniformity in the currency, weights and measures;" "the advancement of agriculture, commerce, and manufactures," "the effectual encouragement, as well as to the introduction of new and useful inventions from abroad, as to the exertions of skill and genius in producing them at home;" "facilitating the intercourse between the distant parts of our country by a due attention to the post-office, and post-roads"—did not hesitate to add:—

> Nor am I less persuaded, that you will agree with me in opinion, that there is nothing which can better deserve your patronage than the promotion of science and literature. Knowledge is in every country the surest basis of public happiness. In one, in which the measures of government receive their impression so immediately from the sense of the community, as in ours, it is proportionably essential. To the security of a free constitution it contributes in various ways: by convincing those who are intrusted with the public administration, that every valuable end of government is best answered by the enlightened confidence of the people; and by teaching the people themselves to know and to value their own rights; to discern and provide against invasions of them; to distinguish between oppression and the necessary exercise of lawful authority, between burdens proceeding from a disregard to their convenience and those resulting from the inevitable exigencies of society; to discriminate the spirit of liberty from that of licentiousness, cherishing the first, avoiding the last, and uniting a speedy but temperate vigilance against encroachments, with an inviolable respect for the laws.
>
> Whether this desirable object will be the best promoted by affording aid to seminaries of learning already established, by the institution of a national university, or by any other expedients, will be well worthy of a place in the deliberations of the legislature.

In his speech to both Houses of Congress, December 7th, 1796, after referring to the measures adopted for the encouragement of manufactures, and urging immediate attention to agriculture as a matter of individual and national welfare—and especially of constituting a board (or as has since been done, by a National Depart-

ment) "charged with collecting and diffusing information, and enabled by premiums and small pecuniary aids to encourage, and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common center the results everywhere of individual skill and observation, and spreading them thence over the whole nation"—he again returns to the expediency of establishing a national university, and also a military academy; and proceeds:—

The assembly to which I address myself, is too enlightened not to be fully sensible how much a flourishing state of the arts and sciences contributes to national prosperity and reputation. True it is, that our country contains many seminaries of learning highly respectable and useful; but the funds upon which they rest are too narrow to command the ablest professors, in the different departments of liberal knowledge for the institution contemplated, though they would be excellent auxiliaries.

Amongst the motives to such an institution, the assimilation of the principles, opinions and manners of our countrymen, by the common education of a portion of our youth from every quarter, well deserves attention. The more homogeneous our citizens can be made in these particulars, the greater will be our prospect of permanent union; and a primary object of such a national institution should be, the education of our youth in the science of government. In a republic, what species of knowledge can be equally important, and what duty more pressing in its legislation, than to patronize a plan of communicating it to those who are to be the future guardians of the liberties of the country.

In a letter addressed to Alexander Hamilton, from Philadelphia, September 1st, 1796, referring to the topics which he wished to introduce in his Farewell Address, a draft of which he had enclosed in a former letter, Washington regrets "that another subject (which in my estimation is of interesting concern to the well-being of this country) was not touched upon also;"—

I mean education generally, as one of the surest means of enlightening and giving just ways of thinking to our citizens, but particularly the establishment of a university; where the youth from all parts of the United States might receive the polish of erudition in the arts, sciences, and belles-lettres; and where those who were disposed to run a political course might not only be instructed in the theory and principles, but (this seminary being at the seat of the general government, where the legislature would be in session half the year, and the interests and politics of the nation of course would be discussed,) they would lay the surest foundation for the practical part also.

But that which would render it of the highest importance, in my opinion, is, that at the juvenile period of life, when friendships are formed, and habits established, that will stick by one, the youth, or young men from different parts of the United States would be assembled together, and would by degrees discover that there was not that cause for those jealousies and prejudices which one part of the Union had imbibed against another part:—of course sentiments of more liberality in the general policy of the country would result from it. What but mixing of people from different parts of the United States during the war rubbed off those impressions? A century, in the ordinary intercourse, would not have accomplished what the seven years' association in arms did; but that ceasing, prejudices are beginning to revive again, and never will be eradicated so effectually by any other means as the intimate intercourse of characters in early life,—who in all probability will be at the head of the counsels of this country in a more advanced stage of it.

To show that this is no new idea of mine, I may appeal to my early communications to Congress; and to prove how seriously I have reflected on it since, and how well disposed I have been, and still am, to contribute my aid toward carrying the measure into effect, I enclose you the extract of a letter from me to the Governor of Virginia, and a copy of the resolves of the legislature of that State in consequence thereof.

I have not the smallest doubt that this donation (when the navigation is in complete operation, which it certainly will be in less than two years,) will amount to £1200 or £1500 sterling a year, and become a rapidly increasing fund. The proprietors of the Federal City have talked of doing something handsome towards it likewise; and if Congress would appropriate some of the western lands to the same uses, funds sufficient, and of the most permanent and increasing sort, might be so established as to invite the ablest professors in Europe to conduct it.

In a letter to Hamilton, dated Sept. 6, 1796, Washington adds:

If you think the idea of a university had better be reserved for the speech at the opening of the session, I am content to defer the communication of it until that period; but even in that case, I would pray you, as soon as convenient, to make a draft for the occasion, predicated on the ideas with which you have been furnished; looking at the same time at what was said on this head in my *second* speech to the *first* Congress, merely with a view to see what was said on the subject at that time; and this, you will perceive, was not so much to the point as I want to express now, though it may, if proper, be glanced at, to show that the subject had caught my attention early.

I much question whether a recommendation of this measure to the legislature will have a better effect *now* than *formerly*. It may show, indeed, my sense of its importance, and that is a sufficient inducement with *me* to bring the matter before the public in some shape or another at the close of my political life. My object in proposing to insert it when I did, was to set the *people* ruminating on the importance of the measure, as the most likely means of bringing it to pass.

In his Farewell Address to the people of the United States, dated September 17, 1796, Washington gave utterance to that noble sentiment which has passed into an axiom of political philosophy:—

Promote, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened.

Washington did not confine the expressions of his interest in education, and especially the establishment of a national university, to his official communications to Congress and to the people of the United States. In a letter addressed to Mr. Adams, the Vice President, dated Nov. 27, 1794, on a proposition communicated by Mr. Jefferson, for "transplanting the members entire of the University of Geneva to America," there is the following passage:—

That a national university in this country is a thing to be desired, has always been my decided opinion; and the appropriation of ground and funds for it in the Federal City has long been contemplated and talked of; but how far matured, or how far the transporting of an entire seminary of foreigners, who may not understand our language, can be assimilated therein, is more than I am prepared to give an opinion upon; or, indeed, how far funds in either case are attainable.

On 28th of January, 1795, Washington addressed from Philadelphia, the following letter to the Commissioners of the Federal District:—

GENTLEMEN—A plan for the establishment of a university in the Federal City has frequently been the subject of conversation; but, in what manner it is proposed to commence this important institution, on how extensive a scale, the means by which it is to be effected, how it is to be supported, or what progress is made in it, are matters altogether unknown to me.

It has always been a source of serious reflection and sincere regret with me, that the youth of the United States should be sent to foreign countries for the purpose of education. Although there are doubtless many, under these circumstances, who escape the danger of contracting principles unfavorable to republican government, yet we ought to deprecate the hazard attending ardent and susceptible minds, from being too strongly and too early prepossessed in favor of other political systems, before they are capable of appreciating their own.

For this reason I have greatly wished to see a plan adopted, by which the arts, sciences, and belles-lettres could be taught in their fullest extent, thereby embracing all the advantages of European tuition, with the means of acquiring the liberal knowledge, which is necessary to qualify our citizens for the exigencies of public as well as private life; and (which with me is a consideration of great magnitude) by assembling the youth from the different parts of this rising republic, contributing from their intercourse and interchange of information to the removal of prejudices, which might perhaps sometimes arise from local circumstances.

The Federal City, from its centrality and the advantages which in other respects it must have over any other place in the United States, ought to be preferred, as a proper site for such a university. And if a plan can be adopted upon a scale as extensive as I have described, and the execution of it should commence under favorable auspices in a reasonable time, with a fair prospect of success, I will grant in perpetuity fifty shares in the navigation of the Potomac River towards the endowment of it.

What annuity will arise from these fifty shares, when the navigation is in full operation, can at this time be only conjectured; and those, who are acquainted with it, can form as good a judgment as myself.

As the design of this university has assumed no form with which I am acquainted, and as I am equally ignorant who the persons are, who have taken or are disposed to take the maturing of the plan upon themselves, I have been at a loss to whom I should make this communication of my intentions. If the Commissioners of the Federal City have any particular agency in bringing the matter forward, then the information, which I now give to them, is in its proper course. If, on the other hand, they have no more to do in it than others, who may be desirous of seeing so important a measure carried into effect, they will be so good as to excuse my using them as the medium for disclosing these my intentions; because it appears necessary, that the funds for the establishment and support of the institution should be known to the promoters of it; and I see no mode more eligible for announcing my purpose.

In February, 1795, Mr. Jefferson addressed from Monticello a letter to President Washington, in reference to a proposition of M. D'Ivernois, and the Professors of the University of Geneva, Switzerland, to remove in a body to the United States, and establish here a University, "comprehending a College of Languages, preparatory to the principal one of Sciences, and also a third one for the gratuitous teaching of reading and writing to the poor." Mr. Jefferson, in view of a previous communication from Washington, as to his intention to aid by testamentary devise, the establishment of a National University, thinks the acceptance of this proposition, with modifications, will give "the institution at the outset such *éclat*, and such solid advantages, as would insure a very general concourse

to it of the youths from all our States, and probably from other parts of America."

The composition of the academy can not be settled there. It must be adapted to our circumstances, and can therefore only be fixed between them and persons here acquainted with those circumstances, and conferring for the purpose after their arrival here. For a country so marked for agriculture as ours, I should think no professorship so important as one not mentioned by them, a professor of agriculture, who, before the students should leave college, should carry them through a course of lectures on the principles and practice of agriculture; and that this professor should come from no country but England. Indeed I should mark Young as the man to be obtained. These, however, are modifications to be left till their arrival here.

To this letter, Washington replied on the 15th of March, 1795:—

I had little hesitation in giving the Federal City a preference over all other places for the institution, for the following reasons. First, on account of its being the permanent seat of the government of this Union, and where the laws and policy of it must be better understood than in any local part thereof. Secondly, because of its centrality. Thirdly, because one half (or near it) of the District of Columbia is within the Commonwealth of Virginia, and the whole of the State not inconvenient thereto. Fourthly, because, as a part of the endowment, it would be useful, but alone would be inadequate to the end. Fifthly, because many advantages, I conceive, would result from the jurisdiction which the general government will have over it, which no other spot would possess. And, lastly, as this seminary is contemplated for the completion of education and study of the sciences, not for boys in their rudiments, it will afford the students an opportunity of attending the debates in Congress, and thereby becoming more liberally and better acquainted with the principles of law and government.

My judgment and my wishes point equally strong to the application of the James River shares to the same subject at the same place; but, considering the source from whence they were derived, I have, in a letter I am writing to the executive of Virginia on this subject, left the application of them to a seminary within the State, to be located by the legislature.

Hence you will perceive, that I have in a degree anticipated your proposition. I was restrained from going the whole length of the suggestion by the following considerations. First, I did not know to what extent or when any plan would be so matured for the establishment of a university, as would enable any assurances to be given to the application of M. D'Ivernois. Secondly, the propriety of transplanting the professors in a body might be questioned for several reasons; among others, because they might not be all good characters, nor all sufficiently acquainted with our language. And again, having been at variance with the leveling party of their own country, the measure might be considered as an aristocratical movement by more than those, who, without any just cause that I can discover, are continually sounding the bell of aristocracy. And, thirdly, because it might preclude some of the first professors in other countries from a participation, among whom some of the most celebrated characters in Scotland, in this line, might be obtained.

My letter to the commissioners has bound me to the fulfillment of what is therein engaged; and if the Legislature of Virginia, on considering the subject, should view it in the same light as I do, the James River shares will be added thereto; for I think one good institution of this sort is to be preferred to two imperfect ones, which, without other aid than the shares in both navigations, is more likely to fall through, than to succeed upon the plan I contemplate; which is, in a few words, to supersede the necessity of sending the youth of this country abroad for the purpose of education, where too often principles and habits unfriendly to republican government are imbibed, and not easily discarded. Instituting such a one of our own, as will answer the end, and associating them in the same seminary, will contribute to wear off those prejudices and unreasonable jealousies, which prevent or weaken friendships and impair the harmony of the Union.

On the 16th of March, 1795, Washington addressed the following letter to Gov. Brooke of Virginia:—

SIR:—Ever since the General Assembly of Virginia were pleased to submit to my disposal fifty shares in the Potomac, and one hundred in the James River Company, it has been my anxious desire to appropriate them to an object most worthy of public regard.

It is with indescribable regret, that I have seen the youth of the United States migrating to foreign countries, in order to acquire the higher branches of erudition, and to obtain a knowledge of the sciences. Although it would be injustice to many to pronounce the certainty of their imbibing maxims not congenial with republicanism, it must nevertheless be admitted, that a serious danger is encountered by sending abroad among other political systems those who have not well learned the value of their own.

The time is therefore come, when a plan of universal education ought to be adopted in the United States. Not only do the exigencies of public and private life demand it, but, if it should ever be apprehended, that prejudice would be entertained in one part of the Union against another, an efficacious remedy will be, to assemble the youth of every part under such circumstances as will, by the freedom of intercourse and collision of sentiment, give to their minds the direction of truth, philanthropy, and mutual conciliation.

It has been represented, that a university corresponding with these ideas is contemplated to be built in the Federal City, and that it will receive considerable endowments. This position is so eligible from its centrality, so convenient to Virginia, by whose legislature the shares were granted and in which part of the Federal District stands, and combines so many other conveniences, that I have determined to vest the Potomac shares in that university.

Presuming it to be more agreeable to the General Assembly of Virginia, that the shares in the James River Company should be reserved for a similar object in some part of that State, I intend to allot them for a seminary to be erected at such place as they shall deem most proper. I am disposed to believe, that a seminary of learning upon an enlarged plan, but yet not coming up to the full idea of a university, is an institution to be preferred for the position which is to be chosen. The students, who wish to pursue the whole range of science, may pass with advantage from the seminary to the university, and the former by a due relation may be rendered coöperative with the latter.

I can not however dissemble my opinion, that if all the shares were conferred on a university, it would become far more important, than when they are divided; and I have been constrained from concentering them in the same place, merely by my anxiety to reconcile a particular attention to Virginia with a great good, in which she will abundantly share in common with the rest of the United States.

I must beg the favor of your Excellency to lay this letter before that honorable body, at their next session, in order that I may appropriate the James River shares to the place which they may prefer. They will at the same time again accept my acknowledgments for the opportunity, with which they have favored me, of attempting to supply so important a desideratum in the United States as a university adequate to our necessity, and a preparatory seminary.

This letter was accordingly communicated to the Assembly at their next session, when the following resolves were passed:—

IN THE HOUSE OF DELEGATES, *December 1st*, 1795.

Whereas the migration of American youth to foreign countries, for the completion of their education, exposes them to the danger of imbibing political prejudices disadvantageous to their own republican forms of government, and ought therefore to be rendered unnecessary and avoided;

Resolved, that the plan contemplated of erecting a university in the Federal City, where the youth of the several States may be assembled, and their course of education finished, deserves the countenance and support of each State.

And whereas, when the General Assembly presented sundry shares in the James River and Potomac Companies to George Washington, as a small token

of their gratitude for the great, eminent, and unrivaled services he had rendered to this Commonwealth, to the United States, and the world at large, in support of the principles of liberty and equal government, it was their wish and desire that he should appropriate them as he might think best; and whereas, the present General Assembly retain the same high sense of his virtues, wisdom, and patriotism;

Resolved, therefore, that the appropriation by the said George Washington of the aforesaid shares in the Potomac Company to the university, intended to be erected in the Federal City, is made in a manner most worthy of public regard, and of the approbation of this Commonwealth.

Resolved, also, that he be requested to appropriate the aforesaid shares in the James River Company to a seminary at such place in the upper country, as he may deem most convenient to a majority of the inhabitants thereof.

The following are provisions of Washington's last Will:—

—As it has always been a source of serious regret with me to see the youth of these United States sent to foreign countries for the purposes of education, often before their minds were formed, or they had imbibed any adequate ideas of the happiness of their own; contracting, too frequently, not only habits of dissipation and extravagance, but *principles unfriendly to republican government, and to the true and genuine liberties of mankind*, which thereafter are rarely overcome; for these reasons it has been my ardent wish to see a plan devised on a liberal scale, which would have a tendency to spread systematic ideas through all parts of this rising empire, thereby to do away local attachments and State prejudices, as far as the nature of things would, or indeed ought to admit, from our national councils. Looking anxiously forward to the accomplishment of so desirable an object as this is (in my estimation), my mind has not been able to contemplate any plan more likely to affect the measure, than the establishment of a University in a central part of the United States, to which youths of fortune and talents from all parts thereof may be sent for the completion of their education in all branches of polite literature, in arts and sciences, in acquiring knowledge in the principles of politics and good government; and, as a matter of infinite importance in my judgment, by associating with each other, and forming friendships in juvenile years, be enabled to free themselves in a proper degree from those local prejudices and habitual jealousies, which have just been mentioned, and which, when carried to excess, are never-failing sources of disquietude to the public mind, and pregnant with mischievous consequences to the country. Under these impressions,

I give and bequeath in perpetuity the fifty shares which I hold in the Potomac Company (under the aforesaid acts of the Legislature of Virginia,) towards the endowment of a university to be established within the limits of the District of Columbia, under the auspices of the general government, if that government should incline to extend a fostering hand towards it; and until such seminary is established, and the funds arising on these shares be required for its support, my further will and desire is, that the profit accruing therefrom shall, whenever the dividends are made, be laid out in purchasing stock in the bank of Columbia, or some other bank, at the discretion of my executors, or by the treasurer of the United States for the time being, under the direction of Congress, provided that honorable body should patronize the measure; and the dividends proceeding therefrom are to be vested in more stock, and so on until a sum adequate to the accomplishment of the object is obtained, of which I have not the smallest doubt before many years pass away, even if no aid or encouragement is given by legislative authority, or from any other source.

The hundred shares, which I hold in the James River Company, I have given, and now confirm, in perpetuity, to and for the use and benefit of Liberty Hall Academy, in the county of Rockbridge, in the commonwealth of Virginia.

We shall continue this Historical Development of the National Aspects of Education through successive administrations, down to the action of Congress at its last session—with a notice of which we introduce a speech from Gen. Garfield on the subject.

II. EDUCATION—A NATIONAL INTEREST.

SPEECH OF JAMES A. GARFIELD OF OHIO, IN THE HOUSE OF REPRESENTATIVES, JUNE 8TH, 1866, ON A BILL "TO ESTABLISH A NATIONAL BUREAU OF EDUCATION," REPORTED BY THE SELECT COMMITTEE* ON THE MEMORIAL OF THE NATIONAL ASSOCIATION OF SCHOOL SUPERINTENDENTS.

At the conclusion of a general discussion of the bill, the previous question upon the bill and the pending amendments was demanded and seconded, and the main question ordered;

Mr. GARFIELD spoke as follows: I did intend to make a somewhat elaborate statement of the reasons why the select committee recommended the passage of this bill; but I know the anxiety that many gentlemen feel to have this debate concluded, and to allow the private bills now on the calendar and set for this day, to be disposed of, and to complete as soon as possible the work of this session. I will, therefore, abandon my original purpose and restrict myself to a brief statement of a few leading points in the argument, and leave the decision with the House. I hope this waiving of a full discussion of the bill will not be construed into a confession that it is inferior in importance to any measure before the House; for I know of none that has a nobler object, or that more vitally affects the future of this nation.

I first ask the House to consider the magnitude of the interests involved in this bill. The very attempt to discover the amount of pecuniary and personal interest we have in our schools shows the necessity of such a law as is here proposed. I have searched in vain for any complete or reliable statistics showing the educational condition of the whole country. The estimates I have made are gathered from various sources and can only be approximately correct. I am satisfied, however, that they are far below the truth.

Even by the incomplete and imperfect educational statistics of the

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*The Committee consisted of Garfield of Ohio, Patterson of New Hampshire, Boutwell of Massachusetts, Donnelly of Minnesota, Moulton of Illinois, Goodyear of New York, and Randall, of Pennsylvania.

Census Bureau, it appears that in 1860, there were in the United States 115,224 common schools, 500,000 school officers, 150,241 teachers, and 5,477,037 scholars; thus showing that more than six millions of the people of the United States are directly engaged in the work of education.

Not only has this large proportion of our population been thus engaged, but the Congress of the United States has given fifty-three million acres of public lands to fourteen States and Territories of the Union for the support of schools. In the old ordinance of 1785, it was provided that one section of every township, one thirty-sixth of all the public lands of the United States, should be set apart and held forever sacred to the support of the schools of the country. In the ordinance of 1787, it was declared that "religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

It is estimated that at least $50,000,000 have been given in the United States by private individuals for the support of schools. We have thus an interest, even pecuniarily considered, hardly second to any other. We have tolerably complete school statistics from only seventeen States of the Union.

Our Congressional Library contains no educational reports whatever from the remaining nineteen. In those seventeen States there are 90,835 schools, 190,000 teachers, 5,107,285 pupils, and $34,000,000 annually appropriated by the Legislatures for the support and maintenance of common schools. Notwithstanding the great expenditures entailed upon them during five years of war, they raised by taxation $34,000,000 annually for the support of common schools. In several States of the Union more than fifty per cent. of all the tax, imposed for State purposes, is for the support of common schools. And yet, gentlemen are impatient because we wish to occupy a short time in considering this bill!

I will not trouble the House by repeating common-places so familiar to every gentleman here, as that our system of government is based upon the intelligence of the people. But I wish to suggest that there never has been a time when all our educational forces should be in such perfect activity as at the present day.

Ignorance—stolid ignorance—is not our most dangerous enemy. There is very little of that kind of ignorance among the white population of this country.

In the Old World, among the despotic governments of Europe, the

great disfranchised class—the pariahs of political and social life—are indeed ignorant, mere inert masses, moved upon and controlled by the intelligent and cultivated aristocracy. Any unrepresented and hopelessly disfranchised class in a government will inevitably be struck with intellectual paralysis. Our late slaves afford a sad illustration.

But among the represented and voting classes of this country, where all are equal before the law, and every man is a political power for good or evil, there is but little of the inertia of ignorance. The alternatives are not education or no education; but shall the power of the citizen be directed aright towards industry, liberty, and patriotism, or, under the baneful influence of false theories and evil influences, shall it lead him continually downward till it ruin both him and the government?

If he is not educated in the school of virtue and integrity he will be educated in the school of vice and iniquity. We are, therefore, afloat on the sweeping current; we must make head against it, or we shall go down with it to the saddest of destinies.

According to the census of 1860 there were 1,218,311 free white inhabitants of the United States over twenty-one years of age who could not read nor write, and 871,418 of those were American-born citizens. One-third of a million of people are being annually thrown upon our shores from the Old World, a large per cent. of whom are uneducated, and the gloomy total has been swelled by the 4,000,000 slaves admitted to citizenship by the events of the war.

Such, Sir, is the immense force which we must now confront by the genius of our institutions and the light of our civilization. How shall it be done? An American citizen can give but one answer. We must pour upon them all the light of our public schools. We must make them intelligent, industrious, patriotic citizens, or they will drag us and our children down to their level. Does not this question rise to the full height of national importance and demand the best efforts of statesmanship to adjust it? Mr. Mann has well said:

"That legislators and rulers are responsible.

"In our country and in our times no man is worthy the honored name of a statesman who does not include the highest practicable education of the people in all of his plans of administration.

"He may have eloquence, he may have a knowledge of all history, diplomacy, jurisprudence, and by these he may claim, in other countries, the elevated rank of a statesman, but unless he speaks, plans, labors at all times and in all places for the culture and edification of the whole people, he is not, he cannot be an American statesman."

Gentlemen who have discussed the bill this morning tell us that it will result in great expense to the government. Whether an enterprise is expensive or not is altogether a relative question, to be determined by the importance of its object.

Now, what have we done as a nation in the way of expenses? In 1832 we organized a Coast Survey Bureau, and have expended millions upon it. Its officers have triangulated thousands of miles of our coasts, have made soundings of all our bays and harbors, and carefully mapped the shoals, breakers, and coast lines from our northern boundary on the Atlantic to the extreme northern boundary on the Pacific coast. They have established eight hundred tidal stations to observe the fluctuations of the tides. We have expended vast sums in order perfectly to know the topography of our coasts, lakes and rivers, that we might make navigation more safe. Is it of no consequence that we explore the boundaries of that wonderful intellectual empire which incloses within its domain the fate of succeeding generations, and of this republic? The children of to-day will be the architects of our country's destiny in 1900.

We have established an Astronomical Observatory where the movements of the stars are watched, latitude and longitude calculated, and chronometers regulated for the benefit of navigation. For this Observatory we pay one third of a million per annum. Is it of no consequence that we observe the movements of those intellectual lights which shall, in the time to come, be guiding stars in our national firmament?

We have established a Light-House Board who are employing all the aids of science, to discover the best modes of regulating the beacons upon our shores; they are placing buoys as way-marks to guide ships safely into our harbors. Will you not create a light-house board to set up beacons for the coming generation, not as lights to the eye, but to the mind and heart, that shall lead them safely in the perilous voyage of life, and enable them to transmit the blessings of liberty to those who shall come after them?

We have set on foot a score of expeditions to explore the mountains and valleys, the lakes and rivers of this and other countries. We have expended money without stint to explore the Amazon and the Jordan, Chili and Japan, the gold shores of the Colorado and the copper cliffs of Lake Superior; to gather and publish the great facts of science, and to exhibit the material resources of physical nature. Will you refuse the pitiful sum of $13,000 to collect and record the intellectual resources of this country, the elements that lie behind all material wealth and make it either a curse or a blessing?

We have paid three-quarters of a million dollars for the survey of the route for the Pacific railroad, and have published the results at a great cost in thirteen quarto volumes, with accompanying maps and charts. The money for these purposes was freely expended, and now, when it is proposed to appropriate $13,000 to aid in increasing the intelligence of those who will use that great continental highway when it is completed, we are reminded of our debts, and warned against increasing our expenditures. It is difficult to treat such an objection with the respect that always is due in this hall of legislation.

We have established a Patent Office where are annually accumulated thousands of models of new machinery invented by our people. Will you make no expenditure for the benefit of the intelligence that shall stand behind that machinery and be its controller? Will you bestow all your favors upon the engine, and ignore the engineer? I will not insult the intelligence of this House by waiting to prove that money paid for education is the most economical of all expenditure; that it is cheaper to reduce crime than to build jails; that school houses are less expensive than rebellions. A tenth of our national debt expended in public education fifty years ago would have saved us the blood and treasure of the late war. A far less sum may save our children from a still greater calamity.

We expend hundreds of thousands annually to promote the agricultural interests of the country; to introduce the best methods in husbandry. Is it not of more consequence to do something for the farmer of the future than for the farm of to-day?

As man is more precious than soil, as the immortal spirit is nobler than the clod it animates, so is the object of this bill more important than any mere pecuniary interest.

The genius of our government does not allow us to establish a compulsory system of education, as is done in some of the countries of Europe. There are States in this Union, however, which have adopted a compulsory system, and perhaps that is well. It is for each State to determine. A distinguished gentleman from Rhode Island told me lately that it is now the law in that State that every child within its borders shall attend school, and that every vagrant child shall be taken in charge by the authorities and sent to school. It may be well for other States to pursue the same course; but probably the general government can do nothing of the sort. Whether it has the right of compulsory control or not, we propose none in this bill.

But we do propose to use that power, so effective in this country, of letting in light on subjects, and holding them up to the verdict of

public opinion. If it could be published annually from this capitol, through every school district of the United States, that there are States in the Union that have no system of common schools; and if their records could be placed beside the records of such States as Massachusetts, New York, Pennsylvania, Ohio and other States that have a common school system, the mere statement of the fact would rouse their energies, and compel them for shame to educate their children. It would shame out of their delinquency all the delinquent States.

Mr. Speaker, if I were called upon to-day to point to that in my own State of which I am most proud, I would not point to any of the flaming lines of her military record, to the heroic men and the brilliant officers she gave to the late contest: I would not point to any of her leading men of the past or the present; but I would point to her common schools; I would point to the honorable fact that in the great struggle of five years through which we have just passed, she has expended $12,000,000 for the support of her public schools. I do not include in that amount the sums expended upon our higher institutions of learning. I would point to the fact that fifty-two per cent of the taxation of Ohio for the last five years, aside from the war tax and the tax for the payment of her public debt, has been for the support of her schools. I would point to the schools of Cincinnati, Cleveland, Toledo, and other cities of the State, if I desired a stranger to see the glory of Ohio. I would point to the thirteen thousand school houses and the seven hundred thousand pupils in the schools of Ohio. I would point to the $3,000,000 she has paid for schools during the last year alone. This, in my judgment, is the proper gauge by which to measure the progress and glory of States.

Gentlemen tell us there is no need of this bill—the States are doing well enough now. Do they know through what a struggle every State has come up, that has secured a good system of common schools. Let me illustrate this by the example of Pennsylvania. Notwithstanding the early declaration of William Penn—

> "That which makes a good constitution must keep it, namely, men of wisdom and virtue; qualities that because they descend not with worldly inheritance must be carefully propagated by a virtuous education of youth, for which spare no cost, for by such parsimony all that is saved is lost,"

notwithstanding that wise master builder incorporated this sentiment in his "framework of government" and made it the duty of the governor and council "to establish and support public schools;" notwithstanding Benjamin Franklin, from the first hour he became a

citizen of Pennsylvania, inculcated the value of useful knowledge to every human being in every walk of life, and by his personal and pecuniary effort did establish schools and a college for Philadelphia; notwithstanding the constitution of Pennsylvania made it obligatory upon the Legislature to foster the education of the citizens; notwithstanding all this, it was not till 1833–34 that a system of common schools, supported in part by taxation of property of the State, for the common benefit of all the children of the State, was established by law; and although the law was passed by an almost unanimous vote of both branches of the Legislature, so foreign was the idea of public schools to the habits of the people, so odious was the idea of taxation for this purpose, that even the poor who were to be specially benefited, were so deluded by political demagogues as to clamor for its repeal.

Many members who voted for the law lost their nominations, and others, although nominated, lost their election. Some were weak enough to pledge themselves to a repeal of the law; and in the session of 1835 there was an almost certain prospect of its repeal and the adoption in its place of an odious and limited provision for educating the children of the poor by themselves. In the darkest hour of the debate, when the hearts of the original friends of the system were failing from fear, there rose on the floor of the House one of its early champions, one who, though not a native of the State, felt the disgrace which the repeal of this law would inflict, like a knife in his bosom; one who, though no kith or kin of his would be benefited by the operations of the system, and though he should share its burdens, he would only partake with every citizen in its blessings; one who had voted for the orginal law although introduced by his political opponents, and who had defended and gloried in his vote before an angry and unwilling constituency; this man, then in the beginning of his public career, threw himself into the conflict, and by his earnest and brave eloquence saved the law, and gave a noble system of common schools to Pennsylvania.

I doubt if, at this hour, after the thirty years crowded full of successful labors at the bar, before the people, and in halls of legislation, the venerable and distinguished member [Mr. STEVENS], who now represents a portion of the same State in this House, can recall any speech of his life with half the pleasure he does that, for no measure with which his name has been connected is so fraught with blessings to hundreds of thousands of children, and to homes innumerable. I hold in my hand a copy of his brave speech, and I ask the clerk to read the passages I have marked:

"I am comparatively a stranger among you, born in another, in a distant State; no parent or kindred of mine did, does, or probably ever will dwell within your borders. I have none of those strong cords to bind me to your honor and your interest; yet, if there is any one thing on earth which I ardently desire above all others, it is to see Pennsylvania standing up in her intellectual, as she confessedly does in her physical resources, high above all her confederate rivals. How shameful then, would it be for these her native sons, to feel less so, when the dust of their ancestors is mingled with her soil, their friends and relatives enjoy her present prosperty, and their descendants, for long ages to come, will partake of her happiness or misery, her glory or her infamy!" * *

"In giving this law to posterity, you act the part of the philanthropist, by bestowing upon the poor as well as the rich, the greatest earthly boon which they are capable of receiving; you act the part of the philosopher by pointing, if you do not lead them, up the hill of science; you act the part of the hero, if it be true, as you say, that popular vengeance follows close upon your footsteps. Here then, if you wish true popularity, is a theater on which you may acquire it." * * *

"Let all, therefore, who would sustain the character of the philosopher or philanthropist, sustain this law. Those who would add thereto the glory of the hero, can acquire it here; for, in the present state of feeling in Pennsylvania, I am willing to admit that but little less dangerous to the public man is the war-club and battle-axe of savage ignorance than to the lion-hearted Richard was the keen cimeter of the Saracen. He who would oppose it, either through inability to comprehend the advantages of general education, or from unwillingness to bestow them on all his fellow citizens, even to the lowest and the poorest, or from dread of popular vengeance, seems to want either the head of the philosopher, the heart of the philanthropist, or the nerve of the hero."

He has lived long enough to see this law, which he helped to found in 1834, and more than any other man was instrumental in saving from repeal in 1835, expanded and consolidated into a noble system of public instruction. Twelve thousand schools have been built by the voluntary taxation of the people, to the amount, for school houses alone, of nearly ten million dollars. Many millions of children have been educated in these schools. More than seven hundred thousand attended the public schools of Pennsylvania in 1864–65, and their annual cost, provided by voluntary taxation in the year 1864, was nearly three million dollars, giving employment to sixteen thousand teachers.

It is glory enough for one man to have connected his name so honorably with the original establishment and effective defense of such a system.

But it is said that the thirst for knowledge among the young; the pride and ambition of parents for their children, are agencies powerful enough to establish and maintain thorough and comprehensive systems of education.

This suggestion is answered by the unanimous voice of publicists and political economists. They all admit that the doctrine of "Demand and Supply" does not apply to educational wants. Even the most extreme advocates of the principle of *laissez faire* as a sound maxim of political philosophy, admit that governments must interfere in aid of education. We must not wait for the *wants* of the rising generation to be expressed in a *demand* for means of education. We must ourselves discover and supply their *needs*, before the time for supplying them has forever passed. John Stuart Mill says:

"But there are other things, of the worth of which the demand of the market is by no means a test; things of which the utility does not consist in ministering to inclinations, nor in serving the daily uses of life, and the want of which is least felt where the need is greatest. This is peculiarly true of those things which are chiefly useful as tending to raise the character of human beings. The uncultivated can not be judges of cultivation.

"Those who most need to be made wiser and better, usually desire it least, and if they desired it, would be incapable of finding the way to it by their own lights. It will continually happen on the voluntary system, that, the end not being desired, the means will not be provided at all, or that the persons requiring improvement having an imperfect or altogether erroneous conception of what they want, the supply called forth by the demand of the market, will be any thing but what is really required. Now any well intentioned and tolerably civilized government may think, without presumption, that it does, or ought to possess a degree of cultivation above the average of the community which it rules, and that it should, therefore, be capable of offering better education and better instruction to the people, than the greater number of them would spontaneously select.

"Education, therefore, is one of those things which it is admissible in principle that the government should provide for the people. The case is one to which the reasons of the non-interference principle do not necessarily or universally extend.

"With regard to elementary education, the exception to ordinary rules may, I conceive, justifiably be carried still further. There are certain primary elements and means of knowledge which it is in the highest degree desirable that all human beings born into the community should acquire during childhood. If their parents, or those on whom they depend, have the power of obtaining for them this instruction, and fail to do it, they commit a double breach of duty; toward the children themselves, and toward the members of the community generally, who are all liable to suffer seriously from the consequences of ignorance and want of education in their fellow citizens. It is, therefore, an allowable exercise of government to impose on parents the legal obligation of giving elementary instruction to children. This, however, can not fairly be done without taking measures to insure that such instruction shall always be accessible to them, either gratuitously or at a trifling expense."

This is the testimony of economic science. I trust the statesmen

of this Congress will not think the subject of education too humble a theme for their most serious consideration. It has engaged the earnest attention of the best men of ancient and modern times, especially of modern statesmen and philanthropists.

I will fortify myself in the positions I have taken by quoting the authority of a few men who are justly regarded as teachers of the human race. If I keep in their company I can not wander far from the truth. I can not greatly err while I am guided by their counsel.

In his eloquent essay entitled *Way to establish a Free Commonwealth*, John Milton said:

"To make the people fittest to choose, and the chosen fittest to govern, will be to mend our corrupt and faulty education, to teach the people faith, not without virtue, temperance, modesty, sobriety, economy, justice; not to admire wealth or honor; to hate turbulence and ambition; to place every one his private welfare and happiness in the public peace, liberty and safety."

England's most venerable living statesman, Lord Brougham, enforced the same truth in these noble words:

"Lawgivers of England! I charge ye, have a care! Be well assured that the contempt lavished upon the cabals of Constantinople, when the council disputed on a text, while the enemy, the derider of all their texts, was thundering at the gate, will be a token of respect compared with the loud shout of universal scorn which all mankind in all ages will send up against you, if you stand still and suffer a far deadlier foe than the Turcoman,—suffer the parent of all evil, all falsehood, all hypocrisy, all discharity, all self-seeking—him who covers over with pretexts of conscience the pitfalls that he digs for the souls on which he preys,—to stalk about the fold and lay waste its inmates—stand still and make no head against him, upon the vain pretext to soothe your indolence, that your action is obstructed by religious cabals—upon the far more guilty speculation, that by playing a party game you can turn the hatred of conflicting professors to your selfish purposes!

"Let the soldier be abroad, if he will; he can do nothing in this age. There is another personage abroad, a person less imposing—in the eye of some insignificant. The Schoolmaster is abroad, and I trust to him, armed with his primer, against the soldier in full uniform array."

Lord Brougham gloried in the title of schoolmaster, and contrasted his work with that of the military conqueror in these words:

"The conqueror stalks onward with the 'pride, pomp and circumstance of war,' banners flying, shouts rending the air, guns thundering, and martial music pealing, to drown the shrieks of the wounded and the lamentations for the slain. Not thus the schoolmaster in his peaceful vocation. He meditates and prepares in secret the plans which are to bless mankind; he slowly gathers around him those who are to further their execution; he quietly, though firmly, advances in his humble path laboring steadily, but calmly, till he has opened to

the light all the recesses of ignorance, and torn up by the roots the weeds of vice. His is a progress not to be compared with any thing like a march; but it leads to a far more brilliant triumph, and to laurels more imperishable than the destroyer of his species, the scourge of the world, ever won."

The learned and brilliant Guizot, who regarded his work in the office of Minister of Public Instruction, in the government of France, the noblest and most valuable work of his life, has left us this valuable testimony.

"Universal education is henceforth one of the guarantees of liberty and social stability. As every principle of our government is founded on justice and reason, to diffuse education among the people, to develop their understandings and enlighten their minds, is to strengthen their constitutional government and secure its stability."

In his Farewell Address, Washington wrote these words of wise counsel:

"Promote, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened."

In his Inaugural Message, when first taking the Presidential chair, the elder Adams said:

"The wisdom and generosity of the legislature in making liberal appropriations in money for the benefit of schools, academies and colleges, is an equal honor to them and to their constituents, a proof of their veneration for letters and science, and a portent of great and lasting good to North and South America and to the world. Great is truth—great is liberty—great is humanity—and they must and will prevail."

Chancellor Kent used this decided language:

"The parent who sends his son into the world uneducated, defrauds the community of a lawful citizen, and bequeaths to it a nuisance."

I shall conclude the citation of opinions with the stirring words of Edward Everett:

"I know not to what we can better liken the strong appetence of the mind for improvement than to a hunger and thirst after knowledge and truth, nor how can we better describe the province of education than to say, it does that for the intellect which is done for the body, when it receives the care and nourishment which are necessary for its growth, health and strength.

"From this comparison I think I derive new views of the importance of education. It is now a solemn duty, a tender, sacred trust.

"What! feed a child's body, and let his soul hunger! pamper his limbs and starve his faculties!

"Plant the earth, cover a thousand hills with your droves of cattle, pursue the fish to their hiding places in the sea, and spread out your wheat fields across the plains in order to supply the wants of that body, which will soon be as cold and senseless as their poorest clod, and let the pure spiritual essence within you, with all its glorious capacities for improvement, languish and pine! What! build factories, turn in rivers upon the waterwheels, unchain the imprisoned spirits of steam, to weave a garment for the body, and let the soul remain unadorned and naked!

"What! send out your vessels to the farthest ocean, and make battle with the monsters of the deep, in order to obtain the means of lighting up your dwellings and workshops, and prolonging the hours of labor for the meat that perisheth, and permit that vital spark, which God has kindled, which He has intrusted to our care, to be fanned into a bright and heavenly flame; permit it, I say, to languish and go out!"

It is remarkable that so many good things have been said, and so few things done by our national statesmen in favor of education. If we inquire what has been done by the governments of other countries to support and advance public education, we are compelled to confess with shame that every government in christendom has given a more intelligent and effective support to schools than has our own.

The free cities of Germany organized the earliest school systems after the separation of church and state. The present schools of Hamburg have existed more than 1,000 years. The earliest school codes were framed in the Duchy of Wurtemburg, in 1565, and in the Electorate of Saxony in 1580. Under these codes were established systems of schools, more perfect, it is claimed, than the school system of any State of the American union. Their systems embraced the gymnasium and the university, and were designed, as their laws expressed it, "to carry youth from the elements to the degree of culture demanded for offices in church and state."

The educational institutions of Prussia are too well known to need a comment. It is a sufficient index of their aim and high character that a late Prussian school officer said of his official duties:

"I promised God that I would look upon every Prussian peasant-child as a being who could complain of me before God if I did not provide for him the best education as a man and a christian which it was possible for me to provide."

France did not think herself dishonored by learning from a nation which she had lately conquered; for when, in 1831, she began to provide more fully for the education of her people, she sent the philosopher Cousin to Holland and Prussia, to study and report upon the schools of those States. Guizot was made Minister of Public Instruction, and held the office from 1832 to 1837. In 1833 the report

of Cousin was published, and the educational system of France was established on the Prussian model.

No portion of his brilliant career reflects more honor upon Guizot than his five years' work for the schools of France. The fruits of his labors were not lost in the revolutions that followed. The present emperor is giving his best efforts to the perfection and maintenance of schools, and is endeavoring to make the profession of the teacher more honorable and desirable than it has been hitherto.

Through the courtesy of the Secretary of State, I have obtained the last annual report of the Minister of Public Instruction in France, which exhibits the present state of education in that empire.

At the last enumeration there were in France, in the colleges and lyceums, 65,832 pupils, in the secondary schools, 200,000, and in the primary or common schools, 4,720,234.

Besides the large amount raised by local taxation, the imperial government appropriated, during the year 1865, 2,349,051 francs for the support of primary schools.

Teaching is one of the regular professions in France, and the government offers prizes, and bestows honors upon the successful instructor of children. During the year 1865, 1,154 prizes were distributed to teachers in primary schools.

An order of honor, and a medal worth 250 francs, is awarded to the best teacher in each commune.

After a long and faithful service in his profession, the teacher is retired on half pay, and, if broken down in health, is pensioned for life. In 1865, there were 4,245 teachers on the pension list of France. The Minister says in his report: "The statesmen of France have determined to show that the country knows how to honor those who serve her even in obscurity."

Since 1862, 10,243 libraries for the use of common schools have been established, and they now contain 1,117,352 volumes, more than a third of which have been furnished by the imperial government. Half a million text-books are furnished for the use of children who are too poor to buy them. It is the policy of France to afford the means of education to every child in the empire.

When we compare the conduct of other governments with our own, we can not accuse ourselves so much of illiberality, as of reckless folly in the application of our liberality to the support of schools. No government has expended so much to so little purpose. To fourteen States alone we have given, for the support of schools, 83,000 square miles of land; or an amount of territory nearly equal to two

such States as Ohio. But how has this bountiful appropriation been applied? This chapter in our history has never been written. No member of this House or the Senate; no executive officer of the government now knows, and no man ever did know, what disposition has been made of this immense bounty. This bill requires the Commissioner of Education to report to Congress what lands have been given to schools, and how the proceeds have been applied. If we are not willing to follow the example of our fathers in giving, let us, at least, perpetuate the record of their liberality, and preserve its beneficent results.

Mr. Speaker: I have thus hurriedly and imperfectly exhibited the magnitude of the interests involved in the education of American youth; the peculiar condition of affairs which demand at this time, an increase of our educational forces; the failure of a majority of the States to establish school systems; the long struggles through which others have passed in achieving success, and the humiliating contrast between the action of our government, and those of other nations in reference to education; but I can not close without referring to the bearing of this measure upon the peculiar work of this Congress.

When the history of the XXXIX Congress is written, it will be recorded that two great purposes inspired it, and made their impress upon all its efforts, viz: to build up free States on the ruins of slavery, and to extend to every inhabitant of the United States the rights and privileges of citizenship.

Before the divine Architect builded order out of chaos, He said, "let there be light." Shall we commit the fatal mistake of building up free States without expelling the darkness in which slavery shrouded them? Shall we enlarge the boundaries of citizenship and make no provision to increase the intelligence of the citizen?

I share most fully in the aspirations of this Congress, and give my most cordial support to its policy; but I believe its work will prove a disastrous failure unless it makes the schoolmaster its ally, and aids him in preparing the children of the United States to perfect the work now begun.

The stork is a sacred bird in Holland, and is protected by public law, because it destroys those insects which would undermine the dikes and let the sea again overwhelm the rich fields of the Netherlands. Shall this government do nothing to foster and strengthen those educational agencies which alone can shield the coming generation from ignorance and vice, and make it the impregnable bulwark of liberty and law?

I know that this measure presents few attractions to those whose chief work is to watch the political movements that relate only to nominating conventions and elections. The mere politician will see in it nothing valuable, for the millions of children to be benefited by it, can give him no votes. But I appeal to those who care more for the future safety and glory of this nation than for any mere temporary advantage, to aid in giving to education the public recognition and active support of the Federal government.

The final action of the House on the bill was not reached till the 19th of June, when the question being taken by yeas and nays, it was passed by a vote of 80 yeas to 44 nays, with the following title and provisions

AN ACT TO ESTABLISH A DEPARTMENT OF EDUCATION.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established, at the city of Washington, a Department of Education for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.

SEC. 2. *And be it further enacted*, That there shall be appointed by the President, by and with the advice and consent of the Senate, a Commissioner of Education, who shall be intrusted with the management of the department herein established, and who shall receive a salary of four thousand dollars per annum, and who shall have authority to appoint one chief clerk of his department, who shall receive a salary of two thousand dollars per annum, one clerk who shall receive a salary of eighteen hundred dollars per annum, and one clerk who shall receive a salary of sixteen hundred dollars per annum, which said clerks shall be subject to the appointing and removing power of the Commissioner of Education.

SEC. 3. *And be it further enacted*, That it shall be the duty of the Commissioner of Education to present annually to Congress a report embodying the results of his investigations and labors, together with a statement of such facts and recommendations as will, in his judgment, subserve the purpose for which this department is established. In the first report made by the Commissioner of Education under this act there shall be presented a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same, as far as the same can be determined.

SEC. 4. *And be it further enacted*, That the Commissioner of Public Buildings is hereby authorized and directed to furnish proper offices for the use of the department herein established.

The Bill, in the Senate, was referred to the Standing Committee on the Judiciary, who recommended its passage without amendment; and, after a debate on the 26th of Feb., 1867, on a motion to substitute Bureau for Department, was passed without division on the 1st of March, and signed by the President on the 2d. On the 11th of March, HENRY BARNARD was nominated by President JOHNSON, on the 16th was confirmed by the unanimous vote of the Senate, and on the 17th entered on the duties of Commissioner of Education.

{ SPECIAL CIRCULAR, No. 2.

CIRCULAR RESPECTING NATIONAL LAND GRANTS,

FOR EDUCATIONAL PURPOSES.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C.,

(Addressed to the Governor of each State.)

SIR: The Act to establish the Department of Education requires the Commissioner "to present a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same." As sufficient data can not be obtained here for the required report, the Commissioner takes the liberty to apply to you for such statements and printed documents as will enable him to present for your State the

1. Number of acres granted for Public Schools.
   Number of acres sold.
   Amount realized from sales.
   Present capital of School Fund.
   Annual proceeds thereof in 186
   Number of acres unsold.
   Estimated value of the same.
2. Number of acres granted for University.
   Number of acres sold.
   Amount realized from sales.
   Present capital of University Fund.
   Annual proceeds thereof in 186
   Number of acres unsold.
   Estimated value of the same.
3. Number of acres granted for Agricultural and Mechanic Arts Colleges.
   Number of acres sold.
   Total amount realized from sales to date.
   Annual proceeds of the same in 186
   Number of acres unsold.
   Estimated value thereof.
4. Number of acres of land granted by Congress to the State for any purpose not specified above, which have been applied by the State for educational purposes, specifying object,—acres sold,—amount of funds arising therefrom,—and the annual proceeds thereof.

Any documents illustrative of the legislation of your State as to the disposition of these lands, or management of the funds, or the application of the income, as well as of the progress of education, especially as effected by these grants; and any suggestions as to the modifications of your policy which it might be desirable for new States to consider, will be thankfully received.

HENRY BARNARD, *Commissioner.*

P. S. Please state the amount of "U. S. Deposite Fund" or "Surplus Revenue" received by your State from the Treasurer of the United States, under the Act of June 23, 1836, the present annual income of the same, and the educational object, if any, to which it is appropriated.

EDUCATIONAL LAND POLICY OF THE UNITED STATES.

The Act establishing the Department of Education makes it the duty of the Commissioner in his first report "to present a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same as far as can be determined."

The following account of the Educational Land Policy of the United States, and of the disposition of the Congressional land grants in Minnesota are printed in advance of the report, not only to diffuse information, but to indicate the nature of the statistics that the Department desires to receive.

The growth of the public sentiment that led Congress to inaugurate the system of land grants for education was gradual. The first settlers of Massachusetts and Connecticut from the earliest period set apart lands for schools. In other colonies, before the Declaration of Independence, intelligent men felt the importance of some public provision for the education of the people, as private benevolence was found to be fitful and wholly inadequate. Doctor Samuel Johnson, President of King's (now Columbia) College, in New York city, on April 10, 1762, wrote to Archbishop Secker—

> I beg leave, my Lord, to observe that it is a great pity when patents are granted, as they often are, for large tracts of land no provision is made for religion and schools. I wish, therefore, instructions were given to our governors never to grant patents for townships or villages or large manors without requiring the patentees to sequester a competent portion for the support of religion and schools.

Early in 1784 Georgia, in an act relative to the survey of lands in the western part of the State, uses this language:

> And whereas the encouragement of religion and learning is an object of great importance to any community, and must tend to the prosperity, happiness, and advantage of the same,
>
> *Be it therefore enacted by the authority aforesaid*, That the county surveyors, immediately after the passage of this act, shall proceed to lay out in each county twenty thousand acres of land of the first quality, in separate tracts of five thousand acres each, for the endowment of a collegiate seminary of learning.

The next year an act establishing a university was passed, a trustee of which was William Houstoun, a member of the Congress of the United States from that State, and one of the committee, as will be seen.

that reported a bill with the provision setting apart a certain portion of land in each township of the western territory for school purposes.

On the 17th of May, 1784, Mr. Jefferson, as Chairman of a committee for that purpose, presented to the Congress of the Confederation an ordinance respecting the disposition of public lands. This draft contained no reference to schools or education. On the 4th of March, 1785, another bill for the sale of western lands was introduced, by whom not stated, and on the 16th was recommitted by Congress to a committee of twelve.*

This committee on the fourteenth of April reported "An ordinance for ascertaining the mode of disposing of lands in the western territory," which contained the following paragraph :

> There shall be reserved the central section of every township for the maintenance of public schools, and the section immediately adjoining the same to the northward for the support of religion. The profits arising therefrom in both instances to be applied forever according to the will of the majority of the male residents of full age within the same.

On the twenty-third of the same month, Mr. Pinckney, of South Carolina, seconded by Mr. Grayson, of Virginia, moved to strike out "for the support of religion," and insert "for religious and charitable uses." Mr. Ellery, of Rhode Island, seconded by Mr. Smith, of New York, moved to amend the amendment by striking out the words "religious and." On the question, Shall the words moved to be struck out stand ?

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* The committee were Pierce Long, of New Hampshire, Rufus King, of Massachusetts, David Howell, of Rhode Island, Wm. S. Johnson, of Connecticut, R. R. Livingston, of New York, Charles Stewart, of New Jersey, Joseph Gardner, of Pennsylvania, John Henry, of Maryland, Wm. Grayson, of Virginia, Hugh Williamson, of North Carolina, John Bull, of South Carolina, and Wm. Houstoun, of Georgia.

Rufus King graduated at Harvard, in 1777.

David Howell, born in New Jersey, graduated at Princeton, in 1766, and was at one time Professor of Mathematics in Brown University.

Wm. S. Johnson, son of Dr. Samuel Johnson, graduated at Yale, 1744, a fellow of the Royal Society, and received the degree of LL.D. from Oxford, and at a later period President of Columbia College, New York city.

John Henry graduated at Princeton, in 1769.

Hugh Williamson graduated at College of Philadelphia, now University of Pennsylvania, in 1757, and had been Professor of Mathematics therein.

R. R. Livingston graduated at King's (now Columbia) College, New York city, in 1765, and in after life encouraged Fulton in propelling boats by steam, and was President of the Academy of Fine Arts.

The vote was as follows :*

States voting Aye.	*States voting No.*
New Hampshire....Mr. Foster.	Rhode Island...Mr. Ellery.
New Hampshire....Mr. Long.	Rhode Island...Mr. Howell.
Massachusetts.....Mr. Holton.	Maryland .....Mr. McHenry.
Massachusetts.....Mr. King.	Maryland .....Mr. Henry.
Connecticut.....Mr. Johnson.	Maryland .....Mr. Hindman (aye.)
Pennsylvania .....Mr. Gardner.	
Pennsylvania .....Mr. Henry.	
Delaware .....Mr. Vining.	
Delaware .....Mr Bedford.	*States divided.*
Virginia .....Mr. Monroe.	
Virginia .....Mr. Lee.	New York.....Mr. Smith (no.)
Virginia .....Mr. Grayson.	New York.....Mr. Haring (aye.)
South Carolina.....Mr. Pinckney.	North Carolina..Mr. Williamson (aye.)
Georgia .....Mr. Houstoun.	North Carolina..Mr. Sitgreaves (no.)

So the question was lost and the words were stricken out.

Mr. Ellery, of Rhode Island, seconded by Mr. Smith, of New York, now moved to strike out all that which related to setting apart a section for the support of religion. On the question, Shall the words, "and the section immediately adjoining the same to the northward. for the support of religion," stand ?

The vote was as follows :

States voting Aye.	*States voting No.*
New Hampshire....Mr. Foster.	Rhode Island...Mr. Ellery.
New Hampshire....Mr. Long.	Rhode Island...Mr. Howell.
Massachusetts.....Mr. Holton.	Maryland .....Mr. McHenry.
Massachusetts.....Mr. King.	Maryland .....Mr. J. Henry.
Connecticut.....Mr Johnson.	Maryland .....Mr. Hindman (aye.)
Pennsylvania .....Mr. Gardner.	
Pennsylvania .....Mr. W. Henry.	
Delaware .....Mr. Vining.	
Delaware .....Mr. Bedford.	*States divided.*
Virginia .....Mr. Monroe.	
Virginia .....Mr. Lee.	New York.....Mr. Smith (no.)
Virginia .....Mr. Grayson.	New York.....Mr. Haring (aye.)
South Carolina.....Mr. Pinckney.	North Carolina..Mr. Williamson (aye.)
Georgia .....Mr. Houstoun.	North Carolina..Mr. Sitgreaves (no.)

So the question was lost and the words were stricken out.

A motion was then made by Mr. Johnson, of Connecticut, and seconded by Mr. King, of Massachusetts, further to amend the paragraph by inserting after the word "schools" the following: "and the section immediately adjoining the same to the northward, for charitable uses;" which amendment was lost.

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* Congress, under the Articles of Confederation, voted by States. To adopt a measure the vote of seven States was required, and in certain cases nine. The vote of a State was not counted unless at least two members were present

The vote was as follows:

States voting Aye.	*States voting No.*
New Hampshire....Mr. Foster.	New York.....Mr. Smith.
New Hampshire....Mr Long.	New York.....Mr. Haring.
Massachusetts.....Mr. Holton.	Maryland .....Mr. McHenry.
Massachusetts.....Mr. King.	Maryland .....Mr. J. Henry.
Connecticut.....Mr. Johnson.	Maryland .....Mr. Hindman (aye.)
Delaware .....Mr. Vining.	*States divided.*
Delaware .....Mr. Bedford.	North Carolina..Mr. Williamson (aye.)
Virginia .....Mr. Monroe.	North Carolina..Mr. Sitgreaves (no.)
Virginia .....Mr. Lee.	Rhode Island...Mr. Ellery (no.)
Virginia .....Mr. Grayson.	Rhode Island...Mr. Howell (aye.)
South Carolina.....Mr. Pinckney.	Pennsylvania...Mr. Gardner (aye.)
Georgia.....Mr. Houstoun.	Pennsylvania...Mr. W. Henry (no.)

On May 20, 1785, the ordinance as finally amended was passed with the following provision for education:

There shall be reserved the lot No. 16 of every township for the maintenance of public schools.

The Ordinance of 1787 "for the government of the Territory northwest of the river Ohio" confirmed the provision of 1785, and declared that "religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged." A few days after the passage of the Ordinance, regulations were made for the sale of the western territory, and in these it was provided that lot No. 16 in each township should be given perpetually for schools, and that "lot No. 29 in each township, or fractional part of a township, to be given perpetually for the purposes of religion;" and, further, that "not more than two complete townships to be given perpetually for the purposes of a university."

The grant of lot No. 29 for the purposes of religion has only been made in two instances—in the case of the Ohio Company, and what is known as the Symmes Purchase. Ohio, and the other western States admitted into the Union during the first half of the present century, received the sixteenth section of every township for the use of schools, in addition to the grant of two townships for universities.

The Commissioner of the Land Office, in 1846, and the Secretary of the Treasury, (R. J. Walker,) in 1847, recommended an increased grant of lands for school purposes to the new States and Territories.

In the first session of the Thirtieth Congress, February 15, 1848, as the question was about being put on the passage of the bill admitting Wisconsin as a State of the Union, the Hon. John A. Rockwell, member of the House of Representatives from Connecticut, moved an amendment giving the thirty-sixth in addition to the sixteenth section in each

township for educational uses, which was rejected, fifty-eight voting in the affirmative, and eighty in the negative.

In the acts establishing territorial governments for Oregon, in August, 1848, and for Minnesota, approved March 2, 1849, it was provided that sections numbered sixteen and thirty-six in each township should be reserved for the use of schools.

UNITED STATES LAND GRANTS FOR EDUCATION IN MINNESOTA.

As Minnesota was the first State in the valley of the Mississippi to receive twelve hundred and eighty acres in each township, to be employed in training her children for intelligent suffrage, the only safeguard for the perpetuity of a republican form of government, it is desirable to trace the steps she has taken in husbanding this precious gift from the nation, and the results of her supervision.

When, in 1857, a Convention assembled to form a constitution, preparatory to its admission into the Union, an interesting discussion arose as to the wisest course to be pursued in disposing and guarding the school lands.

The Committee on Education reported a provision that for the next ten years after the ratification of the constitution, the public school lands should "not be disposed of otherwise than by lease."

The Hon. A. E. Ames said: "I deem it proper to state what governed me as Chairman of the Committee having this subject under consideration, in inserting that clause. In my opinion, this gift of the General Government to the future State of Minnesota for the support of public schools is a sacred gift, which should be taken care of and husbanded in the best manner possible. Looking to the past, I saw how many of the western States having similar grants have disposed of them almost immediately after assuming the form of State governments, without realizing but a small portion of the amount which they might, with a little care, have realized as a perpetual fund for the support of schools hereafter. * * * * I have said that it is a sacred gift, intrusted to us for our children and our children's children; if we husband it well, they will 'rise up and called us blessed.' If we squander it away, we shall receive only their curses." Delegates as intelligent and public-spirited as the committee, advocated a different policy and opposed the incorporation of the clause as to leasing lands, into the constitution. Hon. H. H. Sibley, who became the first Governor under the State organization, advocated what he thought would be "carrying out the great democratic idea of bringing down, as near as

possible, to the people, the disposal of these lands." He desired that "the people who live in a particular township should be able to say for themselves what disposition shall be made of the lands donated to them within their own limits." After considerable time had been passed in considering the report of the committee, a former Territorial Governor, Hon. Willis A. Gorman, moved to strike out the sentence that "the school lands for ten years should not be disposed of otherwise than by lease," and insert, "and not more than one-third of said lands may be sold in two years, one-third in five years, and one-third in ten years," which amendment was adopted as a compromise.

Article eight of the Constitution of Minnesota is as follows:

SEC. 1. The stability of a republican form of government depending mainly upon the intelligence of the people, it shall be the duty of the legislature to establish a general and uniform system of public schools.

SEC. 2. The proceeds of such lands as are or hereafter may be granted by the United States for the use of schools within each township in this State, shall remain a perpetual school fund to the State, and not more than one-third of said lands may be sold in two years, one-third in five years, and one-third in ten years; but the lands of the greatest valuation shall be sold first: *Provided*, That no portion of said lands shall be sold otherwise than at public sale.

The principal of all funds arising from sales or other disposition of lands or other property granted to this State in each township for educational purposes, shall forever be preserved inviolate and undiminished; and the income arising from the lease or sale of said school lands shall be distributed to the different townships throughout the State, in proportion to the number of scholars in each township between the ages of five and twenty-one years, and shall be faithfully applied to the specific objects of the original grants or appropriations.

SEC. 3. The legislature shall make such provisions, by taxation or otherwise, as with the income arising from the school fund, will secure a thorough and efficient system of public schools in each township of the State.

SEC. 4. The location of the University of Minnesota, as established by existing laws, is hereby confirmed, and said institution is hereby declared to be the University of the State of Minnesota.

All the rights, immunities, franchises, and endowments heretofore granted or conferred, are hereby perpetuated unto the said university, and all lands which may be granted hereafter by Congress, or other donations for said university purposes, shall vest in the institution referred to in this section."

An act of the Legislature, approved March 10, 1860, made the Chancellor of the State University *ex officio* Superintendent of Public Instruction, but failed to provide a salary for the performance of the duties of either office. Notwithstanding this inconvenience, the Chancellor immediately proceeded to attend to the interests of public schools. In his first report, dated January 14, 1861, under the head of school lands, he says:

During the month of June, 1860, the capital of Wisconsin was visited, and several days passed in interviews with the officers of the State in relation to their land system, its defects, and a better way of conducting the sale of lands. In order that a general idea might be obtained of the present value of our school lands, the following questions were addressed to the Superintendent of Schools in each town.

Is there timber on the school sections?

To what extent?
Are the school lands swampy or well drained?
Are they watered by springs, creeks, or rivers?
Nature of the soil?
The present highest market price for similar lands?
The lowest price for similar lands?
Are there settlers on the school lands?
Were they there before the survey was made?
Have any depredations of timber or grass taken place?

The answers returned, show that the school lands are among the most valuable in the State, and legislation in relation thereto cannot be too careful and deliberate. The constitution imposes a healthful check upon those, who for purposes of private speculation, would hurry a sale of the entire school lands.

Governor Ramsey seconded the friends of education, in preserving the school lands from hasty sale. In his message to the Legislature of 1861, he says:

The Constitution provides that the proceeds of the school lands shall constitute a perpetual school fund for the State, and that the principal arising from the sales of such lands shall forever be preserved inviolate and undiminished.

It is the necessary logical implication of the constitutional provision, that the school lands should be administered with a view to the *permanent interests of the school fund*. It is only by adhering to this as a fundamental principle of legislation, by regarding the school lands not as a temporary source of relief from present burdens, but as a provision for the permanent interests of education, that we can rightly discharge the sacred obligations to posterity which this trust imposes upon us, or fitly respond to the elevated and paternal policy of the general government.

There has always been a disposition in the new States to hurry the school lands prematurely into market, partly originating in the desire of interested parties to obtain possession of these lands at low prices, and partly from the impatient eagerness of the pioneer to realize an immediate income therefrom, for the support of schools. There are, indeed, some plausible reasons why the pioneer should ask that the school lands should be used for his benefit. His are all the struggles and privations incident to the early colonization of the wilderness. By the sweat of his brow are laid the foundations of that wealth which is to yield the future revenues of the State. The expense and difficulty of maintaining schools in our present sparse and poor settlements, it is speciously alleged, renders local taxation more burdensome and legislative aid more welcome now than at any subsequent period.

It would, perhaps, be difficult to prove that the hardships and poverty of the first settlers in a new State are of such a peculiar character as to constitute a special claim to enjoy the benefit of the school grant to the prejudice of posterity. And it will not be overlooked, as against a pretension so greedy in its motive and so subversive in its consequences of the welfare of the State, that if the first settler endures some privations, he also enjoys great advantages which are denied to his successors. If he turns the first furrow, he also reaps the richest harvest. He does not accept the rugged lot of the pioneer as a personal sacrifice for the good of the State from which he therefore claims a special bounty, but from a shrewd calculation of its prospective benefits to himself. The rapid rise in the value of lands which attends the first stages of the growth of new settlements, turns principally to the advantage of the first settler, who has had the choice of the best locations; and that which he is so apt to claim as the tardy fruit of his own toil, more often results, without his agency, from the increase of population and capital around him. With what justice then can the incoming thousands of men who shall complete the social superstructure about him, and swell the sources of his prosperity, be deprived of the benefits of the enhanced value which they will give the school lands?

Nor has this policy, which would impoverish the future for the benefit of the present, any support in the sentiment of paternal solicitude. Our children we

may be sure would be anything but grateful for the benefits of an education procured at the selfish sacrifice of the noble heritage of which Providence has made us the trustees for their benefit, and the benefit of all those that come after them, and will scarcely build monuments to the memory of those men who, to enjoy an immunity from temporary taxation, entailed a treble burden on the education of their posterity for all time to come.

I am, however, very far from urging that the school lands shall only be disposed of with a view solely to realizing therefrom the largest ultimate fund. Such a principle would imply an indefinite postponement of the sale of the lands to the prejudice not only of education, but of all collateral public interests. It is to the general and permanent utility of the fund, and not its mere accumulation as a pecuniary investment, that you are to look, and it is for you to judge how far the public interests may be best subserved in the long run by encroaching on the school reserves for the means of education in the infancy of the State.

The constitution places no check upon legislative action in this matter, except in the provision that no more than one-third of the school lands shall be sold in two years, one-third in five years, and one-third in ten years; and that the most valuable shall be sold first—an obviously insufficient safeguard against improvident legislation.

Looking, then, at the ultimate fund to be derived from the school lands as a permanent resource of education for all time to come, it is for you to decide what this magnificent endowment is to be worth as an instrument of social development to the unborn millions of the future. The estimate now placed upon it will be the witness to posterity of the loftiness or the meanness of the views which actuate us. This estimate will be expressed first of all in the minimum price which you shall affix to the lands.

The question of a minimum, you will perceive, is in fact the cardinal point to be established.

There is one general principle in the adjustment of a minimum which, I doubt not, will meet with general concurrence. It should not be so high as to exclude the present generation from the benefits of the resulting revenue, nor so low as to impoverish the permanent fund. How, then, shall the permanent interests of the school fund be reconciled with the just claims of the present generation? The school lands represent not an actual, but a latent and prospective value, depending upon the general growth of the State for its development. Lands that might be sold this year for half a million dollars, would probably be sold in ten years for three millions. The former sum at seven per cent. interest, would yield an annual revenue of $35,000, the latter, of $210,000. Will the benefits that will accrue to education during the interval between the lower and higher valuation compensate you and your children for a sacrifice of five-sixths of the prospective value of the lands? I think not. And surely, looking solely to the interests of the present generation of children, and regarding the period of fifteen years over which our laws assume that the education of youth extends, it would not be a wise economy to provide for the first five years at such an expense to the last ten.

But as the fixing of the minimum attainable in the present generation implies some sacrifice of prospective values, where shall the line be drawn? Such a line must, of course, be arbitrary, but I think we are not entirely without data for approximation to a standard which will reconcile the interests of the present and future on the common ground of the public weal.

It is proper to observe that the value of the school lands bears a distinct relation to the density of population. Lands rapidly rise in value under the pressure of immigration, from the first settlement up to the point of their general occupation, and up to this point the school reserves ought not to be sold. But after the lands become mostly occupied in a given township, experience warrants the assumption that the included reserves have reached a standard of value beyond which the yearly increase will commonly be slow; and it may then become a matter of public policy that they should be settled upon and improved, and enter into the taxable basis of the State, and thus contribute in another form more to the immediate revenue of the schools and other collateral public interests than if retained for an advanced price. It is also worth considering that the compactness of neighbor-

hood which would give a fair value to the school lands, is essential to an efficient and economical expenditure of the school revenues.

While, therefore, the permanent interest of the school fund, and its useful expenditure, seem to require that the lands should not be sold till their intrinsic value had become developed by the growth of population around them, public policy demands that they should not be retained to be an obstacle to neighborhood, or withheld from cultivation for speculative purposes, after all the lands around them are taken up.

These principles, it seems, should regulate the establishment of a minimum price for the school lands.

A density of between 25 or 30 persons to the square mile in any given township, would probably imply an average valuation of the included school lands of about eight dollars an acre. In our more thickly settled counties, some of the reserved sections have already attained this average. Beyond this, it is doubtful if the increase in value would compensate for the public loss occasioned by their exclusion from settlement.

It is possible, too, that by adopting, at least for the highest grade of lands, a minimum of $8 per acre—the old standard in Michigan—a larger fund would be realized in ten or fifteen years than by the loose method of appraisal, with a minimum of $1 25, the system established in Iowa and Wisconsin, under which their splendid grants have become the prey of speculators. If our State advances the next decade as rapidly in population as Iowa, it is scarcely doubtful that some 300,000 acres of school lands will have attained the average value of $8 per acre, equal to $2,400,000 in all. This is, indeed, greater than the fund derived from the school lands in a similar period in Iowa or Wisconsin, where the lands have been sold at very low rates. But two things should be borne in mind in relation to the results of sales in those States: First, that we have twice the amount of these lands in proportion to our area, and three or four times the aggregate amount; second, that under the appraisal method of those States the interests of the fund have been uniformily sacrificed to the interests of local combinations. While, therefore, they have managed to get rid of a large amount of lands in a short space of time—which has seemed to be the main object—they have realized only a small proportion of their true value to the State. The minimum of $1 25, which the legislatures of those States adopted, shows at how low a rate they prized the national boon.

The results of their short-sighted policy ought to be a sufficient warning against the errors of their example. Considerably more than half of the school lands have been sold in these States within the last ten years, and the fund realized in each case has been less than two million dollars. It would be mere repetition to say that, under a proper system, nearly the same results might have been obtained from a third of the land sold. In Michigan—where a minimum of $8 originally obtained, afterwards reduced to $5—out of only a million acres of school lands, one-third have been sold in twenty years, with a resulting fund of $1,613,434. It is worthy of remark, that over $400,000 of this was produced by the sales of the first five years, at an average of $7 per acre.

You will not understand me as attempting to fix a precise valuation for the school lands, but as simply indicating the principles upon which, in my view, the minimum should be adjusted. But while adhering to a high valuation, it will be desirable to facilitate sales by the most liberal conditions consistent with the security of the principal and the prompt payment of the interest. A quarter of the purchase money paid down, with interest on the remainder at seven per cent. for thirty or more years, would probably be considered a better bargain to the purchaser than a much lower price, accompanied with those higher rates of interest and restricted time usual in private conveyances.

In accordance with the suggestions of the Governor, a State Land Office was established, the minimum price of school lands was fixed at five dollars per acre, and sales were required to be in the counties where the lands were situated. The present terms of payment on

school lands are, "for pine timber lands the whole amount; for other timber lands, which are chiefly valuable for the timber thereon, seventy-five per cent., to be paid at the time of sale, and all other lands fifteen per cent., to be paid at the time of sale, and the balance of the purchase-money at any time thereafter, from time to time, within twenty years, at the option of the purchaser, with interest annually in advance, at the rate of seven per cent. per annum on the unpaid balance, payable on the first day of June, or within six days thereafter, in each and every year." The purchase-money received "may be invested in Minnesota bonds (railroad bonds always excepted) or in United States bonds bearing not less than six per cent. interest."

The first sales of school lands occurred in the autumn of 1862, at a most unpropitious period, many able-bodied citizens having volunteered as soldiers in defence of the nation's honor, and hundreds having abandoned their farms in the frontier counties to escape the tomahawk and scalping-knife of the savage Sioux, while those who expected to settle in the State halted in regions supposed to be more secure. The results of the sales in the face of all these discouragements surprised the most sanguine, and created a fresh interest in popular education. More than thirty-eight thousand acres were disposed of, at a little more than 6⅓ dollars per acre, as will be seen by examining the following

Statement of annual sales of school lands.

Year.	No. of acres.	Price realized.	Average per acre.
1862	38,147.13	$242,531 60	$6 35.8
1863	52,293.91	309,777 46	5 92.4
1864	41,476.26	287,264 74	6 92.3
1865	24,211.77	144,915 05	5 96.5
1866	54,640.50	340,290 18	6 22.8
Total	210,722.87	1,324,779 03	6.28.4

Acres of school land unsold June 1, 1867, 2,775,898.

The total permanent school fund of the State, arising from the land grant, on November 30, 1866, was $1,333,161 60.

The current school fund distributed in 1866 amounted to $78,519 60, and the number of persons between five and twenty-one, 87,244, making an apportionment of ninety cents for each person.

The interest on school fund for the year 1867, according to estimate of the Hon. Mark H. Dunnell, State Superintendent of Public Instruction, will amount to $117,435.

LAND GRANT FOR TERRITORIAL UNIVERSITY.

In February, 1851, the Territorial legislature memorialized for a grant of lands for a Territorial University. On the 19th of February of the same year it was enacted by Congress, says a report of the Regents—

"That the Secretary of the Interior be, and he hereby is, authorized and directed to set apart and reserve from sale out of the public lands within the Territory of Minnesota, to which the Indian title has been or may be extinguished, and not otherwise appropriated, a quantity of land not exceeding two entire townships, for the use and support of a *University* in said *Territory*, and for no other use and purpose whatever, to be located in legal subdivisions of not less than one entire section."

Shortly after this congressional enactment the Regents of the Territorial University organized, obtained a site, erected a building thereon, and commenced instruction therein—the first instance on record of a Territorial University going into operation at so early a period in the history of a Territory.

The Regents also, with the approbation of the Secretary of the Interior, proceeded to select a large portion of the lands granted for the Territorial institution. Subsequently they erected a costly edifice and mortgaged it, by virtue of a power granted by the Territorial Legislature of 1856, for $15,000, to secure the payment of certain bonds, and by another act passed in 1858, on the eighth day of March, before the admission of Minnesota into the Union, mortgaged lands that had been selected by the Regents, to secure the payment of a further sum of $40,000 borrowed by the Regents for the Territorial institution.

The whole number of acres obtained by act of 1851 is 46,080, of which there has been sold 10,750 for the sum of $52,412. Acres unsold of the Territorial grant are 35,530.

STATE UNIVERSITY LAND GRANT.

Governor Marshall, in his last message to the Legislature, alludes to a claim of the State for a land grant for a State University not yet perfected. This claim was first made by the Regents to the Governor, April 5, 1860, in this language:

Heretofore Congress has made grants to Territories not having organized any Universities, and the lands being free from all prospective incumbrances, the Enabling Acts of Michigan, Wisconsin, and Iowa have used the following similar phraseology:

"Seventy-two sections of land set apart and reserved for the use and support of a university, by an act of Congress approved on ——— day of ———, are hereby granted and conveyed to the State, to be appropriated solely to the use and support of such university in such manner as the legislature may prescribe."

The condition of Minnesota being different, so far as a territorial university was concerned, we expect and find different language in the enabling act. There is no reference, as in acts alluded to, to previous reserves, but it is prospective. It says, if certain provisions are accepted:

"That seventy-two sections of land shall be set apart and reserved for the use and support of a *State* university *to be* selected by the *governor of said State*, subject to the approval of the Commissioner of the General Land Office."

Although a territorial university had been in existence for years, and the regents had selected lands, there is no reference thereto, but the language prescribes selections for a *future* State university.

Certainly it was not the intention of Congress to turn over the debts and prospectively encumbered lands of an old and badly managed territorial institution, but to give the State that was to be, a grant for a State university, free from all connections with territorial organizations.

Will you, therefore, take the steps indicated in the enabling act, and appoint, at an early day, some one to select two townships of land for the State university, incorporated by the last legislature?

AGRICULTURAL COLLEGE LAND GRANT.

Under "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862, Minnesota is entitled to 120,000 acres, of which none has been sold.

THE FIVE HUNDRED THOUSAND ACRES DUE THE STATE.

The five hundred thousand acres due the State by the provisions of an act of Congress entitled "An act to appropriate the proceeds of the sales of the public lands," etc., approved the fourth day of September, one thousand eight hundred and forty-one, which, by provisions of the Constitutions of Wisconsin, Iowa, Oregon, Kansas, California, and Nevada, are appropriated to educational purposes, do not appear as yet to have been set apart by Minnesota.

TABLE I.—*Historical and statistical data of the United States.*

[Compiled from Report of the Commissioner of the Land Office for 1867.]

States and Territories.	Act organizing Territory.			Act admitting State.			Area in sq. miles.	Populat'n in 1860.†
	U. S. Statutes.	Vol.	Page.	U. S. Statutes.	Vol.	Page.		
Original States.								
New Hampshire	.....	....	.....	.....	....	.....	9,280	326,073
Massachusetts	.....	....	.....	.....	....	.....	7,800	1,231,066
Rhode Island	.....	....	.....	.....	....	.....	1,306	174,620
Connecticut	.....	....	.....	.....	....	.....	4,750	460,147
New York	.....	....	.....	.....	....	.....	47,000	3,880,735
New Jersey	.....	....	.....	.....	....	.....	8,320	672,035
Pennsylvania	.....	....	.....	.....	....	.....	46,000	2,906,115
Delaware	.....	....	.....	.....	....	.....	2,120	112,216
Maryland	.....	....	.....	.....	....	.....	11,124	687,049
Virginia—East and West.	.....	....	.....	.....	....	.....	61,352	1,596,318
North Carolina	.....	....	.....	.....	....	.....	50,704	992,622
South Carolina	.....	....	.....	.....	....	.....	34,000	703,708
Georgia	.....	....	.....	.....	....	.....	58,000	1,057,286
States admitted.								
Kentucky	.....	....	.....	Feb. 4, 1791	1	189	37,680	1,155,684
Vermont	.....	....	.....	Feb. 18, 1791	1	191	*10,212	315,098
Tennessee	.....	....	.....	June 1, 1796	1	491	45,600	1,109,801
Ohio	Ord'ce of 1787	....	.....	Apr. 30, 1802	2	173	39,964	2,339,502
Louisiana	Mar. 3, 1805	2	331	Apr. 8, 1812	2	701	*41,346	708,002
Indiana	May 7, 1800	2	58	Dec. 11, 1814	3	399	33,809	1,350,428
Mississippi	Apr. 7, 1798	1	549	Dec. 10, 1817	3	672	47,156	791,305
Illinois	Feb. 3, 1809	2	514	Dec. 3, 1818	3	536	*55,410	1,711,951
Alabama	Mar. 3, 1817	3	371	Dec. 14, 1819	3	608	50,722	964,201
Maine	.....	....	.....	Mar. 3, 1820	3	544	*35,000	628,279
Missouri	June 4, 1812	2	743	Mar. 2, 1821	3	645	*65,350	1,182,012
Arkansas	Mar. 2, 1819	3	493	June 15, 1836	5	50	52,198	435,450
Michigan	Jan. 11, 1805	2	309	Jan. 26, 1837	5	144	*56,451	749,113
Florida	Mar. 30, 1822	3	654	Mar. 3, 1845	5	742	59,268	140,425
Iowa	June 12, 1838	5	235	.....do	5	742	55,045	674,948
Texas	.....	....	.....	Dec. 29, 1845	9	108	*274,356	604,215
Wisconsin	Apr. 20, 1836	5	10	Mar. 3, 1847	9	178	53,924	775,881
California	.....	....	.....	Sept. 9, 1850	9	452	*188,981	305,439
Minnesota	Mar. 3, 1849	9	403	Feb. 26, 1857	11	166	83,531	173,855
Oregon	Aug. 14, 1848	9	323	Feb. 14, 1859	11	383	95,274	52,465
Kansas	May 30, 1854	10	277	Jan. 29, 1861	12	126	81,318	107,206
West Virginia	.....	....	.....	Dec. 31, 1862	12	633	23,000	.....
Nevada	Mar. 2, 1861	12	209	Mar. 21, 1864	13	30	112,090	‡6,857
Colorado	Feb. 28, 1861	12	172	.....	13	32	*104,500	‡34,277
Nebraska	May 30, 1854	10	277	Mar. 1, 1867	13	47	75,995	28,841
Territories.								
New Mexico	Sept. 9, 1850	9	446	.....	....	.....	121,201	§360,000
Utah	.....do	9	453	.....	....	.....	88,056	
Washington	Mar. 2, 1853	10	172	.....	....	.....	69,994	
Dakota	Mar. 2, 1861	12	239	.....	....	.....	240,597	
Arizona	Feb. 24, 1863	12	664	.....	....	.....	113,916	
Idaho	Mar. 3, 1863	12	808	.....	....	.....	90,932	
Montana	May 26, 1864	13	85	.....	....	.....	143,776	
Indian Territory	.....	....	.....	.....	....	.....	68,991	
Dist. of Columbia	July 16, 1790	1	130	.....	....	.....	‖10 m. sq.	¶126,990
	Mar. 3, 1791	1	214					
Russian purchase	.....	....	.....	.....	....	.....	577,390	70,000

* Area taken from geographical authorities and not from public surveys.

† Total population in 1860 was 31,500,000; estimated in 1867 to be 38,500,000.

‡ To the white population in Nevada should be added 10,507 Indians; and in Colorado, 2,261 Indians.

§ As estimated January 1, 1865.

‖ That portion of District of Columbia south of the Potomac river was retroceded to Virginia July 9, 1846, (Stat. vol. 6, p. 35.)

¶ By census of 1867.

TABLE II.—*Showing the area of the several States and Territories containing public lands, and the quantity devoted for educational purposes by Congress up to June 30, 1867.*

[Compiled from Report of the Commissioner of the Land Office for 1867.]

States and Territories containing public land.	Areas of States and Territories containing public land.		Donations and grants for schools and universities.		Granted for agricultural colleges, act of July 2, 1862.*		Granted for deaf and dumb asylums.	Remaining unsold and unappropriated June 30, 1867.
			Schools.	Universities.	Selected in place.	Located with scrip.		
	Sq. miles.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Ohio	39,964	25,576,960	704,488	69,120				500.00
Indiana	33,809	21,637,760	650,317	46,080				2,000.00
Illinois	55,410	35,462,400	985,066	46,080				2,000.00
Missouri	65,350	41,824,000	1,199,139	46,080	244,384.51	147,797.25		1,835,892.71
Alabama	50,722	32,462,080	902,774	46,080			21,949.46	6,915,081.32
Mississippi	47,156	30,179,840	837,584	46,080				4,930,893.56
Louisiana	41,346	26,461,440	786,044	46,080				6,582,841.54
Michigan	56,451	36,128,640	1,067,397	46,080	225,253.88	960,807.59		5,180,640.63
Arkansas	52,198	33,406,720	886,460	46,080			2,097.43	11,757,662.54
Florida	59,268	37,931,520	908,503	92,160			20,924.22	17,540,374.00
Iowa	55,045	35,228,800	905,144	46,080	240,000.96	1,760.00		3,113,464.18
Wisconsin	53,924	34,511,360	958,649	92,160	240,007.73	702,425.07		10,016,700.87
California	188,981	120,947,840	6,719,324	46,080				106,062,392.13
Minnesota	83,531	53,459,840	2,969,990	46,080	119,852.17	488,803.03		36,776,170.89
Oregon	95,274	60,975,360	3,329,706	46,080		1,920.00		52,742,078.96
Kansas	81,318	52,043,520	2,891,306	46,080	90,000.40	411,959.70		43,148,876.44
Nevada	112,090	71,737,741	3,985,430	46,080				67,090,382.62
Nebraska	75,995	48,636,800	2,702,044	46,080		475,989.58		42,523,627.38
Washington Territory	69,994	44,796,160	2,488,675	46,080		1,120.00		41,627,461.39
New Mexico	121,201	77,568,640	4,309,368	46,080				73,005,192.00
Utah	88,056	56,355,635	3,130,869	46,080				51,139,646.00
Dakota	240,597	153,982,080	8,554,560					145,295,284.97
Colorado	104,500	66,880,000	3,715,555					62,870,665.83
Montana	143,776	92,016,640	5,112,035					86,904,605.00
Arizona	113,916	72,906,304	4,050,350					68,855,954.00
Idaho	90,932	58,196,480	3,233,137					54,963,343.00
Indian	68,991	44,154,240						44,154,240.00
American purchase from Russia	577,390	369,529,600						369,529,600.00
Total	2,867,185	1,834,998,400	67,983,914	1,082,880	1,159,499.65	3,192,582.22	44,971.11	1,414,567,574.96

* The whole quantity liable to be issued under the act of July 2, 1862, is 9,600,000 acres.

PROVISIONS RESPECTING EDUCATION

IN THE

CONSTITUTIONS OF THE SEVERAL STATES.

PRELIMINARY REPORT.

THE following pages contain the provisions of the successive Constitutions of the several States, in reference to Education, Literature and Science, together with a series of propositions embracing the cardinal features of a system of public instruction, which the Constitution might make obligatory on the Legislature to establish.

HENRY BARNARD,
Commissioner.

DEPARTMENT OF EDUCATION, WASHINGTON, 1868.

CONSTITUTIONAL PROVISION RESPECTING EDUCATION.

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V. CONSTITUTIONAL PROVISION RESPECTING EDUCATION.

DATE AND ABSTRACT OF EACH CONSTITUTION.

State.	Date.		Abstract of present constitutional provision.	Page.
	First constitution.	Education recognized.		
Massachusetts	1780	1780	Cambridge University; duty to cherish literature, arts, science	83
Connecticut	1818	1818	Yale College; interest of school fund for equal benefit of all	88
New Hampshire	1784	1784	Duty to promote literature, arts, and science	90
Vermont	1777	1793	Town and county grammar schools	90
Maine	1820	1820	Towns at own expense to support schools; colleges encouraged	91
Rhode Island	1842	1842	Schools to be promoted; school fund not to be borrowed	91
New York	1777	1822	Common school fund; literature fund; $25,000 of deposit fund annually appropriated	92
New Jersey	1776	1844	School fund not to be borrowed; income for equal benefit of all	92
Pennsylvania	1776	1790	Legislature to establish schools and promote arts and science	93
Delaware	1776	1831	Legislature to establish schools and promote arts and science	94
Maryland	1776	1864	Superintendent; board of education; school fund	97
Virginia	1776	1851	Capitation tax on white males	94
North Carolina	1776	1776	Schools at low prices; universities	98
South Carolina	1776	none.		99
Georgia	1777	1798	Legislature to provide education for the people and endow university	99
Kentucky	1790	1850	Superintendent; each county to have proportion of school fund	100
Tennessee	1796	1835	Principal of school fund inviolate; commissioners	100
Ohio	1802	1802	Schools to be provided by interest of fund and taxation	101
Louisiana	1812	1845	Superintendent; free public schools. university of New Orleans	102
Indiana	1816	1816	Superintendent; schools equally open to all; school fund	104
Mississippi	1817	1817	Schools to be encouraged	106
Illinois	1818	none.		107

State.	Date. First constitution.	Date. Education recognized.	Abstract of present constitutional provision.	Page.
Alabama	1819	1819	Schools to be encouraged; university	107
Missouri	1820	1820	Superintendent; board of education; separate colored schools; university and school fund; no township receives money from school fund unless a school has been taught three months; new voters after 1866 to read and write	108
Arkansas	1836	1836	Schools to be encouraged	110
Michigan	1837	1837	Superintendent; board of education; public schools kept at least three months annually; normal, agricultural, university, and benevolent schools	110
Florida	1845	1845	School fund to be kept inviolate	112
Texas	1845	1845	Superintendent; board of education; school and university fund; tax levied on colored persons to be used for colored schools	113
Iowa	1846	1846	Board of education; school funds and school lands	115
Wisconsin	1848	1848	Superintendent; school fund; school libraries; towns to raise by taxation at least one half the sum annually received from school fund	117
California	1849	1849	Superintendent; school and university funds; public schools to be kept three months each year	119
Minnesota	1858	1858	School fund and lands; university	119
Oregon	1859	1859	Superintendent; school land commissioners; university	120
Kansas	1859	1859	Superintendent: common, normal, agricultural, and university schools; school lands to be sold by vote of people	121
West Virginia	1862	1863	Superintendent; school fund	122
Nevada	1864	1864	Superintendent; school fund; university; tax on property for schools	123
Nebraska	1867	1867	School lands not to be sold for less than $5 per acre	124

CONSTITUTIONAL PROVISION RESPECTING EDUCATION.

The past and present constitutional provisions of the several States of the Union relative to education exhibit the growth of the national sentiment in favor of, and the present strong attachment to, the public school system. In the early reconstruction of political organizations, rendered imperative by a separation from Great Britain, only a few States recognized in their organic law the necessity of providing for the diffusion of intelligence among the people, and this recognition is expressed in general terms. But within the last half century the constitutions of the States, admitted from time to time in the Union, have become more and more emphatic in the declaration, that it is the wisest economy and the highest duty to provide for an efficient and uniform system of public schools.

The New England States having incorporated a public school system with their earliest organizations, in emerging from their colonial condition, had no occasion to provide specially for it in their first State constitutions.

MASSACHUSETTS.

First settlement, 1620. Area 7,800 square miles.

POPULATION.

1790	378,717	1830	610,840
1800	423,245	1840	737,699
1810	472,040	1850	994,514
1820	523,827	1860	1,231,066

In 1636, six years after the first settlement of Boston, the General Court of the colony of Massachusetts Bay, which met in Boston on the 8th of September, passed an act appropriating £400 toward the establishment of a college. The sum thus appropriated was more than the whole tax levied on the colony at that time in a single year, and the population scattered through ten or twelve villages did not exceed five thousand persons; but among them were eminent graduates of the University of Cambridge, in England, and all were here for purposes of permanent settlement. In 1638 John Harvard left by will the sum of £779 in money, and a library of over three hundred books. In 1640, the General Court granted to the college the income of the Charlestown ferry; and in 1642, the Governor, with the magistrates and teachers and

elders were empowered to establish statutes and constitutions for the infant institution; and in 1650 a charter was granted, which was protected by an article in the constitution of 1780 and still remains the fundamental law of the oldest literary institution in this country.

In 1642 the attention of the General Court was turned to the subject of family instruction in the following enactment:

Forasmuch as the good education of children is of singular behoof and benefit to any commonwealth; and whereas many parents and masters are too indulgent and negligent of their duty in this kind:

It is therefore ordered by this Court and the authority thereof, That the selectmen of every town, in the several precincts and quarters where they dwell, shall have a vigilant eye over their brethren and neighbors, to see, first, that none of them shall suffer so much barbarism in any of their families, as not to endeavor to teach, by themselves or others, their children and apprentices so much learning as may enable them perfectly to read the English tongue, and knowledge of the capital laws, upon penalty of twenty shillings for each neglect therein; also, that all masters of families do, once a week, at least, catechise their children and servants in the grounds and principles of religion, and if any be unable to do so much, that then, at the least, they procure such children or apprentices to learn some short orthodox catechism, without book, that they may be able to answer to the questions that shall be propounded to them out of such catechisms by their parents or masters, or any of the selectmen, where they shall call them to a trial of what they have learned in this kind; and further, that all parents and masters do breed and bring up their children and apprentices in some honest lawful calling, labor, or employment, either in husbandry or some other trade profitable for themselves and the commonwealth, if they will not nor cannot train them up in learning to fit them for higher employments; and if any of the selectmen, after admonition by them given to such masters of families, shall find them still negligent of their duty in the particulars aforementioned, whereby children and servants become rude, stubborn, and unruly, the said selectmen, with the help of two magistrates, shall take such children or apprentices from them, and place them with some masters for years, boys till they come to twenty-one, and girls eighteen years of age complete, which will more strictly look unto and force them to submit unto government, according to the rules of this order, if by fair means and former instructions they will not be drawn unto it.

In the same year the following brief School Code was enacted:

It being one chief project of that old deluder, Satan, to keep men from the knowledge of the Scriptures, as in former times, keeping them in an unknown tongue, so in these latter times, by persuading from the use of tongues, so that at least the true sense and meaning of the original might be clouded and corrupted with false glosses of deceivers; and to the end that learning may not be buried in the grave of our forefathers, in church and commonwealth, the Lord assisting our endeavors:

It is therefore ordered by this Court and authority thereof, That every township within this jurisdiction, after the Lord hath increased them to the number of fifth householders, shall then forthwith appoint one within their town to teach all such children as shall resort to him, to write and read, whose wages shall be paid, either by the parents or masters of such children, or by the inhabitants in general, by way of supply, as the major part of those who order the prudentials of the town shall appoint; provided that those who send their children be not oppressed by paying much more than they can have them taught for in other towns.

And it is further ordered, That where any town shall increase to the number of one hundred families or householders, they shall set up a grammar school, the masters thereof being able to instruct youths so far as they may be fitted for the university, and if any other town neglect the performance hereof above one year, then every such town shall pay five pounds per annum to the next such school, till they shall perform this order.

With various modifications as to details, but with the same objects

steadily in view, viz., the exclusion of "barbarism" from every family by preventing its having even one untaught and idle child or apprentice, the maintenance of an elementary school in every neighborhood where there were children enough to constitute a school, and of a Latin school in every large town, and of a college for higher culture for the whole colony, the colonial legislature, and the people in the several towns in Massachusetts, maintained an educational system, which, although not as early or as thorough as the school code of Saxony and Wirtemburg, has expanded with the growth of the community in population, wealth, and industrial development, and stimulated and shaped the legislation of other States in behalf of universal education.

The article on education in the constitution of 1780 was one of the first ever incorporated into the organic law of a State. Section 2, making imperative on legislators and magistrates to encourage the interests of literature and the sciences, and all seminaries of them, was framed by John Adams, and has been retained until this day without the slightest alteration.

The University at Cambridge, and Encouragement of Literature, etc.

SECTION I.—THE UNIVERSITY.

ART. 1. Whereas our wise and pious ancestors, so early as the year one thousand six hundred and thirty-six, laid the foundation of Harvard College, in which university many persons of great eminence have, by the blessing of God, been initiated into those arts and sciences which qualified them for public employments, both in church and state; and whereas the encouragement of the arts and sciences, and all good literature, tends to the honor of God, the advantage of the Christian religion, and the great benefit of this and the other United States of America; it is declared that the president and fellows of Harvard College, in their corporate capacity, and their successors in that capacity, their officers and servants, shall have, hold, use, exercise, and enjoy all the powers, authorities, rights, liberties, privileges, immunities, and franchises which they now have, or are entitled to have, hold, use, exercise, and enjoy; and the same are hereby ratified and confirmed unto them, the said president and fellows of Harvard College, and to their successors, and to their officers and servants, respectively, forever.

2. And whereas there have been, at sundry times, by divers persons, gifts, grants, devises of houses, lands, tenements, goods, chattels, legacies, and conveyances, heretofore made, either to Harvard College, in Cambridge, in New England, or to the president and fellows of Harvard College, or to the said college by some other description, under several charters successively—it is declared, that all the said gifts, grants, devises, legacies, and conveyances are hereby forever confirmed unto the president and fellows of Harvard College, and to their successors in the capacity aforesaid, according to the true intent and meaning of the donor or donors, grantor and grantors, devisor and devisors.

3. And whereas, by an act of the general court of the colony of Massachusetts Bay, passed in the year one thousand six hundred and forty-two, the governor and deputy governor for the time being, and all the magistrates of that jurisdiction, were, with the president and a number of the clergy in the said act described, constituted the overseers of Harvard College; and it being necessary in this new constitution of government to ascertain who shall be deemed successors to the said governor, deputy governor, and magistrates, it is declared that the governor, lieutenant governor, council, and senate of this commonwealth are and shall be deemed their successors; who, with the president of Harvard College for the time

being, together with the ministers of the Congregational churches in the towns of Cambridge, Watertown, Charlestown, Boston, Roxbury, and Dorchester, mentioned in the said act, shall be, and hereby are, vested with all the powers and authority belonging or in any way appertaining to the overseers of Harvard College: *Provided*, That nothing herein shall be construed to prevent the legislature of this commonwealth from making such alterations in the government of the said university as shall be conducive to its advantage, and the interest of the republic of letters, in as full a manner as might have been done by the legislature of the late province of Massachusetts Bay.

SECTION II.—THE ENCOURAGEMENT OF LITERATURE.

Wisdom and knowledge, as well as virtue, diffused generally among the body of the people, being necessary for the preservation of their rights and liberties, and as these depend on spreading the opportunities and advantages of education in the various parts of the country, and among the different orders of the people, it shall be the duty of the legislatures and magistrates, in all future periods of this commonwealth, to cherish the interest of literature and the sciences and all seminaries of them, especially the university at Cambridge, public schools, and grammar schools in the towns; to encourage private societies and public institutions, by rewards and immunities for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and a natural history of the country; to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and frugality, honesty and punctuality in all their dealings; sincerity, good humor, and all social affections and generous sentiments among the people.

The history of the influences that led to the introduction of section second of this article was given by Mr. Adams in 1809. (Works iv, p. 259.)

"In travelling from Boston to Philadelphia in 1774–5–6–7, I had several times amused myself at Norwalk, Connecticut, with the very curious collection of birds and insects of American production made by Mr. Arnold, a collection which he afterwards sold to Governor Tryon, who sold it to Sir Ashton Lever, in whose apartments in London I afterwards viewed it again. This collection was so singular a thing that it made a deep impression on me, and I could not but consider it a reproach to my country that so little was known even to herself of her natural history.

"When I was in Europe in the years 1778 and 1779, in the commission to the King of France with Dr. Franklin and Mr. Arthur Lee, I had opportunity to see the King's collection and many others, which increased my wishes that nature might be examined and studied in my own country as it was in others.

"In France, among the academicians and other men of science and letters, I was frequently entertained with inquiries concerning the Philosophical Society at Philadelphia, and with eulogiums on the wisdom of that institution and encomiums on some publications of their transactions.

"These conversations suggested to me the idea of such an establishment in Boston, where I knew there was as much love of science, and as many gentlemen capable of pursuing it, as in any other city of its size.

"In 1779 I returned to Boston in the French frigate, La Sensible, with the Chevalier de la Luzerne and Mr. Marbois. The corporation of Harvard College gave a public dinner in honor of the French ambassador and his suite, and did me the honor of an invitation to dine with them.

"At the table, in the philosophy chamber, I chanced to sit next to Dr. Cooper. I entertained him during the whole of the time we were together with an account of Arnold's collections I had seen in Europe, the compliments I had heard in France upon the Philosophical Society at Philadelphia, and concluded with proposing that the future legislature of Massachusetts should institute an academy of arts and sciences.

"The doctor at first hesitated, thought it would be difficult to find members who would attend to it; but his principal objection was that it would injure Harvard College by setting up a rival to it that might draw the attention and affections of the people in some degree from it. To this I answered: first, that there were certainly men of learning enough that might compose a society sufficiently numerous; and, secondly, that instead of being a rival to the university, it would be an honor and advantage to it. That the president and principal professors would undoubtedly be always members of it, and the meetings might be ordered wholly or in part at the college, and in that room. The doctor at length appeared better satisfied, and I entreated him to propagate the idea and the plan as far and as soon as his discretion would justify. The Doctor accordingly did diffuse the project so judiciously and effectually that the first legislature under the constitution adopted and established it by law.*

"Afterwards, when attending the convention for framing the constitution, I mentioned the subject to several of the members, and when I was appointed by the sub-committee to make a draught of a project of a constitution to be laid before the convention, my mind and heart were so full of the subject I inserted chapter v, section 2.

"I was somewhat apprehensive that criticism and objection would be made to the section, and particularly that the 'natural history' and the 'good humor' would be stricken out, but the whole was received very kindly, and passed the convention unanimously without amendment."

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* American Academy of Arts and Sciences, incorporated May 4, 1780.

The following article was ratified by the people of Massachusetts in 1857. as an amendment to the Constitution.

ART. XX. No person shall have the right to vote, or be eligible to office under the constitution of this Commonwealth, who shall not be able to read the constitution in the English language and write his name: *provided, however*, that the provisions of this amendment shall not apply to any person prevented by a physical disability from complying with its requisitions, nor to any person who now has the right to vote, nor to any persons who shall be sixty years of age or upwards at the time this amendment shall take effect.

CONNECTICUT.

Settled in 1633. Area, 4,674 square miles.

POPULATION.

1790	238,141	1830	297,675
1800	251,002	1840	309,978
1810	262,042	1850	370,792
1820	275,202	1860	460,147

In the towns of Hartford and New Haven, settled in 1636 and 1638, as well as in towns settled afterwards, the public school was one of the earliest subjects of municipal legislation in Hartford in 1638, and in New Haven in 1639, as much as the roads and bridges, the support of public worship, and protection against the Indians.

In the body of laws for the government of the commonwealth, known as the code of 1650, the provisions for the family instruction of children, and the maintenance of schools by towns, are identically the same as in Massachusetts, and remained on the statute book, with slight modifications to give them more efficiency, for two hundred years.

In the chapter respecting schools, it is commended to "every family," which is able and willing, "to give yearly but the fourth part of a bushel of corn, or something equivalent thereto, for the advancement of learning by the college at Cambridge;" which practice was continued until ten of the principal ministers, in 1700, brought each a number of books to found a college in Connecticut.

As early as 1701 the system of public instruction in Connecticut so far matured as to embrace the following particulars:

1. An obligation on every parent and guardian of children "not to suffer so much barbarism, in any of their families, as to have a single child or apprentice unable to read the holy word of God, and the good laws of the colony;" and also "to bring them up to some lawful calling or employment," under a penalty for each offence.

2. A tax of forty shillings on every thousand pounds of the lists of estates was collected in every town with annual State tax, and payable

proportionably to those towns only which should establish their schools according to law.

3. A common school in every town having over seventy families, kept for at least six months in a year.

4. A grammar school in each of the four head county towns, to fit youth for college.

5. A collegiate school, toward which the General Court made an annual appropriation of £120.

6. Provision for the religious instruction of the Indians.

The system, therefore, embraced every family and town, all classes of children and youth, and all the then recognized grades of schools. There were no select or sectarian schools to classify society at the roots; but all children were regarded with equal favor, and all brought under the assimilating influence of early associations and similar school privileges.

Here was the foundation laid not only for universal education, but for a practical and social equality which has never been surpassed in the history of any other community.

In 1795 the legislature, after several years of discussion, set the example of establishing a permanent and irreducible fund, the income of which should be applied to the support of common or public schools, by appropriating for this purpose a portion of the Territory of Ohio, now known as the Connecticut Reserve, because it was reserved by the State for its own use, when it ceded its claim to the whole national domain beyond, of the same width as its own territory.

The colonial charter formed the basis of government until 1818, when a State constitution was adopted, which still exists, article eight of which protects both the college and the school fund.

ARTICLE VIII.—OF EDUCATION.

SEC. 1. The charter of Yale College, as modified by agreement with the corporation thereof, in pursuance of an act of the general assembly, passed in May, 1792, is hereby confirmed.

2. The fund called the *school fund* shall remain a perpetual fund, the interest of which shall be inviolably appropriated to the support and encouragement of the public or common schools throughout the State, and for the equal benefit of all the people thereof. The value and amount of said fund shall, as soon as practicable, be ascertained in such manner as the general assembly may prescribe, published, and recorded in the comptroller's office; and no law shall ever be made authorizing said fund to be diverted to any other use than the encouragement and support of public or common schools among the several school societies, as justice and equity shall require.

In 1855 the following amendment to the Constitution was adopted:

Every person shall be able to read any article of the Constitution, or any section of the statutes of this State, before being admitted as an elector.

NEW HAMPSHIRE.

First settlement made in 1623. Area, 9,280 square miles.

POPULATION.

1790	141,899	1830	269,328
1800	183,762	1840	284,574
1810	214,360	1850	317,796
1820	244,161	1860	326,073

First constitution was adopted in 1784, in which there is the following provision relative to the encouragement of literature:

ENCOURAGEMENT OF LITERATURE, ETC.

Knowledge and learning, generally diffused through a community, being essential to the preservation of a free government; and spreading the opportunities and advantages of education through the various parts of the country, being highly conducive to promote this end, it shall be the duty of the legislators and magistrates, in all future periods of this government, to cherish the interests of literature and the sciences, and all seminaries and public schools, to encourage private and public institutions, rewards and immunities for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and natural history of the country; to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and economy, honesty and punctuality, sincerity, sobriety, and all social affections and generous sentiments, among the people.

This article in substance appears to have been copied from the constitution of Massachusetts, the alterations being only verbal.

In the constitution of 1792, which still exists, it was inserted without change.

VERMONT.

Settled 1724–'31. Area, 9,056 square miles. Admitted as one of the United States of America in 1791.

POPULATION.

1790	85,416	1830	280,652
1800	162,101	1840	291,948
1810	217,713	1850	314,120
1820	235,764	1860	315,098

The first constitution was formed in 1777, and the second in 1793, which is still in force, article forty-one of which declares—

Laws for the encouragement of virtue and prevention of vice and immorality ought to be constantly kept in force, and duly executed; and a competent number of schools ought to be maintained in each town, for the convenient instruction of youth, and one or more grammar schools be incorporated and properly supported in each county in this State. And all religious societies or bodies of men, that may be hereafter united or incorporated for the advancement of religion and learning, or for other charitable purposes, shall be encouraged and protected in the enjoyment of the privileges, immunities, and estates which they in justice ought to enjoy, under such regulations as the general assembly of this State shall direct.

MAINE.

Settled in 1624. Area, 31,766 square miles. Admitted into the Union in 1820.

POPULATION.

1790	96,540	1830	399,455
1800	151,719	1840	501,793
1810	228,705	1850	583,169
1820	298,335	1860	628,279

The constitution adopted in 1820 has an article relating to

LITERATURE.

A general diffusion of the advantages of education being essential to the preservation of the rights and liberties of the people, to promote this important object the legislature is authorized, and it shall be its duty, to require the several towns to make suitable provision, at their own expense, for the support and maintenance of public schools; and it shall further be their duty to encourage and suitably endow, from time to time, as the circumstances of the people may authorize, all academies, colleges, and seminaries of learning within the State: *Provided*, That no donation, grant, or endowment shall at any time be made by the legislature to any literary institution now established, or which may hereafter be established, unless at the time of making such endowment the legislature of the State shall have the right to grant any further powers to alter, limit, or restrain any of the powers vested in any such literary institution as shall be judged necessary to promote the best interests thereof.

RHODE ISLAND.

Settled in 1631. Area, 1,306 square miles.

POPULATION.

1790	69,110	1830	97,199
1800	69,122	1840	108,130
1810	77,031	1850	147,545
1820	83,059	1860	174,620

The colonial charter remained in force until 1842, when a constitution was adopted by the people.

The provision relative to education is as follows:

ARTICLE XII.—OF EDUCATION.

SEC. 1. The diffusion of knowledge as well as of virtue among the people being essential to the preservation of their rights and liberties, it shall be the duty of the General Assembly to promote public schools, and to adopt all means which they may deem necessary and proper to secure to the people the advantages and opportunities of education.

2. The money which now is, or which may hereafter be, appropriated by law for the establishment of a permanent fund for the support of public schools, shall be securely invested and remain a perpetual fund for that purpose.

3. All donations for the support of public schools, or for other purposes of education, which may be received by the General Assembly, shall be applied according to the terms prescribed by the donors.

4. The General Assembly shall make all necessary provisions by law for carrying this article into effect. They shall not divert said money or fund from the aforesaid uses, nor borrow, appropriate, nor use the same, or any part thereof, for any other purpose, under any pretence whatever.

NEW YORK.

Settled in 1609 by the Dutch. Area, 46,000 square miles.

POPULATION.

1790	340,120	1830	1,918,608
1800	586,756	1840	2,428,921
1810	959,049	1850	3,007,394
1820	1,372,812	1860	3,880,735

The first constitution was adopted in 1777, in which is no reference to schools; the second, in 1822, in which it was provided in article seventh, section five, that—

"The proceeds of all lands belonging to this State, except such parts thereof as may be reserved or appropriated to public use, or ceded to the United States, which shall hereafter be sold or disposed of, shall remain a perpetual fund, the interest of which shall be inviolably appropriated and applied to the support of common schools."

The third constitution was adopted in 1846, and the provision therein for education is comprised in article ninth.

SEC. 1. The capital of the common school fund, the capital of the literature fund, and the capital of the United States deposit fund, shall be respectively preserved inviolate. The revenues of the said common school fund shall be applied to the support of common schools; the revenues of the said literature fund shall be applied to the support of academies, and the sum of twenty-five thousand dollars of the revenues of the United States deposit fund shall each year be appropriated to and made a part of the capital of the said common school fund.

NEW JERSEY

First settlement in 1627. Area, 8,320 square miles.

POPULATION.

1790	184,139	1830	320,823
1800	211,549	1840	373,306
1810	245,555	1850	489,555
1820	277,577	1860	672,035

The first constitution was adopted in 1776, and the second in 1844, in which is this provision for education:

SECTION VII.—ARTICLE 6.

The fund for the support of free schools, and all money, stock, and other property which may hereafter be appropriated for that purpose, or received into the treasury under the provision of any law heretofore passed to augment the said fund should be securely invested, and remain a perpetual fund; and the income hereof, except so much as it may be judged expedient to apply to an increase of

the capital, shall be annually appropriated to the support of public schools, for the equal benefit of all the people of the State; and it shall not be competent for the Legislature to borrow, appropriate, or use the said fund, or any part thereof, for any other purpose, under any pretence whatever.

PENNSYLVANIA.

Settled by the Swedes in 1631. Area, 46,000 square miles

POPULATION.

1790	434,373	1830	1,348,233
1800	602,361	1840	1,724,033
1810	810,091	1850	2,311,786
1820	1,049,058	1860	2,906,215

First constitution was adopted in 1776. The second, in 1790, in which the subject of education was recognized, contains two brief sections on the subject, under

ARTICLE VII.

SECTION 1. The legislature shall, as soon as conveniently may be, provide by law for the establishment of schools throughout the State, in such manner that the poor may be taught gratis.

SECTION 2. The arts and sciences shall be promoted in one or more seminaries of learning.

In the convention of 1838, Mr. Bedford, of Luzerne, offered an amendment to the provision of the constitution of 1790, so that it would read—

"The legislature shall continue to provide by law for the establishment of common schools throughout the State in such a manner that all persons residing therein may enjoy the benefits of education."

The following remarks were made at the time of offering the resolution:

"I am aware that many gentlemen who occupy seats upon this floor deem such a constitutional provision unnecessary, because, as they assert, the legislature may at any time make suitable enactments upon the subject. But the law that is passed this year may be repealed the next; so that our school system, which is the basis of the intelligence of the people, must be liable to change with the political policy of our law makers, and thereby be liable to perpetual fluctuation and enactments, etc."

At that time there was not the interest in popular education in Pennsylvania that now exists, and the amendment was not carried; and the constitution of 1838 on the subject of education has the same language as that of 1790.

DELAWARE.

Settled in 1627. Area, 2,120 square miles.

POPULATION.

1790	59,096	1830	76,748
1800	64,273	1840	78,085
1810	72,674	1850	91,532
1820	72,749	1860	112,216

In the first constitution, adopted 1776, there is no provision for education; but as amended in 1831, the Legislature is instructed "to provide by law" "for establishing schools, and promoting arts and sciences."

VIRGINIA.

Settled in 1607. Area, 38,352 square miles.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	442,115	12,766	293,427	748,308
1800	514,280	20,124	345,796	880,200
1810	551,534	30,570	392,518	974,622
1820	603,087	36,889	425,153	1,065,129
1830	694,300	47,348	469,757	1,211,405
1840	740,858	49,852	449,087	1,239,797
1850	894,800	54,332	472,529	1,422,661
1860	1,047,411	58,042	490,865	1,596,318

Previous to the Revolution, the public school system had not obtained root beyond the limits of the eastern States. The township and district school organizations of New England had, however, excited the admiration of Wythe, Jefferson, and other eminent Virginia statesmen.

Patrick Henry wrote to John Adams: "It shall be my incessant study so to form our portrait of government that a kindred with New England may be discerned in it; and if all your excellencies cannot be preserved, yet I hope to retain so much of the likeness that posterity shall pronounce us descended from the same stock." Richard Bland Lee, at a later period, on the floor of Congress, spoke of "the forefathers of New England, who have established the wisest institutions for the perpetuation of human liberty and human happiness the world has seen." * Debate on Madison's resolutions, Jan. 20, 1794.

Such views having been cordially entertained, it was not surprising that Jefferson, as one of those appointed by Virginia, after the Declara-

* Wansey's Excursion to the United States. 1794.

tion of Independence by the Colonies, to prepare a code of laws adapted to the altered condition of that commonwealth, should strive to introduce the New England system of common schools.

The year that the first constitution was formed, a committee was appointed to prepare a code of laws adapted to the altered condition of affairs.

In 1779 Wythe and Jefferson made a report, in which was a full chapter from the pen of Jefferson on public schools. The caption was—

A BILL for the more general diffusion of knowledge.

SECTION 1. Whereas it appeareth that however certain forms of government are better calculated than others to protect individuals in the free exercise of their natural rights, and are at the same time themselves better guarded against degeneracy, yet experience hath shown, that even under the best forms those intrusted with power have in time, and by slow operations, perverted it into tyranny; and it is believed that the most effectual means of preventing this would be to illuminate, as far as practicable, the minds of the people at large, and more especially to give them knowledge of those facts which history exhibiteth, that, possessed thereby of the experience of other ages and countries, they may be enabled to know ambition under all its shapes, and prompt to exert their natural powers to defeat its purposes; and whereas it is generally true that the people will be happiest whose laws are best, and are best administered, and that laws will be wisely formed and honestly administered in proportion as those who form and administer them are wise and honest; whence it becomes expedient for promoting the public happiness, that those persons whom nature hath endowed with genius and virtue should be rendered, by liberal education, worthy to receive, and able to guard the sacred deposit of the rights and liberties of their fellow-citizens, and that they should be called to the charge without regard to wealth, birth, or other accidental condition or circumstance. But the indigence of the greater number, disabling them from so educating at their own expense those of their children whom nature hath fitly formed and disposed to become useful instruments of the public, it is better that such should be sought for and educated at the common expense of all, than that the happiness of all should be confided to the weak or wicked.

The succeeding sections provided that each county should be divided in convenient districts for public schools. "At every one of these schools," in the language of the bill, "shall be taught reading, writing, common arithmetic; and the books which shall be used therein for instructing the children to read shall be such as will, at the same time, make them acquainted with Grecian, Roman, English, and American history."

It was also provided that over every ten of these schools an overseer should be appointed annually, by the aldermen, to select teachers, to visit the schools, to direct in the choice of reading books, and superintend the teachers.

The superintendents were to meet in convention, and establish at central points a certain number of grammar schools, in which were to be taught Latin, Greek, grammar, geography, and higher arithmetic.

The most needy and meritorious scholar from a grammar school district was to be educated at the expense of the State, and one scholar

was to be selected from the grammar schools to be educated gratuitously at college.

Five years after the bill in manuscript was presented, it was printed by order of the assembly of 1784.

Jefferson says: "One provision of the bill was that the expenses of the schools should be borne by the inhabitants of the county, every one in proportion to his general tax rate. This would throw on wealth the education of the poor."

In 1796 the assembly acted upon the bill, but inserted a provision leaving to each county court to declare when the act should go into operation within the limits of its jurisdiction, which, adds Jefferson, "completely defeated it. The justices being generally of the more wealthy class, were unwilling to incur the burden, and I believe it was not suffered to commence in a single county."

His interest in common schools never flagged, although his native State could not be aroused to its best interests, and in a letter to Hon. Joseph C. Cabell, dated November 28, 1820, he says:

"Surely Governor Clinton's display of the gigantic effort of New York towards the educating of her citizens will stimulate the pride, as well as the patriotism, of our legislature to look to the reputation and safety of our country, to rescue it from the degradation of becoming the Barbary of the Union, and of falling into the ranks of even our negroes. To that condition it is fast sinking. We shall be in the hands of the other States what our indigenous predecessors were when surrounded by the sciences and arts of Europe. The success of education before the Revolution placed her with the foremost of the sister colonies. What is her education now? Where is it? The little we have we import, like beggars, from other States, or import the beggars, to bestow on us their miserable crumbs."

The first constitution was adopted in 1776, second in 1830, third in 1851, and fourth in 1864.

In the constitution adopted in 1830 there is no reference to education, but in that of 1851 is the following provision:

A capitation tax, equal to the tax assessed on land of the value of two hundred dollars, shall be levied on every white male inhabitant who has attained the age of twenty-one years; and one equal moiety of the capitation tax upon white persons shall be applied to the purposes of education in primary and free schools; but nothing herein contained shall prevent exemptions of taxable polls in cases of bodily infirmity.

In the revision of 1864, this provision is retained in the twenty-second article.

MARYLAND.

Settled in 1634. Area, 9,356 square miles.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	208,649	8,043	103,036	319,728
1800	246,326	19,587	105,635	341,548
1810	235,117	33,927	111,502	380,546
1820	260,223	39,730	107,397	407,350
1830	291,108	52,938	102,994	447,040
1840	318,204	62,078	89,737	470,019
1850	417,943	74,723	90,368	583,034
1860	515,918	83,942	87,189	687,049

The first constitution was adopted in 1776; the second in 1851; and the third in 1864. The first provision on education is in that of 1864, and is as follows:

ARTICLE VIII.—EDUCATION.

SECTION 1. Tho governor shall within thirty days after the ratification by the people of this constitution appoint, subject to the confirmation of the senate at its first session thereafter, a State superintendent of public instruction, who shall hold his office for five years, and until his successor shall have been appointed and shall have been qualified. He shall receive an annual salary of twenty-five hundred dollars, and such additional sum for travelling and incidental expenses as the general assembly may by law provide; shall report to the general assembly within thirty days after the commencement of its first session under this constitution, a uniform system of free public schools, and shall perform such other duties pertaining to his office as may from time to time be prescribed by law.

SECTION 2. There shall be a State board of education, consisting of the governor, the lieutenant governor, the speaker of the house of delegates, and the State superintendent of public instruction, which board shall perform such duties as the general assembly may direct.

SECTION 3. There shall be in each county such number of school commissioners as the State superintendent of public instruction shall deem necessary, who shall be appointed by the State board of education; shall hold office for four years, and shall perform such duties and receive such compensation as the general assembly or State superintendent may direct; the school commissioners of Baltimore city shall remain as at present constituted, and shall be appointed as at present, by the mayor and city council, subject to such alterations and amendments as may be made from time to time by the general assembly, or the said mayor and city council.

SECTION 4. The general assembly, at its first session after the adoption of this constitution, shall provide a uniform system of free public schools, by which a school shall be kept open and supported free of expense for tuition in each school district, for at least six months in each year; and in case of failure on the part of the general assembly to provide, the system reported to it by the State superintendent of public instruction shall become the system of free public schools of the State: *Provided*, That the report of the State superintendent shall be in conformity with the provisions of this constitution, and such system shall be subject to such alterations, conformable to this article, as the general assembly may from time to time enact.

SECTION 5. The general assembly shall levy at each regular session after the adoption of this constitution, an annual tax of not less than ten cents on each

hundred dollars of taxable property throughout the State, for the support of free public schools, which tax shall be collected at the same time and by the same agents as the general State levy; and shall be paid into the treasury of the State, and shall be distributed under such regulations as may be prescribed by law, among the counties and the city of Baltimore, in proportion to their respective population between the ages of five and twenty years: *Provided*, That the general assembly shall not levy any additional school tax upon particular counties, unless such county express by popular vote its desire for such tax; the city of Baltimore shall provide for its additional school tax as at present, or as may hereafter be provided by the general assembly, or by the mayor and city council of Baltimore.

SECTION 6. The general assembly shall further provide by law, at its first session after the adoption of this constitution, a fund for the support of the free public schools of the State, by the imposition of an annual tax of not less than five cents on each one hundred dollars of taxable property throughout the State, the proceeds of which tax shall be known as the public school fund, and shall be invested by the treasurer, together with its annual interest, until such time as said fund shall by its own increase and any addition which may be made to it from time to time, together with the present school fund, amount to six millions of dollars, when the tax of ten cents on the hundred dollars, authorized by the preceding section, may be discontinued in whole or in part as the general assembly may direct; the principal fund of six millions, hereby provided, shall remain forever inviolate as the free public school fund of the State, and the annual interest of said school fund shall be disbursed for educational purposes only, as may be prescribed by law.

In the constitution just formed and to be submitted to the people on the eighteenth of September for adoption or rejection, there is the following:

ARTICLE VIII.

EDUCATION.

SECTION 1. The General Assembly, at its first session after the adoption of this constitution, shall, by law, establish throughout the State a thorough and efficient system of Free Public Schools, and shall provide, by taxation or otherwise, for their maintenance.

SEC. 2. The system of Public Schools, as now constituted, shall remain in force until the end of the said first session of the General Assembly, and shall then expire, except so far as adopted or continued by the General Assembly.

SEC. 3. The school fund of the State shall be kept inviolate, and appropriated only to the purposes of education.

NORTH CAROLINA.

Settled in 1653. Area, 45,000 square miles.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	288,204	4,975	100,572	393,751
1800	337,764	7,043	133,296	478,103
1810	376,410	10,266	168,824	555,500
1820	419,200	14,612	205,217	638,829
1830	472,843	19,543	245,661	737,987
1840	484,870	22,732	245,817	753,419
1850	553,028	27,463	288,548	869,039
1860	631,000	30,463	331,059	992,622

In the constitution of 1776 it was declared in article forty-one that—

A school or schools shall be established by the legislature, for the convenient nstruction of youth, with such salaries to the masters, paid by the public, as may enable them to instruct at low prices; and all useful learning shall be duly encouraged and promoted in one or more universities.

The same provision has been retained without amendment until the present time.

SOUTH CAROLINA.

Settled in 1670. Area, 24,800 square miles.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	140,178	1,801	107,094	249,073
1800	196,255	3,185	146,151	345,591
1810	214,196	4,554	196,365	415,105
1820	237,440	6,822	258,475	502,741
1830	257,863	7,921	315,401	581,185
1840	259,084	8,276	327,038	594,398
1850	274,563	8,960	384,984	668,507
1860	291,388	9,914	402,406	703,708

A constitution was formed in 1776, which was amended in 1778, 1790, and in 1865, but no provision was incorporated relative to education or the encouragement of learning.

GEORGIA.

Settled in 1733. Area, 58,000 square miles.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	52,886	398	29,264	82,548
1800	101,678	1,019	59,404	162,101
1810	145,414	1,801	105,218	258,433
1820	189,564	1,767	149,656	340,433
1830	294,806	2,484	217,531	576,823
1840	407,695	2,753	280,944	691,392
1850	521,572	2,931	381,682	906,185
1860	591,588	3,500	462,198	1,057,286

First constitution formed in 1777; the second in 1785; the third in 1798, which was amended in 1839.

The provision relative to seminaries of learning in that of 1798 was retained in the amended constitution of 1839. It is in these words:

13. The arts and sciences shall be promoted, in one or more seminaries of learning; and the legislature shall, as soon as conveniently may be, give such further donations and privileges to those already established, as may be necessary to secure the objects of their institution; and it shall be the duty of the general assembly, at their next session, to provide effectual measures for the improvement and permanent security of the funds and endowments of such institutions.

In the Constitution of 1865, the educational provision was omitted.

KENTUCKY.

Settled in 1775. Area, 37,680 square miles. Admitted into the Union in 1792.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	61,133	114	11,830	73,077
1800	179,871	741	40,343	220,595
1810	324,237	1,713	80,561	406,511
1820	434,644	2,941	126,732	564,317
1830	517,787	4,917	165,213	687,917
1840	590,253	7,317	182,258	779,828
1850	761,413	10,011	210,981	982,405
1860	919,517	10,684	225,483	1,155,684

First constitution adopted in 1790; second in 1799; and the third in 1850. Article eleventh of the last pertains to education:

ARTICLE XI.—CONCERNING EDUCATION.

SEC. 1. The capital of the fund called and known as the "Common School Fund," consisting of one million two hundred and twenty-five thousand seven hundred and sixty-eight dollars and forty-two cents, for which bonds have been executed by the State to the board of education, and seventy-three thousand five hundred dollars of stock in the Bank of Kentucky; also, the sum of fifty-one thousand two hundred and twenty-three dollars and twenty-nine cents, balance of interest on the school fund for the year 1848, unexpended, together with any sum which may be hereafter raised in the State by taxation, or otherwise, for purposes of education, shall be held inviolate, for the purpose of sustaining a system of common schools. The interest and dividends of said funds, together with any sum which may be produced for that purpose by taxation or otherwise, may be appropriated in aid of common schools, but for no other purpose. The general assembly shall invest said fifty-one thousand two hundred and twenty-three dollars and twenty-nine cents in some safe and profitable manner; and any portion of the interest and dividends of said school fund, or other money or property raised for school purposes, which may not be needed in sustaining common schools, shall be invested in like manner. The general assembly shall make provision, by law, for the payment of the interest of said school fund: *Provided*, That each county shall be entitled to its proportion of the income of said fund, and if not called for, for common school purposes, it shall be reinvested from time to time for the benefit of such county.

SEC. 2. A superintendent of public instruction shall be elected by the qualified voters of this commonwealth, at the same time the governor is elected, who shall hold his office for four years, and his duties and salary shall be prescribed and fixed by law.

TENNESSEE.

Settled in 1765. Area, 45,600 square miles. Admitted into the Union in 1796.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1790	32,013	361	3,417	35,791
1800	91,709	309	13,584	105,602
1810	215,875	1,317	44,535	261,727
1820	339,927	2,779	80,107	422,813
1830	535,746	4,555	141,603	681,904
1840	640,627	5,524	183,059	829,210
1850	756,836	6,422	239,459	1,002,717
1860	826,828	7,235	275,784	1,109,847

First constitution adopted in 1796, which was amended in 1835. Article eleventh, section ten, of the latter is as follows:

10. Knowledge, learning, and virtue being essential to the preservation of republican institutions, and the diffusion of the opportunities and advantages of education throughout the different portions of the State being highly conducive to the promotion of this end, it shall be the duty of the general assembly, in all future periods of this government, to cherish literature and science. And the fund called the *common school fund*, and all the lands and proceeds thereof, dividends, stocks, and other property of every description whatever, heretofore by law appropriated by the general assembly of this State for the use of common schools, and all such as shall hereafter be appropriated, shall remain a *perpetual fund*, the principal of which shall never be diminished by legislative appropriation, and the interest thereof shall be inviolably appropriated to the support and encouragement of common schools throughout the State, and for the equal benefit of all the people thereof; and no law shall be made authorizing said fund, or any part thereof, to be diverted to any other use than the support and encouragement of common schools; and it shall be the duty of the general assembly to appoint a board of commissioners, for such term of time as they may think proper, who shall have the general superintendence of said fund, and who shall make a report of the condition of the same, from time to time, under such rules, regulations, and restrictions as may be required by law: *Provided*, That if at any time hereafter a division of the public lands of the United States, or of the money arising from the sales of such lands, shall be made among the individual States, the part of such lands or money coming to this State shall be devoted to the purposes of education and internal improvement, and shall never be applied to any other purpose.

11. The above provisions shall not be construed to prevent the legislature from carrying into effect any laws that have been passed in favor of the colleges, universities, or academies, or from authorizing heirs or distributees to receive and enjoy escheated property, under such rules and regulations as from time to time may be prescribed by law.

The amendments of 1865 did not pertain to education.

OHIO.

Settled in 1788. Area, 39,964 square miles. Admitted into the Union in 1802.

POPULATION.

1800	45,365	1840	1,519,467
1810	230,760	1850	1,980,329
1820	581,434	1860	2,339,511
1830	937,903		

The first constitution adopted in 1802, says in article eighth:

SECTION 3. * * * Religion, morality, and knowledge being essentially necessary to good government and the happiness of mankind, schools and the means of instruction shall forever be encouraged by legislative provision, not inconsistent with the right of conscience.

SECTION 25. That no law shall be passed to prevent the in the several counties and townships within this State from an equal participation in the schools, academies, and universities within this State, which are endowed in whole or in part from the revenue arising from donations made by the United States for the support of schools and colleges, and the doors of the said schools, academies, and universities shall be open for the reception of scholars, students, and teachers of every grade, without any distinction or preference whatever contrary to the intention for which said donations are made.

In the constitution of 1851, section seventh of the first article says:

* * Religion, morality, and knowledge, however, being essential to good government, it shall be the duty of the general assembly to pass suitable laws to protect every religious denomination in the peaceable enjoyment of its own mode of public worship, and to encourage schools and the means of instruction.

And article sixth also pertains to education.

ARTICLE VI.—EDUCATION.

SECTION 1. The principal of all funds arising from the sale or other disposition of lands, or other property, granted or intrusted to this State for educational and religious purposes, shall forever be preserved inviolate and undiminished; and the income arising therefrom shall be faithfully applied to the specific objects of the original grants or appropriations.

SEC. 2. The general assembly shall make such provisions, by taxation or otherwise, as, with the income arising from the school trust fund, will secure a thorough and efficient system of common schools throughout the State; but no religious or other sect or sects shall ever have any exclusive right to, or control of, any part of the school funds of this State.

LOUISIANA.

Settled in 1699. Area, 46,341 square miles. Admitted into the Union in 1812.

POPULATION.

Census.	White.	Free Colored.	Slaves.	Total.
1800	34,311	7,585	34,660	76,556
1820	73,383	10,476	69,064	153,407
1830	89,441	16,710	109,588	215,739
1840	158,457	25,502	168,452	352,411
1850	255,491	17,462	244,809	517,762
1860	357,629	18,647	331,726	708,002

First constitution was formed in 1812, in which there is nothing relative to education.

The constitution of 1845, under the caption of title seven, has the following:

TITLE VII.—PUBLIC EDUCATION.

ARTICLE 133. There shall be appointed a superintendent of public education, who shall hold his office for two years. His duties shall be prescribed by law. He shall receive such compensation as the legislature may direct.

ART. 134. The legislature shall establish free public schools throughout the State, and shall provide means for their support by taxation on property, or otherwise.

ART. 135. The proceeds of all lands heretofore granted by the United States to this State for the use or support of schools, and of all lands which may hereafter be granted or bequeathed to the State, and not expressly granted or bequeathed for any other purpose, which hereafter may be disposed of by the State, and the proceeds of the estates of deceased persons to which the State may become entitled by law, shall be held by the State as a loan, and shall be and remain a perpetual fund, on which the State shall pay an annual interest of six per centum; which interest, together with all the rents of the unsold lands, shall be appropriated to the support of such schools; and this appropriation shall remain inviolable.

ART. 136. All moneys arising from the sales which have been, or may hereafter be, made of any lands heretofore granted by the United States to this State, for the use of a seminary of learning, and from any kind of donation that may hereafter be made for that purpose, shall be and remain a perpetual fund, the interest of which, at six per cent. per annum, shall be appropriated to the support of a seminary of learning for the promotion of literature and the arts and sciences, and no law shall ever be made diverting said fund to any other use than to the establishment and improvement of said seminary of learning.

ART. 137. An university shall be established in the city of New Orleans. It shall be composed of four faculties, to wit: One of law, one of medicine, one of the natural sciences, and one of letters.

ART. 138. It shall be called the "University of Louisiana," and the Medical College of Louisiana, as at present organized, shall constitute the faculty of medicine.

ART. 139. The legislature shall provide by law for its further organization and government, but shall be under no obligation to contribute to the establishment or support of said university by appropriations.

The constitution of 1852, in title eight, in these words provides:

TITLE VIII.—PUBLIC EDUCATION.

ARTICLE 135. There shall be elected a superintendent of public education, who shall hold his office for the term of two years. His duties shall be prescribed by law, and he shall receive such compensation as the legislature may direct: *Provided*, That the general assembly shall have power, by a vote of the majority of the members elected to both houses, to abolish the said office of superintendent of public education, whenever in their opinion said office shall be no longer necessary.

136. The general assembly shall establish free public schools throughout the State, and shall provide for their support by general taxation on property or otherwise; and all moneys so raised or provided shall be distributed to each parish, in proportion to the number of free white children between such ages as shall be fixed by the general assembly.

137. The proceeds of all lands heretofore granted by the United States to this State for the use or support of schools, and of all lands which may hereafter be granted or bequeathed to the State, and not expressly granted or bequeathed for any other purpose, which hereafter may be disposed of by the State, and the proceeds of the estates of deceased persons to which the State may become entitled by law, shall be held by the State as a loan, and shall be and remain a perpetual fund, on which the State shall pay an annual interest of six per cent.; which interest, together with the interest on the trust funds deposited with this State by the United States, under the act of Congress approved June 23, 1836, and all the rents of the unsold lands, shall be appropriated to the support of such schools; and this appropriation shall remain inviolable.

138. All moneys arising from the sales which have been, or may hereafter be, made of any lands heretofore granted by the United States to this State for the use of a seminary of learning, and from any kind of donation that may hereafter be made for that purpose, shall be and remain a perpetual fund, the interest of which, at six per cent. per annum, shall be appropriated to the support of a seminary of learning, for the promotion of literature and the arts and sciences; and no law shall ever be made diverting said fund to any other use than to the establishment and improvement of said seminary of learning.

139. The University of Louisiana, in New Orleans, as now established, shall be maintained.

140. The legislature shall have power to pass such laws as may be necessary for the further regulation of the university, and for the promotion of literature and science, but shall be under no obligation to contribute to the support of said university by appropriations.

The constitution of 1864 has the following:

TITLE XI.—PUBLIC EDUCATION.

ARTICLE 140. There shall be elected a superintendent of public education, who shall hold his office for the term of four years. His duties shall be prescribed by law, and he shall receive a salary of four thousand dollars per annum until otherwise provided by law: *Provided*, That the general assembly shall have power, by a vote of a majority of the members elected to both houses, to abolish the said office of superintendent of public education whenever, in their opinion, said office shall be no longer necessary.

ART. 141. The legislature shall provide for the education of all children of the State, between the ages of six and eighteen years, by maintenance of free public schools by taxation or otherwise.

ART. 142. The general exercises in the common schools shall be conducted in the English language.

ART. 143. A university shall be established in the city of New Orleans. It shall be composed of four faculties, to wit: One of law, one of medicine, one of the natural sciences, and one of letters. The legislature shall provide by law for its organization and maintenance.

ART. 144. The proceeds of all lands heretofore granted by the United States to this State for the use or purpose of the public schools, and of all lands which may hereafter be granted or bequeathed for that purpose, and the proceeds of the estates of deceased persons to which the State may become entitled by law, shall be and remain a perpetual fund, on which the State shall pay an interest of six per cent.; which interest, together with the interest of the trust fund, deposited with the State by the United States under the act of Congress approved June 23, 1836, and all the rents of unsold lands, shall be appropriated to the purpose of such schools; and this appropriation shall remain inviolable.

ART. 145. All moneys arising from the sales which have been, or may hereafter be, made of any lands heretofore granted by the United States to this State for the use of a specific seminary of learning, or from any kind of donation that may hereafter be made for that purpose, shall be and remain a perpetual fund, the interest of which, at six per cent. per annum, shall be appropriated to the promotion of literature and the arts and sciences, and no law shall ever be made diverting said fund to any other use than to the establishment and improvement of said seminary of learning, in such manner as it may deem proper.

ART. 146. No appropriation shall be made by the legislature for the support of any private school or institution of learning, but the highest encouragement shall be granted to public schools throughout the State.

INDIANA.

Settled in 1730. Area, 33,809 square miles. Admitted into the Union in 1816.

POPULATION.

1800	4,875	1840	685,866
1810	45,365	1850	988,416
1820	147,178	1860	1,350,428
1830	343,031		

The first constitution was adopted in 1816; article ninth of which pertained to

EDUCATION.

SECTION 1. Knowledge and learning generally diffused through a community being essential to the preservation of a free government, and spreading the opportunities and advantages of education through the various parts of the country being highly conducive to this end, it shall be the duty of the general assembly to provide by law for the improvement of such lands as are, or hereafter may be, granted by the United States to this State for the use of schools, and to apply any funds which may be raised from such lands, or from any other quarter, to the accomplishment of the grand object for which they are, or may be, intended. But no lands granted for the use of schools or seminaries of learning shall be sold by authority of this State prior to the year eighteen hundred and twenty; and the moneys which may be raised out of the sale of any such lands, or otherwise obtained for the purposes aforesaid, shall be, and remain a fund, for the exclusive purpose of promoting the interest of literature and the sciences, and for the support of seminaries and public schools. The general assembly shall from time to time pass such laws as shall be calculated to encourage intellectual, scientific, and agricultural improvements, by allowing rewards and immunities for the promotion and improvement of arts, sciences, commerce, manufactures, and natural history, and to countenance and encourage the principles of humanity, industry, and morality.

SECTION 2. It shall be the duty of the general assembly, as soon as circumstances will permit, to provide by law for a general system of education, ascending in a regular gradation from township schools to a State university, wherein tuition shall be gratis, and equally open to all.

SECTION 3. And for the promotion of such salutary end the money which shall be paid as an equivalent by persons exempt from militia duty, except in times of war, shall be exclusively and in equal proportion applied to the support of county seminaries. Also, all fines assessed for any breach of the penal laws shall be applied to said seminaries in the counties wherein they shall be assessed.

SECTION 4. It shall be the duty of the general assembly, as soon as circumstances will permit, to form a penal code, founded on the principles of reformation and not vindictive justice; and also to provide one or more farms, to be an asylum for those persons who by reason of age, infirmity, or other misfortunes, may have a claim upon the aid and beneficence of society, on such principles that such persons may therein find employment and every reasonable comfort, and lose, by their usefulness, the degrading sense of dependence.

SECTION 5. The general assembly, at the time they lay off a new county, shall cause at least ten per cent. to be reserved out of the sales of town lots in the seat of justice of such county, for the use of a public library for such county, and at the same session they shall incorporate a library company, under such rules and regulations as will best secure its permanence, and extend its benefits.

The second constitution was adopted in 1851, and has a full article on education:

ARTICLE VIII.—EDUCATION.

SEC. 1. Knowledge and learning generally diffused throughout a community being essential to the preservation of a free government, it shall be the duty of the general assembly to encourage, by all suitable means, moral, intellectual, scien-

tific, and agricultural improvement, and to provide by law for a general and uniform system of common schools, wherein tuition shall be without charge, and equally open to all.

2. The common school fund shall consist of the congressional township fund and the lands belonging thereto;

The surplus revenue fund;

The saline fund, and the lands belonging thereto;

The bank tax fund, and the fund arising from the one hundred and fourteenth section of the charter of the State Bank of Indiana;

The fund to be derived from the sale of county seminaries, and the moneys and property heretofore held for such seminaries; from the fines assessed for breaches of the penal laws of the State; and from all forfeitures which may accrue;

All lands and other estate which shall escheat to the State for want of heirs or kindred entitled to the inheritance;

All lands that have been, or may hereafter be, granted to the State, where no special purpose is expressed in the grant, and the proceeds of the sales thereof, including the proceeds of the sales of the swamp lands granted to the State of Indiana by the act of Congress of 28th September, 1850, after deducting the expense of selecting and draining the same;

Taxes on the property of corporations that may be assessed for common school purposes.

3. The principal of the common school fund shall remain a perpetual fund, which may be increased, but shall never be diminished; and the income thereof shall be inviolably appropriated to the support of common schools, and to no other purpose whatever.

4. The general assembly shall invest, in some safe and profitable manner, all such portions of the common school fund as have not heretofore been intrusted to the several counties; and shall make provision by law for the distribution among the several counties of the interest thereof.

5. If any county shall fail to demand its proportion of such interest for common school purposes, the same shall be reinvested for the benefit of such county.

6. The several counties shall be held liable for the preservation of so much of the said fund as may be intrusted to them, and for the payment of the annual interest thereon.

7. All trust funds held by the State shall remain inviolate, and be faithfully and exclusively applied to the purposes for which the trust was created.

8. The general assembly shall provide for the election, by the voters of the State, of a state superintendent of public instruction, who shall hold his office for two years, and whose duties and compensation shall be prescribed by law.

MISSISSIPPI.

Settled in 1716. Area, 47,156 square miles. Admitted as a State in 1817.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1800	5,179	182	3,489	8,850
1810	23,024	240	17,088	40,352
1820	42,176	458	32,814	75,448
1830	20,443	519	65,659	136,621
1840	179,074	1,366	195,211	375,651
1850	295,718	930	309,878	606,526
1860	353,901	773	436,631	791,305

Adopted a constitution in 1817, amended in 1832 and in 1865. Section fourteenth, article seventh, is in this language:

14. Religion, morality, and knowledge being necessary to good government, the preservation of liberty, and the happiness of mankind, schools, and the means of education, shall forever be encouraged in this State.

ILLINOIS.

Settled in 1720. Area, 55,409 square miles. Admitted into the Union in 1818.

POPULATION.

1810	12,284	1840	476,183
1820	55,210	1850	851,470
1830	157,445	1860	1,711,951

The first constitution was adopted in 1818, and the second in 1847, neither of which contains any provision relative to education.

ALABAMA.

Originally a part of Georgia. Area, 46,000 square miles. Admitted into the Union in 1819.

POPULATION.

Census.	Whites.	Free colored.	Slaves.	Total.
1820	85,451	571	41,879	127,901
1830	190,406	1,572	117,549	309,527
1840	335,185	2,039	253,536	590,753
1850	426,514	2,265	343,844	771,623
1860	526,431	2,690	435,089	964,201

The constitution of 1819, which was in force in 1860, makes the following provision relative to

EDUCATION.

Schools and the means of education shall forever be encouraged in this State; and the general assembly shall take measures to preserve from unnecessary waste or damage such lands as are, or hereafter may be, granted by the United States for the use of schools within each township in this State, and apply the funds which may be raised from such lands in strict conformity to the object of such grant. The general assembly shall take like measures for the improvement of such lands as have been, or may be hereafter, granted by the United States to this State for the support of a seminary of learning; and the moneys which may be raised from such lands, by rent, lease, or sale, or from any other quarter, for the purpose aforesaid, shall be and remain a fund for the exclusive support of a State university, for the promotion of the arts, literature, and the sciences; and it shall be the duty of the general assembly, as early as may be, to provide effectual means for the improvement and permanent security of the funds and endowments of such institution.

The Constitution of 1865 retains this provision.

The constitution of 1865 includes the above provision, making it imperative on the Legislature "to enact necessary and proper laws for the encouragement of schools and the means of education."

MISSOURI.

Settled in 1763. Area 67,380 square miles. Admitted into the Union in 1820.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1810	17,227	607	3,011	20,845
1820	55,968	376	10,222	66,586
1830	114,795	569	25,091	140,455
1840	323,888	1,574	58,240	383,702
1850	592,004	2,618	87,422	682,044
1860	1,063,509	3,572	114,931	1,182,012

The constitution adopted in 1820 devotes article sixth to education:

ARTICLE VI.—OF EDUCATION.

SECTION. 1. Schools, and the means of education, shall forever be encouraged in this State; and the general assembly shall take measures to preserve from waste or damage such lands as have been, or hereafter may be, granted by the United States for the use of schools within each township in this State, and shall apply the funds which may arise from such lands in strict conformity to the object of the grant. One school, or more, shall be established in each township, as soon as practicable and necessary, where the poor shall be taught gratis.

SEC. 2. The general assembly shall take measures for the improvement of such lands as have been, or hereafter may be, granted by the United States to this State for the support of a seminary of learning; and the funds accruing from such lands by rent or lease, or in any other manner, or which may be obtained from any other source, for the purposes aforesaid, shall be and remain a permanent fund to support a university for the promotion of literature and of the arts and sciences; and it shall be the duty of the general assembly, as soon as may be, to provide effectual means for the improvement of such lands, and for the improvement and permanent security of the funds and endowments of such institution.

The constitution of 1865 has the following:

ARTICLE IX.—EDUCATION.

SECTION 1. A general diffusion of knowledge and intelligence being essential to the preservation of the rights and liberties of the people, the General Assembly shall establish and maintain free schools for the gratuitous instruction of all persons in this State between the ages of five and twenty-one years.

2. Separate schools may be established for children of African descent. All funds provided for the support of public schools shall be appropriated in proportion to the number of children, without regard to color.

3. The supervision of public instruction shall be vested in a Board of Education, whose powers and duties shall be prescribed by law. A Superintendent of Public Schools, who shall be the president of the board, shall be elected by the qualified voters of the State. He shall possess the qualifications of a State Sena-

tor, and hold his office for the term of four years, and shall perform such duties and receive such compensation as may be prescribed by law. The Secretary of State and Attorney General shall be *ex officio* members, and with the Superintendent compose said Board of Education.

4. The General Assembly shall also establish and maintain a State University, with departments for instruction in teaching, in agriculture, and in natural science, as soon as the public school fund will permit.

5. The proceeds of all lands that have been or hereafter may be granted by the United States to this State, and not otherwise appropriated by this State or the United States; also all moneys, stocks, bonds, lands, and other property now belonging to any fund for purposes of education; also the net proceeds of all sales of lands and other property and effects that may accrue to the State by escheat, or from sales of estrays, or from unclaimed dividends, or distributive shares of the estates of deceased persons, or from fines, penalties, and forfeitures; also any proceeds of the sales of public lands which may have been or hereafter may be paid over to this State (if Congress will consent to said appropriation;) also all other grants, gifts, or devises that have been or hereafter may be made to this State, and not otherwise appropriated by the terms of the grant, gift, or devise, shall be securely invested and sacredly preserved as a public school fund, the annual income of which fund, together with so much of the ordinary revenue of the State as may be necessary, shall be faithfully appropriated for establishing and maintaining the free schools and the university in the article provided for, and for no other uses or purposes whatever.

6. No part of the public school fund shall ever be invested in the stock or bonds or other obligations of any State, or of any county, city, town, or corporation. The stock of the Bank of the State of Missouri, now held for school purposes, and all other stocks belonging to any school or university fund, shall be sold in such manner and at such time as the General Assembly shall prescribe; and the proceeds thereof, and the proceeds of the sales of any lands or other property which now belong or may hereafter belong to said school fund, may be invested in the bonds of the United States. All county school funds shall be loaned upon good and unincumbered real estate security, with personal security in addition thereto.

7. No township or school district shall receive any portion of the public school fund, unless a free school shall have been kept therein for not less than three months during the year for which distribution thereof is made. The General Assembly shall have power to require by law that every child of sufficient mental and physical ability shall attend the public schools during the period between the ages of five and eighteen years for a term equivalent to sixteen months, unless educated by other means.

8. In case the public school fund shall be insufficient to sustain a free school at least four months in every year, in each school district in this State, the General Assembly may provide by law for the raising of such deficiency by levying a tax on all the taxable property in each county, township, or school district as they may deem proper.

9. The General Assembly shall, so far as it can be done without infringing upon vested rights, reduce all lands, moneys, and other property used or held for school purposes, in the various counties of this State, into the public school fund herein provided for; and, in making distribution of the annual income of such fund, shall take into consideration the amount of any county or city funds appropriated for common school purposes, and make such distribution as will equalize the amount appropriated for common schools throughout the State.

ARTICLE II.

SECTION 19. After the first day of January, one thousand eight hundred and sixty-six, every person who was not a qualified voter prior to that time, shall, in addition to the other qualifications required, be able to read and write in order to become a qualified voter, unless his inability to read or write shall be the result of a physical disability.

ARKANSAS.

Formed from the Louisiana purchase. Area 52,198 square miles. Admitted into the Union in 1836.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1820	12,579	77	1,617	14,273
1830	25,671	141	4,576	30,388
1840	77,174	465	19,935	97,574
1850	162,189	608	47,100	209,897
1860	324,191	144	111,115	435,450

The constitution of 1836 makes provision for education in article nine.

ARTICLE IX.—EDUCATION.

SECTION 1. Knowledge and learning generally diffused through a community being essential to the preservation of a free government, and diffusing the opportunities and advantages of education through the various parts of the State being highly conducive to this end, it shall be the duty of the general assembly to provide by law for the improvement of such lands as are or hereafter may be granted by the United States to this State for the use of schools, and to apply any funds which may be raised from such land, or from any other source, to the accomplishment of the object for which they are or may be intended. The general assembly shall, from time to time, pass such laws as shall be calculated to encourage intellectual, scientific, and agricultural improvements, by allowing rewards and immunities for the promotion and improvement of arts, science, commerce, manufactures, and natural history, and countenance and encourage the principles of humanity, industry, and morality.

In the amended constitution of 1865 this article remains, and is numbered eight.

MICHIGAN.

First settled in 1650. Area 56,243 square miles. Admitted into the Union in 1837.

POPULATION.

1810	4,762	1840	212,267
1820	8,896	1850	397,654
1830	31,639	1860	749,113

The first constitution made the following provision:

ARTICLE X.—EDUCATION.

The governor shall nominate, and by and with the advice and consent of the legislature in joint vote, shall appoint a superintendent of public instruction, who shall hold his office for two years, and whose duties shall be prescribed by law.

The legislature shall encourage by all suitable means the promotion of intellectual, scientific, and agricultural improvement. The proceeds of all lands that have been, or hereafter may be, granted by the United States to this State for the support of schools, which shall hereafter be sold or disposed of, shall be and remain a perpetual fund, the interest of which, together with the rents of all such unsold lands, shall be inviolably appropriated to the support of schools throughout the State.

The legislature shall provide for a system of common schools, by which a school shall be kept up and supported in each school district at least three months in every year; and every school district neglecting to keep up and support such a school may be deprived of its equal proportion of the interest of the public fund.

As soon as the circumstances of the State will permit, the legislature shall provide for the establishment of libraries, one at least in each township; and the money which shall be paid by persons as an equivalent for exemption from military duty, and the clear proceeds of all fines assessed in the several counties for any breach of the penal laws, shall be exclusively applied for the support of said libraries.

The legislature shall take measures for the protection, improvement, or other disposition of such lands as have been, or may hereafter be, reserved or granted by the United States to this State for the support of a university; and the funds accruing from the rents or sale of such lands, or from any other source, for the purpose aforesaid, shall be and remain a permanent fund for the support of said university, with such branches as the public convenience may hereafter demand, for the promotion of literature, the arts and sciences, and as may be authorized by the terms of such grant; and it shall be the duty of the legislature, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said university.

The second constitution, adopted in 1850, devotes to education—

ARTICLE XIII.

SECTION 1. The superintendent of public instruction shall have the general supervision of public instruction, and his duties shall be prescribed by law.

2. The proceeds from the sales of all lands that have been, or hereafter may be, granted by the United States to the State for educational purposes, or appropriated by the State for like purposes, shall be and remain a perpetual fund, the interest and income of which, together with the rents of all such lands as may remain unsold, shall be inviolably appropriated and annually applied to the specific objects of the original gift, grant, or appropriation.

3. All lands, the titles to which shall fail from a defect of heirs, shall escheat to the State; and the interest on the clear proceeds from the sales thereof shall be appropriated exclusively to the support of primary schools.

4. The legislature shall, within five years from the adoption of this constitution, provide for and establish a system of primary schools, whereby a school shall be kept, without charge for tuition, at least three months in each year, in every school district in the State, and all instruction in said schools shall be conducted in the English language.

5. A school shall be maintained in each school district at least three months in each year. Any school district neglecting to maintain such school, shall be deprived for the ensuing year of its proportion of the income of the primary school fund, and of all funds arising from taxes for the support of schools.

6. There shall be elected in each judicial circuit, at the time of the election of the judge of such circuit, a regent of the university, whose term of office shall be the same as that of such judge. The regents thus elected shall constitute the board of regents of the University of Michigan.

7. The regents of the university, and their successors in office, shall continue to constitute the body corporate, known by the name and title of "the Regents of the University of Michigan."

8. The regents of the university shall, at their first annual meeting, or as soon thereafter as may be, elect a president of the university, who shall be *ex officio* a

member of their board, with the privilege of speaking, but not of voting. He shall preside at the meetings of the regents, and be the principal executive officer of the university. The board of regents shall have the general supervision of the university, and the direction and control of all expenditures from the university interest fund.

9. There shall be elected at the general election in the year one thousand eight hundred and fifty-two, three members of a State board of education, one for two years, one for four years, and one for six years; and at each succeeding biennial election there shall be elected one member of such board, who shall hold his office for six years. The superintendent of public instruction shall be *ex officio* a member and secretary of such board. The board shall have the general supervision of the State Normal School, and their duties shall be prescribed by law.

10. Institutions for the benefit of those inhabitants who are deaf, dumb, blind or insane, shall always be fostered and supported.

11. The legislature shall encourage the promotion of intellectual, scientific and agricultural improvement; and shall, as soon as practicable, provide for the establishment of an agricultural school. The legislature may appropriate the twenty-two sections of salt spring lands now unappropriated, or the money arising from the sale of the same, where such lands have been already sold, and any land which may hereafter be granted or appropriated for such purpose, for the support and maintenance of such school, and may make the same a branch of the university for instruction in agriculture and the natural sciences connected therewith, and place the same under the supervision of the regents of the university.

12. The legislature shall also provide for the establishment of at least one librarian in each township; and all fines assessed and collected in the several counties and townships for any breach of the penal laws shall be exclusively applied to the support of such libraries.

FLORIDA.

Explored in 1512. Area, 59,268 square miles. Admitted as a State in March, 1845.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1830	18,835	844	15,501	34,730
1840	27,943	817	25,717	54,477
1850	47,203	932	39,300	87,445
1860	77,748	293	61,745	140,425

In the constitution presented to Congress in 1839, which was in force in 1860, article tenth pertains to education.

ARTICLE X.—EDUCATION.

The proceeds of all lands granted by the United States for the use of schools shall remain a perpetual fund, the interest of which shall be used for the benefit of said schools, and for no other purpose.

In the constitution of 1865 is the following:

ARTICLE X.—EDUCATION.

SECTION 1. The proceeds of all lands for the use of schools and a seminary or seminaries of learning shall be and remain a perpetual fund, the interest of which,

together with all moneys accrued from any other source, applicable to the same object, shall be irrevocably appropriated to the use of schools and seminaries of learning, respectively, and to no other purpose.

2. The General Assembly shall take such measures as may be necessary to preserve from waste or damage all lands so granted or appropriated for the purpose of education.

TEXAS.

Settled in 1792. Area, 237,321 square miles. Admitted as a State in December, 1845.

POPULATION.

Census.	White.	Free colored.	Slaves.	Total.
1850	154,431	397	58,161	212,592
1860	421,294	355	182,566	604,215

Article tenth of the constitution of 1845 has the following in relation to education:

ARTICLE X.—EDUCATION.

SECTION 1. A general diffusion of knowledge being essential to the preservation of the rights and liberties of the people, it shall be the duty of the legislature of the State to make suitable provisions for the support and maintenance of public schools.

SEC. 2. The legislature shall, as early as practicable, establish a system of free schools throughout the State; and as a basis for the endowment and support of said system, all the funds, lands, and other property heretofore set apart and appropriated, or that may hereafter be set apart and appropriated for the support and maintenance of public schools, shall constitute the public school fund; and said fund, and the income derived therefrom, shall be a perpetual fund exclusively for the education of all the white scholastic inhabitants of this State, and no law shall ever be made appropriating said fund to any other use or purpose whatever. And until such time as the legislature shall provide for the establishment of such system of public schools in the State, the fund thus created and the income derived therefrom, shall remain as a charge against the State, and be passed to the credit of the free common school fund.

SEC. 3. And all the alternate sections of land reserved by the State out of grants heretofore made, or that may hereafter be made, to railroad companies or other corporations of any nature whatever, for internal improvements, or for the development of the wealth and resources of the State, shall be set apart as a part of the perpetual school fund of the State; provided, that if at any time hereafter any portion of the public domain of this State shall be sold, and by virtue of said sale the jurisdiction over said land shall be vested in the United States government, in such event one-half of the proceeds derived from said sale shall become a part of the perpetual school fund of the State; and the legislature shall hereafter appropriate one-half of the proceeds resulting from all sales of the public lands to the perpetual public school fund.

SEC. 4. The legislature shall provide, from time to time, for the sale of lands belonging to the perpetual public school fund, upon such time and terms as it may deem expedient; provided, that in cases of sale the preference shall be given to actual settlers; and, provided further, that the legislature shall have no power to grant relief to purchasers by granting further time for payment, but shall, in all cases, provide for the forfeiture of the land to the State for the benefit of a

perpetual public school fund; and that all interest accruing upon such sales shall be a part of the income belonging to the school fund, and subject to appropriation annually for educational purposes.

SEC. 5. The legislature shall have no power to appropriate or loan or invest, except as follows, any part of the principal sum of the perpetual school fund for any purpose whatever; and it shall be the duty of the legislature to appropriate annually the income which may be derived from said fund, for educational purposes, under such system as it may adopt; and it shall, from time to time, cause the principal sum now on hand and arising from sales of land, or from any other source, to be invested in the bonds of the United States of America, or the bonds of the State of Texas, or such bonds as the State may guarantee.

SEC. 6. All public lands which have been heretofore, or may be hereafter, granted for public schools to the various counties or other political divisions in this State, shall be under the control of the legislature, and may be sold on such terms and under such regulations as the legislature shall by law prescribe; and the proceeds of the sale of said lands shall be added to the perpetual school fund of the State. But each county shall receive the full benefit of the interest arising from the proceeds of the sale of the lands granted to them respectively; provided that the lands already patented to the counties shall not be sold without the consent of such county or counties to which the lands may belong.

SEC. 7. The legislature may provide for the levying of a tax for educational purposes; provided, the taxes levied shall be distributed from year to year, as the same may be collected; and, provided, that all the sums arising from said tax which may be collected from Africans, or persons of African descent, shall be exclusively appropriated for the maintenance of a system of public schools for Africans and their children; and it shall be the duty of the legislature to encourage schools among these people.

SEC. 8. The moneys and lands heretofore granted to, or which may hereafter be granted for the endowment and support of one or more universities, shall constitute a special fund for the maintenance of said universities; and until the university or universities are located and commenced, the principal, and the interest arising from the investment of the principal, shall be invested in like manner, and under the same restrictions as provided for the investment and control of the perpetual public school fund, in sections four and five (4 and 5) in this article of the Constitution, and the legislature shall have no power to appropriate the university fund for any other purpose than that of the maintenance of said universities, and the legislature shall, at an early day, make such provisions, by law, as will organize and put into operation the university.

SEC. 9. The four hundred thousand acres of land that have been surveyed and set apart, under the provisions of a law approved 30th August, A. D. 1856, for the benefit of a lunatic asylum, a deaf and dumb asylum, a blind asylum, and an orphan asylum, shall constitute a fund for the support of such institutions, one-fourth part for each; and the said fund shall never be diverted to any other purpose. The said lands may be sold, and the fund invested under the same rules and regulations as provided for the lands belonging to the school fund. The income of said fund only shall be applied to the support of such institutions; and, until so applied, shall be invested in the same manner as the principal.

SEC. 10. The governor, by and with the advice and consent of two-thirds of the senate, shall appoint an officer, to be styled the superintendent of public instruction. His term of office shall be four years, and his annual salary shall not be less than ($2,000) two thousand dollars, payable at stated times; and the governor, comptroller, and superintendent of public education shall constitute a board to be styled a board of education, and shall have the general management and control of the perpetual school fund, and common schools, under such regulations as the legislature may hereafter prescribe.

SEC. 11. The several counties in this State which have not received their quantum of the lands for the purposes of education, shall be entitled to the same quantity heretofore appropriated by the Congress of the Republic of Texas, and the State, to other counties. And the counties which have not had the lands to which they are entitled for educational purposes located shall have the right to contract for the location, surveying, and procuring the patents for said lands, and of paying for the same with any portion of said lands so patented, not to exceed one-fourth

of the whole amount to be so located, surveyed, and patented—to be divided according to quality, allowing to each part a fair proportion of land, water, and timber.

IOWA.

Organized as a Territory in 1838. Area, 55,405 square miles. Admitted into the Union in 1846.

POPULATION.

1850	192,214	1860	674,913

The constitution of 1846 devotes article tenth to education and school lands.

ARTICLE X.—EDUCATION AND SCHOOL LANDS.

SEC. 1. The general assembly shall provide for the election, by the people, of a superintendent of public instruction, who shall hold his office for three years, and whose duties shall be prescribed by law, and who shall receive such compensation as the general assembly may direct.

2. The general assembly shall encourage, by all suitable means, the promotion of intellectual, scientific, moral and agricultural improvement. The proceeds of all lands that have been or hereafter may be granted by the United States to this State for the support of schools, which shall hereafter be sold or disposed of, and the five hundred thousand acres of land granted to the new States under an act of Congress distributing the proceeds of the public lands among the several States of the Union, approved A. D. 1841, and all estates of deceased persons who may have died without leaving a will or heir, and also such per cent. as may be granted by Congress on the sale of lands in this State, shall be and remain a perpetual fund, the interest of which, together with all the rents of the unsold lands, and such other means as the general assembly may provide, shall be inviolably appropriated to the support of common schools throughout the State.

3. The general assembly shall provide for a system of common schools, by which a school shall be kept up and supported in each school district, at least three months in every year; and any school district neglecting to keep up and support such a school may be deprived of its proportion of the interest of the public fund during such neglect.

4. The money which shall be paid by persons as an equivalent for exemption from military duty, and the clear proceeds of all fines collected in the several counties for any breach of the penal laws, shall be exclusively applied, in the several counties in which such money is paid or fine collected, among the several school districts of said counties, in the proportion to the number of inhabitants in such districts, to the support of common schools or the establishment of libraries, as the general assembly shall, from time to time, provide by law.

5. The general assembly shall take measures for the protection, improvement, or other disposition of such lands as have been or may hereafter be reserved or granted by the United States, or any person or persons, to this State, for the use of a university; and the funds accruing from the rents or sale of such lands, or from any other source, for the purpose aforesaid, shall be and remain a permanent fund, the interest of which shall be applied to the support of said university, with such branches as the public convenience may hereafter demand, for the promotion of literature, the arts and sciences, as may be authorized by the terms of such grant. And it shall be the duty of the general assembly, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said university.

The constitution of 1857 says:

ARTICLE IX.—FIRST.—EDUCATION.

SEC. 1. The educational interest of the State, including common schools and other educational institutions, shall be under the management of a board of education, which shall consist of the lieutenant governor, who shall be the presiding officer of the board, and have the casting vote in case of a tie, and one member to be elected from each judicial district in the State.

2. No person shall be eligible as a member of said board who shall not have attained the age of twenty-five years, and shall have been one year a citizen of the State.

3. One member of said board shall be chosen by the qualified electors of each district, and shall hold the office for the term of four years, and until his successor is elected and qualified. After the first election under this constitution, the board shall be divided, as nearly as practicable, into two equal classes, and the seats of the first class shall be vacated after the expiration of two years; and one-half of the board shall be chosen every two years thereafter.

4. The first session of the board of education shall be held at the seat of government on the first Monday of December after their election; after which the general assembly may fix the time and place of meeting.

5. The session of the board shall be limited to twenty days, and but one session shall be held in any one year, except upon extraordinary occasions, when, upon the recommendation of two-thirds of the board, the governor may order a special session.

6. The board of education shall appoint a secretary, who shall be the executive officer of the board, and perform such duties as may be imposed upon him by the board and the laws of the State. They shall keep a journal of their proceedings, which shall be published and distributed in the same manner as the journals of the general assembly.

7. All rules and regulations made by the board shall be published and distributed to the several counties, townships, and school districts, as may be provided for by the board, and when so made, published, and distributed, they shall have the force and effect of law.

8. The board of education shall have full power and authority to legislate and make all needful rules and regulations in relation to common schools and other educational institutions that are instituted; to receive aid from the school or university fund of this State; but all acts, rules, and regulations of said board may be altered, amended, or repealed by the general assembly; and when so altered, amended, or repealed, they shall not be re-enacted by the board of education.

9. The governor of the State shall be, *ex officio*, a member of said board.

10. The board shall have no power to levy taxes or make appropriations of money. Their contingent expenses shall be provided for by the general assembly.

11. The State university shall be established at one place, without branches at any other place, and the university fund shall be applied to that institution and no other.

12. The board of education shall provide for the education of all the youths of the State, through a system of common schools, and such schools shall be organized and kept in each school district at least three months in each year. Any district failing, for two consecutive years, to organize and keep up a school, as aforesaid, may be deprived of its portion of the school fund.

13. The members of the board of education shall each receive the same per diem during the time of their session, and mileage going to and returning therefrom, as members of the general assembly.

14. A majority of the board shall constitute a quorum for the transaction of business; but no rule, regulation, or law for the government of common schools, or other educational institutions, shall pass without the concurrence of a majority of all the members of the board, which shall be expressed by the yeas and nays on the final passage. The style of all acts of the board shall be, "Be it enacted by the board of education of the State of Iowa."

15. At any time after the year one thousand eight hundred and sixty-three, the general assembly shall have power to abolish or reorganize said board of educa-

tion, and provide for the educational interest of the State in any other manner that to them shall seem best and proper.

SECOND.—SCHOOL FUNDS AND SCHOOL LANDS.

SEC. 1. The educational and school funds and lands shall be under the control and management of the general assembly of this State.

2. The university lands, and the proceeds thereof, and all moneys belonging to said fund, shall be a permanent fund for the sole use of the State university. The interest arising from the same shall be annually appropriated for the support and benefit of said university.

3. The general assembly shall encourage, by all suitable means, the promotion of intellectual, scientific, moral, and agricultural improvement. The proceeds of all lands that have been, or hereafter may be, granted by the United States to this State for the support of schools, which may have been or shall hereafter be sold or disposed of, and the five hundred thousand acres of land granted to the new States, under an act of Congress distributing the proceeds of the public lands among the several States of the Union, approved in the year of our Lord one thousand eight hundred and forty-one, and all estates of deceased persons who may have died without leaving a will or heir, and also such per cent. as has been or may hereafter be granted by Congress on the sale of lands in this State, shall be and remain a perpetual fund, the interest of which, together with all rents of the unsold lands, and such other means as the general assembly may provide, shall be inviolably appropriated to the support of common schools throughout the State.

4. The money which may have been or shall be paid by persons as an equivalent for exemption from military duty, and the clear proceeds of all fines collected in the several counties for any breach of the penal laws, shall be exclusively applied, in the several counties in which such money is paid, or fine collected, among the several school districts of said counties, in proportion to the number of youths subject to enumeration in such districts, to the support of common schools, or the establishment of libraries, as the board of education shall from time to time provide.

5. The general assembly shall take measures for the protection, improvement, or other disposition of such lands as have been, or may hereafter be, reserved or granted by the United States, or any person or persons, to this State, for the use of the university, and the funds accruing from the rents or sales of such lands, or from any other source for the purpose aforesaid, shall be and remain a permanent fund, the interest of which shall be applied to the support of said university for the promotion of literature and the arts and sciences, as may be authorized by the terms of such grant. And it shall be the duty of the general assembly, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said university.

6. The financial agents of the school funds shall be the same that, by law, receive and control the State and county revenue for other civil purposes, under such regulations as may be provided by law.

7. The money subject to the support and maintenance of common schools shall be distributed to the districts in proportion to the number of youths between the ages of five and twenty-one years, in such manner as may be provided by the general assembly.

WISCONSIN.

Occupied by fur traders in 1670. Organized as a Territory in 1836. Area, 53,924 square miles. Admittted as a State in 1848.

POPULATION.

1840	30,945	1850	305,391	1861	775,881

Article tenth of its constitution pertains to education.

ARTICLE X.—EDUCATION.

SEC. 1. The supervision of public instruction shall be vested in a state superintendent and such other officers as the legislature shall direct. The state superintendent shall be chosen by the qualified electors of the State, in such manner as the legislature shall provide; his powers, duties, and compensation shall be prescribed by law: *Provided*, That his compensation shall not exceed the sum of twelve hundred dollars annually.

2. The proceeds of all lands that have been or hereafter may be granted by the United States to this State for educational purposes, (except the lands heretofore granted for the purposes of a university,) and all moneys and the clear proceeds of all property that may accrue to the State by forfeiture or escheat, and all moneys which may be paid as an equivalent for exemption from military duty, and the clear proceeds of all fines collected in the several counties for any breach of the penal laws, and all moneys arising from any grant to the State, where the purposes of such grant are not specified, and the five hundred thousand acres of land to which the State is entitled by the provisions of an act of Congress entitled "An act to appropriate the proceeds of the sales of the public lands, and to grant preemption rights," approved the fourth day of September, one thousand eight hundred and forty-one, and also the five *per centum* of the net proceeds of the public lands to which the State shall become entitled on her admission into the Union, (if Congress shall consent to such appropriation of the two grants last mentioned,) shall be set apart as a separate fund, to be called the school fund, the interest of which, and all other revenues derived from the school lands, shall be exclusively applied to the following objects, to wit:

1. To the support and maintenance of common schools in each school district, and the purchase of suitable libraries and apparatus therefor.

2. The residue shall be appropriated to the support and maintenance of academies and normal schools, and suitable libraries and apparatus therefor.

3. The legislature shall provide by law for the establishment of district schools, which shall be as nearly uniform as practicable; and such schools shall be free and without charge for tuition to all children between the ages of four and twenty years; and no sectarian instruction shall be allowed therein.

4. Each town and city shall be required to raise by tax, annually, for the support of common schools therein, a sum not less than one-half the amount received by such town or city respectively for school purposes from the income of the school fund.

5. Provision shall be made by law for the distribution of the income of the school fund among the several towns and cities of the State, for the support of common schools therein, in some just proportion to the number of children and youth resident therein, between the ages of four and twenty years; and no appropriation shall be made from the school fund to any city or town, for the year in which said city or town shall fail to raise such tax, nor to any school district for the year in which a school shall not be maintained at least three months.

6. Provision shall be made by law for the establishment of a State university, at or near the seat of the State government, and for connecting with the same from time to time such colleges in different parts of the State as the interests of education may require. The proceeds of all lands that have been or may hereafter be granted by the United States to the State for the support of a univers y, shall be and remain a perpetual fund, to be called the "university fund," the interest of which shall be appropriated to the support of the State university; and no sectarian instruction shall be allowed in such university.

7. The secretary of state, treasurer, and attorney general shall constitute a board of commissioners for the sale of the school and university lands, and for the investment of the funds arising therefrom. Any two of said commissioners shall be a quorum for the transaction of all business pertaining to the duties of their office.

8. Provision shall be made by law for the sale of all school and university lands, after they shall have been appraised; and when any portion of such lands shall be sold, and the purchase money shall not be paid at the time of the sale, the commissioners shall take security by mortgage upon the land sold, for the sum remaining unpaid, with seven per cent. interest thereon, payable annually at the office of the treasurer. The commissioners shall be authorized to execute good

and sufficient conveyance to all purchasers of such lands, and to discharge any mortgages taken as security, when the sum due thereon shall have been paid. The commissioners shall have power to withhold from sale any portion of such lands when they shall deem it expedient; and shall invest all moneys arising from the sale of such lands, as well as all other university and school funds, in such manner as the legislature shall provide, and shall give such security for the faithful performance of their duties as may be required by law.

CALIFORNIA.

Settled in 1769 by the Spanish. Area, 155,500 square miles. Admitted into the Union in 1850.

POPULATION.

1850	92,597	1860	397,994

Its constitution of 1849 has the following:

ARTICLE IX.—EDUCATION.

SEC. 1. The legislature shall provide for the election by the people of a superintendent of public instruction, who shall hold his office for three years, and whose duties shall be prescribed by law, and who shall receive such compensation as the legislature may direct.

2. The legislature shall encourage, by all suitable means, the promotion of intellectual, scientific, moral, and agricultural improvement. The proceeds of all land that may be granted by the United States to this State for the support of schools, which may be sold or disposed of, and the five hundred thousand acres of land granted to the new States, under an act of Congress distributing the proceeds of the public lands among the several States of the Union, approved A. D. 1841; and all estates of deceased persons who may have died without leaving a will or heir, and also such per cent. as may be granted by Congress on the sale of lands in this State, shall be and remain a perpetual fund, the interest of which, together with all the rents of the unsold lands, and such other means as the legislature may provide, shall be inviolably appropriated to the support of common schools throughout the State.

3. The legislature shall provide for a system of common schools, by which a school shall be kept up and supported in each district at least three months in every year; and any school district neglecting to keep up and support such a school may be deprived of its proportion of the interest of the public fund during such neglect.

4. The legislature shall take measures for the protection, improvement, or other disposition of such lands as have been or may hereafter be reserved or granted by the United States, or any person or persons, to the State for the use of a university; and the funds accruing from the rents or sale of such lands, or from any other source for the purpose aforesaid, shall be and remain a permanent fund, the interest of which shall be applied to the support of said university, with such branches as the public convenience may demand, for the promotion of literature and the arts and sciences, as may be authorized by the terms of such grant. And it shall be the duty of the legislature, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said university.

MINNESOTA.

Explored by French traders in 1659. Organized as a Territory in in 1849. Area, 81,259 square miles. Admitted into the Union in 1858.

POPULATION.

1850..... 6,077 || 1860..... 172,413

Article eighth of the constitution relates to school funds, education, and science.

ARTICLE VIII.—SCHOOL FUNDS, EDUCATION, AND SCIENCE.

SEC. 1. The stability of a republican form of government depending mainly upon the intelligence of the people, it shall be the duty of the legislature to establish a general and uniform system of public schools.

2. The proceeds of such lands as are or hereafter may be granted by the United States for the use of schools within each township in this State shall remain a perpetual school fund to the State, and not more than one-third of said lands may be sold in two years, one-third in five years, and one-third in ten years; but the lands of the greatest valuation shall be sold first: *Provided*, That no portion of said lands shall be sold otherwise than at public sale. The principal of all funds arising from sales or other disposition of lands, or other property, granted or intrusted to this State, in each township, for educational purposes, shall forever be preserved inviolate and undiminished; and the income arising from the lease or sale of said school lands shall be distributed to the different townships throughout the State, in proportion to the number of scholars in each township between the ages of five and twenty-one years, and shall be faithfully applied to the specific objects of the original grants or appropriations.

3. The legislature shall make such provisions, by taxation or otherwise, as, with the income arising from the school fund, will secure a thorough and efficient system of public schools in each township in the State.

4. The location of the University of Minnesota, as established by existing laws, is hereby confirmed, and said institution is hereby declared to be the University of the State of Minnesota. All the rights, immunities, franchises, and endowments heretofore granted or conferred, are hereby perpetuated unto the said university, and all lands which may be granted hereafter by Congress, or other donations for said university purposes, shall vest in the institution referred to in this section.

OREGON.

Explored by the Spanish in 1775. Organized as a Territory in 1848. Area, 95,274 square miles. Admitted into the Union in 1859.

POPULATION.

1850..... 12,093 || 1860..... 52,405

The constitution of 1857, still in force, provides in this language for education:

ARTICLE VIII.—EDUCATION AND SCHOOL LANDS.

SEC. 1. The governor shall be superintendent of public instruction, and his powers and duties, in that capacity, shall be such as may be prescribed by law; but after the term of five years from the adoption of this constitution, it shall be competent for the legislative assembly to provide by law for the election of a superintendent, to provide for his compensation, and prescribe his powers and duties.

2. The proceeds of all the lands which have been or hereafter may be granted to this State for educational purposes, (excepting the lands heretofore granted to aid in the establishment of a university;) all the moneys and clear proceeds of all property which may accrue to the State by escheat or forfeiture; all moneys which may be paid as exemption from military duty; the proceeds of all gifts, devises and bequests made by any person to the State for common school purposes; the proceeds of all property granted to the State when the purposes of such grant shall

not be stated; all the proceeds of the five hundred thousand acres of land to which this State is entitled by the provisions of an act of Congress entitled "An act to appropriate the proceeds of the sales of the public lands, and to grant pre-emption rights," approved the fourth of September, 1841; and also the five per centum of the net proceeds of the sales of the public lands to which this State shall become entitled on her admission into the Union, if Congress shall consent to such appropriation of the two grants last mentioned, shall be set apart as a separate and irreducible fund, to be called the common school fund, the interest of which, together with all other revenues derived from the school lands mentioned in this section, shall be exclusively applied to the support and maintenance of common schools in each school district, and the purchase of suitable libraries and apparatus therefor.

3. The legislative assembly shall provide by law for the establishment of a uniform and general system of common schools.

4. Provision shall be made by law for the distribution of the income of the common school fund among the several counties of this State, in proportion to the number of children resident therein between the ages of four and twenty years.

5. The governor, secretary of state, and state treasurer shall constitute a board of commissioners for the sale of school and university lands, and for the investment of the funds arising therefrom; and their powers and duties shall be such as may be prescribed by law: *Provided*, That no part of the university funds, or of the interest arising therefrom, shall be expended until the period of ten years from the adoption of this constitution, unless the same shall be otherwise disposed of by the consent of Congress for common school purposes.

KANSAS.

Area, 78,418 square miles. Organized as a Territory in 1854. Admitted into the Union in December, 1859. Population in 1860, 107,206.

The provision for education in its constitution is in these words:

ARTICLE VI.—EDUCATION.

SECTION 1. The State superintendent of public instruction shall have the general supervision of the common school funds, and educational interests of the State, and perform such other duties as may be prescribed by law. A superintendent of public instruction shall be elected in each county, whose term of office shall be two years, and whose duty and compensation shall be prescribed by law.

SEC. 2. The legislature shall encourage the promotion of intellectual, moral, scientific, and agricultural improvement by establishing a uniform system of common schools, and schools of higher grade embracing normal, preparatory, collegiate, and university departments.

SEC. 3. The proceeds of all lands that have been or may be granted by the United States and the State for the support of schools, and the five hundred thousand acres of land granted to the new States, under an act of Congress distributing the proceeds of public lands among the several States of the Union, approved September 4, A. D. 1841, and all estates of persons dying without heir or will, and such per cent. as may be granted by Congress on the sale of lands in this State, shall be the common property of the State, and shall be a perpetual school fund, which shall not be diminished, but the interest of which, together with all the rents of the lands, and such other means as the legislature may provide by tax or otherwise, shall be inviolably appropriated to the support of common schools.

SEC. 4. The income of the State school funds shall be disbursed annually, by order of the State superintendent, to the several county treasurers, and thereon to the treasurers of the several school districts, in equitable proportion to the number of children and youth resident therein, between the ages of five and twenty-one years: *Provided*, That no school district in which a common school has not

been maintained at least three months in each year shall be entitled to receive any portion of such funds.

SEC. 5. The school lands shall not be sold unless such sale shall be authorized by a vote of the people at a general election, but subject to a revaluation every five years; they may be leased for any number of years not exceeding twenty-five, at a rate established by law.

SEC. 6. All money which shall be paid by persons as an equivalent for exemption from military duty; the clear proceeds of estrays, ownership of which shall vest in the taker up; and the proceeds of fines for any breach of the penal laws, shall be exclusively applied in the several counties in which the money is fined, or fines collected, to the support of common schools.

SEC. 7. Provision shall be made by law for the establishment, at some eligible and central point, of a State university for the promotion of literature, and the arts and sciences, including a normal and agricultural department. All funds arising from the sale or rents of lands granted by the United States to the State for the support of a State university, and all other grants, donations, or bequests, either by the State or by individuals, for such purpose, shall remain a perpetual fund to be called the "University fund," the interest of which shall be appropriated to the support of the State university.

SEC. 8. No religious sect or sects shall ever control any part of the common school or university funds of the State.

SEC. 9. The State superintendent of public instruction, secretary of state, and attorney general shall constitute a board of commissioners for the management and investment of the school funds. Any two of said commissioners shall be a quorum.

WEST VIRGINIA.

Area, 23,000 square miles. Admitted as a State in December, 1862.

Population in 1860, 393,234.

The constitution, as amended February 18, 1863, has the following:

ARTICLE X.—EDUCATION.

SECTION 1. All money accruing to this State being the proceeds of forfeited, delinquent, waste, and unappropriated lands, and of lands heretofore sold for taxes, and purchased by the State of Virginia, if hereafter redeemed or sold to others than this State; all grants, devises, or bequests that may be made to this State for the purpose of education, or where the purposes of such grants, devises, or bequests are not specified; this State's personal share of the literary fund of Virginia, whether paid over or otherwise liquidated, and any sums of money, stocks, or other property which this State shall have the right to claim from all persons who may die without leaving a will or heir, and of all escheated lands; the proceeds of any taxes that may be levied on the revenues of any corporation hereafter created; all moneys that may be paid as an equivalent for exemption from military duty; and such sums as may from time to time be appropriated by the legislature for the purpose, shall be set apart as a separate fund to be called the school fund, and invested, under such regulations as may be prescribed by law, in the interest-bearing securities of the United States or of this State; and the interest thereof shall be annually applied to the support of free schools throughout the State, and to no other purpose whatever. But any portion of such interest remaining unexpended at the close of a fiscal year shall be added to, and remain a part of, the capital of the school fund.

SEC. 2. The legislature shall provide, as soon as practicable, for the establishment of a thorough and efficient system of free schools. They shall provide for the support of such schools by appropriating thereto the interest of the invested school fund, the net proceeds of all forfeitures, confiscations, and fines accruing to this State under the laws thereof, and by general taxation on persons or property or otherwise. They shall also provide for raising in each township, by the authority of the people thereof, such a proportion of the amount required for the support of free schools therein as shall be prescribed by general laws.

SEC. 3. Provision may be made by law for the election and prescribing the

duties of a general superintendent of free schools for the State, whose term of office shall be the same as that of the governor, and for a county superintendent of each county; and for the election in the several townships, by the voters thereof, of such officers not specified in this constitution as may be necessary to carry out the objects of this article; and for the organization, whenever it may be deemed expedient, of a State board of instruction.

SEC. 4. The legislature shall foster and encourage moral, intellectual, scientific, and agricultural improvement; they shall, whenever it may be practicable, make suitable provisions for the blind, mute, and insane, and for the organization of such institutions of learning as the best interests of general education in the State may demand.

NEVADA.

Organized as a Territory in 1861. Admitted as a State in 1864. Area, 283,500 square miles. Population in 1863, 40,000.

The constitution (1864) provides for education in these words:

ARTICLE XI.—EDUCATION.

SECTION 1. The legislature shall encourage, by all suitable means, the promotion of intellectual, literary, scientific, mining, mechanical, agricultural, and moral improvement, and also provide for the election by the people, at the general election, of a superintendent of public instruction, whose term of office shall be two years from the first Monday of January, A. D. eighteen hundred and sixty-five, and until the election and qualification of his successor, and whose duties shall be prescribed by law.

SEC. 2. The legislature shall provide for a uniform system of common schools, by which a school shall be established and maintained in each school district at least six months in every year, and any school district neglecting to establish and maintain such a school, or which shall allow instruction of a sectarian character therein, may be deprived of its portion of the interest of the public school fund during such a neglect or infraction, and the legislature may pass such laws as will tend to secure a general attendance of the children in such school districts upon said public schools.

SEC. 3. All lands, including the sixteenth and thirty-sixth sections in every township, donated for the benefit of public schools in the act of the thirty-eighth Congress to enable the people of Nevada Territory to form a State government, the thirty thousand acres of public lands granted by an act of Congress approved July second, eighteen hundred and sixty-two, for each senator and representative in Congress, and all proceeds of lands that have been or may be hereafter granted or appropriated by the United States to this State, and also the five hundred thousand acres of land granted to the new States under the act of Congress distributing the proceeds of the public lands among the several States of the Union, approved A. D. eighteen hundred and forty-one: *Provided*, That Congress make provision for or authorizes such division to be made for the purpose herein contained; all estates that may escheat to the State; all of such per cent. as may be granted by Congress in the sale of land; all fines collected under the penal laws of the State; all property given or bequeathed to the State for educational purposes; and all proceeds derived from any or all of said sources, shall be, and the same are hereby, solemnly pledged for educational purposes, and shall not be transferred to any other fund for any other uses, and the interest thereon shall, from time to time, be apportioned among the several counties in proportion to the ascertained numbers of the persons between the ages of six and eighteen years in the different counties; and the legislature shall provide for the sale of floating land warrants to cover the aforesaid lands, and for the investment of all proceeds derived from any of the above-mentioned sources in United States bonds or the bonds of the State: *Provided*, That the interest only of the aforesaid proceeds shall be used for educational purposes, and any surplus interest shall be added to the principal sum; *And provided further*, That such portions of said interest as may be necessary may be apportioned for the support of the State university.

SEC. 4. The legislature shall provide for the establishment of a State uni

versity, which shall embrace departments of agriculture, mechanic arts, and mining, to be controlled by a board of regents, whose duties shall be prescribed by law.

SEC. 5. The legislature shall have power to establish normal schools and such different grades of schools, from the primary department to the university, as, in their discretion, they may deem necessary; and all professors in said university or teachers in said schools, of whatever grade, shall be required to take and subscribe to the oath as prescribed in article sixteen of this constitution. No professor or teacher who fails to comply with the provisions of any law framed in accordance with the provisions of this section shall be entitled to receive any portion of the public moneys set apart for school purposes.

SEC. 6. The legislature shall provide a special tax of one-half of one mill on the dollar of all taxable property in the State in addition to the other means provided, for the support and maintenance of said university and common schools: *Provided*, That at the end of ten years they may reduce said tax to one-quarter of one mill on each dollar of taxable property.

SEC. 7. The governor, secretary of state, and superintendent of public instruction shall, for the first four years, and until their successors are elected and qualified, constitute a board of regents to control and manage the affairs of the university and the funds of the same, under such regulations as may be provided by law. But the legislature shall, at its regular session next preceding the expiration of the term of office of the said board of regents, provide for the election of a new board and define their duties.

SEC. 8. The board of regents shall, from the interest accruing from the first funds which come under their control, immediately organize and maintain the said mining department in such manner as to make it the most effective and useful: *Provided*, That all the proceeds of the public lands donated by act of Congress approved July second, eighteen hundred and sixty-two, for a college for the benefit of agriculture, the mechanic arts, and including military tactics, shall be invested by the said board of regents in a separate fund, to be appropriated exclusively to the benefit of the first named departments to the university, as set forth in section four above; and the legislature shall provide that if, through neglect or any other contingency, any portion of the fund so set apart shall be lost or misappropriated, the State of Nevada shall replace said amount so lost or misappropriated in said fund, so that the principal of said fund shall forever remain undiminished.

SEC. 9. No sectarian instruction shall be imparted or tolerate in any school or university that may be established under this constitution

NEBRASKA.

Organized as a Territory in 1854. Area, 63,300 square miles. Admitted into the Union March, 1867.

Its constitution has the following article on

EDUCATION.

SECTION 1. The principal of all funds arising from the sale or other disposition of lands, or other property granted or intrusted to this State for educational and religious purposes, shall forever be preserved inviolate and undiminished; and the income arising therefrom shall be faithfully applied to the specific objects of the original grants or appropriations. The legislature shall make such provisions, by taxation or otherwise, as, with the income arising from the school trust fund, will secure a thorough and efficient system of common schools throughout the State; but no religious sect or sects shall ever have any exclusive right or control of any part of the school funds of this State.

SEC. 2. The university lands, school lands, and all other lands which have been acquired by the Territory of Nebraska, or which may hereafter be acquired by the State of Nebraska for educational or school purposes, shall not be alienated or sold for a less sum than five dollars per acre.

CONSTITUTIONAL PROVISION RESPECTING EDUCATION.

REVISIONS OF 1867-'68.

ALABAMA.

The constitution of the State of Alabama, as revised and amended by the constitutional convention assembled at Montgomery on the 5th day of November, 1867, contains the following provision:

ARTICLE XI.—EDUCATION.

SECTION 1. The common schools, and other educational institutions of the State, shall be under the management of a board of education, consisting of a superintendent of public instruction and two members from each congressional district.

The governor of the State shall be *ex-officio* a member of the board, but shall have no vote in its proceedings.

SEC. 2. The superintendent of public instruction shall be president of the board of education, and have the casting vote in case of a tie; he shall have the supervision of the public schools of the State, and perform such other duties as may be imposed upon him by the board and the laws of the State. He shall be elected in the same manner and for the same term as the governor of the State, and receive such salary as may be fixed by law. An office shall be assigned him in the capital of the State.

SEC. 3. The members of the board shall hold office for a term of four years, and until their successors shall be elected and qualified. After the first election under the constitution the board shall be divided into two equal classes, so that each class shall consist of one member from each district. The seats of the first class shall be vacated at the expiration of two years from the day of election, so that one-half may be chosen biennially.

SEC. 4. The members of the board of education, except the superintendent, shall be elected by the qualified electors of the congressional districts in which they are chosen, at the same time and in the same manner as the members of Congress.

SEC. 5. The board of education shall exercise full legislative powers in reference to the public educational institutions of the State, and its acts, when approved by the governor, or when re-enacted by two-thirds of the board, in case of his disapproval, shall have the force and effect of law, unless repealed by the general assembly.

SEC. 6. It shall be the duty of the board to establish, throughout the State, in each township, or other school district which it may have created, one or more schools, at which all the children of the State, between the ages of five and twenty-one years, may attend free of charge.

SEC. 7. No rule or law affecting the general interest of education shall be made by the board without a concurrence of a majority of its members. The style of all acts of the board shall be, "Be it enacted by the board of education of the State of Alabama."

SEC. 8. The board of education shall be a body politic and corporate, by the name and style of the Board of Education of the State of Alabama. Said board shall also be a board of regents of the State University, and, when sitting as a board of regents of the university, shall have power to appoint the president and the faculties thereof.

The president of the university shall be *ex-officio* a member of the board of regents, but shall have no vote in its proceedings.

SEC. 9. The board of education shall meet annually at the seat of government at the same time as the general assembly, but no session shall continue longer than twenty days, nor shall more than one session be held in the same year, unless authorized by the governor. The members shall receive the same mileage and daily pay as the members of the general assembly.

SEC. 10. The proceeds of all lands that have been or may be granted by the United States to the State for educational purposes; of the swamp lands, and of all lands or other property given by individuals or appropriated by the State for like purposes; and of all estates of deceased persons who have died without leaving a will or heir; and all moneys which may be paid as an equivalent for exemption from military duty, shall be and remain a perpetual fund, which may be increased but not diminished, and the interest and income of which, together with the rents of all such lands as may remain unsold, and such other means as the general assembly may provide, shall be inviolably appropriated to educational purposes, and to no other purpose whatever.

SEC. 11. In addition to the amount accruing from the above sources, one-fifth of the aggregate annual revenue of the State shall be devoted exclusively to the maintenance of public schools.

SEC. 12. The general assembly may give power to the authorities of the school districts to levy a poll tax on the inhabitants of the district in aid of the general school fund and for no other purpose.

SEC. 13. The general assembly shall levy a specific annual tax upon all railroad, navigation, banking, and insurance corporations, and upon all insurance and foreign bank and exchange agencies, and upon the profits of foreign bank bills issued in this State by any corporation, partnership, or persons, which shall be exclusively devoted to the maintenance of public schools.

SEC. 14. The general assembly shall, as soon as practicable, provide for the establishment of an agricultural college, and shall appropriate the 240,000 acres of land donated to this State, for the support of such a college, by the act of Congress passed July 2, 1862, or the money or scrip, as the case may be, arising from the sale of said land or any lands which may hereafter be granted or appropriated for such purpose, for the support and maintenance of such college or schools, and may make the same a branch of the University of Alabama for instruction in agriculture, in the mechanic arts, and the natural sciences connected therewith, and place the same under the supervision of the regents of the university.

ARKANSAS.

The new constitution of Arkansas, adopted by the people of the State at an election held March 13, 1868, thus provides for public education in Article IX:

ARTICLE IX.—EDUCATION.

SECTION 1. A general diffusion of knowledge and intelligence among all classes being essential to the preservation of the rights and liberties of the people, the general assembly shall establish and maintain a system of free schools for the gratuitous instruction of all persons in this State between the ages of five and twenty-one years; and the funds appropriated for the support of common schools shall be distributed to the several counties in proportion to the number of children and youths therein between the ages of five and twenty-one years, in such manner as shall be prescribed by law; but no religious or other sect or sects shall ever have any exclusive right to, or control of, any part of the school funds of this State.

SEC. 2. The supervision of public schools shall be vested in a superintendent of public instruction, and such other officers as the general assembly shall provide. The superintendent of public instruction shall receive such salary, and perform such duties, as shall be prescribed by law.

SEC. 3. The general assembly shall establish and maintain a State university, with departments for instruction in teaching, in agriculture, and the natural sciences, as soon as the public school fund will permit.

SEC. 4. The proceeds of all lands that have been or hereafter may be granted by the United States to this State, and not otherwise appropriated by the United States or this State; also, all mines, stocks, bonds, lands, and other property, now belonging to any fund for purposes of education; also, the net proceeds of all sales of land and other property and effects that may accrue to this State by escheat, or from sales of estrays, or from unclaimed dividends or distributive shares of the estates of deceased persons, or from fines, penalties, or forfeitures; also, any proceeds of the sales of public lands which may have been or may be hereafter paid over to this State, (Congress consenting;) also, all the grants, gifts, or devises that have been or hereafter may be made to this State, and not otherwise appropriated by the terms of the grant, gift, or devise, shall be securely invested and sacredly preserved as a public school fund, which shall be the common property of the State; the annual income of which fund, together with one dollar *per capita*, to be annually assessed on every male inhabitant of this State over the age of twenty-one years, and so much of the ordinary annual revenue of the State as may be necessary, shall be faithfully appropriated for establishing and maintaining the free schools and the university in this article provided for, and for no other uses or purposes whatever.

SEC. 5. No part of the public school fund shall be invested in the stocks or bonds or other obligations of any State, or any county, city, town, or corporation. The stocks belonging to any school fund or university fund shall be sold in such manner and at such times as the general assembly shall prescribe, and the proceeds thereof, and the proceeds of the sales of any lands or other property which now belongs or may hereafter belong to said school fund may be invested in the bonds of the United States.

SEC. 6. No township or school district shall receive any portion of the school fund unless a free school shall have been kept therein for not less than three months during the year for which distribution thereof is made. The general assembly shall require by law that every child of sufficient mental and physical ability shall attend the public schools during the period between the ages of five and eighteen years for a term equivalent to three years, unless educated by other means.

SEC. 7. In case the public school fund shall be insufficient to sustain a free school at least three months in every year, in each school district in this State, the general assembly shall provide by law for raising such deficiency, by levying such tax upon all taxable property in each county, township, or school district as may be deemed proper.

SEC. 8. The general assembly shall, as far as it can be done without infringing upon vested rights, reduce all lands, moneys, or other property used or held for school purposes in the various counties of this State into the public school fund herein provided for.

SEC. 9. Provision shall also be made, by general laws, for raising such sum or sums of money, by taxation or otherwise, in each school district, as may be necessary for the building and furnishing of a sufficient number of suitable schoolhouses for the accommodation of all the pupils within the limits of the several school districts.

FLORIDA.

In the new constitution of Florida, adopted by the constitutional convention February 25, 1868, is the following article on education:

ARTICLE VIII.—EDUCATION.

SECTION 1. It is the paramount duty of the State to make ample provision for the education of all the children residing within its borders, without distinction or preference.

SEC. 2. The legislature shall provide a uniform system of common schools and a university, and shall provide for the liberal maintenance of the same. Instruction in them shall be free.

SEC. 3. There shall be a superintendent of public instruction, whose term of office shall be four years, and until the appointment and qualification of his successor. He shall have general supervision of the educational interests of the State. His duties shall be prescribed by law.

SEC. 4. The common school fund, the interest of which shall be exclusively applied to the support and maintenance of common schools and purchase of suitable libraries and apparatus therefor, shall be derived from the following sources:

The proceeds of all lands that have been or may hereafter be granted to the State by the United States for educational purposes. Donations by individuals for educational purposes. Appropriations by the State. The proceeds of lands or other property which may accrue to the State by escheat or forfeiture. The proceeds of all property granted to the State, when the purpose of such grant shall not be specified. All moneys which may be paid as an exemption from military duty. All fines collected under the penal laws of this State. Such portion of the *per capita* tax as may be prescribed by law for educational purposes. Twenty-five per centum of the sales of public lands which are now or which hereafter may be owned by the State.

SEC. 5. A special tax of not less than one mill on the dollar of all taxable property in the State, in addition to the other means provided, shall be levied and apportioned annually for the support and maintenance of common schools.

SEC. 6. The principal of the common school fund shall remain sacred and inviolate.

SEC. 7. Provision shall be made by law for the distribution of the common school fund among the several counties of the State in proportion to the number of children residing therein between the ages of four and twenty-one years.

SEC. 8. Each county shall be required to raise annually by tax, for the support of common schools therein, a sum not less than one-half of the amount apportioned to each county for that year from the income of the common school fund. Any school district neglecting to establish and maintain for at least three months in each year such school or schools as may be provided by law for such district shall forfeit its portion of the common school fund during such neglect.

SEC. 9. The superintendent of public instruction, secretary of state, and attorney general, shall constitute a body corporate to be known as the Board of Education of Florida. The superintendent of public instruction shall be president thereof. The duties of the board of education shall be prescribed by the legislature.

GEORGIA.

On the 11th day of March, 1868, the constitutional convention of Georgia adopted a new constitution, which provides for education in Article VI:

ARTICLE VI.—EDUCATION.

SECTION 1. The general assembly, at its first session after the adoption of this constitution, shall provide a thorough system of general education, to be forever free to all children of the State, the expense of which shall be provided for by taxation or otherwise.

SEC. 2. The office of State school commissioner is hereby created. He shall be appointed by the governor with the consent of the senate, and shall hold his office for the same term as the governor. The general assembly shall provide for the said commissioner a competent salary and necessary clerks. He shall keep his office at the seat of government.

SEC. 3. The poll-tax allowed by this constitution, any educational fund now belonging to this State, except the endowment of and debt due to the State University, or that may hereafter be obtained in any way, a special tax on shows and exhibitions, and on the sale of spiritous and malt liquors, which the general assembly is hereby authorized to assess, and the proceeds from the commutation for militia service, are hereby set apart and devoted to the support of common

schools. And if the provisions herein made shall at any time prove insufficient, the general assembly shall have power to levy such general tax upon the property of the State as may be necessary for the support of said school system. And there shall be established, as soon as practicable, one or more common schools in each school district in this State.

LOUISIANA.

The constitutional convention adopted a new constitution for the State of Louisiana on March 9, 1868. This contains—

TITLE VII.—PUBLIC EDUCATION.

ARTICLE 135. The general assembly shall establish at least one free public school in each parish throughout the State, and shall provide for its support by taxation or otherwise. All children of this State between the years of six (6) and twenty-one (21) shall be admitted to the public schools or other institutions of learning sustained or established by the State in common, without distinction of race, color, or previous condition. There shall be no separate schools or institutions of learning established exclusively for any race by the State of Louisiana.

ART. 136. No municipal corporation shall make any rules or regulations contrary to the spirit and intention of article one hundred and thirty-five, (135.)

ART. 137. There shall be elected by the qualified voters of this State a superintendent of public education, who shall hold his office for four years. His duties shall be prescribed by law, and he shall have the supervision and the general control of all public schools throughout the State. He shall receive a salary of five thousand dollars per annum, payable quarterly on his own warrant.

ART. 138. The general exercises in the public schools shall be conducted in the English language.

ART. 139. The proceeds of all lands heretofore granted by the United States for the use and support of public schools, and of all lands or other property which may hereafter be bequeathed for that purpose, and of all lands which may be granted or bequeathed to the State, and not granted or bequeathed expressly for any other purpose which may hereafter be disposed of by the State, and the proceeds of all estates of deceased persons to which the State may be entitled by law, shall be held by the State as a loan, and shall be and remain a perpetual fund on which the State shall pay an annual interest of six per cent., which interest, with the interest of the trust fund deposited with this State by the United States, under the act of Congress approved June the twenty-third, eighteen hundred and thirty-six, and the rent of the unsold land, shall be appropriated to the support of such schools; and this appropriation shall remain inviolable.

ART. 140. No appropriation shall be made by the general assembly for the support of any private school or any private institution of learning whatever.

ART. 141. One-half of the funds derived from the poll-tax herein provided for shall be appropriated exclusively to the support of the free public schools throughout the State and the university of New Orleans.

ART. 142. A university shall be established and maintained in the city of New Orleans. It shall be composed of a law, a medical, and a collegiate department, each with appropriate faculties. The general assembly shall provide by law for its organization and maintenance: *Provided*, That all departments of this institution of learning shall be open in common to all students capable of matriculating. No rules or regulations shall be made by the trustees, faculties, or other officers of said institution of learning, nor shall any laws be made by the general assembly violating the letter or spirit of the articles under this title.

ART. 143. Institutions for the support of the insane, the education and support of the blind and the deaf and dumb shall always be fostered by the State, and be subject to such regulations as may be prescribed by the general assembly.

MISSISSIPPI.

The constitution framed by the convention which met at Jackson, January 7, 1868, has the following article:

EDUCATION.

SECTION 1. The stability of republican form of government depending mainly upon the intelligence and virtue of its people, it shall be the duty of the legislature to encourage by all suitable means the promotion of intellectual, scientific, moral and agricultural improvements, by establishing a uniform system of free public schools, by taxation or otherwise, for all children between the ages of five (5) and twenty-one (21) years, and shall, as soon as practicable, establish schools of higher grade.

SEC. 2. There shall be a superintendent of public education elected by the people, at the same time and manner as the governor, who shall have the qualification of the secretary of state, and hold his office for four years and until his successor shall be elected and qualified, whose duties shall be the general supervision of the common schools and the educational interests of the State, and shall perform such other duties pertaining to his office, and receive such compensation as shall be prescribed by law; he shall report to the legislature for its adoption, within twenty days after its first session under this constitution, a uniform system of free public schools.

SEC. 3. There shall be a board of education, consisting of the secretary of state, the attorney general, and the superintendent of public education, for the management and investment of the school funds, under the general direction of the legislature, and perform such other duties as are prescribed by law. The superintendent and one other of said board shall be a quorum.

SEC. 4. There shall be a superintendent of public education in each county, who shall be appointed by the board of education, by and with the advice and consent of the senate, whose term of office shall be two years, and whose compensation and duties shall be prescribed by law: *Provided*, That the legislature shall have power to make said office of county school superintendent of the several counties elective as other county officers are.

SEC. 5. A public school or schools shall be maintained in each school district at least four months in each year. Any school district neglecting to maintain such school or schools shall be deprived for that year of its proportion of the income of the free school fund and of all funds arising from taxes for the support of schools.

SEC. 6. There shall be established a common school fund, which shall consist of the proceeds of the lands now belonging to the State, heretofore granted by the United States, and the lands known as "swamp lands," except the swamp lands lying and situated on Pearl river, in the counties of Hancock, Marion, Lawrence, Simpson, and Copiah, and of all lands now or hereafter vested in the State by escheat or purchase or forfeiture for taxes, and the clear proceeds of all fines collected in the several counties for any breach of penal laws, and all moneys received for licenses granted under the general laws of the State for the sale of intoxicating liquor, or keeping of dram-shops, all moneys paid as an equivalent for persons exempt from military duty, and the funds arising from the consolidation of the congressional township funds, and the lands belonging thereto, together with all moneys donated to the State for school purposes, shall be securely invested in United States bonds and remain a perpetual fund, which may be increased, but not diminished, the interest of which shall be inviolably appropriated for the support of free schools.

SEC. 7. The legislature may levy a poll-tax not to exceed two dollars *per capita* in aid of the school fund, and for no other purpose.

SEC. 8. The legislature shall, as soon as practicable, provide for the establishment of an agricultural college or colleges, and shall appropriate the two hundred and ten thousand acres of land donated to the State for the support of such a college by the act of Congress passed July 2, 1865, or the money or scrip, as the

case may be, arising from the sale of said lands, or any lands which may hereafter be granted or appropriated for such purpose.

SEC. 9. No religious sect or sects shall ever control any part of the school or university funds of this State.

SEC. 10. The legislature shall, from time to time, as may be necessary, provide for the levy and collection of such taxes as may be required to properly support the system of free schools herein adopted.

NORTH CAROLINA.

The new constitution of North Carolina, adopted by the convention March 17, 1868, and ratified April 21–23, 1868, by the people of the State, provides for education by Article IX:

ARTICLE IX.—EDUCATION.

SECTION 1. Religion, morality, and knowledge being necessary to good government and happiness of mankind, schools and the means of education shall forever be encouraged.

SEC. 2. The general assembly, at its first session under this constitution, shall provide, by taxation and otherwise, for a general and uniform system of public schools, wherein tuition shall be free of charge to all the children of the State between the ages of six and twenty-one years.

SEC. 3. Each county of the State shall be divided into a convenient number of districts, in which one or more public schools shall be maintained at least four months in every year; and if the commissioners of any county shall fail to comply with the aforesaid requirements of this section, they shall be liable to indictment.

SEC. 4. The proceeds of all lands that have been or hereafter may be granted by the United States to this State, and not otherwise specially appropriated by the United States or heretofore by this State; also, all moneys, stocks, bonds, and other property now belonging to any fund for purposes of education; also, the net proceeds that may accrue to the State from sales of estrays, or from fines, penalties, and forfeitures; also, the proceeds of all sales of the swamp lands belonging to the State; also, all money that shall be paid as an equivalent for exemption from military duty; also, all grants, gifts, or devises that may hereafter be made to this State, and not otherwise appropriated by the grant, gift, or devise, shall be securely invested, and sacredly preserved as an irreducible educational fund, the annual income of which, together with so much of the ordinary revenue of the State as may be necessary, shall be faithfully appropriated for establishing and perfecting in this State a system of free public schools, and for no other purposes or uses whatsoever.

SEC. 5. The University of North Carolina, with its lands, emoluments, and franchises, is under the control of the State, and shall be held to an inseparable connection with the free public school system of the State.

SEC. 6. The general assembly shall provide that the benefits of the university, as far as practicable, be extended to the youth of the State free of expense for tuition; also, that all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estates of deceased persons, shall be appropriated to the use of the university.

SEC. 7. The governor, lieutenant governor, secretary of state, treasurer, auditor, superintendent of public works, superintendent of public instruction, and attorney general, shall constitute a State board of education.

SEC. 8. The governor shall be president, and the superintendent of public instruction shall be secretary, of the board of education.

SEC. 9. The board of education shall succeed to all the powers and trusts of the president and directors of the literary fund of North Carolina, and shall have full power to legislate and make all needful rules and regulations in relation to free public schools, and the educational fund of the State; but all acts, rules, and

regulations of said board may be altered, amended, or repealed by the general assembly, and when so altered, amended, or repealed, they shall not be re-enacted by the board.

SEC. 10. The first session of the board of education shall be held at the capital of the State, within 15 days after the organization of the State government under this constitution; the time of future meeting may be determined by the board.

SEC. 11. A majority of the board shall constitute a quorum for the transaction of business.

SEC. 12. The contingent expenses of the board shall be provided for by the general assembly.

SEC. 13. The board of education shall elect trustees for the university, as follows: one trustee for each county in the State, whose term of office shall be eight years. The first meeting of the board shall be held within ten (10) days after their election, and at this and every subsequent meeting, ten trustees shall constitute a quorum. The trustees at their first meeting shall be divided, as equally as may be, into four classes. The seats of the first class shall be vacated at the expiration of two years; of the second class, at the expiration of four years; of the third class, at the expiration of six years; of the fourth class, at the expiration of eight years; so that one-fourth may be chosen every second year.

SEC. 14. The board of education and the president of the university shall be *ex officio* members of the board of trustees of the university; and shall, with three other trustees to be appointed by the board of trustees, constitute the executive committee of the trustees of the University of North Carolina, and shall be clothed with the powers delegated to the executive committee under the existing organization of the institution. The governor shall be *ex officio* president of the board of trustees and chairman of the executive committee of the university. The board of education shall provide for the more perfect organization of the board of trustees.

SEC. 15. All the privileges, rights, franchises, and endowments heretofore granted to, or conferred upon, the board of trustees of the University of North Carolina by the charter of 1789, or by any subsequent legislation, are hereby vested in the board of trustees authorized by this constitution for the perpetual benefit of the university.

SEC. 16. As soon as practicable after the adoption of this constitution, the general assembly shall establish and maintain, in connection with the university, a department of agriculture, of mechanics, of mining, and of normal instruction.

SEC. 17. The general assembly is hereby empowered to enact that every child of sufficient mental and physical ability shall attend the public schools during the period between the ages of 6 and 18 years, for a term of not less than 16 months, unless educated by other means.

SOUTH CAROLINA.

The new constitution of South Carolina, adopted by the constitutional convention in March, 1868, and ratified by the people April 14 to 16, 1868, provides for education in Article X:

ARTICLE X.—EDUCATION.

SECTION 1. The supervision of public instruction shall be vested in a State superintendent of education, who shall be elected by the qualified electors of the State, in such manner and at such time as the other State officers are elected; his powers, duties, term of office, and compensation shall be defined by the general assembly.

SEC. 2. There shall be elected, biennially, in each county, by the qualified electors thereof, one school commissioner, said commissioners to constitute a State board of education, of which the State superintendent shall, by virtue of his office, be chairman; the powers, duties, and compensation of the members of said board shall be determined by law.

SEC. 3. The general assembly shall, as soon as practicable after the adoption of this constitution, provide for a liberal and uniform system of free public schools throughout the State. and shall also make provision for the division of the State into suitable school districts. There shall be kept open, at least six months in each year, one or more schools in each school district.

SEC. 4. It shall be the duty of the general assembly to provide for the compulsory attendance, at either public or private schools, of all children between the ages of six and sixteen years, not physically or mentally disabled, for a term equivalent to twenty-four months, at least: *Provided*, That no law to that effect shall be passed until a system of public schools has been thoroughly and completely organized and facilities afforded to all the inhabitants of the State for the free education of their children.

SEC. 5. The general assembly shall levy, at each regular session after the adoption of this constitution, an annual tax on all taxable property throughout the State for the support of public schools, which tax shall be collected at the same time and by the same agents as the general State levy, and shall be paid into the treasury of the State. There shall be assessed on all taxable polls in the State an annual tax of one dollar on each poll, the proceeds of which tax shall be applied solely to educational purposes: *Provided*, That no person shall ever be deprived of the right of suffrage for the non-payment of said tax. No other poll or capitation tax shall be levied in the State, nor shall the amount assessed on each poll exceed the limit given in this section. The school tax shall be distributed among the several school districts of the State in proportion to the respective number of pupils attending the public schools. No religious sect or sects shall have exclusive right to or control of any part of the school funds of the State, nor shall sectarian principles be taught in the public schools.

SEC. 6. Within five years after the first regular session of the general assembly, following the adoption of this constitution, it shall be the duty of the general assembly to provide for the establishment and support of a State normal school, which shall be open to all persons who may wish to become teachers.

SEC. 7. Educational institutions for the benefit of all the blind, deaf, and dumb, and such other benevolent institutions as the public good may require, shall be established and supported by the State, subject to such regulations as may be prescribed by law.

SEC. 8. Provisions shall be made by law, as soon as practicable, for the establishment and maintenance of a State reform school for juvenile offenders.

SEC. 9. The general assembly shall provide for the maintenance of the State university, and, as soon as practicable, provide for the establishment of an agricultural college, and shall appropriate the land given to this State for the support of such a college, by the act of Congress passed July 2, 1862, or the money or scrip, as the case may be, arising from the sale of said lands, or any lands which may hereafter be given or appropriated for such purpose, for the support and maintenance of such college, and may make the same a branch of the State university, for instruction in agriculture, the mechanic arts, and the natural sciences connected therewith.

SEC. 10. All the public schools, colleges, and universities of this State, supported in whole or in part by the public funds, shall be free and open to all the children and youths of the State, without regard to race or color.

SEC. 11. The proceeds of all lands that have been or hereafter may be given by the United States to this State for educational purposes, and not otherwise appropriated by this State or the United States, and of all lands or other property given by individuals, or appropriated by the State for like purposes, and of all estates of deceased persons who have died without leaving a will or heir, shall be securely invested and sacredly preserved as a State school fund. and the annual interest and income of said fund, together with such other means as the general assembly may provide, shall be faithfully appropriated for the purpose of establishing and maintaining free public schools, and for no other purposes or uses whatever.

VIRGINIA.

The constitution of Virginia, framed by the convention which met in Richmond, December 3, 1867, has the following:

ARTICLE VIII.—EDUCATION.

SECTION 1. The general assembly shall elect, on joint ballot, within thirty days after its organization under this constitution, and every fourth year thereafter, a superintendent of public instruction. He shall have the general supervision of the public free-school interest of the State, and shall report to the general assembly for its consideration, within thirty days after his election, a uniform system of public free schools.

SEC. 2. There shall be a board of education, composed of the governor, superintendent of public instruction, and attorney general, which shall appoint, and have power to remove for cause and upon notice to the incumbents, subject to confirmation by the Senate, all county superintendents of free schools. This board shall have regulated by law the management and investment of all the school funds, and such supervision of schools of higher grade as the law shall provide.

SEC. 3. The general assembly shall provide by law, at its first session under this constitution, a uniform system of public free schools, and for its gradual, equal, and full introduction into all the counties of the State by the year 1876, or as much earlier as practicable.

SEC. 4. The general assembly shall have power, after a full introduction of the public free-school system, to make such laws as shall not permit parents and guardians to allow their children to grow up in ignorance and vagrancy.

SEC. 5. The general assembly shall establish, as soon as practicable, normal schools, and may establish agricultural schools and such grades of schools as shall be for the public good.

SEC. 6. The board of education shall provide for uniformity of text-books and the furnishing of school-houses with such apparatus and library as may be necessary, under such regulations as may be provided by law.

SEC. 7. The general assembly shall set apart, as a permanent and perpetual literary fund, the present literary funds of the State, the proceeds of all public lands donated by Congress for public school purposes, of all escheated property, of all waste and appropriated lands, of all property accruing to the State by forfeiture, and all fines collected for offences committed against the State, and such other sums as the general assembly may appropriate.

SEC. 8. The general assembly shall apply the annal interest on the literary fund, any capitation or other special tax provided for by this constitution for public free-school purposes, and an annual tax upon the property of the State of not less than one mill nor more than five mills on the dollar, for the equal benefit of all the people of the State, the number of children between the ages of five and twenty-one years in each public free school district being the basis of such division. Provision shall be made to supply children attending the public free schools with necessary text-books in cases where the parent or guardian is unable, by reason of poverty, to furnish them. Each county and public free-school district may raise additional sums by a tax on property for the support of public free schools. All unexpended sums of any one year in any public free-school district shall go into the general school fund for redivision the next year: *Provided*, That any tax authorized by this section to be raised by counties or school districts shall not exceed five mills on a dollar in any one year, and shall not be subject to a redivision as hereinbefore provided in this section.

SEC. 9. The general assembly shall have power to foster all higher grades of schools under its supervision, and to provide for such purposes a permanent educational fund.

SEC. 10. All grants and donations received by the general assembly for educational purposes shall be applied according to the terms prescribed by the donors.

SEC. 11. Each city and county shall be held accountable for the destruction of school property that may take place within its limits by incendiaries or open violence.

SEC. 12. The general assembly shall fix the salaries and prescribe the duties of all school officers, and shall make all needful laws and regulations to carry into effect the public free-school system provided for by this article.

Article VII, on county organizations, contains the following section respecting

SCHOOL DISTRICTS.

SEC. 3. Each township shall be divided into so many compactly-located school districts as may be deemed necessary: *Provided*, That no school districts shall be formed containing less than one hundred inhabitants. In each school district there shall be elected or appointed annually one school trustee, who shall hold his office three years: *Provided*, That at the first election held under this provision there shall be three trustees elected, whose terms shall be one, two, and three years, respectively.

CONSTITUTIONAL PROVISION RESPECTING EDUCATION.

The following propositions, slightly modified since their first publication in Special Circular No. 4, contain the main features of a system of public instruction which the people of every State, speaking through their constitutional convention, should, in the opinion of the Commissioner of Education, make obligatory on the legislature to provide:

1. The authority and duty of the legislature to establish, aid, support, and supervise schools of every grade, and all institutions and agencies of education, science, and the arts.

2. The security against diminution or diversion of all educational funds and benefactions.

3. The certainty of a minimum rate of taxation, increasing with the population, sufficient every year to secure the elementary instruction of all children within the State who shall apply, by teachers professionally trained, and in schools legally inspected and approved.

4. The distribution of all State appropriations derived from taxation or funds, on such conditions and in modes as will secure local taxation or individual contributions for the same purpose, a lively municipal or public interest in the expenditure of both sums, the constant co-operation of parents at home in realizing the work of the school, and the regular attendance of pupils.

5. A State board of education, having supervision of all educational institutions incorporated or aided by the State, and constituted in such way as to secure literary, scientific, and professional attainment and experience, freedom from denominational or party preponderance, sympathy with the wants of different sections and occupations, and independence of local or special influence.

6. A system of inspection, administered by the State board, intelligent, professional, frequent, and independent of local or institutional control, with the widest and fullest publicity of results.

7. State scholarships, securing free instruction in any higher institution incorporated or aided by the State, conditioned on fitness to enter and profit by the same, ascertained by open competitive examination.

8. A retiring fund, for teachers of public schools, made up of an annual allowance by the State, and an equal payment by those who register to secure its benefits, conditioned on prolonged service in the business of teaching.

9. An obligation on parents and guardians not to allow children to grow up in barbarism, ignorance, and vagrancy; and the exercise of the elective franchise, or of any public office, conditioned on the ability of the applicant to read understandingly the Constitution and the laws, and forfeited by any parent or guardian of children who neglects to secure the formal instruction of such children between the ages of 6 and 14 years, for at least eight months in the year, or to pay for their maintenance, if sent to a prison or reformatory, while minors.

NATIONAL LAND GRANTS,

FOR

EDUCATIONAL PURPOSES.

STATE COLLEGES OF AGRICULTURE AND THE MECHANIC ARTS.

PRELIMINARY REPORT.

THE following pages contain the Act of Congress approved July 2, 1862, by which ten million acres of Public Lands were donated to the several States for the benefit of Colleges of Agriculture and the Mechanic Arts; the Legislation of such States as have accepted the conditions of the grant and provided for the establishment of such Colleges; and an account of such Institutions as have thus far been established on the basis of the National Land Grants, and the Legislation of the States respecting the same.

NATIONAL LAND GRANTS FOR EDUCATIONAL PURPOSES.

COLLEGES OF AGRICULTURE AND THE MECHANIC ARTS.

PRELIMINARY REPORT.

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CIRCULAR RESPECTING SCHOOLS OF SCIENCE.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., September, 1867.

To the authorities in charge of the Colleges and Schools established or aided by the Congressional appropriation "for the benefit of Agriculture and the Mechanic Arts." (Act of July 2, 1862.)

THE undersigned, in the discharge of his duties as the National Commissioner of Education, has been directed by Congress to prepare a report setting forth the history of all the appropriations by the General Government for the promotion of Education. As a portion of this report, it is important that full returns should be given in respect to the organization of the Schools of Agriculture and the Mechanic Arts which have received the benefit of the land-scrip issued by authority of the act of Congress approved July 2, 1862. These institutions as a class are so new in this country, and so much thought has been expended upon them, and at the same time so much remains to be ascertained in respect to their practical efficiency, even in the states where they exist, that a comparison of their various charters or acts of incorporation, programmes of study, regulations, funds, buildings, and collections is imperatively called for. Herewith you will find transcripts of the organic law of Congress, and also of all those state enactments consequent thereon, which have come to the knowledge of this Department. You will also find specific statements in respect to two Scientific Colleges in two of the oldest states of the Union, illustrating the kind of information which the undersigned desires to secure from every similar establishment.

Under these circumstances, you will contribute to the solution of a problem of momentous interest to the people of the United States, if you will respond as promptly and as fully as possible to the following requests. Letters and Documents addressed to the undersigned, and marked Official Business, may be forwarded free of postage.

I. Please forward one or more copies of any or all the documents published in your state respecting this national grant; especially,

(a) Any state laws or amendments to the state laws bearing on this subject, not given in the following pages

(b) The official reports required by the act of congress from every institution.

(c) Catalogues, circulars, programmes of study, regulations, etc., issued by the institution under your charge.

(d) Messages of the governor, reports of state officers, legislative committees, or the like, referring to this grant.

(e) Addresses, newspaper or magazine articles, explanatory statements, etc., on Scientific Education, published in your state.

Where it is not possible to secure for the department a copy of a document, its title will be acceptable if given in full.

II. Please secure from one or more of the officers of your institution, brief statements on the following subjects, unless they are officially discussed in the printed documents which you forward.

(a) How was the land-scrip disposed of; what amount did it yield; how are the proceeds invested; and what is the annual income?

(b) What additional funds does your institution possess, and from what sources, and on what conditions were they received?

(c) Have any measures been taken to secure an experimental farm; if so, what are they? if not, why not?

(d) Are any provisions made in your institution for manual labor?

(e) In what way is military instruction given?

(f) Are there any free scholarships in your institution, and on what terms are they bestowed?

(g) What buildings are owned or projected, and from what funds were they procured? A full description would be welcomed.

(h) What are the characteristics of your course of study, and the names and titles of your instructors?

(i) State the number of students in the present year, and in previous years.

(j) What is the early history of efforts in your state for the promotion of scientific education prior to the Congressional enactment of July 2, 1862.

The Commissioner is aware that to give elaborate answers to all these enquiries would involve an amount of labor which he cannot expect to be in all cases bestowed. Very much of the information asked for has undoubtedly been given in the printed documents, and in all such cases a simple reference to the statements is all that is necessary. The results of these inquiries, carefully edited and arranged, will be presented to Congress at its next session, and a copy will be forwarded to you as soon as printed. Your early attention to this circular is earnestly and respectfully solicited.

HENRY BARNARD,
United States Commissioner of Education.

PART I.

NATIONAL AND STATE LEGISLATION

RESPECTING

COLLEGES OF AGRICULTURE AND THE MECHANIC ARTS.

I. LEGISLATION OF CONGRESS DONATING PUBLIC LANDS TO THE SEVERAL STATES TO PROVIDE COLLEGES FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

II. LEGISLATION OF THE STATES ESTABLISHING COLLEGES OF AGRICULTURE AND THE MECHANIC ARTS, IN PURSUANCE OF ACTS OF CONGRESS, DONATING PUBLIC LANDS FOR THIS PURPOSE.

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AN ACT DONATING PUBLIC LANDS TO THE SEVERAL STATES AND TERRITORIES WHICH MAY PROVIDE COLLEGES FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each State, a quantity equal to thirty thousand acres for each senator and representative in Congress to which the States are respectively entitled by the apportionment under the census of eighteen hundred and sixty: *Provided*, That no mineral lands shall be selected or purchased under the provisions of this act.

SEC. 2. *And be it further enacted*, That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections, not less than one-quarter of a section; and whenever there are public lands in a State subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled shall be selected from such lands within the limits of such State, and the Secretary of the Interior is hereby directed to issue to each of the States in which there is not the quantity of public lands subject to sale at private entry at one dollar and twenty-five cents per acre to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share; said scrip to be sold by said States and the proceeds thereof applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever: *Provided*, That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any Territory of the United States, but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry at one dollar and twenty-five cents, or less, per acre: *And provided, further*, That not more than one million acres shall be located by such assignees in any one of the States: *And provided, further*, That no such location shall be made before one year from the passage of this act.

SEC. 3. *And be it further enacted*, That all the expenses of management, superintendence, and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned.

SEC. 4. *And be it further enacted*, That all moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished, (except so far as may be provided in section fifth of this act,) and the interest of which shall be inviolably appropriated by each State which may take and claim the benefit of this act to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in several pursuits and professions in life.

SEC. 5. *And be it further enacted*, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:—

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency,

be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum not exceeding ten per centum upon the amount received by any State under the provisions of this act may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States.

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretence whatever, to the purchase, erection, preservation, or repair of any building or buildings.

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid.

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economical statistics, as may be supposed useful, one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

Fifth. When lands shall be selected from those which have been raised to double the minimum in price, in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionally diminished.

Sixth. No State, while in a condition of rebellion or insurrection against the government of the United States, shall be entitled to the benefit of this act.

Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its legislature within two years from the date of its approval by the President.

SEC. 6. *And be it further enacted*, That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January one thousand eight hundred and sixty-three.

SEC. 7. *And be it further enacted*, That the land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws: *Provided*, their maximum compensation shall not be thereby increased.

SEC. 8. *And be it further enacted*, That the governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same and what appropriation has been made of the proceeds.

Approved July 2, 1862.

An Act to amend Sec. 5 of an Act, &c., July 2, 1862.

Be it enacted, &c., That the time in which the several States may comply with the provisions of the Act of July 2, 1852, entitled "An Act donating public lands, &c." is hereby extended so that the acceptance of the benefits of said act may be expressed within three years from the passage of this act, and the colleges required by the said act may be provided within five years from the date of the filing of such acceptance with the Commissioner of the General Land Office: *Provided*, that when any territory shall become a State, and be admitted into the Union, such new State shall be entitled to the benefits of the said Act of July 2, 1862, by expressing the acceptance therein required within three years from the date of its admission into the Union, and providing the College or Colleges within five years after such acceptance, as prescribed in this Act; *Provided further*, that any State which has heretofore expressed its acceptance of the Act herein referred to, shall have the period of five years within which to provide at least one College, as described in the fourth section of said Act, after the time for providing said College, according to the Act of July 2, 1862, shall have expired.

Approved July 23, 1866.

By JOINT RESOLUTION, approved Feb. 28, 1867, the provisions of the Act of July 2, 1862, and the Act to amend the same, approved July 23, 1866, are extended to the State of Tennessee.

CALIFORNIA.

An Act to Establish an Agricultural, Mining and Mechanical Arts College.

(Approved March 21, 1866.)

Section 1. A College is hereby established in accordance with section two of Article IX, of the Constitution of this State, and to carry out in good faith the provisions of an Act of Congress, passed July second, eighteen hundred and sixty-two, granting to the State lands for maintaining an Agricultural and Mechanical Arts College, which shall be known under the name and style of "The Agricultural, Mining and Mechanical Arts College." The design of the Institution in fulfillment of the injunction of the Constitution, is to afford thorough instruction in agriculture, mining, and the natural sciences connected therewith. To effect that object most completely, the institution shall combine physical with intellectual education, and shall be a high seminary of learning, in which the graduate of the common schools can commence, pursue and finish a course of study, terminating in theoretic and practical instruction in those sciences which bear directly upon agriculture, mining and the mechanical arts.

§ 2. That a Board of Directors is hereby established, which shall be known under the name and style of the State Board of Directors of the Agricultural, Mining and Mechanical Arts College. It shall consist of the Governor of the State, the President of the State Agricultural Society, the President of the Mechanics' Institute of the City and County of San Francisco, and five other members. The five members of the Board of Directors shall be elected by the Legislature in joint convention assembled, three of whom shall be residents of the mining counties of this State, who shall hold their office for the term of two years and until their successors are duly elected and qualified. They shall receive no compensation for their services, but shall be paid their traveling and other necessary expenses while employed on the businsss of the Board.

§ 3. The said Board of Directors shall be a body corporate capable in law of suing and being sued, taking, holding and selling real and personal property, of contracting and being contracted with, of having and using a corporate seal, and of causing all things to be done necessary to carry out the provisions of this act.

§ 4. Any vacancy in said Board, caused by death, resignation, or removal from the State, shall be filled by the remaining members of the Board; *provided, however*, that the person elected to fill any such vacancy shall be chosen from the same county as the one whose place he shall be elected to fill.

§ 5. The Board of Directors provided for in this act shall meet within ten days after the election of the Directors by the Legislature, at the call of and at such place as the Governor of the State, the President of the State Agricultural Society and the President of the Mechanics' Institute, shall direct, and at such other times and places as the Board shall determine.

§ 6. At their first meeting the members shall choose one of their number as President of their own Board, who shall not vote on any question before the Board, unless in case of a tie vote.

§ 7. At the first meeting of the Board, or as soon thereafter as competent persons can be obtained, they shall appoint a Secretary and Treasurer of the Board, neither of whom shall be a member of the Board of Directors. They shall take such bonds from the Secretary and Treasurer as shall be deemed adequate to secure the faithful performance of their duties by those respective officers. The Secretary and Treasurer shall be chosen biennially, and shall hold their offices for two years from the date of their election, and until their successors are chosen and qualified.

§ 8. The Board shall direct the disposal of any and all moneys appropriated to the said College.

§ 9. The Secretary of the Board shall reside and keep his office at or near the said College. It shall be his duty to keep a record of the transactions of the State Board of Directors of said College, which shall be open at all times to the inspection of any citizen of this State. He shall also have the custody of all books, papers. documents, and other property which may be deposited in his office; alsc keep and file all reports which may be madc from time to time by County, State and District Agricultural Societies, Horticultural, Mechanical and Mining Societies; and all correspondence from other persons and societies appertaining to the business of husbandry, mechanics and mining; address circulars to societies, and to the best practical farmers, mechanics and miners in this State and elsewhere, with the view of eliciting information upon the latest and best modes of culture of those products, vegetables, trees, &c., adapted to the soil and climate of our State, and also on all subjects connected with field culture, horticulture, stock raising and the dairy; he shall also correspond with established schools of mining and metallurgy in Europe, and obtain such information respecting the improvements of mining machinery adapted to California, and publish from time to time such information as will be of practical benefit to the mining interests and the working of all oars and metals; receive and distribute such rare and valuable seeds, plants, shrubbery, and trees, as may be in his power to procure from the General Government and other sources, as may be adapted to our climate and soils. To these objects he shall correspond with the Patent Office at Washington, and with the representatives of our National Government abroad, and if possible, procure valuable contributions to agriculture from those sources. He shall aid as far as possible in obtaining contributions to the museums and the library of the said College, and thus aid in the promotion of agriculture, science and literature. He shall keep a correct account of all the proceedings of the Board, and an accurate account of all the moneys received into the Treasury as well as those paid out.

§ 10. The seeds, plants, trees and shrubbery received by the Secretary, and not needed by the College, shall be, so far as possible, distributed without charge equally throughout the State, and placed in the hands of those farmers and others who will agree to cultivate them properly and return to the Secretary's office a reasonable proportion of the products thereof, with a full statement of the mode of cultivation and such other information as may be necessary to ascertain their value for general cultivation in the State. Information in regard to agriculture and metallurgy may be published by him from time to

time in the newspapers of the State; *provided* it does not involve any expense to the State.

§ 11. The Secretary shall report to the Legislature at every regular session thereof, and to the Governor of the State on the first Monday in November in each year when the Legislature is not in session, which reports shall embrace all such statements, accounts, statistics, prize essays, and all other information relative to agriculture and mining in general, and proceedings of the State Board of Directors of said College and farm, to be approved by the Board.

§ 12. The Secretary shall receive as a compensation for his services such a sum as the Board of Directors shall determine, paid quarterly from the State Treasury, in the same manner, as is provided by law for the salaries of State officers.

§ 13. The course of instruction shall embrace the English language and literature, mathematics, civil, military and mining engineering, agricultural chemistry, mineralogy, metallurgy, animal and vegetable anatomy and physiology, the veterinary art, entomology, geology, technology political, rural and household economy, horticulture, moral and natural philosophy, history, book-keeping, and especially the application of science and the mechanical arts to practical agriculture in the field, and mining.

§ 14. The Board of Directors may at any time suspend the sessions of the College temporarily, in case of fire, the prevalence of fatal diseases, and other unforeseen calamity.

§ 15. The said Board of Directors shall have the general control and supervision of the said College, the farm pertaining thereto, and lands which may be vested in the College by State legislation, purchase or donations; of all appropriations made by the State for the support of the same; and also the management of any lands that may be hereafter donated by the General Government to this State in trust for the promotion of industrial pursuits. The Board shall have plenary power to adopt all such ordinances, by-laws and regulations, not in conflict with this Act, as they may deem necessary to secure the successful operation of the College and promote its designed object.

§ 16. It shall be the duty of the said Board of Directors to choose a President of the said College before the commencement of the first term of the institution. They shall proceed to choose such tutors, professors and employees, as the necessities of the institution demand. In case of a vacancy in the office of the President, or in case a suitable man cannot be selected, the President of the said Board of Directors, or such member of the Board as shall be designated by them, shall be President *pro tem.* of the College, who shall receive such compensation for his services as the Board shall determine.

§ 17. The President, professors of the College when chosen, and tutors, shall constitute the Faculty of said College. The President of the College shall be President of the Faculty.

§ 18. The Board of Directors, with the advice and consent of the Faculty, shall regulate the course of instruction, prescribe the books to be used, and confer upon the graduates such testimonials as they may see proper.

§ 19. The Faculty shall pass all needful rules and regulations necessary to the government and discipline of the College, regulating the routine of labor, study, meals, and the duties and exercises, and all such rules and regulations as are necessary to the preservation of morals, decorum and health.

§ 20. The Faculty shall have charge of the laboratories, mineralogical cabinets and metallurgical works, library and museums of the institution.

§ 21. The Faculty shall make an annual report by the first Monday in November of each year, to the said Board of Directors, signed by the President, containing such information and recommendations as the welfare of the institution in their opinion demands. Any member of the Faculty may make a minority report, if they disagree with the conclusions of the majority, which the Faculty shall communicate to the Board. No communications at any other time, from members of the Faculty, shall be entertained by the Board, unless they have been submitted to a meeting of the Faculty, and sanctioned by a majority.

§ 22. The President of the Faculty shall be the chief executive officer of the said College, and it shall be his duty to see that the rules and regulations of the State Board of Directors and the rules and regulations of the Faculty, be observed and executed.

§ 23. The President of the College shall perform the duties of a professor. The Board of Directors shall appoint a Superintendent of the farm, and define his duties.

§ 24. The subordinate officers and employees, not members of the Faculty, shall be under the direction of the Superintendent, and in the recess of the Board of Directors, removable at his discretion; and he may supply vacancies that may be by them or otherwise created. His action in these respects shall be submitted to the approval of the State Board of Directors at their next meeting.

§ 25. For the current expenditures of said College specific sums of money shall be set aside in the hands of the Treasurer by the Board of Directors, which shall be subject to the warrants of the President of the Board, drawn in pursuance of the orders of the Directors. All moneys received from labor, or other sources, shall be paid into the Treasury of the College. All moneys due to the institution, or received in its behalf, shall be collected and received by the Secretary, and deposited by him with the Treasurer of the State Board of Directors, taking his receipt therefor. The Secretary shall, with his annual report, render a full and complete account of all moneys received and all warrants drawn on the Treasurer by him as Secretary of the Board, and shall file and preserve all vouchers, receipts, correspondence, and other papers relating thereto.

§ 26. When the institution shall be brought to such condition of maturity as to promise satisfactory results, the Board of Directors shall make such rules and regulations as they may deem necessary in relation thereto, and the Faculty shall cause such comparisons, tests, trials, and experiments, scientific and practical, to be made, as may in their opinion conduce to the instruction of the students and the progress of agriculture and mining, and shall cause the results to be published in the annual reports.

§ 27. The said College shall be located in such portion of the State as the Board of Directors shall determine. Said Board at their first meeting shall invite proposals, by the publication for the period of ten months, for donations of land, money or buildings from counties, cities, or individuals, to be given to said College in consideration of its being located by the Directors at any place designated by the donors; and the said Board, after a careful investigation of all proposals made, shall determine the location with particular reference

to accessibility and adaptability of climate and soil; *provided*, that the same shall not be united or connected with any other institution of learning in this State.

§ 28. The said Board shall purchase or receive donations of land for a College farm, and cause to be erected thereon such buildings as they may deem necessary; *provided*, that any contract for building shall be let to the lowest bidder, after reasonable notice; *and provided further*, that the farm shall not be of less than one hundred and sixty acres of land.

§ 29 All interest accruing from the sale of one hundred and fifty thousand acres of land granted to this State by Act of Congress, A. D. eighteen hundred and sixty-three, and the interest that has accrued and may accrue from the sale of the seventy-two sections of land donated to the State for a seminary of learning, and all moneys arising from the sale of the ten sections granted to this State for the use of public buildings, together with all interest that has accrued or may accrue thereon, shall be subject to the order of the State Board of Directors.

§ 30. The College shall not in any manner whatever be connected with or controlled by any sectarian denomination.

An Act to provide for the selection of lands donated to the State of California by Act of Congress approved July 2, 1862.

(Approved April 2, 1866.)

Section 1. The Governor of this State, the President of the State Agricultural Society, and the Surveyor General, shall constitute a Board to be known as the Agricultural College Land Board, and said Board shall have the control and management of the selection of all the lands granted to this State by Act of Congress, approved July second, eighteen hundred and sixty-two, providing for the endowment of Colleges for the benefit of agriculture and the mechanic arts, and of all lands that may hereafter be granted for that purpose. Said Board shall appoint one or more suitable Commissioners, whose duty it shall be to select unoccupied, unappropriated and surveyed public lands, and locate as soon as practicable the quantity of land donated to this State by the Act of Congress aforesaid, and to make return of the lands so located, to the Register of the State Land Office of the State of California, properly designated and described, and to notify the Registers of the United States District Land Offices for the districts in which the selection and location is made, of such selection as fast as the land is so selected.

§ 2. The Register of the State Land Office, shall, as fast as such selections are made and returned to him, forward to the Secretary of the Interior of the United States, full and complete descriptions of all such lands, and obtain the necessary title to the State of California for the same.

§ 3. The Agricultural Land Board shall certify, from time to time to the Board of Examiners of this State, the amounts required to pay expenses of selecting, locating and making returns of said lands, and the Comptroller of State shall draw his warrant upon the Treasurer for the amount certified to be due by the Board of Examiners, and the Treasurer shall pay the same out of any

money in the Treasury not otherwise appropriated. They shall also report to the Board of Directors of the Agricultural, Mining, and Mechanical Arts College, on or before the first day of October, A. D. eighteen hundred and sixty-seven. As soon as practicable after this act shall have gone into effect, said Board shall apply to the Commissioners of the General Land Office for an order directing the Registers of the several district land offices in this State to withdraw from market, and so mark on their Plates any of the lands of the United States subject to sale at private entry that may be selected by authority of this Board, whenever the Register shall have been notified of such selections. All certificates, contracts, or other papers emanating from said Board, shall be signed by the Chairman and Secretary of said Board.

CONNECTICUT.

An Act appropriating to the Sheffield Scientific School of Yale College, the proceeds of lands assigned to the State by Act of Congress approved July 2, 1862.

(Approved June 24, 1868.)

Sec. 1. Whenever the Secretary of the Interior shall have issued to this State, the land scrip due to this State, under the act of Congress, entitled "An Act donating Public Lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts," it shall become the duty of the Commissioner of the School Fund to take charge of said scrip, and, as agent of this State, to sell the same, so soon as in his judgment he can prudently do so, upon terms to be previously approved by the Governor, and in the name and behalf of this State, to convey and transfer the same in any suitable manner to the purchaser or purchasers thereof, and to invest the avails thereof in the manner specially prescribed by said act of Congress.

§ 2. Said Commissioner shall semi-annually pay over the interest of the Fund which may result from the sale of said scrip, to the President and Fellows of Yale College in New Haven, for the special purposes and upon the special conditions hereinafter set forth.

§ 3. Said Corporation shall devote said interest wholly and exclusively to the maintenance, in that department of Yale College known as the "Sheffield Scientific School," of such courses of instruction as (including the courses of instruction already instituted in said school,) shall carry out the intent of said act of Congress in the manner specially prescribed by the fourth section of said Act.

§ 4. Said Corporation shall furnish gratuitous education in said courses of instruction to pupils who shall be annually nominated to be pupils of said school, in such manner as the General Assembly shall prescribe. The number of pupils to be so received gratuitously into said school shall be, in each year, such a number as would expend a sum equal to one-half of the said interest for the same year in paying for their instruction in said school if they were required to pay for it at the regular rates charged to other pupils of said school for the same year. Said pupils so nominated and received shall be citizens of this State, and shall be admitted into said school upon the same terms and subject to the same rules and discipline which shall apply to all other pupils of said school, with the single exception that they shall not be required to pay anything for their instruction.

§ 5. Said Corporation shall annually make and distribute the reports required by the fourth paragraph of section fifth of said act of Congress.

§ 6. No portion of said interest shall be paid over to said Corporation until said corporation shall contract with this State, by its contract in writing, in such form as the Governor shall approve, to fulfill and perform all the duties and obligations imposed upon it by this Act.

§ 7. The Governor, the Lieutenant Governor, the three senior Senators, and the Secretary of the State Board of Education, shall constitute a Board of Visitors, whose duty it shall be to visit said school in each year, and report annually thereon to the General Assembly.

An Act relating to the Sheffield Scientific School.

Approved July 6, 1864.

Sec. 1. The visitors of the Sheffield Scientific School designated by the Act approved June 24, 1863, and entitled "An Act appropriating the Scrip of public lands granted to this State under an Act of Congress approved July 2, 1862," to wit: the Governor, the Lieutenant Governor, the three senior Senators, and the Secretary of the State Board of Education, shall constitute, together with the Secretary of the Sheffield Scientific School, an appointing board, who shall select from such candidates as shall offer themselves, those who shall be entitled to receive the gratuitous instruction in said school, which has been provided for by the State in said Act.

§ 2. In case there are more applications for the bounty of the State than there are vacancies to be filled on the part of the State, said Board shall give the preference to such young men as are fitting themselves for agriculture and mechanical and manufacturing occupations in life, who are or shall become orphans through the death of a parent in the naval or military service of the United States; next to them to such as are most in need of pecuniary assistance; and furthermore, they shall provide that the appointments shall be distributed, as far as practicable, among the several counties of the State, in proportion to their population.

§ 3. The Secretary of said school shall also be the Secretary of said appointing board, and shall keep a record of their transactions; and he shall furthermore, at least one month before the close of each academic year in said school, cause to be published in at least one newspaper in every county of this State in which a newspaper may then be published, an advertisement specifying the number of pupils who by virtue of said act are entitled to be admitted into said school for gratuitous instruction during the ensuing academic year, and designating the time and manner in which applications may be made to said appointing board for admission to said school.

DELAWARE.

An Act establishing a College for Agricultural and Mechanic Arts in this State.

(Approved March 14, 1867.)

Whereas, the legislature of this State, by a recent act accepted the provisions of an act of congress approved July 2, 1862, entitled, "An act donating public lands to the several States and Territories which may provide colleges for the benefit of Agriculture and the Mechanic Arts;" *and whereas*, the said act of congress renders it the duty of the State to provide the buildings, grounds and appliances necessary to carry out the objects of said act; *and whereas*, the board of trustees of Delaware College have proposed to convey to the State of Delaware a joint and equal interest in the grounds, buildings, libraries, apparatus and vested funds of said college proper, upon the condition that the State shall vest the *income* to be derived from the sale of the said lands in a board of trustees, not more than one-half of whom shall be the representatives of the State, and the remainder the representatives of the present board, for the purpose of establishing at Newark, in connection with said college, an institution which shall meet the requirements of the act of congress, and extend to the people of our State the benefits of its provisions; therefore,

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met:

Section 1. That the proposition of the board of trustees of Delaware College be and the same is hereby accepted, and that Delaware College is adopted and established as the institution to be provided by the State of Delaware, in accordance with the provisions of the act of congress approved July 2, 1862, entitled, "An act donating public lands to the several States and Territories which may provide colleges for the benefit of Agriculture and the Mechanic Arts."

§ 2. That the State treasurer, in conjunction with the governor of the State and the president of the board of trustees of Delaware College, is hereby authorized and required to sell and assign, upon such terms and conditions as they may deem best for the interests of the State of Delaware, the whole or any part of the scrip or land warrants issued or to be issued to the State by virtue of said act of congress.

§ 3. That the proceeds of the sale or sales aforesaid shall be invested by the said treasurer in interest bearing bonds of this State, or of the United States, at his discretion, the principal of which bonds shall forever be held sacred for the purposes contemplated in the act of congress aforesaid, and shall not be transferable except by a special act of the legislature.

§ 4. That the State treasurer may perform and discharge any of the acts, trusts or duties authorized, directed or conferred herein, by any agent or agents by him selected and appointed by and with the consent and advice of the gov-

ernor of the State. All costs and expenses incurred in selling or assigning the said land scrip, or in investing the proceeds thereof, shall be allowed and paid out of any funds in the State treasury not otherwise appropriated.

§ 5. That the State treasurer shall, semi-annually, receive and pay over the interests of said bonds to the treasurer of the board of trustees to the Delaware College, for the purposes and on the conditions hereinafter mentioned.

§ 6. That the board of trustees of Delaware College shall devote said interest to the maintenance of such course or courses of instruction in said college as shall carry out the intent of the act of congress aforesaid, and shall provide for the gratuitous instruction of one pupil from each hundred in the State, who shall be annually nominated to be pupils of said college, in such manner as the legislature may prescribe. Said pupils so nominated and received shall be residents of this State, and shall be admitted into said college upon the same terms and subject to the same rules and discipline which shall apply to all other pupils of said college, with the single exception that they shall not be required to pay anything for their instruction.

§ 7. Said board of trustees shall, annually, on or before the first day of February, in each and every year, make up and distribute the reports required by the fourth paragraph of the fifth section of said act of congress.

§ 8. That the governor be and is hereby authorized to appoint five trustees from each county in the State, to be members of the board of trustees of Delaware College on behalf of the State, and to fill all vacancies which may arise in such appointments, occasioned by death, resignation or otherwise, and that the present board of trustees of Delaware College shall fill up the remaining vacancies in said board, in the manner and to the number prescribed in the charter of Delaware College, as well as to fill any vacancies which may hereafter arise in their number, and the joint board of trustees, thus recognized, shall have the entire control and management of said institution, subject to the provisions of its charter and the terms of this act:

Provided, That said institution shall never be managed or conducted in the interests of any party, sect or denomination.

§ 9. That the board of trustees of Delaware College shall report such amendments to this act, or such further acts or laws, as they may deem necessary and proper to carry out the objects contemplated by this act.

ILLINOIS.

An Act in relation to the location of the Industrial University.

(Approved January 25, 1867.)

Whereas, each portion of the state is alike interested in the proper location of said University, and it is desirable to enable the public spirit of each community or section to fully compete for such location; therefore, *Be it enacted, &c.*

Section 1. That any county, city, township, or incorporated town of said state, may, by taxation, as well as by voluntary subscription of its citizens, raise a fund to secure the location of said University at any point whatever; and any other corporation in this state may make bids and subscription for the purpose of securing said location at any point whatever.

§ 2. That any county through its county courts or board of supervisors, and any township or town, through its supervisor, assessor and collector, and any city or incorporated town, through its council or board of aldermen, or other constituted authorities, as the case may be, may subscribe such sum or sums as they may deem necessary, to secure such location, and to raise the amount or amounts so subscribed by taxation, or by issuing bonds, payable at any seasonable or convenient time, and bearing any rate of interest not exceeding ten per cent. per annum: *Provided, however*, that no tax shall be levied for such purpose until the proposition so to raise a fund, together with the amount to be raised shall, after at least ten days' notice, be submitted to a vote of the people so to be taxed, and be approved by a majority of the persons voting at such election: *Provided*, that the county clerk of such county shall order an election in accordance with the provisions of this act; *And provided, also*, that it shall not be obligatory on any county, city or town authorities, or county clerk, as aforesaid, to submit any such proposition to a vote of the people, unless at least one hundred of the legal voters of said county, city or town shall petition for the same; in which event said election or elections shall be ordered: *And provided further*, that any election heretofore held in any county, city or town, for the purpose aforesaid, is hereby legalized and made valid.

§ 3. The county, city or town authorities, as aforesaid, are hereby invested with full power to make any and all needful orders and regulations to carry into effect the foregoing provisions; and in case of an election being applied for, as aforesaid, it shall be the duty of said authorities to give the usual and seasonable notices, required by law, according to this act, and the end in view, and to conduct and report the same in the usual way. Such election to be conducted and return made according to the law governing elections: *Provided*, that the registry of votes used at the last general [election] shall be the registry for any election to be held under this act.

AN ACT TO PROVIDE FOR THE ORGANIZATION AND MAINTENANCE OF THE ILLINOIS INDUSTRIAL UNIVERSITY.

Approved February 28, 1867.

SECTION 1. That it shall be the duty of the governor of this state within ten days from the passage of this act, to appoint five trustees, resident in each of the judicial grand divisions of this state, who, together with one additional trustee, resident in each of the congressional districts of this state, to be appointed in like manner, with their associates and successors, shall be a body corporate and politic, to be styled "The Board of Trustees of the Illinois Industrial University;" and by that name and style shall have perpetual succession, have power to contract and be contracted with, to sue and be sued, to plead and be impleaded, to acquire, hold and convey real and personal property; to have and use a common seal, and to alter the same at pleasure; to make and establish by-laws, and to alter or repeal the same as they shall deem necessary, for the management or government, in all its various departments and relations, of the Illinois Industrial University, for the organization and endowment of which provision is made by this act. Said appointments to be subject to approval or rejection by the Senate at its next regular session thereafter, and the appointees to be and they are hereby authorized to act as trustees as aforesaid, until their successors shall be appointed by the governor and such appointment shall be approved by the senate.

§ 2. The members of the board of trustees, and their successors, shall hold their office for the term of six years each: *Provided*, that at the first regular meeting of said board, the said members shall determine by lot, so that, as nearly as may be, one-third shall hold their office for two years, one-third for four years, and one-third for six years from the first day of said meeting. The governor, by and with the advice and consent of the senate, shall fill all vacancies which may at any time occur by expiration of term of office, or otherwise, in said board, by appointment of suitable persons resident in the respective grand divisions and congressional districts in which such vacancies may occur. Said board of trustees may appoint an executive committee of their own number, who when said board is not in session, shall have the management and control of the same, and for that purpose have and exercise all the powers hereby conferred on said board which are necessary and proper for such object.

§ 3. In case the board of trustees shall at any time determine to establish a branch or department of said University at any points elected by them, such branch or department shall be under the control of the members of said board residing in the grand division and congressional district where such branch shall be located, unless otherwise ordered by said board of trustees: *Provided* that no portion of the funds resulting from the congressional grant of land for the endowment of said University, or from any donation now or hereafter to be made by the county, city or town at or near which said University is located; and no portion of the interest or proceeds of either of said funds shall ever be applied to the support of any branch or department located outside of the county wherein said University is located by this act.

§ 4. The first regular meeting of the board of trustees shall he held at such place as the governor may designate, on the second Tuesday in March A. D.

1867, at which meeting they shall elect a regent of the university, who, together with the governor, superintendent of public instruction and president of the state agricultural society, shall be *ex-officio*, members of said board of trustees. Said regent, if present, shall preside at all meetings of the board of trustees and of the faculty, and shall be charged with general supervision of the educational facilities and interests of the University. His term of office shall be two years, and his compensation shall be fixed by the board of trustees.

§ 5. At the first, and at each biennial meeting thereafter, it shall be the duty of the board to appoint a treasurer, who shall not be a member of the board, and who shall give bonds, with such security as the board of trustees shall deem amply sufficient to guard the University from danger of loss or diminution of the funds intrusted to his care. The trustees may appoint, also, the corresponding secretary, whose duty it shall be, under the direction or with the approval of the trustees, to issue circulars, directions for procuring needful materials for conducting experiments, and eliciting instructive information from persons in various counties, selected for that purpose, and skilled in any branch of agricultural, mechanical and industrial art; and to do all other acts needful to enable him to prepare an annual report regarding the progress of the University, in each department thereof—recording any improvements and experiments made, with their costs and results, and such other matters, including state, industrial and economical statistics, as may be supposed useful; not less than five thousand copies of which reports shall be published annually, and one copy be transmitted by said corresponding secretary, by mail, free, to each of the other colleges endowed under the provisions of an act of congress, approved July 2, 1862, entitled "An act donating lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts; one copy to the United States Secretary of the interior; and one thousand copies to the Secretary of state of this state, for the state library, and for distribution among the members of the general assembly. Also, a recording secretary, whose duty it shall be to keep faithful record of the transactions of the board of trustees, and prepare the same for publication in said annual report. The said treasurer, corresponding and recording secretaries to receive such compensation as the trustees may fix, and to be paid in the same manner as the teachers and other employees of the university are paid.

§ 6. No money shall be drawn from the treasury of the University, except by order of the board of trustees, on warrant of the regent, drawn upon the treasurer, and countersigned by the recording secretary.

§ 7. The trustees shall have power to provide the requisite buildings, apparatus and conveniences; to fix the rates for tuition; to appoint such professors and instructors, and establish and provide for the management of such model farms, model art, and other departments and professorships, as may be required to teach, in the most thorough manner, such branches of learning as are related to agriculture and the mechanic arts, and military tactics, without excluding other scientific and classical studies. They may accept the endowments of voluntary professorships or departments in the University, from any person or persons or corporations who may proffer the same, and, at any regular meeting of the board, may prescribe rules and regulations in relation to such endowments, and declare on what general principles they may be admitted:

Provided, that such special voluntary endowments or professorships shall not be incompatible with the true design and scope of the act of congress, or of this act; and they shall, as far as practicable, arrange all the regular and more important courses of study and lectures in the University, so that the students may pass through and attend upon them during the six autumn and winter months, and be left free to return to their several practical arts and industries at home during the six spring and summer months of the year, or to remain in the University and pursue such optional studies or industrial avocations as they may elect: *Provided*, that no student shall at any time be allowed to remain in or about the University in idleness, or without full mental or industrial occupation: *And provided further*, that the trustees, in the exercise of any of the powers conferred by this act, shall not create any liability or indebtedness in excess of the funds in the hands of the treasurer of the University at the time of creating such liability or indebtedness, and which may be specially and properly applied to the payment of the same.

§ 8. No student shall be admitted to instruction in any of the departments of the University who shall not have attained to the age of fifteen (15) years, and who shall not previously undergo a satisfactory examination in each of the branches ordinarily taught in the common schools of the state.

§ 9. Each county in this state shall be entitled to one honorary scholarship in the University, for the benefit of the descendants of the soldiers and seamen who served in the armies and navies of the United States during the late rebellion—preference being given to the children of such soldiers and seamen as are deceased or disabled; and the board of trustees may, from time to time, add to the number of honorary scholarships when, in their judgment, such additions will not embarrass the finances of the University; nor need these additions be confined to the descendants of soldiers or seamen; such scholarships to be filled by transfer from the common schools of said county, of such pupils as shall, upon public examination, to be conducted as the board of trustees of the University may determine, be decided to have attained the greatest proficiency in the branches of learning usually taught in the common schools, and who shall be of good moral character, and not less than fifteen (15) years of age. Such pupils, so selected and transferred, shall be entitled to receive, without charge for tuition, instruction in any or all departments of the University for a term of at least three (3) consecutive years: *Provided*, said pupil shall conform, in all respects, to the rules and regulations of the University, established for the government of the pupils in attendance.

§ 10. The faculty of the University shall consist of the chief instructors in each of the departments. No degrees shall be conferred, nor diplomas awarded by authority of the board of trustees, or of the faculty, except that the trustees, on recommendation of the majority of the faculty, may authorise the regent of the University to issue to applicants certificates of scholarship, under the seal of the University; which certificate shall, as far as practicable, set forth the precise attainments, as ascertained by special examination, of the parties applying for the same, respectively, in the various branches of learning they may have respectively studied during the attendance in the University, and every pupil who shall have attended upon instruction in the University for not less than one year, maintaining, meanwhile, a good character for faithful

ness in study and correctness of deportment, and who may desire to cease such attendance, shall be entitled to receive such certificate of scholarship as is authorized by this section to be issued. All certificates of scholarships shall be in the English language, unless the pupil should otherwise prefer; and all names and terms on labels, samples, specimens, books, charts and reports shall be expressed, as nearly as may be in the English language.

§ 11. No member of the board of trustees shall receive any compensation for attending on the meetings of the board. At all the stated and other meetings of the board of trustees, called by the regent or corresponding secretary, or any five members of the board, a majority of the members shall constitute a quorum: *Provided*, all the members have been duly notified.

§ 12. It shall be the duty of the board of trustees to permanently locate said University at Urbana, in Champaign county, Illinois, whenever the county of Champaign shall, according to the proper forms of law, convey or cause to be conveyed to said trustees in fee simple, and free from all incumbrances, the Urbana and Champaign Institute buildings, grounds and lands, together with the appurtenances thereto belonging, as set forth in the following offer in behalf of said county, to wit:

The undersigned, a committee appointed by the board of supervisors of Champaign county, are instructed to make the following offer to the state of Illinois, in consideration of the permanent location of the Illinois Industrial University at Urbana, Champaign County, viz: We offer the Urbana and Champaign Institute buildings and grounds, containing about ten acres; also, one hundred and sixty acres of land adjacent thereto; also, four hundred acres of land, it being part of section No. twenty-one, in township No. nineteen north, range No. nine east, distant not exceeding one mile from the corporate limits of the city of Urbana.

Also four hundred and ten (410) acres of land, it being part of section No. nineteen, township No. nineteen, range No. nine east, within one mile of the buildings herein offered.

Also, the donation offered by the Illinois Central Railroad Company of fifty thousand dollars worth of freight over said road for the benefit of said University.

Also, one hundred thousand dollars in Champaign county bonds, due and payable in ten years, and bearing interest at the rate of ten per cent. per annum, and two thousand dollars in fruit, shade and ornamental trees and shrubbery, to be selected from the nursery of M. L. Dunlap, and furnished at the lowest catalogue rates, making an estimated valuation of four hundred and fifty thousand dollars ($450,000.) Titles to be perfect, and conveyance to the state to be made or cause to be made by the county of Champaign, upon the permanent location of the Illinois Industrial University upon the said grounds, so to be conveyed as aforesaid, and we hereby in our official capacity guarantee the payment of said bonds and the faithful execution of the deeds of conveyance, free from all incumbrances, as herein set forth.

W. D. SOMERS, T. A. COSGROVE, C. R. MOOREHOUSE,

Committee.

§ 13. The board of trustees shall, by and with the advice and consent of the governor and adjutant general, procure all such arms, accoutrements, books and instruments, and appoint such instructors, as may, in their discretion, be required to impart a thorough knowledge of military tactics and military engineering, and they may prescribe a uniform dress to be worn by the pupils of the University.

§ 14. That upon the organization of the board of trustees and the appointment of said treasurer, and the filing with and the approval by said board of

the bond of said treasurer, and all of said foregoing acts being duly certified to the governor, under the hand of said regent, countersigned by the said recording secretary, it shall then become the legal duty of said governor to deliver over to said treasurer the land scrip issued by the United States to this state, for the endowment of said University, and that thereupon it shall become the duty of said treasurer to sell and dispose of said scrip at such time, place, in such manner and quantities, and upon such terms as such board shall, from time to time, prescribe, or to locate the same as said board may direct. Said treasurer being in all respects pertaining to the sale of said scrip, and the reinvestment of the proceeds received therefor, and the securities when reinvested, subject to such order and control of said board as is not inconsistent with this act and the act of congress providing for the endowment of said university.

§ 15. That all the right, title and interest of the State of Illinois in and to said land scrip, is hereby invested in the Illinois Industrial University, for the use and purposes herein contained; and said scrip shall be assigned to said University by the governor of the state of Illinois on each certificate, and attested by the secretary of state, under the seal of the state; and that the transfer of said scrip to purchasers by assignment on the back thereof, by the said officers of said University, under the seal thereof, in manner following, shall be deemed sufficient in law, to wit:

STATE OF ILLINOIS,
Illinois Industrial University } ss.

For value received, the State of Illinois hereby sells and assigns to . . . the within scrip, and authorizes . . . . to locate the same, and obtain a patent on such location.

Given under our hands and the seal of said University this . . . . . day of . . . . A. D. 186 . . . .

A. B., *Regent.*
C. D., *Treasurer.*

Countersigned by
E. F., *Recording Secretary.*

§ 16. That upon said treasurer making sale of any of said scrip, he shall at once invest the fund so received, report the same to the said board, stating amount sold, price obtained and how the same was by him invested; which report shall be filed with the recording secretary, who shall transmit a copy of the same to the governor of said state, and he to the congress of the United States, in accordance with said act of congress.

§ 17. That the said board shall order upon its minutes which of the several kinds of securities mentioned in the fourth section of said act of congress said treasurer shall invest proceeds of sales in.

§ 18. The bond required to be given by said treasurer shall be conditioned for the faithful discharge of his duties as treasurer of the "Illinois Industrial University," and for any breach thereof suit may be instituted, in the name of the "Illinois Industrial University;" and it shall be deemed a criminal offense for any person or persons holding in trust any part of the funds of said University knowingly or negligently to misapply or misappropriate the same, indictable in any court having jurisdiction, in the same manner as other crimes are punishable, by fine or imprisonment, at the discretion of the court, according to the nature of the offense.

AN ACT SUPPLEMENTAL TO AN ACT ENTITLED "AN ACT TO PROVIDE FOR THE ORGANIZATION, ENDOWMENT AND MAINTENANCE OF THE ILLINOIS INDUSTRIAL UNIVERSITY."

March 8th, 1867.

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the General Assembly*, That if the legal authorities of the county of Champaign shall not, by or before the first day of June, 1867, convey or cause to be conveyed, to the board of trustees of the Illinois Industrial University, by a good and unincumbered title, in fee simple, all the real estate mentioned and contained in the propositions of said county, and which real estate is described and set out in the act to which this act is supplemental, amounting to nine hundred and eighty acres of land, and if said county shall not also pay over and deliver to said trustees by said day, all the bonds and other property offered by said county, mentioned in said act, then said board of trustees or a majority of them shall proceed without delay to permanently locate and establish said Industrial University in McLean, Logan, or Morgan county; such county so selected shall in like manner be required in all things to fulfill and comply with the conditions and provisions of the offer heretofore made by such county, as an inducement for the location of said University in said county.

INDIANA.

AN ACT ACCEPTING THE PROVISIONS OF AN ACT OF CONGRESS APPROVED JULY 2, 1862, AND THE ACT APPROVED APRIL 14, 1864, EXTENDING THE SAME.

(Approved March 6, 1865.)

SECTION 1. That the State of Indiana accepts and claims the benefits of the provision of said Acts of Congress, and assents to all the conditions and provisions in said acts contained.

§ 2. That the Governor of the State, for the time being, and Alfred Pollard, of Gibson, Smith Vawter, of Jennings, Henry Taylor of Tippecanoe, and Lewis Burke of Wayne, and their successors, are created a body corporate under the name of The Trustees of the Indiana Agricultural College.

§ 3. Said Henry Taylor and Lewis Burke shall hold said office for two years, and said Alfred Pollard and Smith Vawter shall hold the same for four years; *provided* they so long behave well, and at the expiration of each period of two years from the passage of this act the Governor and the remaining Trustees shall choose by ballot two citizens of this State to fill the vacancy caused by the expiration of the terms of office of such preceding Trustees, who shall hold their office for the term of four years; *provided* they so long behave well. And whenever any other vacancy shall occur among said Trustees, they shall, in like manner, choose some citizen of this State to fill the same, who shall hold his office during the residue of the unexpired term of his predecessor, *provided* he so long behave well.

§ 4. The Governor of this State, for the time being, shall be, *ex officio*, President of said Trustees; and said Trustees shall, upon the first Tuesday of May, A. D. 1865, and every two years thereafter and whenever a vacancy occurs, elect, by ballot, a Secretary and Treasurer, whose compensation shall be fixed by said Trustees. The said Treasurer shall give bonds to the State of Indiana, in the sum of not less than two hundred thousand dollars, for the faithful execution of his trust, with sufficient sureties, to the approbation of said Trustees.

§ 5. That said Trustees shall, by the hand of their Treasurer, claim and receive from the Secretary of the Interior the land scrip to which this State is entitled by the provisions of said Act of Congress; and under their direction, the said Treasurer shall sell the same, in such manner and at such times as shall be most advantageous to the State, and shall invest the proceeds thereof, and any interest that may accrue thereon, in stocks of the United States or of this State, yielding not less than five per centum per annum upon the par value of the Stocks; and that the said principal and interest shall so continue to be so invested, until further provision shall be made by the General Assembly of this State for fulfilling the requirements of said Act of Congress.

§ 6. That there is appropriated, to be paid annually to said Trustees, out of the State Treasury, a sum of money sufficient to defray the actual expenses

incurred in obtaining and selling said land scrip and in investing and managing the proceeds thereof, the items of which shall be certified to by said Trustees; and the Auditor of State shall draw his warrant on the Treasurer of the State, and the Treasurer shall pay the same. And the said Trustees shall receive three dollars per day for their services while so engaged.

§ 7. The Governor of this State shall report annually to Congress, all sales made of said land scrip, until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds.

§ 8. That an emergency exists for this act to take immediate effect, and it shall take effect from and after its passage.

IOWA.

An Act relating to Board of Trustees of State Agricultural College and Farm.

(Approved March 24, 1866.)

Section 1. *Be it enacted by the General Assembly of the State of Iowa*, That the State Agricultural College and Farm shall be under the management of a board of trustees, composed of one member elected from each judicial district. The governor, and the president of the State Agricultural College and Farm, shall be, *ex officio*, members of the board.

§ 2. The present session of the general assembly shall elect in joint convention all of said board of trustees, six of whom shall serve for the term of two years, and the other six for the term of four years, from the first day of May, 1866; and the general assembly at each biennial session thereafter, shall elect one-half of said board of trustees, who shall serve from the first of May after their election. The board of trustees shall at their first meeting under this act, which shall be on the first Thursday of May for 1866, at the capitol of the State, determine by lot, their several terms of service, and every succeeding year, they shall hold their annual meetings on the second Monday of January, at the capitol of the State. Any vacancies in the board of trustees, caused by death, removal from the district or the State, resignation, or failing to qualify within sixty days after their election, may be filled by a vote of a majority of the members of said board.

§ 3. The board of trustees shall elect a treasurer at their annual meeting in each year, who shall receive and keep all the moneys arising from the sale of the products of the farm, and from any other source, and give bonds in such sum as the board of trustees may require. He shall pay over all moneys, upon the warrant of the president, and countersigned by the secretary. He shall render, annually, in the month of January, to the board of trustees, and as often as may be required by said board, a full and true statement of all moneys received and disbursed by him.

§ 4. Sections 1715, 1716, 1739, of chapter 67 of Revision of 1860, and section 6 of chapter 121 of the acts of the tenth general assembly, (1864,) and all acts and parts of acts in conflict with the provisions of this act, are hereby repealed.

An Act authorizing and regulating the sale and lease of lands belonging to the Iowa State Agricultural Society.

(Approved March 29, 1866.)

Section 1. *Be it enacted by the General Assembly of the State of Iowa*, That the trustees of the Iowa State Agricultural College and Farm, are hereby authorized to sell or lease all of the lands granted to the State of Iowa, by the act of congress entitled "An act donating public lands to the several States and

Territories which may provide Colleges for the benefit of Agriculture and Mechanic Arts," approved July 2, 1862, which grant was accepted by the general assembly of the State of Iowa, Sept. 11, 1862, upon the following conditions, regulations, and restrictions, to wit. None of said lands shall be sold for a less sum than fifty per cent. above the price that each piece of said lands respectively was appraised at by the trustees of the agricultural college and farm in the year 1865, but may be sold by the purchaser paying one fourth at the time of sale, and the balance at any time within ten years from the day of sale, the purchaser to pay eight per cent. interest per annum, semi-annually in advance on the deferred payment. And a failure to pay the interest, or the principal within sixty days after it becomes due, the purchaser shall forfeit all claim to said land, as well as that portion of principal and interest he had paid, to the agricultural college.

§ 2. Any of said lands may be leased in amounts not to exceed 160 acres, to any one man, for any term not exceeding ten years, the lessee to pay eight per cent. per annum in advance upon the price of said land, which is hereby declared to be fifty per cent. additional to the price at which each piece of said lands respectively, were appraised by the trustees of the Iowa State Agricultural College and Farm, in the year 1865, and the said lessee shall have the privilege of purchasing said land at or before the expiration of the lease, at the above described advance price. The lessee failing to pay the interest on said lease within sixty days from the time the same becomes due, shall forfeit his lease, together with the amount of the interest he has paid, and the improvements thereon.

§ 3. The money arising from the sale of said lands, shall be paid into the State treasury, which shall be invested by the State treasurer, in bonds of the State of Iowa, or United States Registered bonds, as directed by the act of congress granting said lands. And the moneys arising from the interest on the leases of said lands, shall he paid over to the trustees of the Iowa State Agricultural College and Farm, to be loaned by said board of trustees, on good and sufficient security, until needed to pay the expenses of the college.

§ 4. The trustees of the Iowa State Agricultural College and Farm, are hereby endowed with all necessary authority to appoint agents, or do any other acts to carry out the provisions of this act, as well as the provision of chapter 117 of the laws of the tenth general assembly.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT OF A STATE AGRICULTURAL COLLEGE AND FARM, WITH A BOARD OF TRUSTEES, WHICH SHALL BE CONNECTED WITH THE ENTIRE AGRICULTURAL INTERESTS OF THE STATE OF IOWA.

(Passed March 22, 1858.)

SECTION 1714. (1.) *Be it enacted by the General Assembly of the State of Iowa*, That there is hereby established a State Agricultural College and Model Farm, to be connected with the entire agricultural interests of the State.

§ 1715. (2.) Said college and farm shall be under the management of a board of eleven trustees, and the governor, the president of the State agricultural society, and the president of the State agricultural college, shall be, *ex officio*, members of said board.

§ 1716. (3.) The board of trustees shall at their first meeting under this act determine by lot their several periods of service, five of whom serving for two years, and six serving for four years, and until their successors are elected and qualified. At the annual meetings in the fall before vacancies occur in this board, each county agricultural society in the State may nominate one person for trustee, from whom the general assembly shall choose trustees to fill vacancies every two years as they occur, discriminating so as to give, if possible, one trustee to each judicial district in the State. Any vacancy in the board of trustees, caused by death, resignation or removal from the State, may be filled by a vote of the majority of the members of said board. Each trustee is required to give a satisfactory bond to the State in such sum as may be required by the governor, for the faithful discharge of the duties imposed upon them.

§ 1717. (4.) The president of the college shall be president of the board of trustees. It shall be his duty to preside at all meetings of the board. He shall control, manage and direct the affairs of the college and farm herein established, subject to such rules as may be prescribed by the trustees.

§ 1718. (5.) Said board shall have power:

1. To elect a president of the State Agricultural College and Farm, and in the absence of the president, a president pro tempore, a secretary, and such other officers as may be required in the transaction of the business of the board.

2. To make all necessary rules and regulations for the government of the college and farm.

3. To purchase lands and erect buildings thereon, in accordance with the further provisions of this act.

4. To keep a full and complete record of all their proceedings, and do such other things as may be found necessary to carry out the intent and meaning of this act.

§ 1719. (6.) The trustees shall receive no compensation except for mileage in traveling to and from the meetings of the board, which shall be at the same rate and computed in the same manner as the mileage allowed to members of the general assembly; and the auditor of State is hereby authorized to audit and allow the claims for such attendance, upon not more than three meetings annually.

§ 1720. (7.) The first session of the board of trustees shall be held at the capitol of the State, on the second Monday in January 1859.

§ 1721. (8.) A majority of the board of trustees shall be a quorum for the transaction of business.

§ 1722. (9.) Said board of trustees are hereby authorized to select and purchase suitable lands, not less than six hundred and forty acres, for the use and purposes of the college herein established.

§ 1723. (10.) Said board shall receive proposals for sale of lands for the use of said college before purchasing the same, and in the purchase, the price, location, quality and variety of soil, advantages of water, timber, stone, et cetera, shall be considered.

§ 1724. (11.) There is hereby appropriated the proceeds of the sale of five sections of land heretofore granted to the State of Iowa by congress for the erection of capitol buildings, for the use and benefit of the college herein established: *provided*, congress diverts the same for this purpose; and also the

proceeds of the sale of all other lands granted or which may be granted by congress to the State of Iowa for the purposes contemplated by this act.

§ 1725. (12.) There is hereby appropriated out of any moneys in the treasury of the State, not otherwise appropriated, the sum of ten thousand dollars for the purchase of lands as provided in section nine of this act, and the improvement of the same.

§ 1726. (13.) Upon the execution and delivery to the secretary of State, of the proper conveyance or conveyances of the land purchased as hereinbefore provided, with a certificate of the attorney general of the State, that he has examined the title to the same and finds it unincumbered and perfect and in accordance with this act, and that the location has been approved by the trustees, the auditor of State shall draw his warrant or warrants on the State treasurer, for the amount of such purchase in favor of the party or parties to whom such sum or sums may be due; said purchase or purchases to be made in the year eighteen hundred and fifty-nine previous to the first day of July of that year.

§ 1727. (14.) If any moneys remain unexpended after the purchase of said farm or lands, the trustees are hereby authorized to appropriate the same, or so much thereof as is needed for the erection of the necessary buildings for the college on the farm, and otherwise improving the same.

§ 1728. (15.) The course of instruction in said college shall include the following branches, to wit: natural philosophy, chemistry, botany, horticulture, fruit growing, forestry, animal and vegetable anatomy, geology, mineralogy, meteorology, entomology, zoology, the veterinary art, plain mensuration, leveling, surveying, book keeping, and such mechanic arts as are directly connected with agriculture. Also, such other studies as the trustees may from time to time prescribe, not inconsistent with the purposes of this act.

§ 1729. (16.) The board of trustees shall establish such professorships as they may deem best to carry into effect the provisions of this act.

§ 1730. (17.) Tuition in the college herein established shall be forever free to pupils from this State over fourteen years of age and who have been resident of the state six months previous to their admission. Applicants for admission must be of good moral character, able to read and write the English language with ease and correctness, and also to pass a satisfactory examination in the fundamental rules of arithmetic.

§ 1731. (18.) The trustees upon consultation with the professors and teachers shall, from time to time, establish rules regulating the number of hours, to be not less than two in winter and three in summer, which shall be devoted to manual labor, and the compensation therefor; and no student shall be exempt from such labor except in case of sickness or other infirmity.

§ 1732. (19.) The board shall elect annually from the teachers or more advanced pupils, a competent book keeper, who shall keep an accurate account of the receipts and disbursements of said college and farm from all sources; he shall also keep a minute and accurate account with each field and of each crop, which shall embrace the time and manner of cultivation, the amount of seed and the product, condition of the field before planting and sowing, and after harvesting, and kind and amount of fertilizers used; also a list of animals and the value thereof, kept on the farm, and the treatment of the same; also, a daily register

of the weather; of all of which he shall make an annual statement or synopsis of the same, to the secretary of the board of trustees.

§ 1733. (20.) Said college and farm shall be charged with the amount of crops, the proceeds of sales and the increase of animals raised on the farm.

§ 1734. (21.) The trustees shall elect at their first annual meeting in January, 1859, and every two years thereafter, a secretary from their own number, who shall hold his office two years, and until his successor is elected and qualified. He shall reside at the capital of the State and have an office in the legislative building. It shall be his duty to keep a record of the transactions of the board of trustees and college and farm, which shall be open at all times to the inspection of any citizen of this State. He shall also have the custody of all books, papers, documents and other property which may be deposited in his office, including specimens of the vegetable and animal kingdom of the State or country; also, keep and file all reports which may be made from time to time, by county and state agricultural and horticultural societies, and all correspondence of the office from other persons and societies pertaining to the general business of husbandry; address circulars to societies and the best practical farmers in the State and elsewhere, with the view of eliciting information upon the newest and best mode of culture of those products, vegetables, trees, etc., adapted to the soil and climate of this State; also, on all subjects connected with field culture, horticulture, stock raising and the dairy. He shall encourage the formation of agricultural societies throughout the State, and purchase, receive and distribute such rare and valuable seeds, plants, shrubbery and trees, as may be in his power to procure from the general government and other sources, as may be adapted to our climate and soils. He shall also encourage the importation of improved breeds of horses, asses, cattle, sheep, hogs and other live stock, the invention and improvement of labor-saving implements of husbandry and diffuse information in relation to the same; and the manufacture of woolen and cotton yarns and cloths, and domestic industry in weaving, spinning, knitting, sewing, and other household arts as are calculated to promote the general thrift, wealth and resources of the State. He shall make a report in writing to the general assembly at every session thereof, and to the governor in each year when the legislature is not in session, on the first day of February, of all the transactions of his office of a public character, including a full statement of receipts and expenditures of the college and farm and of his own office, and at such other times as the governor or legislature may require. He shall give a bond in the sum of thirty thousand dollars, with good security, for the faithful discharge of the duties of his office.

§ 1735. (22.) The seeds, plants, trees and shrubbery received by the secretary, shall be, as far as possible, distributed equally throughout the State, and placed only in the hands of those farmers and others, who will cultivate them properly and return to the secretary's office a reasonable proportion of the products thereof with a full statement of the mode of cultivation and such other information as may be necessary to ascertain their value for general cultivation in the State. All information in regard to agriculture, obtained by the secretary, of an important character, may be published by him from time to time in the newspapers of the State, *provided* it does not involve any expense to the State.

§ 1736. (23.) The secretary shall collect and file in his office the agricultural statistics of each organized county in the State.

§ 1737. (24.) That the farming interest of the State may derive immediate benefit from the duties imposed upon the secretary, the governor is hereby authorized and empowered to appoint a secretary on the passage of this act, from among the board of trustees named in this act, who shall hold his office for one year, and until his successor is elected and qualified, as provided in section twenty-one of this act.

§ 1738. (25.) The secretary shall receive as a compensation for his services, a salary of one thousand dollars per annum, to be paid quarterly from the State treasury in the same manner as is provided by law for the payment of the salaries of other state officers, and the sum of one thousand dollars is hereby annually appropriated for that purpose; and the additional sum of one thousand dollars, or so much thereof as may be esteemed necessary by the governor, is also hereby annually appropriated to meet the expenses which may be incurred in the purchase and transportation of seeds, postage, stationery, and the other contingent expenses of the office of the secretary, to be paid out of the State treasury on the requisition of the governor through the auditor of State.

§ 1739. (26.) The board of trustees shall elect a treasurer from their own number annually, at their meeting in January, who shall receive and keep all moneys arising from the sale of products of the farm or other source, and give bonds in such sum as the board of trustees may require. He shall pay over all moneys upon the warrant of the president, countersigned by the secretary. He shall render annually in the month of January, to the board of trustees, and as often as may be required by said board a full and true account of all moneys received and disbursed by him.

§ 1740. (27.) That M. W. Robinson, of Desmoine county, Timothy Day, of Van Buren county, John D. Wright, of Union county, G. W. F. Sherwin, of Woodbury county, William Duane Wilson, of Polk county, Richard Gaines, of Jefferson county, Suel Foster of Muscatine county, J. W. Henderson, of Linn county, Clermont Coffin, of Delaware County, E. H. Williams, of Clayton county, E. G. Day, of Story county, are hereby appointed and constituted the first board of trustees of the agricultural college and farm, who shall hold their office as may be determined under the provisions of the third section of this act.

An Act making an appropriation for and directing the erection of an Agricultural College.

(Approved March 22, 1864.)

[This act, (chap. 72, laws of 1864,) appropriates $26,000 to aid in the erection of a permanent building on the college farm as definitely fixed by the trustees of the agricultural college and farm, after plans and estimates to be approved by the governor, under the immediate supervision of the executive committee of the trustees.]

An Act making appropriation to complete the Agricultural College Building.

(Approved April 2, 1866.)

[This act (chap. 61, laws of 1864,) appropriates the sum of $91,000 for the purpose of completing the agricultural college building, and for the payment of the indebtedness against the same—to be expended under the direction and supervision of a building committee of not less than three persons, to be appointed by the trustees of said college, and of a superintendent, who shall not be a member of said board—each of said building committee and the superintendent, to give bond in the penal sum of ten thousand dollars, for the faithful discharge of their respective duties.]

An Act to provide for the loan of Permanent School Fund.

(Approved March 29, 1864.)

[This act, (chap. 117, laws of 1864,) fixes the rate of interest on school fund loans at 8 per cent., the price of school lands at $1.25 per acre—makes each county responsible for the collection of annual interest on loans within the same, as well as for misapplication of school moneys, and withholds the distribution share of the State appropriation as a penalty, and imposes a special tax to replace the sum thus misapplied.)

Act to provide for appointment of Superintendent of Agricultural College.

(Approved April 5, 1864.)

[This act, (chap. 121, laws of 1864,) authorizes board of trustees of State Agricultural College to appoint a superintendent of the State Agricultural College Farm, who shall also be secretary of the board, who shall have charge of the farm, and other property, at a salary of $1,000.]

KANSAS.

AN ACT FOR THE GOVERNMENT OF THE KANSAS STATE AGRICULTURAL COLLEGE FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

(Approved March 3, 1863.)

SECTION 1. The College for the benefit of Agriculture and the Mechanic Arts, which was located by an act of the Legislature of the State of Kansas, entitled, "An Act to locate and establish a College for the benefit of Agriculture and the Mechanic Arts," approved February 16th, 1863, shall be known as the Kansas State Agricultural College.

§ 2. The government of such college is vested in a board of regents, to consist of the Governor, Secretary of State, Superintendent of Public Instruction and the president of the college, *ex-officio*, and nine others, who shall be appointed by the Governor and confirmed by the Senate; *Provided*, That not more than three of those selected shall be members of the same religious denomination. Three of those appointed shall hold their office until the second Monday in January, A. D. 1865, and three until 1867, and three until 1869; and their several succcssors shall hold their office for the term of six years.

§ 3. The board of regents shall constitute the body corporate, with the right to sue and be sued, to use a common seal, and alter the same at pleasure.

§ 4. The regents shall have the power to enact ordinances, by-laws and regulations for the government of said college; to elect a president; to fix, increase and diminish the regular number of professors and teachers, and to appoint the same, and to determine the amount of their salaries. They shall have the power to remove the president and any professor or teacher, whenever the interest of the college shall require.

§ 5. The college shall consist of four departments: 1st, The department of Agriculture. 2d, Mechanic Arts. 3d, Military Science and Tactics. 4th, Literature and Science.

§ 6. The immediate government of the several departments shall be intrusted to the president and the respective professors and teachers, but the regents shall have the power to regulate the course of instruction, and to prescribe, under the advice of the faculty, the books and authorities to be used in the several departments; also to confer such degrees and grant such diplomas as are conferréd by institutions of the highest grade.

§ 7. The college shall be opened to all persons, under such regulations as may be prescribed by the regents: *Provided*, That no student shall be refused admittance to this college, simply because he has been expelled from some other college.

§ 8. The board of regents shall make an exhibit of the affairs of the college, in each year, to the Superintendent of Public Instruction, setting forth the condition of the college, the amount of receipts and expenditures, the number of professors and teachers and other officers, and the compensation of each; the

number of students in the several departments and in the different classes, the books of instruction used, an estimate of the expenses of the ensuing year, a full transcript of the journal of the proceedings for the year, together with such other information and suggestions as they may deem important, or the Superintendent of Public Instruction may require to embrace in his report, which shall be reported by the Superintendent of Public Instruction to the Legislature in his annual report.

§ 9. The board of regents shall report annually the progress of said college, recording any improvements and experiments made, with their cost and results, and such other matters, including State and industrial and economical statistics, as may be supposed useful, one copy of which shall be transmitted by mail, free, to all other colleges which may be endowed under the provisions of the act of Congress, entitled "An Act donating public lands to the several States which may provide colleges for the benefit of Agriculture and the Mechanic Arts," approved July 2d, 1862, and also one copy to the Secretary of the Interior.

§ 10. A board of visitors, to consist of three persons, shall be appointed by the Governor, to hold their offices severally for one, two and three years, but their successors shall hold their office for three years. It shall be their duty to make a personal examination into the state and condition of the college, in all its departments and branches, once at least in each year, and report the result to the Superintendent of Public Instruction, suggesting such improvements as they may deem important, which said report shall be embodied in the report of the Superintendent.

§ 11. The regents shall have power to appoint a secretary, librarian, treasurer, and such other officers as the interests of the college may require, who, shall hold their offices at the pleasure of the board, and shall receive such compensation as the board shall prescribe.

§ 12. The board of regents shall have the general supervision of the college, and the direction and control of all expenditures.

§ 13. It shall be the duty of the board of regents, at their earliest convenience, to secure a collection of specimens in mineralogy, geology, zoology, botany, and other specimens pertaining to natural history; and whenever a geological survey of the State may be made, a complete set of specimens collected shall be deposited in the cabinet of the college. The said board shall make provision for increasing and preserving the library and apparatus belonging to said college, and the apparatus and library that may be transferred to the State by the Beaumont Central College Association.

§ 14. The first meeting of the board of regents shall be called by the Superintendent of Public Instruction as soon as may be after the fulfillment by the Beaumont Central College Association, of an act, entitled "An Act to locate and establish a college for the benefit of Agriculture and the Mechanic Arts," approved February 16, 1863, but all succeeding meetings shall be called in such manner as the said board may prescribe, and shall be held at the college building, and at least once annually.

§ 15. A majority of the board of regents shall constitute a quorum to do business.

§ 16. The ninety thousand acres of land granted to the State of Kansas by Congress, to endow a college for the benefit of Agriculture and the Mechanic

Arts, shall be used solely for the endowment of said Kansas State Agricultural College of the State of Kansas, and for no other purpose whatever; and the interest of the fund arising from the sale of said lands shall be used exclusively for the salaries of the president, professors and teachers of this college; but the principal on the moneys arising from the sale of said lands shall be invested according to law, and be a fund to remain forever undiminished.

KENTUCKY.

An Act to Establish an Agricultural College in Kentucky.

(Approved February 22, 1865.)

Whereas, The curators of the Kentucky University propose to locate their university in Fayette county, in or near the city of Lexington, and said curators and the trustees of Transylvania University propose to consolidate the two universities, and all the funds and property of each, into one corporation, under the name of the Kentucky University; and it appearing that said curators have a cash endowment of two hundred thousand dollars, yielding an annual income of about twelve thousand dollars, and that there are cash funds of Transylvania University to be united with them, of fifty-nine thousand dollars, besides the grounds, buildings, library, apparatus, and other property of Transylvania University, of the value and cost exceeding one hundred thousand dollars; and said institution, when so consolidated, proposes to raise an additional hundred thousand dollars to purchase a farm and erect all the necessary buildings and improvements to carry on the operations of an agricultural and mechanical college, and connect therewith a model or experimental farm, with industrial pursuits, to enable such pupils as choose to do so to sustain themselves, in whole or in part, while acquiring their education; and further propose, that the State of Kentucky shall establish the Agricultural and Mechanical College of Kentucky as one of the colleges of Kentucky University, thus consolidated, and endow the same with the income of the fund which shall arise from the sale of land scrip granted to Kentucky by the Congress of the United States, for the purpose of establishing said college; and upon the State of Kentucky, so establishing and endowing said college, the curators of Kentucky University will furnish, in reasonable time, all the necessary lands, buildings, apparatus, etc., for such college, and proceed at once to organize said college, and put the same in operation in accordance with this act and the act of Congress, and subject to the visitorial control of the State of Kentucky in its organization and general management, and with the sole control, by the State, of its said fund, in keeping the principal of the same perpetually secure. Now, therefore,

Be it enacted, etc.,

Section 1. That there shall be, and is hereby, established, the Agricultural and Mechanical College of Kentucky, located in the county of Fayette, in or near the city of Lexington, which shall be a college of Kentucky University.

§ 2. That the leading object in said college shall be to teach such branches of learning as are related to Agriculture and the Mechanical Arts, including military tactics, without excluding other scientific and classical studies, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

§ 3. That to effect the said leading object of said college, there shall be established therein the competent number of professorships for teaching the

sciences related to agriculture and the mechanical arts, including military tactics, which professorships shall be filled by able and competent professors, aided by such assistants, tutors, and other instructors as shall, from time to time, be necessary; and, as a part of said college, there shall be conducted an experimental or model farm, with the usual accessories thereto, and of size proportioned to the number of students; and on said farm, and in the mechanical arts, there shall be provided to the students opportunities for industrial pursuits, at stated times, whereby agriculture and the mechanical arts may be practically learned, and the student enabled to earn his support while being educated, in whole or part, by his labor and industry.

§ 4. That in the appointment of professors, instructors, and other officers and assistants of said college, and in prescribing the studies and exercises thereof, and in every part of the management and government thereof, no partiality or preference shall be shown to one sect or religious denomination over another, nor shall anything sectarian be taught therein; and persons engaged in the conducting, governing, managing, or controlling said college and its studies and exercises, in all its parts, are hereby constituted officers and agents of the whole commonwealth, in faithfully and impartially carrying out the provisions of this act for the common good, irrespective of sects or parties, political or religious.

§ 5. That the curators of Kentucky University shall organize said Agricultural and Mechanical College, by establishing the proper professorships and officers, with the salaries and compensation thereof, and filling the same, from time to time, by their appointments; provide the necessary grounds, buildings and improvements, and conduct, carry on, and manage the said college as provided in this act; and said curators, to aid them in conducting said college and defraying the expenses thereof, shall receive all the income of the fund which shall arise from the sale of the land scrip granted to the State of Kentucky by the act of Congress, entitled "An Act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanical arts," approved July 2, 1862, and which income shall be appropriated by said curators to the payment of the salaries of the professors and other officers and employees of said college, and other expenses of conducting the same, and the farm and industrial pursuits incidental thereto, and to no other purpose whatsoever; *Provided*, that a majority of the professors of said college shall not at any one time belong to the same ecclesiastical denomination.

§ 6. That the governor, with the advice and consent of the senate, shall appoint six visitors of said college, who shall constitute the board of visitors thereof, and appoint one of their number chairman of the board; and said board shall have, at all times, full power to inspect and examine into all the details of the managing and conducting of said college, and to see that all the provisions of this act are carried into complete effect, according to their true meaning and intent; and it shall be the duty of said board to report to the curators of Kentucky University all defects or departures from this act, in conducting or managing said college, and suggest the proper mode of correcting them; and said curators shall proceed to correct them; and it shall be further the duty of said board of visitors to report to every biennial meeting of the general assembly the condition and management of said college; and if, at any time, it shall appear to the general assembly that the curators have persisted in not carrying

the provisions of this act into effect, according to their true object and spirit, and in disregarding the requirements of the board of visitors, it shall be lawful to deprive, either temporarily or permanently, said college of the endowment of the income of the fund aforesaid. The visitors shall hold their office for two years, and until their successors are appointed. Vacancies in said board by death, resignation, or expiration of term of office, during the recess of the general assembly, shall be filled by the governor until the end of the next succeeding session.

§ 7. That so soon as the said college is organized for the reception and proper instruction of pupils, the curators shall make known the same to the governor and president of the board of education; and, thereupon, each representative district of the State shall be entitled to send to said college, free of charge for tuition, one properly prepared pupil for each member said district is entitled to elect to the general assembly; and when the whole of the land scrip shall be sold or invested, each district shall be entitled to send three such properly prepared pupils to said college for each member the district is authorized to elect. Said pupils shall have the right of receiving, free of charge for tuition, the benefit of any instruction given in any of the colleges or classes of the university, except those of law and medicine. The pupils shall be selected by the majority of the justices of the peace in said districts.

§ 8. The provisions of this act shall not go into effect until Transylvania University and Kentucky University shall be consolidated into one corporation, under the name of the Kentucky University, and the funds, property, etc., of Transylvania University shall be vested in the curators of Kentucky University, as successors of the trustees of Transylvania University; nor until the curators of Kentucky University shall, by resolution, assent to all the provisions of this act, and accept this act as part of its charter. A copy of said resolution, and of the action of the trustees of Transylvania University, and the curators of the Kentucky University, in accepting said consolidation, shall be laid before the governor; whereupon, he shall, by writing, signed by him and under the seal of the State, authorize the curators of the Kentucky University to organize the Agricultural and Mechanical College of Kentucky, in pursuance of this act.

§ 9. The general assembly reserves the right to modify and repeal, at pleasure, so much of this act as refers to the establishment of the Agricultural and Mechanical College.

An Act in relation to the Agricultural College.

(Approved February 10, 1866.)

Section 1. That the auditor of public accounts be, and he is hereby, authorized to draw his warrant upon the treasury in favor of the treasurer of the board of curators of the Kentucky University, for the sum of twenty thousand dollars, which sum is hereby appropriated out of any moneys in the treasury not otherwise appropriated, to aid in putting the Agricultural and Mechanical College of Kentucky into immediate operation. Upon the payment of the foregoing sum, the State shall be entitled to send to said college, free of charge, three pupils for each representative district: *Provided, however*, the State

reserves the right, hereafter, to reimburse itself for the amount herein appropriated out of the interest arising from the sale of the land scrip donated by Congress: *And provided further*, the money herein appropriated shall not be drawn from the treasury until the curators of Kentucky University shall certify to the governor that said agricultural college is ready to go into immediate operation, in accordance with the provisions of the act establishing the same.

§ 2. Before the auditor shall draw his warrant upon the treasurer, in accordance with this act, the curators of said university shall accept the provisions of this act, and shall transmit to the governor a certified copy of the order of their board, showing said acceptance.

§ 3. This act shall take effect from and after its passage.

MAINE.

An Act to Establish the State College of Agriculture and the Mechanic Arts.

(Approved February 25, 1865.)

Section 1. Samuel F. Perley, N. T. Hill, Bradford Cummings, Thomas S. Lang, Dennis Moore, William D. Dana, S. L. Goodale, Robert Martin, Alfred S. Perkins, Joseph Farwell, Seward Dill, Joseph Day, Ebenezer Knowlton, Hannibal Hamlin, Charles A. Everett and William West Virgin, are hereby constituted a body politic and corporate, by the name of the Trustees of the State College of Agriculture and Mechanic Arts, having succession as hereinafter provided, with power to establish and maintain, subject to the provisions and limitations of this act, such a college as is authorized and provided for by the act of Congress, passed July 2, 1862, entitled "An Act donating lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts." They shall be entitled to receive from the State the income which shall accrue from the funds granted to the State by the aforesaid act, and shall apply the same, together with all such income as they shall receive from any other sources, to the maintenance of the college, in conformity with the act of Congress.

§ 2. The trustees shall annually elect one of their number to be president of the board. They shall appoint a clerk and treasurer, both of whom shall be sworn, and shall hold their offices at the pleasure of the trustees. The clerk shall record all proceedings of the board, and copies of their records, certified by him, shall be evidence in all cases in which the originals might be used. The treasurer shall be required to give suitable bond, and to renew the same whenever the trustees shall require.

§ 3. The governor and council shall at all times have the power, by themselves, or such committee as they shall appoint, to examine into the affairs of the college and the doings of the trustees, and to inspect all their records and accounts, and the buildings and premises occupied by the college. Whenever the governor and council shall have reason to believe that the trustees are exercising, or attempting to exercise, any unlawful powers, or unlawfully omitting to perform any legal duty, they may direct the attorney general to institute process against the trustees in their corporate capacity, in the nature of a complaint in equity, before the supreme judicial court, in the county in which the college may be established, and the court, after notice, shall hear and determine the same, by summary proceeding in term time, or by any judge in vacation, and may make suitable decree, restraining the trustees from performing or continuing the unlawful acts complained of, for requiring them to perform whatever is unlawfully omitted, and may enforce such decrees. In like manner, a com-

plaint may be instituted against any individual trustee, and be heard in the county where he resides, alleging against him any cause deemed by the governor and council sufficient to disqualify him for the trust; and if, in the judgment of the court, such allegation shall be sustained, a decree shall be made removing such trustee from office, and his place shall be thereby vacated.

§ 4. No person shall be a trustee who is not an inhabitant of this State, nor any one who has reached the age of seventy years. The clerk of the trustees shall give notice of all vacancies to the governor and council; vacancies occurring in any of the foregoing modes, or by the resignation or decease of any trustee, shall be filled in the following manner. The first vacancy that shall occur shall be filled by the legislature at the next session thereafter, by joint ballot of the two branches; the second vacancy shall be filled by the trustees at their next meeting; and all succeeding vacancies shall be filled in like manner, alternately by the legislature and the trustees.

§ 5. The trustees, in their corporate capacity, may take and hold, in addition to the income which they shall receive through the State from the endowment made by Congress, such other real and personal property as may be granted or devised to them for the purpose of promoting the objects of this act. But they shall not be entitled to receive any benefactions made to them upon conditions inconsistent with the act of Congress aforesaid, or for purposes different from what is therein prescribed.

§ 6. The governor and council shall take measures, as soon as may be advantageously done after passage of this act, to sell the land scrip received by this State under the act of Congress, and to invest the same as required by the fourth section of said act. The securities shall be kept by the State treasurer, and he shall report annually to the legislature the amount and condition of the investments, and of the income of the same. He shall from time to time, as the income shall accrue, pay over the same to the treasurer of the college.

§ 7. It shall be the duty of the trustees, as soon as may be after their organization, to procure a tract of land suitable as a site for the establishment of the college. If no other provision shall be made therefor, there shall be placed at the disposal of the trustees for this purpose, such proportion as the governor and council may deem suitable, of that part of the fund which is authorized by the fifth section of the act of Congress to be expended for the purchase of lands for sites or experimental farms.

§ 8. The trustees shall appoint such directors, professors, lecturers and teachers in the college, and employ such other persons therein, from time to time, as the means at their command may permit for the accomplishment of the objects enumerated and described in the fourth section of the act of Congress. Every officer and every person employed shall hold his office or employment at the pleasure of the trustees. They shall, as soon as may be, arrange and make known the several courses of instruction which they will undertake at the outset of the college, and shall enlarge and improve the same whenever practicable, subject to the limitations prescribed by Congress. They shall also establish the qualifications for admission, and modify the same as circumstances may require. But no student shall be admitted into or continued in the college, nor shall any person be employed in any office or service, who is not of good moral character and pure life.

§ 9. In addition to the instruction which is to be given by classes, text-books, lectures and apparatus, in such branches of learning as are related to agriculture and the mechanic arts, the trustees shall provide, as fully as may be, for practical experiments and demonstrations of scientific principles and rules. They shall encourage, and for due proportions of time, at different seasons of the year, and with reference to other exercises, require all the students to engage in actual labor upon the lands and in the workshops with which the college may be furnished, and shall provide suitable oversight and direction in such labor, so that they may become habituated to skillful and productive industry.

§ 10. Military tactics shall be taught during some suitable part of each year to all students; and they shall be required to form and maintain such habits of obedience and subordination as may be useful to them if called into military service. The adjutant-general shall be authorized to furnish to the college for military drill, such arms and equipments, not needed by the State for other service, as may suffice for the number of students. He shall also furnish to the college a United States flag.

§ 11. Such other studies are to be taught, within the limitations of the act of Congress, as the facilities of the college and the period of instruction will permit.

§ 12. Students who satisfactorily complete any one or more of the prescribed courses of study, may receive public testimonials thereof, under the direction of the trustees, stating their proficiency.

§ 13. No charge shall be made for tuition to any student who is an inhabitant of this State; and the trustees, and all persons employed by them, shall constantly endeavor, by the adoption of judicious and effective arrangements in all the labor departments of the college, to reduce the cost of subsistence to the students, and to render the institution, as far as possible, self-sustaining.

§ 14. It shall be the duty of the trustees, directors and teachers of the college to impress on the minds of the students the principles of morality and justice, and a sacred regard to truth; love to their country; humanity and universal benevolence; sobriety, industry and frugality; chastity, moderation and temperance, and all other virtues which are the ornaments of human society; and among other means to promote these ends, and to secure the best personal improvement of the students, the trustees shall provide, as fully as may be practicable, that the internal organization of the college shall be on the plan of one or more well regulated households and families, so that the students may be brought into relations of domestic intimacy and confidence with their teachers.

§ 15. If at any time the number of students applying for admission shall be greater than the means of the trustees will enable them to receive, they shall make regulations for the number to be admitted, having reference to the proportions of population in the several senatorial districts in the State, and equalize the admissions according to such proportions, as nearly as may be.

§ 16. The trustees shall hold a regular session at the college at least once in each year, and may provide for periodical visitations by committee. No trustee shall receive any compensation, except actual travelling expenses, to be paid from the treasury of the college.

§ 17. The treasurer of the college shall make, as often as once in six months, a detailed report of all receipts and expenditures, and the trustees shall cause the same to be verified by full inspection and settlement of all his accounts, and shall transmit a copy of the same, as verified by them, to the governor and council. The trustees shall also cause to be made annually such report as is required by the fifth section of the act of Congress, and communicate the same as therein provided.

§ 18. The legislature shall have the right to grant any further powers, to alter, limit or restrain any of the powers vested in the trustees of the college established by this act, as shall be judged necessary to promote the best interests thereof. And this act shall take effect upon its approval by the governor.

MARYLAND.

AN ACT APPROPRIATING THE INTEREST TO BE RECEIVED FROM SALE OF SCRIP DONATED TO STATE OF MARYLAND.

(Passed March 21, 1856.

SECTION 1. Be it enacted by the General Assembly of Maryland: That after the comptroller shall have sold the said scrip and invested the proceeds thereof as provided by the act of the general assembly, passed at January, 1864, the annual interest or income of said investment shall be regularly paid by him, without diminution, to the Maryland Agricultural College; and the leading object of said college shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life; and the money so to be received by the said college shall be applied to the objects enumerated in the said act of Congress, and to no other purpose whatsoever; and the said college shall in all respects comply with the several requirements of said act, as to making and recording experiments, and reporting the same as therein prescribed: *Provided*, that nothing herein contained shall be construed to prohibit or preclude the general assembly, at any time hereafter, from making any other disposition of said funds, not inconsistent with the act of Congress making said donation.

§ 2. From and after the passage of this act, the State Board of Education shall be *ex-officio* members of the board of trustees of said college.

NOTE.

The Maryland Agricultural College was established in 1857, in Prince George's county, (post office, *Agricultural College*,) by subscriptions of citizens, mostly engaged in agricultural pursuits. It has received liberal aid from the State, not only towards its annual expense, but in large sums to relieve it from debt. Its past history and future prospects will be given in Part II.

MASSACHUSETTS.

An Act to incorporate the Trustees of the Massachusetts Agricultural College.

(Approved April 29, 1863.)

Section 1. Marshal P. Wilder, of Dorchester; Charles G. Davis, of Plymouth; Nathan Durffee, of Fall River; John Brooks, of Princeton; Henry Colt, of Pittsfield; William S. Southworth, of Lowell; Charles C. Sewall, of Medfield; Paoli Lathrop, of South Hadley; Phinehas Stedman, of Chicopee; Allen W. Dodge, of Hamilton; George Marston, of Barnstable; William B. Washburn, of Greenfield; Henry L. Whiting, of Tisbury; John B. King of Nantucket, their associates and successors, are hereby constituted a body corporate, by the name of the Trustees of the Massachusetts Agricultural College, the leading object of which shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life—to be located as hereinafter provided; and they and their successors, and such as shall be duly elected members of said corporation, shall be and remain a body corporate by that name forever. And for the orderly conducting of the business of said corporation the said trustees shall have power and authority, from time to time, as occasion may require, to elect a president, vice-president, secretary and treasurer, and such other officers of said corporation as may be found necessary, and to declare the duties and tenures of their respective offices; and also to remove any trustee from the same corporation, when, in their judgment, he shall be rendered incapable, by age or otherwise, of discharging the duties of his office, or shall neglect or refuse to perform the same; and, whenever vacancies shall occur in the board of trustees, the legislature shall fill the same: *provided, nevertheless*, that the number of members shall never be greater than fourteen, exclusive of the Governor of the Commonwealth, the secretary of the board of education, the secretary of the board of agriculture, and the president of the faculty, each of whom shall be, *ex officio*, a member of said corporation.

§ 2. The said corporation shall have full power and authority to determine at what times and places their meetings shall be holden, and the manner of notifying the trustees to convene at such meetings; and also, from time to time, to elect a president of said college, and such professors, tutors, instructors, and other officers of said college, as they shall judge most for the interest thereof, and to determine the duties, salaries, emoluments, responsibilities and tenures of their several offices. And the said corporation are further empowered to purchase or erect, and keep in repair, such houses and other buildings as they shall judge necessary for the said college; and also to make and ordain, as occasion may require, reasonable rules, orders, and by-laws, not

repugnant to the constitution and laws of this Commonwealth, with reasonable penalties, for the good government of the said college, and for the regulation of their own body, and also to determine and regulate the course of instruction in said college, and to confer such appropriate degrees as they may determine and prescribe: *provided, nevertheless*, that no corporate business shall be transacted at any meeting unless one-half, at least, of the trustees are present.

§ 3. The said corporation may have a common seal, which they may alter or renew at their pleasure, and all deeds sealed with the seal of said corporation, and signed by their order, shall, when made in their corporate name, be considered in law as the deeds of said corporation; and said corporation may sue and be sued in all actions, real, personal or mixed, and may prosecute the same to final judgment and execution, by the name of the Trustees of the Massachusetts Agricultural College; and said corporation shall he capable of taking and holding in fee simple, or any less estate, by gift, grant, bequest, devise, or otherwise, any lands, tenements, or other estate, real or personal: *provided*, that the clear annual income of the same shall not exceed thirty thousand dollars.

§ 4. The clear rents and profits of all the estate, real and personal, of which the said corporation shall be seized and possessed, shall he appropriated to the uses of said college, in such manner as shall most effectually promote the objects declared in the first section of this act, and as may be recommended, from time to time, by the said corporation, they conforming to the will of any donor or donors, in the application of any estate which may be given, devised or bequeathed, for any particular object connected with the college.

§ 5. The legislature of this Commonwealth may grant any further powers to, or alter, limit, annul or restrain, any of the powers vested by this act in the said corporation, as shall be found necessary to promote the best interests of the said college; and more especially may appoint and establish overseers or visitors of the said college, with all the necessary powers for the better aid, preservation and government thereof. The said corporation shall make an annual report of its condition, financial and otherwise, to the legislature, at the commencement of its session.

§ 6. The board of trustees shall determine the location of said college, in some suitable place within the limits of this Commonwealth, and shall purchase, or obtain, by gift, grant, or otherwise, in connection therewith, a tract of land containing at least one hundred acres, to be used as an experimental farm, or otherwise, so as best to promote the objects of the institution; and in establishing the by-laws and regulations of said college, they shall make such provision for the manual labor of the students on said farm as they may deem just and reasonable. The location, plan of organization, government and course of study prescribed for the college, shall be subject to the approval of the legislature.

§ 7. One tenth part of all the moneys which may be received by the state treasurer, from the sale of land scrip, by virtue of the provisions of the one hundred and thirtieth chapter of the acts of the thirty-seventh congress, at the second section thereof, approved July second, eighteen hundred and sixty-two, and of the laws of this Commonwealth, shall be paid to said college, and appropriated towards the purchase of said site or farm: *provided, nevertheless*, that the said college shall first secure by valid subscriptions or otherwise, the further

sum of seventy-five thousand dollars, for the purpose of erecting suitable buildings thereon; and upon satisfactory evidence that this proviso has been complied with, the governor is authorized, from time to time, to draw his warrants therefor.

§ 8. When the said college shall have been duly organized, located, and established, as and for the purposes specified in this act, there shall be appropriated and paid to its treasurer each year, on the warrant of the governor, two-thirds of the annual interest or income, which may be received from the fund created under and by virtue of the act of congress named in the seventh section of this act, and the laws of this Commonwealth, accepting the provisions thereof, and relating to the same.

§ 9. In the event of a dissolution of said corporation, by its voluntary act at any time, the real and personal property belonging to the corporation shall revert and belong to the Commonwealth, to be held by the same and be disposed of as it may see fit, in the advancement of education, in agriculture, and in the mechanic arts. The legislature shall have authority at any time to withhold the portion of the interest or income from said fund provided in said act, whenever the corporation shall cease or fail to maintain a college within the provisions and spirit of this act and the before-mentioned act of congress, or for any cause which they deem sufficient.

An Act concerning the Massachusetts Agricultural College.

(Approved May 11, 1864.)

Section 1. The corporate name of the Trustees of the Massachusetts Agricultural College shall be, *The Massachusetts Agricultural College.*

§ 2. The location, plan of organization, government and course of study, prescribed for said college, shall be subject to the approval of the governor and council.

§ 3. It shall be the duty of the commission authorized by section three of chapter 166, of acts of 1863, to sell from time to time the land scrip which may come into possession of the Commonwealth by virtue of said act, on such terms as the governor and council shall determine.

§ 4. The governor, with the advice and consent of the council, is hereby authorized and instructed to transfer to the Massachusetts Agricultural College one-tenth of the entire amount of land scrip received by the Commonwealth from the United States by virtue of the act of congress of July 2, 1862; and the proceeds from the sale of said land scrip shall be expended only for the purchase of land for the use of said college. If any portion of said proceeds shall remain unexpended after the purchase of a suitable site or farm, for said college, then said college shall pay the same over to the treasurer of the Commonwealth, who shall invest and hold the same as a part of the fund for the promotion of education and the mechanic arts, established by section 4, chap. 166, 1863.

§ 5. To defray the necessary expenses of establishing and maintaining the Massachusetts Agricultural College, there may be advanced from the treasury, to be refunded, as provided in section sixth of this act, the sum of ten thousand dollars, and the governor is hereby authorized to draw his warrant therefor; *provided*, that the money shall be paid to the treasurer of said college in

quarterly instalments, on the first days of June, September, December and March next.

§ 6. All moneys received by the treasurer of the Commonwealth, as the annual interest or income of the fund established [by the act of 1863] and specially set apart for the use of the Massachusetts Agricultural College, shall first be applied to the repayment of the appropriation made in the preceding section, and the balance shall be paid to the treasurer of the college.

§ 7. So much of section 3 and section 6 of chapter 166 of act of 1863, inconsistent herewith, are hereby repealed.

An Act to authorize the Town of Amherst to raise $50,000 for the Agricultural College.

(Approved May 5, 1865.)

Section 1. The town of Amherst is hereby authorized to raise by issuing its bonds, or by loan or tax, the sum of $50,000, to be appropriated and paid to the Massachusetts Agricultural College, out of the treasury of the town, and applied in the erection of said college in said town: *provided*, that at a legal town meeting, called for that purpose, two-thirds of the voters present and voting thereon, shall vote to raise said amount for said object.

§ 2. This act shall take effect upon its passage.

An Act concerning the Massachusetts Agricultural College.

(Approved March 15, 1865.)

The sum of ten thousand dollars is hereby granted to the Massachusetts Agricultural College, to aid its establishment.

An Act concerning the Board of Agriculture and the State Agricultural Cabinet and Library.

(Approved May 26, 1866.)

Section 1. The Board of Agriculture shall constitute a board of overseers of the Massachusetts Agricultural College, with powers and duties to be defined and fixed by the governor and council. But said board of overseers shall have no powers granted to control the action of the trustees of said college, or to negative their powers and duties, as defined by chapter 220 of the act of 1863.

§ 2. The Board of Agriculture is hereby authorized to locate the State Agricultural Cabinet and Library, and to hold its meetings in said college.

§ 3. The president of the Agricultural College is hereby constituted a member, *ex officio*, of the Board of Agriculture.

AN ACT TO INCORPORATE THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, AND TO GRANT AID TO SAID INSTITUTE, &c.

(Approved April 10th, 1861.)

SECTION 1. William B. Rogers, James M. Beebe, E. S. Tobey, S. H. Gookin, E. B. Bigelow, M. D. Ross, J. D. Philbrick, F. H. Storer, J. D. Runkle, C. H. Dalton, J. B. Francis, I. C. Hoadley, M. P. Wilder, C. L. Flint, Thomas Rice, John Chase, J. P. Robinson, F. W. Lincoln, Jr., Thomas Aspinwall, J. A. Dupee, E. C. Cabot, their associates and successors, are hereby made a body corporate by the name of the Massachusetts Institute of Technology, for the purpose of instituting and maintaining a society of arts, a museum of arts, and a school of industrial science, and aiding generally, by suitable means, the advancement, development and practical application of science in connection with arts, agriculture, manufactures and commerce; with all the powers and privileges, and subject to all the duties, restrictions and liabilities, set forth in the sixty-eighth chapter of the General Statutes.

§ 2. Said corporation for the said purposes aforesaid, shall have authority to hold real and personal estate to an amount not exceeding $200,000.

§ 3. One certain square of state land on the Back Bay, namely, the second square westwardly from the public garden, between Newbury and Boylston Streets, according to the plan reported by the commissioners on the Back Bay, February 21st, 1857, shall be reserved from sale forever, and kept as an open space, or for the use of such educational institutions of science and art as are hereinafter provided for.

§ 4. If at any time within one year after the passage of this act, the said Institute of Technology shall furnish satisfactory evidence to the governor and council that it is duly organized under the aforesaid charter, and has funds subscribed, or otherwise guaranteed, for the prosecution of its objects, to an amount at least of one hundred thousand dollars, it shall be entitled to a perpetual right to hold, occupy and control, for the purposes herein before mentioned, the westerly portion of said second square, to the extent of two-thirds parts thereof, free of rent or charge by the commonwealth, subject, nevertheless, to the following stipulations, namely: persons from all parts of the commonwealth shall be alike eligible as members of said institute, or as pupils for its instruction; and its museum or conservatory of arts, at all reasonable times, and under reasonable regulations, shall be open to the public; and within two years from the time when said land is placed at its disposal for occupation, filled and graded, shall erect and complete a building suitable to its said purposes, appropriately inclose, adorn and cultivate the open ground around said building, and shall thereafter keep said grounds and building in a sightly condition.

§ 5. The Boston Society of Natural History shall be entitled to hold, occupy and control, for the objects and purposes for which said society was incorporated, and which are more fully set forth in its constitution and by-laws, the easterly portion of said second square, to the extent of one-third part thereof: *provided*, that the said society shall, within two years from the time when said portion of land is placed at its disposal for occupation, filled and graded, erect a building suitable to said objects and purposes, and appropriately inclose, plant and adorn the open ground around said building, and shall thereafter keep said grounds and building in a neat and ornamental condition.

§ 6. The rights and privileges given in the last two sections, are granted subject to these further conditions following, namely: All buildings whatsoever, which may be erected by either of the herein named institutions upon any portion of said second square, shall be designed and completed, the grounds surrounding said buildings enclosed, laid out and ornamented, and the said buildings and grounds kept and maintained in a manner satisfactory to the governor and council; and in case either of the said institutions shall, after due notice given, neglect to comply with the requirements of this section, or fail to use its portion of said square, or at any time appropriate said portion, or any part thereof, to any purpose or use foreign to its legitimate objects, then the right of said delinquent institution to the use, occupation or control of its portion of said square shall cease, and the commonwealth, by its proper officers and agents, shall have the right forthwith to enter and take possession of the portion of land so forfeited.

§ 7. The above named societies shall not cover with their buildings more than one-third of the area granted to them respectively.

[Sections 8, 9 and 10 repealed.]

An Act in addition to the Act of April 10, 1861.

(Approved April 27, 1863.)

Section 1. When the Massachusetts Institute of Technology shall have been duly organized, located and established, in conformity with the provisions of chapter one hundred and eighty-three of the acts of the year eighteen hundred and sixty-one, and chapter one hundred and forty-two of the acts of the year eighteen hundred and sixty-two, and as is hereinafter provided, there shall be appropriated and paid to its treasurer, each year, on the warrant of the governor, for its endowment, support and maintenance, one-third part of the annual interest or income which may be received from the fund created under and by virtue of the one hundred and thirtieth chapter of the acts of the thirty-seventh congress, at the second session thereof, approved July second, in the year eighteen hundred and sixty-two, and the laws of this Commonwealth, accepting the provisions thereof and relating to the same.

§ 2. Said Institute of Technology, in addition to the objects set forth in its acts of incorporation,—to wit, instituting and maintaining a society of arts, a museum of arts, and a school for industrial science, and aiding the advancement, development and practical application of science in connection with arts, agriculture, manufactures and commerce,—shall provide for instruction in military tactics; and in consideration of this grant, the governor, the chief justice of the supreme judicial court, and the secretary of the board of education, shall be each a member, *ex officio*, of the government of the Institute.

§ 3. Should the said corporation, at any time, cease or fail to maintain an Institute, as and for the purposes provided in its act of incorporation, and in the foregoing section, the aid granted to it by the first section of this act shall be withheld, and not paid to it. The Institute shall furnish to the governor and council a copy of the annual reports of its operations.

§ 4. This act shall be void, unless the said Institute of Technology shall accept the same, and give due notice thereof, to the secretary of the Commonwealth, on or before the first day of July next.

MICHIGAN.

AN ACT TO PROVIDE FOR THE SELECTION, CARE AND DISPOSITION OF THE LANDS DONATED TO THE STATE OF MICHIGAN BY ACT OF CONGRESS, APPROVED JULY 2, 1862, FOR THE ENDOWMENT OF COLLEGES FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

(Approved March 18, 1863.)

SECTION 1. The People of the State of Michigan enact: That the governor, auditor general, secretary of state, attorney general, state treasurer, and commissioner of the state land office, shall constitute a board, to be known as the agricultural land grant board, and said board shall have the control and management of the selection, the care and disposal of the lands granted to this State by act of Congress, approved July 2, 1862, providing for the endowment of colleges for the benefit of agriculture and the mechanic arts. Said board shall appoint one or more suitable commissioners, whose duty it shall be to select and locate, as soon as practicable, the quantity of land donated to this State by the act of Congress aforesaid, and to make return of the lands so located to the commissioners of the State land office of Michigan, properly designated and described, and to notify the registers of the United States district land offices for the districts in which the selection and location is made, of such selection, as fast as the land is so selected.

§ 2. The commissioner of the State land office shall, as fast as such selections are made and returned to him, forward to the Secretary of the Interior of the United States, full and complete descriptions of all such lands, and obtain the necessary title to the State of Michigan for the same.

§ 3. The said land shall be sold for not less than two dollars and fifty cents per acre, one-fourth to be paid at the time of purchase, and the balance at the option of the purchaser, said balance to bear interest at the rate of seven per cent. per annum, payable annually into the State treasury, in accordance with and subject to the conditions of forfeiture, as provided by law for the payment of interest on contracts for money due on the purchase of primary school lands; and the sales of such lands shall be conducted in accordance with such rules and regulations as shall be prescribed by the said land grant board.

§ 4. The proceeds of the sale of said land shall be applied and used according to the conditions of the act of Congress granting the same to the State.

§ 5. Whenever said lands, or any part of them, shall have been selected, certified to the commissioner of the State land office, withdrawn from the market, and so marked on the plats, and certified by the register of any United States land office for the proper district, by the authority of the commissioner of the general land office of the United States, the commissioner of the State land office may, by direction of the said land grant board, sell said lands in quantities of not less than any legal subdivision, according to the original survey; and on such sale being made, the commissioner of the State land office shall issue his certificate of sale in the usual form, setting forth the quantity and

description of the land sold, the price per acre, the amount paid at the time of purchase, the balance due, with the annual rate of interest, and the time the interest is payable, as is required by law for the payment of interest on contracts for the purchase of primary school lands, and that the purchaser will be entitled to a patent from this State on payment in full of the principal and interest, together with all taxes assessed on such lands.

§ 6. Certificates of purchase issued pursuant to the provisions of law shall entitle the purchaser to the possession of the lands therein described, and shall be sufficient evidence of title to enable the purchaser, his heirs or assigns, to maintain actions of trespass for injuries done to the same, or ejectment, or any other proper action or proceeding to recover possession thereof, unless such certificate shall have become void by forfeiture; and all certificates of purchase in force may be recorded in the same manner as deeds of conveyance are authorized to be recorded.

§ 7. The governor of this State shall sign and cause to be issued, patents for said lands, as soon as practicable after payment is made in full of principal, interest, and all the taxes, as aforesaid.

§ 8. It shall be the duty of said land grant board, from time to time, as money is received from the sales of said lands, to cause the same to be invested in stocks of the United States, of this State, or some other safe stocks, yielding not less than five per cent. annually upon the par value of such stocks, and to keep the same invested, to constitute a perpetual fund the capital of which shall remain forever undiminished; and the annual interest shall be regularly applied, under the direction of the State board of agriculture, to the endowment, support and maintenance of the State Agricultural College, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

§ 9. The said land grant board shall, on finding that there is not in this State a sufficient amount of land belonging to the United States, subject to private entry, to make up the full amount of the land granted by said act of Congress, notify the commissioner of the United States land office of the fact, and obtain, as soon as practicable, from the proper authority, permission to select an amount sufficient to make up such deficiency from United States land in other states or territories of the United States, and shall send one or more commissioners into such states or territories to select the same, under such rules and regulations as said board may prescribe.

§ 10. The agricultural land grant board shall certify, from time to time, to the auditor general, the amount required to pay expenses of selecting and locating, and making returns of said lands, and the auditor general shall draw his warrant upon the State treasurer for the amounts thus certified, and the State treasurer shall pay the same out of the general fund. Said land grant board may make such rules and regulations in relation to the time and manner of selecting and locating the lands, making the returns, and keeping the accounts of expenses, as they may deem necessary and proper. All contracts and certificates of said board shall be signed by the chairman, and countersigned by the secretary of the agricultural land grant board.

§ 11. In the sale of lands, the principal value of which consists in the timber, the commissioner of the State land office shall require the payment of the entire amount of purchase money at the time of purchase, or such portion of the same, above one-fourth, as he may deem for the best interest of the State.

NOTE.

The State Agricultural College referred to in the above act was established by the legislature of the State of Michigan, February 12, 1855, by authorizing the president and executive committee of the State Agricultural Society to select a site for such an institution within ten miles of Lansing. The site selected embraced 676 acres of heavily timbered land. Buildings were erected and improvements made at an expense of $100,000, and students were received May 13, 1857. In 1860, the institution was placed under the direction of a State board of agriculture. In 1863, the legislature directed that military tactics and military engineering should be added to the studies; and in accepting and appropriating the avails of the United States land grant of 1862 to this college, necessarily accepts the condition of the grant, by including the mechanic arts, "and the liberal and practical education of the industrial classes in the several pursuits and professions of life."

MINNESOTA.

Agricultural College.

General Statutes—Revision of 1866—*Chapter XXXV.*

Section 1. There shall be established an Agricultural College on so much of section sixteen, in township one hundred and fifteen, range twenty-eight, as may be purchased by the State, and on all lands adjacent, that have been or may be donated, not less than four hundred and eighty acres, under the name and title of "The Agricultural College of Minnesota."

§ 2. The design of said institution is to afford thorough instruction in agriculture and the sciences connected therewith, and for that purpose the institution shall combine physical with intellectual education, and shall be a high seminary of learning, in which the graduates of both sexes of the common schools can commence, pursue and finish a course of study terminating in thorough theoretic and practical instruction in those sciences and arts which bear directly upon agriculture and kindred industrial pursuits.

§ 3. The course of instruction shall embrace the English language and literature, mathematics, civil engineering, agricultural chemistry, animal and vegetable anatomy, physiology, the veterinary art, entomology, geology, political, rural and household economy, horticulture, moral philosophy, history, bookkeeping, and especially the application of science and the mechanic arts to practical agriculture.

§ 4. A full course of study shall embrace not less than four years. The agricultural college board may institute a partial course for students who do not desire to receive the full course. They may also adopt such courses of lectures as they deem best.

§ 5. The board shall determine the time of commencing and the length of the scholastic term or terms for each year, and the number of hours, which shall not be less than two nor more than four daily, and which may be different at different seasons of the year, that shall be devoted by each student to labor; and shall make such rules in regard to the payment of tuition as they deem most conducive to the interests of the institution, until appropriations for its support are sufficient without the payment of tuition.

§ 6. A board is hereby constituted and established which shall be known as "The Agricultural College Board," consisting of the governor, the secretary of State, and the president of the State Agricultural Society, who shall be *ex officio* members of the board; and four members to be elected by the legislature as follows: one member of said board to be elected annually for the term of four years. Any vacancy may be filled by a majority of the members of the board, and a majority shall be a quorum for the transaction of business. Each member shall, before entering upon the duties of his office, take and subscribe the oath required by law. When the said board shall decide the number of students that may be accommodated, and receive instruction at such agricultural college,

said students shall be equally apportioned among the various senatorial districts, and the senators and representatives shall recommend such young men as they in their judgment shall deem to be entitled to the privileges of education in such college.

§ 7. The Agricultural College Board shall have the government, care and management of the farm and college, and direct the disposition and use of any moneys appropriated and donated to the college, or to which the college may at any time be entitled.

§ 8. Said board may fix the time and place of holding their meetings, and adopt rules for their own government not inconsistent with the provisions of this chapter. They shall choose from their own number a president and a treasurer. They shall choose a secretary, who may or may not be a member of the board as they shall determine. Said officers shall hold their offices two years from the last Wednesday of February, and till their successors are chosen.

§ 9. Said board shall erect, provide and keep suitable and proper buildings, and establish and maintain schools therein, improve and furnish the farm, and adopt and execute such measures as they may deem necessary to secure the successful operation of the college, and promote its designed objects: *provided*, that they incur no expenses or debts beyond the moneys that may be appropriated or donated and within their immediate control for such purposes.

§ 10. The secretary shall record all proceedings of the board and of the faculty; and all regulations and rules for the government of the college. He shall keep a careful account with each field, in connection with a plan of the farming lands in which shall be shown the manner and cost of preparing ground, the kind of crops, time of planting or sowing, condition, time and manner of harvesting, the labor devoted to each process and its cost, with cost of preparing and maturing crops for market, price for which it is sold, and such other matters as the agricultural college board shall require of him. The record shall, at all reasonable hours, be open to the inspection of any citizen of the State, and the secretary shall report to the governor, on or before the first day of December of each year, which report shall embrace the proceedings of the board, and the faculty, and the condition and situation of the college and farm.

§ 11. Said board shall choose a president of the college, and such professors, teachers, superintendents and employees as the necessities of the institution demand, who shall be paid such compensation as the board determine, and whose duty shall be prescribed by the board.

§ 12. The president, professors and superintendents, and the secretary of the Agricultural College Board, shall constitute the faculty. The faculty shall have the special charge of the college and farm, and shall, with the consent of the board, make all needful rules and regulations necessary for the government and discipline of the same, regulating the routine of study, labor, meals, duties and exercises necessary to the preservation of morals, health and decorum.

§ 13. All the swamp lands in McLeod county, donated to the agricultural college by act of the legislature approved March twelve, eighteen hundred and sixty-one, shall be deemed to be inviolably set apart and donated for the use and benefit of the agricultural college provided for in this chapter.

§ 14. Whenever the governor shall, upon the recommendation of the Agri-

cultural College Board, deem the sale of a part or all of said swamp lands necessary, he shall order the commissioner of the State land office to sell the same, who shall, thereupon, proceed to have the same appraised and sold, in the same manner as school lands are now appraised and sold, except that such lands may be sold at or above any appraised value, not less than two and one half dollars per acre; and all money arising from such sales shall be deposited in the office of the State treasurer, subject to the order of the Agricultural College Board, and be drawn and expended in such manner as they may direct: *provided*, that none of said moneys shall be expended for any other purpose than the erection of agricultural college buildings upon the farm herein referred to, or the improvement of the farm, or the endowment of the professorships of the college. And until said lands are sold they shall be under the control of the Agricultural College Board, and may be used for the benefit of the college, or may be rented, and the money arising therefrom used for the benefit of the college.

§ 15. The interest of all the moneys and proceeds arising from the sales of all the lands donated to the State of Minnesota by act of congress, approved July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," shall be applied and appropriated annually to the maintenance and support of the agricultural college of Minnesota, and the same shall be drawn from the State treasury upon the order of the president of the agricultural board, countersigned by the secretary of the board.

§ 16. When the necessary buildings have been erected and the college provided, the governor shall certify the fact to the secretary of the interior, and see that the title to the lands donated by congress to the State, herein referred to, shall be perfected in the State.

NEW HAMPSHIRE

An Act to Incorporate the New Hampshire College of Agriculture and the Mechanic Arts.

(Approved July 7, 1866.)

Section 1. A college is hereby established, incorporated, and made a body politic and corporate, by the name of the New Hampshire College of Agriculture and the Mechanic Arts, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in conformity to an act of Congress, entitled "An Act donating land to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862, and by that name sue and be sued, prosecute and defend to final judgment and execution, and shall be vested with all the powers and privileges, and be subject to all the liabilities, incident to corporations of a similar nature.

§ 2. The general government of this college shall be vested in nine trustees, five of whom shall be appointed, one from each councillor district, and commissioned by the governor, with the advice of the council, and four of the trustees of Dartmouth College; and be so classified and commissioned that the offices of three trustees shall become vacant annually.

§ 3. The trustees shall appoint a secretary, who shall keep a full and fair record of their proceedings, and a treasurer, who shall give bonds for the faithful discharge of his duties, in such sum as the trustees may require, and may receive such compensation for his services as they may deem reasonable. They shall appoint a faculty of instruction, prescribe their duties, and invest them with such powers for the immediate government and management of the institution as they may deem most conducive to its best interests.

§ 4. No trustee shall receive any compensation for his services, but expenses reasonably incurred shall be paid by the college.

§ 5. The trustees shall make an annual report to the legislature of the financial condition, of the operations and progress of the college, recording any experiments made, with their cost and results, including state, industrial and economical statistics, as may be supposed useful, one copy of which shall be transmitted by mail, free, to all other colleges which may be endowed under provisions of the act of Congress hereinbefore mentioned, and also one copy to the United States Secretary of the Interior.

§ 6. The trustees are authorized and empowered to locate and establish the college incorporated by this act at Hanover, in this State, in connection with Dartmouth College, and with that corporation to make all necessary contracts in relation to the terms of connection therewith, subject to be terminated upon notice of one year, given at any time after fourteen years, and to its furnishing to the College of Agriculture and Mechanic Arts the free use of an experimental

farm, of all requisite buildings, laboratories, apparatus and museums of said Dartmouth College, and for supplying such instruction, in addition to that furnished by its professors and teachers, as the best interests of its students may require; and, also, as to any legacy said Dartmouth College may receive from the estate of the late David Culver. The said trustees are also authorized and directed to furnish, so far as may be practicable, free tuition to indigent students of the college, and to make provision for the delivery of free lectures in different parts of the State, upon subjects pertaining to agriculture and the mechanic arts.

§ 7. All funds derived from the sale of the land scrip issued to the State of New Hampshire by the United States, in pursuance of the act of Congress hereinbefore mentioned, shall be invested in registered bonds of the State of New Hampshire or of the United States, which shall be delivered to the State treasurer, who shall have custody of the same, and pay over the income thereof, as it may accrue to the treasurer of the College of Agriculture and the Mechanic Arts.

§ 8. His excellency the governor may call the first meeting of the trustees, by sending to each a written or printed notice of the time and place of holding the same, ten days before the day of meeting.

NEW JERSEY.

An Act appropriating scrip for the Public Lands granted to the State of New Jersey by the Act of Congress, approved July 2, 1862.

(Approved April 4, 1864.)

Whereas, The governor of this State has received from the Secretary of the Interior the scrip for public lands granted to the State of New Jersey by an act of Congress of the United States, approved July 2, 1862, and holds the same, subject to such disposition as may be made by the legislature—therefore:

Section 1. *Be it enacted by the Senate and General Assembly of the State of New Jersey:* That the governor of this State, the attorney general, the secretary of state, the comptroller, in case such office be created, and the treasurer of the State, and their successors in office for the time being, be, and they are hereby, appointed commissioners to take charge of such scrip, and, as agents of the State, to sell and dispose of the same at such time or times, and in such mode as may appear to be most advantageous and safe; and in the name, and on behalf of this State, to convey and transfer the same to the purchaser or purchasers thereof, and to invest the avails thereof in the manner specially provided by said act of Congress.

§ 2. Said commissioners shall, semi-annually, pay over the interest of the fund which may result from the sale of said land scrip to the trustees of Rutger's College, in New Jersey, for the special purposes, and upon the special conditions hereinafter set forth.

§ 3. Said trustees shall devote said interest wholly and exclusively to the maintenance, in that department of Rutger's College known as Rutger's Scientific School, of such courses of instruction as (including the courses of instruction already established by said trustees,) shall carry out the intent of said act of Congress in the manner specially prescribed by the fourth section of said act.

§ 4. Said trustees shall furnish gratuitous education in said courses of instruction to pupils of said school in such manner as the legislature shall prescribe; the number of pupils to be so received gratuitously into said school shall be in each year such a number as would expend a sum equal to one half of the said interest for the same year, in paying for their instruction in said school, if they were required to pay for it at the regular rates charged to other pupils of said school for the same year; said pupils so nominated and received shall be citizens of this State, and shall be admitted into said school upon the same terms, and subject to the same rules and discipline which shall apply to all other pupils of said school, with the single exception that they shall not be required to pay anything for their instruction.

§ 5. Said trustees shall annually make and distribute the reports required by the fourth paragraph of section fifth of said act of Congress.

§ 6. No portion of the said interest shall be paid over to said trustees until they shall contract with this State, in such form as the said commissioners shall

approve, to fulfill and perform all the duties and obligations imposed upon them by this act; *provided*, that the said board of trustees shall, in their corporate capacity, obligate themselves to erect additional and adequate buildings as soon as the same may become necessary, without charge to or upon this State, and in like manner, to furnish and provide a suitable tract of land conveniently located, for an experimental farm.

§ 7. There shall be appointed by the governor, with the advice and consent of the senate, a board of visitors, consisting of ten persons, two from each congressional district in this State, who shall hold their office respectively for five years, and who shall, in the first instance, be so appointed that the term of office of two of the said board of visitors shall expire each year; and the governor shall, in like manner, appoint two annually thereafter, and shall have power to fill all vacancies in the board; but the person so appointed to fill such vacancy shall only serve under such appointment until the next meeting of the senate, and until an appointment shall have been made by the governor, with the advice and consent of the senate, and the person so appointed shall hold such office only for the unexpired term of the person whose place he is to supply; and it shall be the duty of the board of visitors to visit the said school at least twice in each year, and to make report thereon to the legislature during the second week of the annual session.

§ 8. The board of visitors shall possess general powers of supervision and control, and shall report to the legislature as to them may seem proper.

§ 9. The said board of trustees shall cause to be delivered annually in each county of this State, one or more public lectures upon the subject of agriculture, free of charge.

§ 10. The students of agriculture and the mechanic arts shall be admitted into said college upon the recommendation of the board of chosen freeholders of their respective counties, and the number of students that a county shall at any one time be entitled to have in said college shall be equal to the number of representatives in the legislature to which said county is entitled, or in proportion to the same.

§ 11. The legislature shall have power, at any time hereafter, to pass such laws as may be deemed necessary and proper to enforce the due execution of this act, and of the before-mentioned act of Congress.

§ 12. This act shall take effect immediately.

NEW YORK.

AN ACT TO ESTABLISH CORNELL UNIVERSITY, AND TO APPROPRIATE TO IT THE INCOME OF THE SALE OF PUBLIC LANDS GRANTED TO THIS STATE BY ACT OF CONGRESS, JULY 2, 1862.

(Passed April 27, 1865.)

SECTION 1. Ezra Cornell, William Kelly, Horace Greeley, Josiah B. Williams, William Andrus, John McGraw, George W. Schuyler, Hiram Sibley, J. Meredith Reed, John M. Parker, and such other persons as may be associated with them for that purpose, are hereby created a body politic and corporate, to be known as the Cornell University, which university shall be located in the town of Ithaca, in the county of Tompkins, in this State. The corporation hereby created shall have all the rights and privileges necessary to the accomplishment of the object of its creation as declared in this act, and in the performance of its duties, shall be subject to the provisions, and may exercise the powers enumerated and set forth in the second article of the fifteenth chapter, title one, of the Revised Statutes of the State of New York.

§ 2. The first board of trustees of said corporation shall consist of the persons named in the first section of this act, together with the governor and lieutenant-governor, the speaker of the house of assembly, the superintendent of public instruction, the president of the State Agricultural Society, the librarian of the Cornell Library, and the eldest male lineal descendant of Ezra Cornell, who shall be ex-officio members thereof. There shall be seventeen trustees, exclusive of the ex-officio trustees; and, to make up the said number of seventeen, the ten persons who are named in the first section of this act, and the said ex-officio trustees, or a quorum of all of them, shall, at their first meeting, in pursuance of this act, elect seven other persons to act with themselves as members of said board of trustees. But at no time shall a majority of the board be of any one religious sect, or of no religious sect.

§ 3. The farm and grounds to be occupied by said corporation, whereupon its buildings shall be erected, in such manner and to such extent as the trustees may from time to time direct and provide for, shall consist of not less than two hundred acres.

§ 4. The leading objects of the corporation hereby created shall be to teach such branches of learning as are related to agriculture and the mechanic arts, including military tactics, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. But such other branches of science and knowledge may be embraced in the plan of instruction and investigation pertaining to the university, as the trustees may deem useful and proper. And persons of every religious denomination shall be equally eligible to all offices and appointments.

§ 5. The corporation hereby created may hold real and personal property to an amount not exceeding three millions of dollars in the aggregate.

§ 6. The income, revenue and avails which shall be received from the investment of the proceeds of the sale of the lands, or of the scrip therefor, or of any part thereof, granted to this State by the act of Congress entitled "An Act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July second, eighteen hundred and sixty-two, are hereby appropriated to, and shall from time to time, as the same shall be received, be paid over to the trustees of the corporation hereby created, for its use and behoof in the mode, and for the purposes in said act of Congress defined; provided, however, that no part of such payment shall be made unless the said trustees shall prove to the satisfaction of the comptroller, within six months after the passage of this act, that the said corporation possesses a fund of five hundred thousand dollars at least, given by Ezra Cornell of Ithaca aforesaid, which last-named fund shall be given absolutely, and without any limitation, restriction or condition whatsoever, save such as is in accordance with the provisions of this act, nor shall the same be in any manner repaid or returned to the said Cornell, his representatives or assigns, except as in this act provided; and any vote or resolution, or act or proceeding to return or repay the same, except as in accordance with this act, shall be void; and provided further, that no such payment shall be made unless within six months from the passage of this act, said Ezra Cornell of Ithaca shall pay over to the trustees of Genesee College, located at Lima in this State, the sum of twenty-five thousand dollars, for the purpose of establishing in said Genesee College a professorship of agricultural chemistry; provided further, that the trustees of the People's College, at Havana, may, in place of a strict compliance with the conditions of this act, chapter five hundred and eleven of the laws of eighteen hundred and sixty-three, in the details thereof, within three months from the passage of this act, deposit such a sum of money as, in addition to the amount already expended by them upon or for the purposes of their corporation, shall, in the opinion of the regents of the University of New York, be sufficient to enable the said trustees fully to comply with the conditions of the said chapter five hundred and eleven of the laws of eighteen hundred and sixty-three. Such deposit, if made, shall be made in such place, and on such terms, as shall be satisfactory to the said regents of the university. And the said deposit shall not be withdrawn or removed, or in any way affected or impaired, except to be applied, under the direction of the said regents, for the purposes of the said People's College, or upon the trustees thereof relinquishing any claim to the benefit of the said chapter five hundred and eleven of the laws of eighteen hundred and sixty-three. But nothing contained in this provision shall release the said trustees of the People's College from the conditions and obligations imposed or contained in section three of said act. They shall, on the contrary, in addition to the making and continuing such deposit as aforesaid, within the said three months, show to the satisfaction of the said regents, that they have complied with the requirements of the said section three, and that the college grounds, farm, work-shops, fixtures, machinery, apparatus and library occupied or owned by them are not encumbered, aliened, or otherwise disposed of. And nothing contained in this provision shall release the said trustees of the People's College from a full and perfect performance of the terms and conditions of the said act, chapter five hundred and eleven of the laws

of eighteen hundred and sixty-three, in all its details, and within the time therein limited therefor. Nor shall the trustees of the said People's College receive from the comptroller any portion of the income and avails of the said lands until they have complied with and performed the terms and conditions of the said act, chapter five hundred and eleven of the laws of eighteen hundred and sixty-three, to the satisfaction of said regents; nor shall they receive any portion of the said avails and income or revenue unless they comply with the conditions of this act, by making and continuing the said deposit. If the said trustees of the People's College shall not, within the term mentioned in the said act, chapter five hundred and eleven, have complied therewith to the satisfaction of the said regents, or if within the said term of three months they shall not have made the said deposit, in accordance with and upon the terms fixed by this act, then the avails, income and revenue which shall be received from the investments of the proceeds of the sales of the said lands, or of the scrip therefor, shall be disposed of to the corporation hereby created, in the manner provided for in this section, and not before. If, on the other hand, the said trustees of the People's College shall, within the time provided for in the act, chapter five hundred and eleven of the laws of eighteen hundred and sixty-three, and as herein provided, to the satisfaction of the said regents, comply with the conditions and obligations thereof and hereof, so that they shall be entitled to receive and enjoy the benefits thereof and hereof, then the said sum of five hundred thousand dollars given by Ezra Cornell, shall, in his option, or that of his personal representatives or assigns, revert to him or them. Moreover, the trustees of the People's College may, at any time, upon written notice to the said regents, withdraw and remove the aforesaid deposit; but such notice and withdrawal, or either of them, shall be deemed a relinquishment and forfeiture by them, of the benefit to them of the said chapter five hundred and eleven, and of the benefit of this act; and, thereupon, upon the performance of the said Ezra Cornell, or of his heirs, and of the corporation hereby created, of the conditions and obligations of this act, the said income, avails and revenue shall be disposed of to the said Cornell University, as hereinbefore provided.

§ 7. The trustees of said university, if they shall become entitled to the benefits of this act, shall make provisions, to the satisfaction of the regents, in respect to buildings, fixtures, and arrangements generally, within two years from the passage thereof, to fulfill the provisions of the aforesaid act of Congress. They shall also make all reports, and perform such other acts as may be necessary to conform to the act of Congress aforesaid. The said university shall be subject to the visitation of the regents of the university of New York.

§ 8. From and after the time the said corporation shall have become entitled to the benefits of this act as aforesaid, the said university grounds, farm, workshops, fixtures, machinery, apparatus, cabinets and library, shall not be encumbered, aliened, or otherwise disposed of by the said trustees, or by any other person, except on terms such as the legislature of the State of New York shall have approved, and any act of the said trustees, or that of any other person, which shall have that effect, shall be void.

§ 9. The several departments of study in the said university shall be open to applicants for admission thereto at the lowest rates of expense consistent with its welfare and efficiency, and without distinction as to rank, class, previous oc-

cupation or locality. But with a view to equalize its advantages to all parts of the State, the institution shall annually receive students, one from each assembly district of the State, to be selected as hereinafter provided, and shall give them instruction in any department of said institution, free of any tuition fee, or of any incidental charges to be paid to said university, unless such incidental charges shall have been made to compensate for damages heedlessly or purposely done by the students to the property of said university. The said free instruction shall moreover be accorded to said students in consideration of their superior ability, and as a reward for superior scholarship in the academies and public schools of this State. Said students shall be selected as the legislature may from time to time direct, and, until otherwise ordered, as follows: The school commissioner or commissioners of each county, and the board of education of each city, or those performing the duties of such a board, shall select annually the best scholar from each academy and each public school of their respective counties or cities as candidates for the university scholarship. The candidates thus selected in each county or city shall meet at such time and place in the year as the board of supervisors of the county shall appoint, to be examined by a board consisting of the school commissioner or commissioners of the county, or by the said board of education of the cities, with such other persons as the supervisors shall appoint, who shall examine said candidates and determine which of them are the best scholars; and the board of supervisors shall then select therefrom, to the number of one for each assembly district in said county or city, and furnish the candidates thus selected with a certificate of such selection, which certificate shall entitle said student to admission to said university, subject to the examination and approval of the faculty of said university. In making these selections, preference shall be given (when other qualifications are equal) to the sons of those who have died in the military or naval service of the United States; consideration shall be had also of the physical ability of the candidate. Whenever any student selected as above described shall have been from any cause removed from the university before the expiration of the time for which he was selected, then one of the competitors to his place in the university, from his district, may be elected to succeed him therein, as the school commissioner or commissioners of the county of his residence, or the board of education of the city of his residence, may direct.

§ 10. All payments made under this act out of the treasury of the State shall be made by the treasurer on the warrant of the comptroller out of the special fund on deposit with the treasurer arising from the receipt of the income and revenue and avails mentioned in the sixth section of this act.

§ 11. Chapter five hundred and eleven of the laws of eighteen hundred and sixty-three, entitled "An Act to appropriate the income and revenue which may be received from the investment of the proceeds of the sales of the lands granted to the State by the act of Congress, entitled 'An Act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts,' approved July second, eighteen hundred and sixty-two, passed May fourteenth, eighteen hundred and sixty-three," shall be read and construed, subject to the provisions of this act; and whenever the provisions of said act, chapter five hundred and eleven of the laws of eighteen hundred and sixty-three, and the other provisions of this act

shall conflict, the provisions of this act shall be deemed the law, and shall prevail.

§ 12. The legislature may, at any time, alter or repeal this act.

§ 13. This act shall take effect immediately.

AN ACT TO AUTHORIZE AND FACILITATE THE EARLY DISPOSITION BY THE COMPTROLLER OF THE LANDS OR LAND SCRIP DONATED TO THIS STATE BY THE UNITED STATES.

(Passed April 10, 1866.)

SECTION 1. The comptroller is hereby authorized to fix the price at which he will sell and dispose of any or of all the lands or land scrip donated to this State by the United States of America by act of Congress, approved July second, eighteen hundred and sixty-two, and entitled "An Act donating public lands to the several states and territories which may provide colleges for instruction in agriculture and the mechanic arts." Such price shall not be less than at the rate of thirty cents per acre for said lands. He may contract for the sale thereof, and sell the same to the trustees of Cornell University. If the said trustees shall not agree with said comptroller for the purchase thereof, then the commissioners of the land office may receive from any person or persons an application for the purchase of the whole, or of any part thereof, at the price so fixed by said comptroller, and may, if they are satisfied that the said person or persons will fully carry out and perform the agreement hereinafter mentioned, sell the same, or any part thereof, to the said person or persons. But said trustees or said person or persons shall, at the same time, make an agreement and give security for the performance thereof to the satisfaction of the comptroller, to the effect that the whole net avails and profits from the sale of scrip, or the location and use by said trustees, person or persons, of the said lands or of the lands located under said scrip, shall, from time to time, as such net avails or profits are received, be paid over and devoted to the purposes of such institution or institutions as have been or shall be created by the act, chapter five hundred and eighty-five of the laws of eighteen hundred and sixty-five, of the State of New York, in accordance with the provisions of the act of Congress hereinbefore mentioned. And the said trustees, person or persons, to whom the said lands or land scrip shall be sold, shall report to the comptroller annually, under such oath and in such form as the comptroller shall direct, the amount of land or land scrip sold, the prices at which the same have been sold, and the amount of money received therefor, and the amount of expenses incurred in the location and sale thereof.

§ 2. The comptroller is authorized, from time to time, as he shall see fit, to make such examination into the action and doings of his vendees of said lands or scrip therewith, as he shall deem necessary, to ascertain and determine what are the net avails of the said lands or scrip from the sale or from the location and use thereof by his said vendees.

OHIO.

AN ACT TO PROVIDE FOR THE SALE OF LAND SCRIP, AND THE LOCATION, AND ORGANIZATION OF A COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

(Passed April 13th, 1865.)

SECTION 1. The auditor, treasurer, and secretary of state are hereby authorized and directed on or before May 1st, 1865, to advertise in such form as they may deem proper, for proposals for the purchase of the land scrip received from the United States, for the establishment of an agricultural college or colleges in the State of Ohio. Such advertisement shall authorize proposals to be received by the auditor, treasurer, and secretary of state, and by the auditor and treasurer in each and every county of the state. The term of said notice shall not be for less than ninety days from the date thereof. No proposition shall be received for less than one hundred and ninety acres, nor for a rate of less than eighty cents per acre.

§ 2. If offers should not be received for the whole of said scrip, acceptable to said auditor, treasurer, and secretary of state, the said officers are authorized and directed to again advertise in like manner, for the proposals for the portion remaining unsold. The term of said notice shall be sixty days from date, and be otherwise governed by the regulations hereinbefore provided.

§ 3. Upon the acceptance of proposals and payment thereon, the party entitled thereto shall receive from said officers the amount of scrip purchased, with a certificate that he has duly purchased and paid for the same; and on presentation of the same to the governor, he shall execute the necessary transfer of the scrip, in accordance with the regulations provided by the several land offices therefor.

§ 4. The auditor and treasurer of each county in the state shall finally receive for such service as they may perform under this act, in accordance with their instructions from the auditor, treasurer, and secretary of state a sum equal to five per centum on all money received and paid over by them upon the first three hundred and twenty acres of scrip sold, three per cent. on all money so received and paid over for the next three hundred and twenty acres sold, and one per cent. on all receipts for sales after six hundred and fifty acres have been sold; and it is hereby made the duty of the auditor and treasurer of each county in the state to perform such services as may be required of them by the auditor, treasurer, and secretary of state, under this act; and the aforesaid county officers shall be paid by the auditor of state, out of the money hereinafter appropriated for such purpose.

§ 5. Said auditor, treasurer, and secretary of state, on or before the first day of December next, shall make to the governor a full and explicit report of their proceedings under this act; which report the governor shall communicate to the general assembly at its next session.

§ 6. All money received from the sale of land scrip shall be paid into the

state treasury, and shall be appropriated and used by the commissioners of the sinking fund for the reduction and payment of the other public debt of the state.

§ 7. Upon the amount of money so received for the sale of scrip appropriated for and to be used in the reduction of the other public debt of the state as aforesaid, there shall be allowed, and paid semi-annually on the first days of July and January in each year, interest at the rate of six per cent. per annum; which shall be appropriated as provided in the act of congress approved July 2d, 1862, "to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts;" and for the prompt and regular payment of said interest, the preservation and appropriation of said fund, and the strict observance and fulfillment of the act of congress before referred to, the faith of the state is hereby irrevocably pledged.

§ 8. The commissioners of the sinking fund are hereby authorized and empowered, as fast as the sinking fund will enable them to do so, to reduce the debt called the "agricultural fund," by the purchase of stocks of the United States or of this state, yielding not less than six per centum, upon the par value of said stocks, which stocks, when so purchased, shall be transferred to the "State of Ohio, in trust for the agricultural college," and shall be deposited with the treasurer of state, and when so purchased, transferred and deposited, shall, to the extent of the amount paid for such stocks, reduce the debt hereby created and denominated "the agricultural fund."

§ 9. There shall be appointed by the governor, by and with the advice and consent of the senate, five commissioners, no two of whom shall be residents of the same congressional district; two of whom shall be selected so as to represent the agricultural, and two representing the mechanical and manufacturing interests of the state, who shall be required to take and endorse upon their certificates of appointments an oath or affirmation to honestly and faithfully perform the duties imposed upon them by this act; one of said commissioners shall be selected with reference to his military knowledge.

§ 10. Said commissioners, after full examination, shall report to the governor by the first of December next, their opinion as to the place for locating said college or colleges; and in forming such opinion, said commissioners shall consider the accessibility of such location to all parts of the state, by the ordinary means of travel, the inducements which may be offered by any locality in the way of donations of land, buildings, money, or other valuable property, for said college or colleges, the practicability of procuring at reasonable expense the necessary quantity of land adapted to the use of an experimental farm, with such other considerations as should have influence in the selection of such location. Said commissioners shall also consider and report any propositions which are now, or may, within six months, be made, with the inducements offered for the establishment of more than one such college or colleges.

§ 11. Said commissioners shall prepare and submit a detailed report for the organization of said college or colleges, and the necessary buildings therefor. It shall embrace the proper control and management of the property, the necessary structures, implements and stock of the farm; the branches and their respective divisions of learning to be taught; the course of studies to be pur-

sued, and their terms and extent; the professorships required to be established; the character and extent of experimental husbandry upon the farm; the propriety and feasibility of connecting experimental studies in the mechanic arts; the probable expenditures for these respective purposes, and the probable annual expenses of conducting said institution, with such other matters as they may deem important or valuable as connected therewith.

§ 12. Said commissioners shall report to the governor by the first day of December next, their said plan of organization, with a full report of their proceedings under the requirements of this act, which the governor shall communicate to the general assembly at its next session.

§ 13. Said commissioners shall receive no compensation for their services, but may be allowed their necessary expenses in the discharge of their official duties.

§ 14. For the purpose of carrying into effect the provisions of this act, the sum of five thousand dollars is hereby appropriated from any money in the treasury not otherwise appropriated.

AN ACT RELATIVE TO THE ESTABLISHMENT OF THE OHIO AGRICULTURAL AND MECHANICAL COLLEGE.

(Approved April 5th, 1866.)

SECTION 1. The governor of Ohio, *ex-officio*, the president of the Ohio State Board of Agriculture, *ex-officio*, and five other persons, so chosen as to represent all the industrial classes of the state, to be appointed by the governor, with the consent of the Senate, are hereby constituted a board of trustees, whose duty it shall be to receive proposals and report to the next session of this general assembly, such proposals as may have been received, and their opinion as to the place for locating an agricultural and mechanical college for the State of Ohio, in accordance with an act of congress, approved July 2d, 1862, entitled "An Act donating public lands, &c."

§ 2. Said trustees are hereby authorized to receive proposals for donations of land, building and money in trust for the state of Ohio, for the location and establishment of a college as contemplated by the act of congress referred to in the first section of this act.

§ 3. The trustees shall receive no *per diem*, but shall have all their necessary expenses paid while actually in the service of the State.

§ 4. This act shall take effect from and after its passage, and the governor shall immediately thereafter notify said persons of their appointment, and designate a day for their meeting in the city of Columbus, for the organization of said board.

PENNSYLVANIA.

AN ACT TO ACCEPT THE GRANT OF PUBLIC LANDS, BY THE UNITED STATES, TO THE SEVERAL STATES FOR THE ENDOWMENT OF AGRICULTURAL COLLEGES.

(Approved April 1st, 1863.)

WHEREAS, By an act of congress, passed the second day of July, one thousand eight hundred and sixty-two, a grant of land was made to the several states and territories which may provide colleges for the benefit of Agriculture and the Mechanic Arts, equal to thirty thousand acres for each senator and representative in congress to which the states are respectively entitled, by the appointment under the census of one thousand eight hundred and sixty, which act of congress requires that the several states, in order to entitle them to the benefit of said grant, should, within two years from the date of said act, express their acceptance of the same:

And whereas, The legislature of Pennsylvania has already shown its high regard for the agricultural interest of the state, by the establishment of the Agricultural College of Pennsylvania, and by making liberal appropriations thereto: therefore, *Be it enacted, &c.*

SECTION 1. That the act of the congress of the United States, passed July 2d, 1862, entitled "An Act donating public land &c.," be and the same is hereby accepted by the State of Pennsylvania, with all its provisions and conditions, and the faith of the state is hereby pledged to carry the same into effect.

§ 2. The surveyor general of the State of Pennsylvania is hereby authorized and required to do every act and thing necessary to entitle this state to its distributive share of land scrip, under the provisions of the said act of congress, and when the said land scrip is received by him, to dispose of the same, under such regulations as the board of commissioners hereafter appointed by this act shall prescribe.

§ 3. The governor, auditor general, and the surveyor general, are hereby constituted a board of commissioners, with full power and authority to make all needful rules and regulations respecting the manner in which the surveyor general aforesaid shall dispose of the said land scrip, the investment of the proceeds thereof in the state stocks of this state, and apply interest arising therefrom as herein directed, and in general to do all and every act or acts, necessary to carry into full effect the said act of congress: *Provided*, that no investment shall be made in any other stocks than of the United States, or of this commonwealth.

§ 4. Until otherwise directed by the legislature of Pennsylvania, the annual interest accruing from any investment of the funds acquired under the said act of congress, is hereby appropriated, and the said commissioners are directed to pay the same to the Agricultural College of Pennsylvania, for the endowment, support and maintenance, of the said institution, which college is now in full and

successful operation, and where the leading object is, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts.

§ 5. Said Agricultural College of Pennsylvania shall, on the first day of February of each year, make report to the legislature of the receipts and expenditures of said institution, for the preceding year.

A SUPPLEMENT to the act to accept the grant of public lands, by the United States, to the several states, for the endowment of Agricultural Colleges, passed April 1st, 1863.

(Approved April 11, 1866.)

SECTION 1. Be it enacted, &c. That the third section of the act entitled "An Act to accept the grant of public lands, by the United States, to the several states, for the endowment of Agricultural Colleges," passed April 1st, 1863, shall be so construed as to authorize the governor, auditor general, and surveyor general, as commissioners, in the performance of duties devolved upon them by the said act, to direct the payment of expenses of disposing of the said land scrip, out of the money in the treasury not otherwise appropriated: *Provided*, That no more than one-third of the distributive shares of the said land scrip, donated to this state, shall be sold under the provisions of this act.

§ 2. The board of trustees of the Agricultural College of Pennsylvania, be and they are hereby authorized to borrow a sum of money, not exceeding eighty thousand dollars, at a rate of interest not exceeding seven per cent., and taxes with which to pay and consolidate all the debts of the institution, and to secure the same by a mortgage upon the property thereof.

NOTE.

The Agricultural College of Pennsylvania was opened in Centre county, six miles from Belle Fonte, February 16, 1859, under the name of "the Farmers' High School of Pennsylvania," which name was exchanged for the present designation in 1862. Its history and present organization and prospects will be given in Part II.

RHODE ISLAND.

RESOLUTIONS ASSIGNING TO BROWN UNIVERSITY, THE LAND SCRIP GRANTED BY THE UNITED STATES TO THE STATE OF RHODE ISLAND, FOR THE ESTABLISHMENT OF AN AGRICULTURAL COLLEGE.

RESOLVED, That his excellency the governor, be, and hereby is, authorized and appointed on the part of the state, to transfer, assign and set over to the corporation of Brown University, in the city of Providence, the scrip now in the possession of the governor, or which may hereafter come in his possession from the government of the United States, under and by virtue of a resolution passed by this general assembly, at its present session, upon receiving from the said corporation or its duly authorized agent, the following stipulations; which stipulations shall be as and for a perpetual agreement, by and between said corporation and state as aforesaid, and shall be in form substantially as follows, that is to say: said corporation does hereby agree

1. To provide a college or department in said university, the leading object whereof shall be, without excluding other scientific and classic studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such manner as hereinafter stated, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

2. To locate without unnecessary delay, and at their best discretion, the said scrip upon some of the public lands of the United States, properly open to be located upon, and from time to time to sell and dispose of the lands so to be located upon, so that the largest price can be obtained for the same.

3. To invest and to keep invested the proceeds of the said sales in stocks or securities of the United States or of this state; but if this should be impracticable, so that an income therefrom of at least five per centum per annum upon their par value could not be realized, then to invest such proceeds in some other safe stocks (the safety of which other stocks the university shall guarantee,) upon which an income of at least five per centum, as aforesaid, can be realized.

4. To pay all expenses of locating and selling said lands, and all taxes which may be assessed thereon, or upon the proceeds thereon.

5. To apply faithfully the income arising from the avails of the sales of said lands in endowing, maintaining and supporting a college in said university as aforesaid, for the objects as aforesaid, so that no portion of said proceeds or income therefrom shall be used in the erection, preservation, purchase, or repairing of any building or buildings, for the college or other purposes: provided, however, that a portion of said proceeds of said sales, not exceeding one-tenth part thereof, may, at the discretion of the corporation be expended according to said act of congress, in the purchase of lands for sites, or an experimental farm, whenever said corporation shall so determine.

6. To educate scholars, each at the rate of one hundred dollars per annum, to the extent of the entire annual income from said proceeds, subject to the proviso as aforesaid; the governor and secretary of state, to have the right on or before commencement day of each year, and in conjunction with the president of the university, to nominate candidates for vacancies occurring in said college or department as aforesaid, at the beginning of each collegiate year; and students admittted to said college, and pursuing studies therein by virtue of said fund, are not to be excluded from the regular scientific and classic studies of said university, in entering and remaining thereat; and are to be graduated with the degree of Bachelor of Philosophy or Bachelor of Arts, or are to receive a certificate for a partial course, according as the case may be.

7. To assume upon itself all the responsibilities and duties which are imposed upon the state by the said act of congress; and also all the duties imposed upon colleges endowed under the provisions of said act, and to be entitled to all the privileges and immunities conferred thereby upon the state, and upon institutions endowed thereunder.

8. To make to the governor of the state an annual report, a copy of which shall be communicated to the general assembly, of all lands located and sold, until the whole is disposed of, the amount received for the same and how invested, and of the appropriations made of the proceeds therefrom, and stating the number of the students to whom the same has been applied, and of all the matters prescribed by said act of congress as aforesaid.

Resolution providing for the nomination of State beneficiaries to be educated at Brown University.

Resolved: That the senators and representatives from the several towns in the general assembly for the time being, are constituted a board of commissioners, whose duty it shall be during the January session in each year, to present to the governor and secretary of state, the names of worthy young men from the several towns, to be educated as state beneficiaries in Brown University, according to the act of congress donating land to the several states and territories which may provide colleges for the benefit of Agriculture and the Mechanic Arts. And the said commissioners are hereby instructed, after one candidate has been presented from each town in the state, (the order of the towns to be determined by lot,) to select the candidates as far as may be from the several towns in the ratio of their representation in the house of representatives, and from that class of persons who otherwise would not have the means of providing themselves with the like benefits; and that the governor and secretary of state be, and they are hereby, instructed to select candidates from the names presented, in such manner as that whenever for any reason any town shall not have received its just quota of those admitted to said university, such towns shall, in the nomination of subsequent candidates, have priority over those towns which have received their full quota.

VERMONT.

An Act to Establish the Vermont Agricultural College.

(Approved November 22, 1864.)

Section 1. Justin S. Morrill, Edwin Hammond, Roderick Richardson, Elijah Cleaveland, Seneca M. Dorr, Horace Herrick, Peter T. Washburn, Orville G. Wheeler, Treno W. Park, Lemuel H. Tabor, Horace Fairbanks, Samuel H. Stevens, George G. Benedict, Frederick Holbrook, their associates and successors, are hereby constituted a body corporate, by the name of the Vermont Agricultural College, the leading object of which shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life, to be located as hereinafter provided; and they and their successors, and such as shall be duly elected trustees and members of said corporation, shall be and remain a body corporate by that name forever. The above named corporators shall be called together for their first meeting by the Governor, at such time and place as he shall select, and shall then be divided by lot into three classes; the first class, consisting of five members, shall vacate their office at the end of two years from the time of their election; the second class, consisting of five members, shall vacate their office at the end of four years from the time of their election; and the third class, consisting of four members, shall vacate their office at the end of six years from the time of their election; and it shall be the duty of the Legislature, at the expiration of the term of office of any of the above named corporators, to elect a person to supply the vacancy, whose term of office shall continue six years. And for the orderly conducting of the business of said corporation, the said trustees shall have power and authority, from time to time, as occasion may require, to elect a president, secretary and treasurer, and such other officers of said corporation as may be found necessary, and to declare the duties and tenures of their respective offices; and whenever vacancies shall occur in the board of trustees, the legislature shall fill the same. *Provided*, that the number of members shall never be greater than fourteen, exclusive of the governor of the State and the president of the faculty, each of whom shall be, *ex-officio*, a member of said corporation. *Provided*, further, that all future elections or appointments to said board of trustees shall be made with special reference to preventing any religious denominational preponderance in said board.

§ 2. The said corporation shall have power to determine at what times and places their meetings shall be holden, and the manner of notifying the trustees to convene at such meetings; and also, from time to time, to elect a president of said college, and such professors, instructors and other officers of said college, as they shall judge most for the interest thereof; and to determine the duties, salaries, responsibilities and tenures of their several offices. And said corpora-

tion are further empowered to purchase or erect and keep in repair such houses and other buildings as they shall judge necessary for said college; and also to make and ordain, as occasion may require, reasonable rules, orders and by-laws, not repugnant to the constitution and laws of this State, with reasonable penalties, for the good government of said college, and for the regulation of their own body; and also to determine and regulate the course of instruction in said college, and to confer such appropriate degrees as they may determine and prescribe. *Provided*, that no corporate business shall be transacted at any meeting, unless one half at least of the trustees are present.

§ 3. The said corporation may have a common seal, which they may alter or renew at pleasure; and said corporation may sue and be sued in all actions, real, personal or mixed, and may take and hold in fee simple, or any less estate, by gift, grant, bequest, devise, or otherwise, any lands, tenements, or other estate, real or personal.

§ 4. The clear rents and profits of all the estate, real and personal, of which the said corporation shall be seized and possessed, shall be appropriated to the use of said college, in such manner as shall most effectually promote the objects declared in the first section of this act, and as may be recommended from time to time by said corporation.

§ 5. The legislature of this State may grant any further powers to, or alter, limit, annul or restrain any of the powers vested by this act in said corporation, as shall be found necessary to promote the best interest of said college, and may appoint overseers or visitors of said college, with all necessary powers for the better aid, preservation and government thereof; and the said corporation shall make an annual report of its condition, financial and otherwise, to the legislature at the opening of its session.

§ 6. The board of trustees shall determine the location of said college, in some suitable place within this State, and may, in their discretion, purchase or obtain by gift, grant or otherwise, in connection therewith, a tract of land containing at least one hundred acres, to be used as an experimental farm, or otherwise, so as best to promote the objects of the institution. And they may also, in their discretion, make such provision for the manual labor of the students on said farm, as they shall deem reasonable.

§ 7. One-tenth of all the moneys which may be received by the State treasurer from the sale of land scrip, by virtue of the provisions of the one hundred and thirtieth chapter of the acts of the thirty-seventh Congress, at the second session thereof, approved July 2, A.D. 1862, and of the laws of this State, shall be paid to said college, and appropriated towards the purchase of said site or farm. *Provided*, said trustees shall determine to procure such farm; and provided further, that the said college shall first secure, by valid subscription or otherwise, the further sum of not less than one hundred thousand dollars, for the purpose of erecting suitable buildings thereon, providing libraries and apparatus, and defraying the necessary expenses of the college; and upon satisfactory evidence that this proviso has been complied with, the governor is authorized, from time to time, to draw his warrants therefor.

§ 8. When the said college shall have been duly organized, located and established, as, and for the purposes specified in this act, there shall be appropriated and paid to its treasurer each year, on the warrant of the governor, the

annual interest or income which may be received from the fund created under and by virtue of the act of Congress named in the seventh section of this act, and the laws of this State accepting the provisions thereof and relating to the same.

§ 9. In the event of a dissolution of said corporation by its voluntary act, at any time, the real and personal property belonging to the corporation shall revert and belong to the State, to be held by the same and be disposed of as it may see fit, in the advancement of education in agriculture and the mechanic arts. The legislature shall have authority, at any time, to withhold the portion of the interest on income from said fund provided in this act, whenever the corporation shall cease or fail to maintain a college within the provisions and spirit of this act and the act of Congress before mentioned, or for any cause which they deem sufficient.

§ 10. This act shall be in operation until said corporation shall have procured valid and solvent subscriptions, to the amount of one hundred thousand dollars, to be applied to the endowment or other uses of said college; and said corporation shall cease to exist on the 15th day of November, 1865, unless the foregoing subscription shall have been obtained.

§ 11. This act shall be under the control of all future legislatures, to alter, amend or repeal.

An Act to incorporate the University of Vermont and State Agricultural College.

(Approved November 9, 1865.)

It is hereby enacted by the General Assembly of the State of Vermont:

Section 1. The University of Vermont and the Vermont Agricultural College, with such other corporations as may hereafter become united therewith, are hereby united and constituted a body corporate, by the name of the "University of Vermont and State Agricultural College," for the purpose of carrying out the objects contemplated in their respective charters, and, as such, shall be and remain a body corporate forever, and as such may hold and convey real and personal estate, have a common seal, and have all the rights and powers incident to corporations.

§ 2. Each of the two institutions hereby united shall, on or before the fifteenth day of December next, elect by ballot nine of their number, who, with their successors, shall thereafter constitute its board of trustees, and likewise constitute a part of the board of trustees of the corporation hereby created, and the nine trustees of the said Agricultural College, so elected, shall be divided by lot into three classes: the first class, consisting of three members, shall vacate their office at the end of two years from their election; the second class, consisting of three members, shall vacate their office at the end of four years from the time of their election; and the third class, consisting of three members, shall vacate their office at the end of six years from the time of their election; and it shall be the duty of the legislature, at its session next preceding the time of the expiration of the terms of office of said trustees, to elect persons to supply such vacancies, whose terms of office shall continue six years, and it shall

be the duty of the said nine trustees of the University of Vermont, to elect successors to fill any vacancy which may occur among their number, and all the trustees so elected as is hereinbefore provided, shall, together with his excellency, the governor of the State, and the president, who shall be, *ex-officio*, a member, constitute an entire board of trustees of the corporation hereby created, who shall have the entire management and control of its property and affairs, and in all things relating thereto, except in the elections to fill vacancies as aforesaid, shall act together jointly, as one entire board of trustees; *provided*, that all future elections or appointments to said board of trustees shall be made with special reference to preventing any religious denominational preponderance in said board.

§ 3. Said board of trustees, a majority of whom may constitute a quorum for the transaction of business, may confer such honors and degrees as are usually given in colleges and universities, and any other appropriate degrees, and may, from time to time, as occasion may require, elect a president, also a secretary, treasurer, librarian, professors, instructors, and any other necessary officers, and prescribe their duties, salaries and term of office, and may make all necessary by-laws and regulations for the government of themselves and others connected with the institution, not inconsistent with the provisions of this act, and therein prescribe the terms of admission, rates of tuition, modes of study, and course of instruction, including any proper regulations for uniform, discipline and military drill, as well as for experimental and practical instruction in the different branches of agricultural labor.

§ 4. Said board of trustees shall have the right to use, control, sell or dispose of all the real estate and personal property now belonging to the University of Vermont, and belonging to any other institution at the time of its union, if such union shall be made with this corporation agreeably to this act, subject, however, to the payment of any debts of such institutions existing at the time of such union, and subject to any trusts, duties and obligations connected therewith, and shall be entitled to receive and use, for the purposes aforesaid, the rents and uses of any of the aforesaid lands, including the rents and uses of all such lands as have been heretofore reserved in any charter of land in this State for the use and benefit of any college, and may have the same rights in respect to said lands, and to any leases of the same, and to any rents arising therefrom, that said institutions respectively now have, and may maintain suits in their own name, or in the name of such new corporation, to recover the same; *provided*, that the rights of all parties shall remain, and the same defenses shall be had to such suits as if the same were brought in the name and as between the said original parties; and the corporation hereby created shall, at all times, assume, discharge and perform all the debts, duties, trusts and obligations which said several institutions were subject to at the time they became united in said new corporation, by virtue of this act.

§ 5. There shall at all times be maintained in the institution hereby created, such instruction in the various branches of learning, as is contemplated in the several charters of each of the institutions hereby united; and more particularly including a four years' course of studies, similar to such as are generally taught in other colleges, and not inferior to that recently taught in said University of Vermont; and in addition to that which is usually taught in other

colleges, the instruction in this institution shall include such enlarged facilities and extended scope and variety in the study of those branches which relate to military tactics, agriculture and the mechanic arts, as shall render the whole instruction in conformity with said act of Congress, as well as with the several charters aforesaid.

§ 6. Said trustees may, in their discretion, obtain by gift, grant or otherwise, a tract of land which, together with the land now owned by the University of Vermont, shall amount to at least one hundred acres, to be used as an experimental farm, whereon they may make any desirable experiments in the breeding of stock, field culture, the analysis and adaptation of soils, and horticultural and botanical gardening, or either of them, as they may deem proper, and also for the purpose of military encampment, target-firing, drill and review; and said trustees may use, lease or dispose of the same, as they may think proper, so as best to promote the objects of the institutions. And in case said land shall be procured, as aforesaid, a sum not to exceed one-tenth of the money which has been received by the State treasurer for the sale of land scrip, in pursuance of the act of Congress authorizing the same, shall be paid to said board of trustees for the purposes aforesaid; *provided*, that no agricultural labor shall be required of students, except by their voluntary agreement or consent.

§ 7. Whenever this corporation shall have been duly organized, there shall be appropriated and paid to its treasurer, annually, for the purpose herein mentioned, on the warrant of the governor, the interest or the income which may be received from the fund created under and by virtue of the act of Congress.

§ 8. The corporation hereby created shall make annual reports to the legislature of this State, of their condition, financial and otherwise, and make and distribute the reports required by the act of Congress herein referred to, and the legislature may annually appoint a board of visitors, who may annually examine the affairs of said corporation.

§ 9. The permanent location of the institution hereby created shall be in Burlington, in said State of Vermont, and the first meeting of the board of trustees shall be there held on the 15th day of November next, at seven o'clock, P. M., or if such meeting shall not be held at that time, it shall be held at such other time and place as the governor of this State may appoint, seasonable notice of said appointment having been first given to each of the trustees or corporators of the Vermont University and Vermont Agricultural College.

§ 10. The president and fellows of Middlebury College and the Norwich University, or either of them, may hereafter, with the assent and concurrence by vote of a majority of each of the nine trustees elected as aforesaid, and their successors, become incorporated and united with the corporation hereby created, by vote of their said corporations, at any meeting legally warned and holden, and by leaving for record, in the office of the secretary of the state, a true and attested copy of such vote or votes, and of all the proceedings of the meeting or meetings at which the votes aforesaid were passed, and causing the same to be recorded in said office.

§ 11. If, at any time, the corporation hereby created shall fail substantially to carry out the provisions and requirements of this act, the supreme court of this State may, at any stated session thereof, having first given due notice to said corporation, annul and vacate this charter, and in such case, or in case said

corporation shall otherwise be dissolved, said supreme court may, on application, order and decree that the income thereafter to be derived from the proceeds of the sale of said land scrip in the hands of the State treasurer as aforesaid, together with such amount as may have been paid over by said treasurer for the purpose of an experimental farm, shall revert to said Vermont Agricultural College, and all the other property and effects which, at the time of said union, belonged to said other institution, shall revert to and be the property of the other institution or institutions which shall have been united and incorporated by, or in pursuance of this act, and in case more than one such other institution shall have been thus united, such other property shall revert to them separately, such specific property to each, as said court shall adjudge and decree, having reference in making such decree to what was originally owned or contributed by each; *provided*, that in respect to any property or funds hereafter acquired by said new corporation, by gift, grant, bequest or otherwise, the same shall be awarded and distributed to each of the institutions hereby incorporated or hereafter united, in such manner as said court shall deem just and equitable, having reference to the manner the same was acquired, and to any specific trusts, or expressed intention of any donors, made at the time the same was acquired. And for the purposes aforesaid, as well as for all other purposes, the said several corporations which shall have been united by virtue of this act, shall be deemed and treated as having continued in life, and the several trustees which shall have been elected by each at the time they were united, and their successors, shall be deemed and treated to have been, since the time of their elections, the trustees of their respective institutions, as well as trustees of the united corporation, and, as such trustees, may receive the property and effects which may revert to their respective corporations by such decree of court, and they and their successors, whom they may thereafter appoint, may continue and manage the affairs of their respective corporations thereafter, in the same manner as the trustees of each might have done before they were united as aforesaid.

§ 12. This act shall take effect whenever the two corporations hereby united shall, at a meeting duly warned, vote to accept the same, and to surrender and relinquish to the corporation hereby created, all the property belonging to them, whether real or personal, and all the rents, profits and income therefrom arising, including said proceeds from the sale of said land scrip, for the purpose, and subject to all the rights, trusts and conditions as in this act provided; and it shall be the duty of each of said corporations to cause a copy of the record of such votes, duly certified by the secretaries of their respective corporations, to be left for record and duly recorded in the office of the secretary of state; whereupon, by virtue of such votes, such property, rents, profits and income shall become the property of the corporation hereby created, for the purposes, and subject to the rights, trusts and conditions aforesaid; and said property, and the property hereafter acquired by the corporation hereby created, shall be subject to all the conditions, immunities and exemptions now pertaining to the property now held by said University of Vermont.

§ 13. All of an act entitled "An Act to establish the Vermont Agricultural College," approved November 22, 1864, which is inconsistent with the provisions of this act, is hereby repealed.

WEST VIRGINIA.

AN ACT FOR THE REGULATION OF THE WEST VIRGINIA AGRICULTURAL COLLEGE.

(Passed February 7th, 1867.)

Whereas, The congress of the United States did by act passed July 2d, 1862, and by subsequent act passed April 19th, 1864, donate to the State of West Virginia certain lands, (one hundred and fifty thousand acres,) for the promotion of Agriculture and the Mechanic Arts, including military tactics, within the State of West Virginia; the proceeds of which are to be invested in bonds and stocks of the United States, or stocks of this state, and are to become a permanent endowment for the purpose of maintaining an agricultural college in the State of West Virginia, upon conditions recited in said acts:

And Whereas, the Legislature of the State of West Virginia, did, on the third day of October, eighteen hundred and sixty-three, pass an act accepting the said donation, and the said land warrants having been received by the governor, and by him sold and converted into current funds of the United States:

And Whereas, the board of trustees of Monongolia Academy, have by resolution, passed January, 9th, 1866, tendered to the State of West Virginia the buildings, property and funds of said Academy, including the property known as Woodburn Female Seminary, by resolution in the following words, to wit:

"*Resolved*, That this board tender to the legislature of West Virginia, all the real and personal effects held as the property of Monongolia Academy, including the property known as 'Woodburn Female Seminary.' amounting as a whole to the following estimated value, viz:

"Woodburn Female Seminary,	$25,000
Monongolia Academy and dwelling,	15,000
Cash, bonds, bank stock, &c.,	10,000
Library and other personal property,	1,000
Amounting to	$51,000

To be absolutely held and used by the State of West Virginia, on the express condition that the contemplated agricultural college be located permanently at or near Morgantown, and that the funds and real estate hereby tendered to be used solely for the benefit of said college," therefore,

Be it enacted by the Legislature of West Virginia,—

§ 1. That the funds derived from the sale of the United States land warrants donated to this state for the purpose of endowing an agricultural college, be invested by the governor in a loan, or public stock of the United States, for the use and benefit of a college to be called the "Agricultural College of West Virginia," endowed as aforesaid, and to be further established, regulated and maintained, according to a plan hereinafter provided for.

§ 2. That this state hereby accepts the tender of the board of trustees of Monongolia Academy; and that said college shall be located at or near Morgantown, in the county of Monongolia, and that the interest and dividends accruing from the fund donated by congress be appropriated to aid the establishment of said college.

§ 3. That the governor of this state shall, within thirty days after the passage of this act, appoint eleven suitable persons, one from each senatorial district, who shall constitute a board of visitors for said college, and who shall have a common seal; any three of whom may constitute a quorum for the transaction of ordinary business; but for making arrangements for the erection of buildings or the permanent alteration of present buildings, as well as the appointment or removal from office of professors, the concurrence of a majority of the board shall be required.

§ 4. When the said board hereby constituted, shall have served one year, two of their number, (to be determined by lot,) shall vacate their positions, and two others, on each succeeding year, shall do the same, and the remaining nine shall annually elect from the senatorial districts vacated, two new members of the board, who shall be approved and commissioned by the governor, in case of death, removal, or refusal to act, any three members of said board may proceed to call the rest of the board together to fill such vacancy.

§ 5. That it shall be the duty of said visitors, on or before the first Wednesday of April next, and on the first Wednesday in July annually thereafter, or at such time as they may designate, to meet at the college buildings now known as "Woodburn Female Seminary," and there establish such departments of education in literature, science, art and agriculture, as they may deem expedient, and as the funds under their control may warrant, and purchase such materials, implements and apparatus as may be requisite to proper instruction in all said branches of learning, so as to carry out the spirit of the act of congress aforesaid, approved July 2d, 1862. And they shall also appoint a superintendent, who shall have general supervision and control of the property and interests of said college during the vacation of said board.

§ 6. That said board shall establish and declare such rules and regulations and by-laws as they may deem necessary for the proper organization, tuition and good government of the said college, and the protection of the public property belonging to said college, as shall not be inconsistent with the laws of this state or of the United States; they shall appoint a treasurer, taking bond from him with ample security, conditioned for the faithful keeping and disbursing of such money herein or hereafter appropriated, and such other moneys as shall be allowed by said board to come into his hands from time to time; they shall also settle his accounts annually, or oftener if they think best; inspect all the public property of said college, and make a full report of the condition, income, expenditures and management of said college, to the governor annually; to be by him laid before the legislature.

§ 7. Said board shall have power to create a preparatory department to said college, and appoint any other professorship than heretofore mentioned, if the same be deemed essential; fix the salaries of the professors and of the superintendent, and remove them for good cause; but in cases of removal, the concurrence of a majority of the board shall be required, and the reasons

therefor shall be communicated in a full written statement thereof to the governor.

§ 8. Besides prescribing the general terms upon which students may be admitted, the course of their instruction, and the kind and duration of their services, (which duration shall not exceed five, nor be less than two years,) the said visitors are still further empowered to admit, as the regular students or cadets of said college, any number of young men, not fewer than one nor more than two, from each senatorial district in this state, and who shall not be less than sixteen, nor more than twenty-five years of age; and their admission to be made upon undoubted evidence of a fair moral character. But should no application be made from any of said senatorial districts, then the vacancies may be filled from the state at large.

§ 9. That the said students thus admitted shall be entitled to all the privileges and immunities, educational advantages and benefits of the college, free of charge for admission, tuition, books and stationery, and they shall constitute the public guard of the said college and the public property aforesaid. And whenever the said board shall certify to the governor that said college is ready to go into operation, and that students have been appointed and admitted as hereinbefore provided for, he shall forthwith forward to the superintendent of the said college a sufficient number of public arms and equipments, ordnance and munitions for the use of the college, to be kept in an arsenal of the said college, set apart for the purpose. And the professor and students of said college receiving instruction in military tactics and the art of war, shall be indivdually and collectively responsible for the preservation and safe keeping of said arms.

§ 10. All reasonable expenses incurred by said visitors in discharging the duties hereby imposed upon them, (not, however, including any wages or per diem compensation,) shall be allowed, and when admitted by the governor, shall be by him caused to be paid out of the treasury of the state, in like manner as all sums are drawn therefrom.

§ 11. That it shall be lawful for the said board to expend so much of the appropriations herein provided as may be proper for the procuring, repairing, or erecting such buildings as may be necessary for the accommodation of professors and students of said college: said board shall be and are hereby authorized to contract for and erect, at such time as they may deem proper and necessary, such additional buildings as may be needed; provided, however, that such expenditures shall not exceed the sum of one thousand dollars annually, for the first five years. They may expend also five thousand dollars of the funds received from the trusteees of the Monongolia Academy, in purchasing landed estate for the use of the agricultural department of said institution, contiguous to said seminary.

§ 12. That the governor, board of visitors, and faculty may graduate any student of the college, found, (after proper examination,) duly qualified, and shall certify the same, by affixing the seal of the college to his diploma.

§ 13. That the board of visitors constituted as aforesaid, shall, on or before the first day of April next, accept and receive from the board of trustees of Monongolia Academy, a deed or deeds for the real estate and personal property so tendered to this state by their resolution aforesaid, to themselves, as the board of visitors of the Agricultural College of West Virginia, and their

successors forever, to be placed on record in the recorder's office of Monongolia county, and then deposited in the office of the secretary of the state.

§ 14. That the said board shall appoint a treasurer who shall, after giving bond, as before provided, receive from the trustees of the Monongolia Academy, all the funds and securities tendered by their resolution hereinbefore recited.

§ 15. This act shall at all times be subject to alteration or amendment by the legislature.

WISCONSIN.

AN ACT TO REORGANIZE AND ENLARGE THE UNIVERSITY OF WISCONSIN, AND TO AUTHORIZE THE COUNTY OF DANE TO ISSUE BONDS IN AID THEREOF.

(Approved April 12, 1866.)

SECTION 1. The object of the University of Wisconsin shall be to provide the means of acquiring a thorough knowledge of the various branches of learning connected with the scientific, industrial and professional pursuits, and to this end, it shall consist of the following colleges, to wit: 1st. The college of arts. 2d. The college of letters. 3d. Such professional and other colleges as, from time to time, may be added thereto or connected therewith.

§ 2. The college of arts shall embrace courses of instruction in the mathematical, physical and natural sciences, with their applications to the industrial arts, such as agriculture, mechanics and engineering, mining and metallurgy, manufactures, architecture and commerce, in such branches included in the college of letters as shall be necessary to a proper fitness of the pupils in the scientific and practical course for their chosen pursuits, and in military tactics; and as soon as the income of the university will allow, in such order as the wants of the public shall seem to require, the said courses in the sciences and their application to the practical arts, shall be expanded into distinct colleges of the university, each with its own faculty and appropriate title.

§ 3. The college of letters shall be coexistent with the college of arts, and shall embrace a liberal course of instruction in language, literature and philosophy, together with such courses or parts of courses in the college of arts, as the authorities of the university shall prescribe.

§ 4. The university, in all its departments and colleges, shall be open alike to male and female students; and all able-bodied male students of the university, in whatever college, shall receive instruction and discipline in military tactics, the requisite arms for which shall be furnished by the State.

§ 5. The government of the university shall vest in a board of regents, to consist of fifteen members, to be appointed by the governor, two from each congressional district in the State, and three from the State at large. At the first appointment, which shall be within sixty days after the passage of this act, five shall be commissioned for one year, five for two years, and five for three years. Thereafter the full term of office shall be three years from the first Monday in February in the year in which they were appointed, unless sooner removed by the governor.

§ 6. The said board of regents shall succeed to the custody of the books, records, buildings, and all other property of the university; and the present board of regents shall be dissolved immediately upon the organization of the board herein provided for; *provided*, that all contracts legally made, and at that time binding upon the board thus dissolved, shall be assumed and discharged by their successors.

§ 7. The regents and their successors in office shall constitute a body corporate, with the name and style of "the Regents of the University of Wisconsin," with the right as such of suing and being sued, and of contracting and being contracted with, of making and using a common seal, and altering the same at pleasure. They shall have power, and it shall be their duty to enact laws for the government of the university in all its branches; to elect a president of the university, and the requisite number of professors, instructors, officers and employees, and to fix their salaries, also the term of office of each, and to determine the moral and educational qualifications of applicants for admission to the various courses of instruction; *provided*, that no instruction, either sectarian in religion, or partisan in politics, shall ever be allowed in any department of the university, and no sectarian or partisan test shall ever be allowed or exercised in the appointment of regents, or in the election of professors, teachers, or other officers of the university, or in the admission of students thereto, or for any purpose whatever.

§ 8. For the time being, an admission fee and rates of tuition, such as the board of regents shall deem expedient, may be required of each pupil, except as hereinafter provided; and as soon as the income of the university will permit, admission and tuition shall be free to all residents of the State; and it shall be the duty of the regents, according to population, to so apportion the representation of students, that all portions of the State shall enjoy equal privileges therein.

§ 9. One suitably qualified pupil from each assembly district, to be nominated by the representative of such district in the legislature of the State, who, other things being equal, shall prefer an orphan of a soldier who has died in defense of his country, shall be at once and always entitled to free tuition in all the colleges of the university.

§ 10. The president of the university shall be president of the several faculties and the executive head of the institution, in all its departments. As such, he shall have authority, subject to the board of regents, to give general direction to the practical affairs and scientific investigations of the several colleges, and in the recess of the board of regents, to remove any employee or subordinate officer, not a member of the faculty, and to supply, for the time, any vacancies thus created; and so long as the interests of the institution require it, he shall be charged with the duties of one of the professorships. The secretary of state shall be secretary of the board of regents, and shall keep a faithful record of all the transactions of the board of regents, and perform such duties as they shall impose. The state treasurer shall be the treasurer of the board of regents, and perform all the duties of such office.

§ 11. The immediate government of the several colleges shall be intrusted to their respective faculties; but the regents shall have power to regulate the courses of instruction, and prescribe the authorities to be used in the several courses, and also to confer such degrees and grant such diplomas as are usual in universities, or as they shall deem appropriate.

§ 12. At the close of each fiscal year, the regents, through their president, shall make a report in detail to the governor, exhibiting the progress, condition and wants of each of the colleges embraced in the university, the course of study in each, the number of professors and students, the amount of receipts

and disbursements, together with the nature, costs and results of all important investigations and experiments, and such other information as they may deem important; one copy of which shall be transmitted, free, by the secretary of state, to all colleges endowed under the provisions of the congressional act of July 2d, 1862, hereinbefore referred to, and also one copy to the secretary of the interior, as provided in said act.

§ 13. For the endowment and support of the university, there are hereby appropriated: 1st. The income of the university fund. 2d. The income of a fund to be derived from the sales of the two hundred and forty thousand acres of land granted by Congress to the State of Wisconsin, by virtue of an act approved July 2d, 1862, entitled "An Act donating land to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," which fund shall be designated as the agricultural college fund. 3d. All such contributions to the endowment fund as may be derived from public or private bounty. The entire income of all said funds shall be placed at the disposal of the board of regents, for the support of the aforesaid colleges of arts, of letters, and of such colleges as shall be established in the university, as provided in section two of this act; *provided*, that all means derivable from other public or from private bounty, shall be exclusively devoted to the specific object for which they shall have been designed by the grantor.

§ 14. Meetings of the board may be called in such manner as the regents shall determine, a majority of whom shall constitute a quorum for the transaction of business, but a less number may adjourn from time to time. No member of the board shall receive compensation for his services as such member, but each member shall be entitled to reimbursement, on the audit of the board, for his traveling and other necessary expenses while employed on the business of the board.

§ 15. The first meeting of the regents, the appointment of which is herein provided for, shall be held in the university edifice, on the last Wednesday of June, 1866, at which time the regents, when so convened, shall elect one of their number president of the board. The time for the annual election of president of the board of regents, as also the regular annual meeting, and such other meetings as may be required, shall be determined in the by-laws of the board. Immediately upon the organization of the board, it shall be their duty to make arrangements for securing, without expense to the State, or to the funds of the university, suitable lands in the immediate vicinity of the university, not less than two hundred acres, including the university grounds, for an experimental farm, and as nearly as possible thereafter, to make such improvements thereon as will render it available for experimental and instructional purposes, in connection with the agricultural course in the college of arts.

§ 16. To enable the board of regents to purchase lands in the vicinity of the university for an experimental farm, and to improve the same, the board of supervisors of Dane county are hereby authorized and empowered to issue the bonds of said county, bearing interest at the rate of seven per cent. per annum, interest payable annually, for the amount of forty thousand dollars, such bonds to be payable on or before the first day of January, A. D. 1886, at such place as may be determined by said board of supervisors. The bonds so issued shall be delivered to the board of regents of the university, who shall faithfully apply

the same, or the proceeds thereof, together with all contributions made for this specific purpose, to the purchase and improvement of the lands for such experimental farm. But if the said county of Dane, by its proper officers, shall not make provision for the issue and payment of said bonds as aforesaid within thirty days after the passage of this act, and if in such case the citizens of said county shall fail within days after the expiration of said first mentioned period of thirty days, to furnish guarantees satisfactory to the secretary of state, that the said amount of forty thousand dollars shall be placed at the disposal of the regents of the university, at the first meeting of the board, then this act shall be null and void.

§ 17. So much and such parts of chapter twenty-one of the revised statutes, and of any and all acts as contravene the provisions of this act, are hereby repealed.

§ 18. This act shall take effect and be in force from and after its passage.

AN ACT TO AUTHORIZE THE INVESTMENT OF UNIVERSITY FUND IN CERTAIN BONDS OF DANE COUNTY.

(Approved March 26, 1867.)

SECTION 1. The commissioners of school and university lands are hereby authorized to invest a portion of the university fund, or of the agricultural college fund, or of both, in the bonds of the county of Dane, issued by said county and delivered to the regents of the university by virtue of chapter 114 of the general laws of 1866, entitled "An Act to reorganize and enlarge the University of Wisconsin, and to authorize the county of Dane to issue bonds in aid thereof."

§ 2. This act shall take effect and be in force from and after its passage.

PART II.

COLLEGES, SCHOOLS, AND DEPARTMENTS

OF

AGRICULTURE AND THE MECHANIC ARTS.

I. COLLEGES, SCHOOLS, AND DEPARTMENTS OF SCIENCE ESTABLISHED IN PURSUANCE OF NATIONAL AND STATE LEGISLATION.

II. INSTITUTIONS AND COURSES OF INSTRUCTION IN THE PRINCIPLES OF SCIENCE AND THEIR APPLICATIONS TO THE ARTS, NOT AIDED BY CONGRESSIONAL OR STATE GRANTS.

SUPPLEMENT.

OFFICIAL CIRCULAR.—NO. 6.

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SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLEGE.

NEW HAVEN, CONN.

HISTORY.

In the year 1846, a "Department of Philosophy and Art" was instituted in Yale College, on the same general principles as the Departments of Law, Medicine and Theology. One design in this movement was to secure better opportunities of scientific instruction for chemists, agriculturists and other students who might or might not have been members of the Academical Department. A special "Analytical Laboratory" was soon opened for the instruction of these scholars. Six years later a class in Engineering was commenced. These classes soon became known as the "Yale Scientific School," and were the beginning of the present organization. In 1860, a liberal endowment was received from Joseph E. Sheffield, Esq., of New Haven, (amounting to upwards of $100,000, and subsequently increased by further gifts of $60,000) in consequence of which the name of "Sheffield Scientific School" was given to the establishment. The school, as enlarged and re-organized, was almost exactly such a college as was contemplated in the Act of Congress of July 2, 1862, so that the Legislature of Connecticut was led, almost unanimously, to bestow upon this department of Yale College the income of the fund derived from the sale of land scrip. The act directing this appropriation was approved June 24, 1863.

TRUSTEES.

The Trustees of the institution are the Corporation of Yale College, consisting of the President of the College and ten Clerical Fellows, the Governor, Lieutenant Governor, and six senior Senators of the State. The Governor, Lieutenant Governor, and three senior Senators, with the Secretary of the State Board of Education constitute the State Board of Visitors, and with the Secretary of the School, the Board for the appointment of State Students. The following persons compose the Board of Visitors in September 1867:—His Excellency James E. English, his Honor E. H. Hyde, Hon. George Beach, Hon. M. T. Granger, Hon. A. J. Gallup, and Rev. B. G. Northrup. The Secretary of the School is Professor D. C. Gilman. The President of Yale College and the thirteen professors of this department form a "Governing Board," responsible to the corporation.

SALE OF THE SCRIP.

The amount of the national land-grant conferred upon Connecticut was 180,000 acres. The scrip representing this endowment was sold by the Commissioner of the School Fund, in accordance with the directions of the Legislature, on terms approved by the Governor of the State, Hon. W. A. Buckingham.

The price which it brought was 75 cts. per acre, yielding a capital of 135,000 dollars. This was first invested in United States Ten-Forty bonds, bearing interest in gold at the rate of 5 per ct. per annum; but subsequently the Legislature directed that these securities should be sold and the proceeds invested, instead, in Connecticut State Bonds bearing interest at 6 per cent. in currency. The annual income from this fund is therefore $8,100.

OTHER FUNDS AND PROPERTY.

The school is the owner of a spacious and commodious edifice provided by Mr. Sheffield, at a cost, including outfit, &c., of about $100,000. It has invested funds, the gift of various parties, amounting to about $70,000,—and has also large collections of books, apparatus, instruments, and specimens in Natural History. Besides its own peculiar property, the school as a department of Yale College enjoys the advantages of the Public Library of the University, the Peabody Museum of Natural History, the Yale School of the Fine Arts, and other costly and serviceable endowments, which could not be replaced for half a million of dollars.

EXPERIMENTAL FARM.

No effort has been made to purchase a farm for experiment or practice. The funds of the institution are at present quite inadequate to this outlay; and the instructors believe that many if not all the advantages looked for in such an investment may be secured by observation and experiment on private farms in the neighborhood of New Haven, without expending any considerable sum in the purchase and management of a school farm, beyond a piece of ground suitable for a botanical garden and for occasional experiments, which would be a welcome accession to the school.

MANUAL LABOR.

There has been no proposal to require manual labor of the students, nor would the suggestion meet with favor. Some of the students of their own accord take part in mechanical pursuits or other industrial occupations,—and there are abundant opportunities for physical exercise in the scientific excursions which are kept up through the summer, and also in the college gymnasium, and in boating, skating, etc.

MILITARY INSTRUCTION.

Thus far military instruction has been given by an annual course of lectures from a Prussian military officer, who was a Brigadier General in the recent war for the Union. He has expounded the principles of strategy and tactics, with diagrams and other means of illustration, in an interesting and profitable manner. The provisions for military instruction proposed by Congress in the act of July 26, 1866, are now under consideration by the authorities of Yale College, and their action may modify these existing arrangements.

PUBLIC LECTURES.

Courses of public lectures have been given the last two years to mechanics in Sheffield Hall, and to farmers assembled in different parts of the State.

TUITION AND FREE SCHOLARSHIPS.

The charge for tuition is $125 per year, payable $45 at the beginning of the first and second term, and $35 at the beginning of the third term. The special student in Chemistry is charged an addition of $75 per annum for chemicals and the use of apparatus, and must supply himself with certain articles at a cost of five or ten dollars per term.

Forty free scholarships, open only to citizens of Connecticut, have been established by the State, and more than half of them are already occupied. If more applicants should appear than there are vacancies, the preference is to be given to those who have become orphans because their fathers served in the army or navy of the U. S., and next, to those who need pecuniary assistance; it being understood that all applicants must be fitting themselves for industrial occupations. The appointments are moreover to be distributed among the several counties in proportion to their population.

LODGING AND BOARD.

The school owns but one building, (known as "Sheffield Hall," the gift of Mr. Joseph E. Sheffield,) which is devoted to the necessary rooms for instruction, laboratories, museums, library, &c.

The students lodge and board in private houses. Some public provision to lessen the cost of living; for example a good dormitory, and a public boarding house conducted by the students with the co-operation of the faculty, are both most desirable.

ADMISSION.

All who enter the Sheffield School must be at least sixteen years of age, and must have mastered Algebra, Geometry, and Trigonometry,—besides what are called "the higher English branches." The entrance examinations on these studies are strict, as they are not pursued in the school, and are essential to successful progress. The regular examination is at the close of the third term and the beginning of the first term, (eight weeks after commencement.)

REGULAR COURSES OF STUDY.

The regular courses of study occupy three years, each year having three terms, two of fourteen and one of twelve weeks. During the first or Freshman year, the entire class is taught in the same studies, which are partly mathematical, partly scientific, and partly linguistic,—the object being to lay such a foundation of scholastic discipline as will be useful in any special department of study. During the second and third years, the students group themselves in seven sections, the professional character of which is clearly indicated by the titles, viz:—

1. CHEMISTRY AND MINERALOGY.
2. CIVIL ENGINEERING.
3. MECHANICS.
4. MINING AND METALLURGY.
5. AGRICULTURE.
6. NATURAL HISTORY AND GEOLOGY.
7. SELECT COURSE OF SCIENTIFIC AND LITERARY STUDIES.

In all these sections attention is paid to the French and German languages. Examinations are held at the close of every term; and once a year there is an examination in writing on the studies of the year. These courses lead to the Degree of "Bachelor of Philosophy," conferred by Yale College. The Degree of "Civil Engineer" is conferred on students who pursue an advanced course of engineering, and that of "Doctor of Philosophy" on those who study for two years after having attained to a Bachelor's Degree in Arts, Philosophy and Science, and who pass a successful examination in higher departments of science.

PARTIAL COURSES.

Students qualified to pursue advanced courses of instruction in Chemistry, Practical Astronomy, Zoölogy, and other branches taught in the institution are admitted to partial and selected courses adapted to their special wants. One object of this arrangement is to aid young men to qualify themselves to become Professors, Teachers and independent investigators in various departments of natural science. There is also a "shorter course" in agriculture, definitely arranged and announced.

INSTRUCTORS.

The President of the institution is Rev. THEODORE D. WOOLSEY, D. D., LL.D. The Chairman of the Governing Board is Professor JAMES D. DANA; and the Professors and their departments are as follows:—

WILLIAM A. NORTON,	*Civil Engineering and Mathematics.*
JAMES D. DANA,	*Geology and Mineralogy.*
BENJAMIN SILLIMAN,	*General Chemistry.*
CHESTER S. LYMAN,	*Industrial Mechanics and Physics.*
WILLIAM D. WHITNEY,	*Modern Languages.*
GEORGE J. BRUSH,	*Mineralogy and Metallurgy.*
DANIEL C. GILMAN,	*Physical Geography.*
SAMUEL W. JOHNSON,	*Analytical and Agricultural Chemistry.*
WILLIAM H. BREWER,	*Agriculture.*
ALFRED P. ROCKWELL,	*Mining.*
DANIEL C. EATON,	*Botany.*
OTHNIEL C. MARSH,	*alæontology.*
ADDISON E. VERRILL,	*Zoölogy.*

The additional instructors in 1866-7, were:

MARK BAILEY,	*Elocution.*
LOUIS BAIL,	*Drawing and Designing.*
A. VON STEINWEHR,	*Military Science.*
JOHN AVERY,	*Physics, etc.,*
JAMES B. STONE,	*Mathematics.*
BEVERLY S. BURTON,	*Chemistry.*
CHARLES J. SHEFFIELD,	*Assaying.*

Some of the students are also required to attend lectures in the other departments of the University,—especially the lectures on Physics and Astronomy by Professor E. Loomis, on Human Anatomy and Physiology by Dr. L. J. Sanford, and on Mental and Moral Philosophy by Rev. Professor N. Porter.

MODES OF INSTRUCTION.

The instructors aim to impart Useful Knowledge by such methods as will secure Intellectual Discipline. The students being classified in more than twenty subdivisions, based at once on their purposes in life and on their scholastic attainments, are brought into close personal relations with the professors, who endeavor to inspire them with a love of study, rather than to incite them by a fear of discipline. At the same time, a rigid system of marks is kept up, and all who fall below a certain standard in scholarship, attendance or conduct, are subject to dismission. In the Chemical and Zoological laboratories in Civil Engineering, and so far as possible in other branches, the students are trained to practical work with the necessary instruments and apparatus. Scientific excursions are maintained through the summer under the various professors, to promote the study of Geology, Mineralogy, Botany, Zoology, etc., and sometimes to examine important manufactories and public works. The drill by recitations is constant, but lectures, both formal and familiar, are introduced to quicken the mind and impart the most recent investigations.

APPARATUS OF INSTRUCTION.

The following is a summary statement of the material possessions of the school applicable to the purposes of instruction.

I. *Pertaining to Sheffield Hall.*

1. Laboratories in Chemistry, Metallurgy, Photography and Zoology. (A laboratory in Physics and Mechanics is still very much wanted.)
2. Metallurgical Museum of Orés, Furnace Products, etc., (an extensive and increasing collection.)
3. Agricultural Museum of Soils, Fertilizers, useful and injurious Insects, etc.
4. Astronomical Observatory, having a very good equatorial telescope, by Clarke & Son of Cambridge, a meridian circle, etc.
5. A library and reading room, containing books of reference and a selection of German, French, English, and American scientific journals.
6. A collection of models in Architecture, Civil Engineering and Mechanics, and of diagrams adapted to public lectures.
7. A collection of Maps and Charts, topographical, hydrographical, geological, etc.
8. The private mineralogical cabinet of Prof. Brush, the herbariums of Professors Eaton and Brewer, the collection of native birds of Professor Whitney, the astronomical instruments of Professor Lyman,—all freely accessible to qualified students.

II. *Pertaining to the University.*

1. The College Library, consisting of 47,000 volumes, and the Society Libraries, consisting of 26,000 volumes.
2. Two Reading Rooms, one containing the newspapers and literary journals of England and the United States;—the other, quarterlies and monthlies in various languages and departments of learning.
3. The Cabinet of Minerals and Fossils,—an extensive and well known collection.
4. The Collections in Natural History.

(These collections and the mineral cabinet will be removed to the Peabody Museum when it is built; a fund of $150,000 having been given for this purpose by Geo. Peabody, Esq. of London.)

5. Apparatus in Physics and Chemistry, adapted to and employed in public lectures.
6. Collections of the Yale School of the Fine Arts.
7. Gymnasium for physical training.

NUMBER OF STUDENTS.

The number of students in 1865-6 was 92; in 1866-7 123; and at the commencement of the current year, 1867-8, 130.

BIBLIOGRAPHY.

The following pamphlets and articles illustrate the history of the Sheffield Scientific School of Yale College.

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Memoir of Prof. J. P. Norton. *New Englander*, vol. x., 1852.

Memorial of Prof. J. P. Norton. 12mo.

Report of the Joint Standing Committee on Education in the General Assembly of Connecticut, (May Session, 1847,) on the establishment in Yale College of Professorships of Agriculture and the Arts. (Signed by Ephm. Williams, Chairman.)

1856. Scientific Schools in Europe, by D. C. Gilman. 11 pp. 8vo. (Printed also in Barnard's American Journal of Education.)

Scientific Education the want of Connecticut, by D. C. Gilman. 8 pp. 8vo. (Printed also in the Conn. Agric. Soc. Trans.)

Appeal in Behalf of the Yale Scientific School. 32 pp. 8vo.

Private Proposal for Reorganizing the Scientific School of Yale College. (Foolscap sheet.)

Proposed Plan for a School of Science in Yale College. 32 pp. 8vo.

Plan of an Agricultural School, by J. A. Porter. 8 pp. 8vo.

Plan of an Engineering School, by W. A. Norton. 4 pp. 8vo.

1856. Science and Scientific Schools. An Address before the Alumni of Yale College at Commencement in 1856, by Prof. J. D. Dana.

1860. Agricultural Lectures at Yale College. Reported by H. S. Olcott. 12mo.

Regulations of the Scientific School of Yale College, (several editions in successive years.) 4 pp. 8vo.

1863. Statement respecting the Sheffield Scientific School, laid before members of the Legislature of Connecticut. 4 pp. 8vo.

1864. Prospectus of the Sheffield Scientific School. 4 pp. 8vo.

1865. Circular of the Sheffield Scientific School. 4 pp. 8vo.

Circular respecting a Course in Agriculture. 4 pp. 4to.

1866. First Annual Report of the State Visitors of the Sheffield Scientific School. 40 pp. 8vo.

1867. Second Annual Report of the Sheffield Scientific School. 64 pp. 8vo.

Acts of Congress and of the Connecticut Legislature, respecting the national grant. 4 pp. 8vo.

On the Relations of Scientific Education to Industrial Pursuits, by Prof. C. S. Lyman, an Address at the 21st Anniversary of the Sheffield Scientific School. pp. 8vo.

COURSES OF STUDY.

I.—Regular courses extending through three years, and leading to the degree of Bachelor of Philosophy in Yale College.

ADMISSION.

Candidates for admission must be sixteen years of age or more—must bring testimonials of good character. They will then be required to pass an examination in the below-mentioned branches:

Algebra—Davies, as far as General Theory of Equations. *Geometry*—Davis's Legendre. *Plane Trigonometry*, including Analytical Trigonometry—Loomis or Davies. *The Elements of Natural Philosophy*—Loomis or Olmsted. *Arithmetic* (including the Meteric system of weights and measures). *English Grammar, Geography, and the History of the United States.*

Some knowledge of the Latin language is also recommended.

FRESHMAN YEAR.

The Freshman class, preliminary to all the higher instructions of the school, pursues the following studies:

First Term.

Mathematics—Davies' Analytical Geometry. Spherical Trigonometry. *Physics*—Silliman's Principles. *English*—Exercises in Composition. *Chemistry*—Recitations and Laboratory Practice. *German*—Woodbury's Method and Reader.

Second Term.

English—Rhetoric. Practical Exercises in Elocution. *German*—Woodbury continued. Selections from approved authors. *Physics*—Silliman's Principles, and Academical Lectures. *Chemistry*—Recitations and Laboratory Practice. *Mathematics*—Descriptive Geometry and Geometrical Drawing.

Third Term.

English—Exercises in Composition. *German*—Selections. *Physics*—Silliman's Principles and Academical Lectures. *Mathematics*—Surveying. Principles of Perspective. *Botany*—Gray's Manual. *Drawing*—Free Hand Practice.

JUNIOR AND SENIOR YEARS.

In the last two years of the regular courses, the students, grouped in seven sections, pursue the following studies:

1,—CHEMISTRY AND MINERALOGY.

JUNIOR YEAR.

Inorganic Chemistry—Eliot & Storer's Manual, Recitations and Lectures. *Analytical Chemistry*—Fresenius. Recitations and Lectures. *Laboratory Practice*—Repetition of Experiments from Eliot & Storer's Manual. Systematic Qualitative Analysis. Use of the Blowpipe. Quantative Analysis. *Mineralogy*—Dana's System, Lectures and Practical Exercises. *Botany*—Gray's Manual. Excursions and Preparation of Herbarium. *Zoölogy*—Lectures and Excursions. *French and German* (see Select Course).

SENIOR YEAR.

General Chemistry—Academical and Medical Lectures. *Agricultural Chemistry and Physiology*—Lectures. *Laboratory Practice*—Quantitative Mineral Analysis. Assaying. Organic Analysis. Special Investigation for Graduating Thesis. *Mineralogy*—Identification of Species. *Metallurgy*—Lectures. *Geology* Dana's Manual. Recitations and Academical Lectures. *Human Anatomy and Physiology*—Academical Lectures. *Mechanics, Steam Engine and other Prime Motors*—Lectures. *French* (see Select Course).

2,—CIVIL ENGINEERING.

JUNIOR YEAR.

Mathematics—Descriptive Geometry, with applications. Shades, Shadows and Linear Perspective. Analytical Geometry of three dimensions. Differential and Integral Calculus. *Astronomy*—Theoretical Astronomy. Practical Problems. *French* and *German*. *Practical Surveying*—Triangulation, Surveying of a Harbor, etc. Topographical Surveying. *Drawing*—Isometrical, Topographical, Mechanical.

SENIOR YEAR.

Mechanics—Theoretical Mechanics. Applications of Calculus to Mechanics. Mechanics applied to Engineering. Principles of Mechanism. Thermo-dynamics. Theory of Steam Engine. Prime Movers. *Civil Engineering*—Strength and Stiffness of Materials. Bridge Construction. Stability of Arches. Stone-cutting, with graphical problems. Constitution and properties of Building Materials. Civil Engineering proper, or the Science of Construction. *Geology, French*—Selections. *Field Engineering and Surveying*—Location of Roads. Laying out Curves. Geodesy. *Designing*—Designing of Bridges and other Structures. *Drawing*—Architectural and Structural.

3,—MECHANICAL ENGINEERING.

JUNIOR YEAR.

French and German—(see Select Course). Descriptive Geometry, with Applications. Analytical Geometry of Three Dimensions. Elementary Mechanics. Principles of Mechanism. Differential and Integral Calculus. Metallurgy. Shades, Shadows, and Linear Perspective. Isometrical Projection. Elements of Mechanical Drawing and Principles of Construction. Shading and Tinting, and drawing from patterns.

SENIOR YEAR.

French and German (see Select Course). *Analytical Mechanics*—Strength of Materials. Thermo-dynamics. Theory and Construction of the Steam Engine. Prime Movers. Theory of Machines. Mill work. Examination of Machinery. Mechanical Construction. Machine shop Practice. Architectural Drawing. Drawing from actual Machines. Designs of Machines.

4,—MINING AND METALLURGY.

JUNIOR YEAR.

French and German (see Select Course). *Mechanics*—Peck's Elements. Principles of Mechanism. Theory of Steam Engine. *Mathematics*—Mining Surveying—Shades, Shadows and Linear Perspective. Isometrical Projection. *Civil Engineering*—Strength of Materials. Stability of Arches. Higher and Topographical Surveying. *Geology*— Dana. *Drawing*—Mechanical and Topographical.

SENIOR YEAR.

French (see Select Course). *Mining*—Lectures. *General and Special Metallurgy*—Lectures. *General Chemistry*—Miller. *Chemical Analysis*—Fresenius. Recitations and Lectures. *Laboratory Practice*—Qualitative and Quantitative Analysis. Use of the Blowpipe. Assaying. *Mineralogy*—Lectures and Practical Exercises. *Zoölogy*—Lectures. *Mechanics*—Application to Engineering. *Drawing*,

5,—AGRICULTURE.

JUNIOR YEAR.

Agricultural Chemistry and Physiology—Structure and Physiology of Plants; Water, Atmosphere, and Soil in their relations to Vegetable Production, Improvement of the Soil by Chemical and Mechanical means. Domestic Animals; the chemical relations of their Food, Digestion, Respiration, Assimilation and Excretions; Milk, Butter, Cheese, Flesh, and Wool as Agricultural Products. Lectures. *Experimental and Analytical Chemistry*—Laboratory Practice. *Meteorology*—Academical Lectures. *Physical Geography*—Lectures. *Zoölogy*—Lectures. *Drawing*—Free-hand practice. *French and German*—Continued. *Excursions*—Botanical, Zoölogical, etc.

SENIOR YEAR.

Agriculture—The staple crops of the United States, their varieties, cultivation, management, and preparation for market. The Care, Breeding and Raising of Domestic Animals. Lectures and Recitations. *Experimental Chemistry*—Laboratory practice. *Agricultural Zoölogy*—Natural History of Domestic Animals; Insects useful and injurious to Vegetation. Lectures. *Human Anatomy and Physiology*—Lectures. *Geology*—Lectures and Recitations. *Rural Economy*, both American and Foreign. Lectures. *French and German*, continued. *Excursions*—Botanical, Zoölogical, etc.

6,—NATURAL HISTORY AND GEOLOGY.

JUNIOR YEAR.

First Term.

Zoölogy—Daily Laboratory instruction; Zoölogical Excursions. *Botany*—Gray's First Lessons. *Chemistry*—Academical Lectures. *French and German*—Selections.

Second Term.

Zoölogy and Paleontology—Laboratory Practice, Lectures. *Physical Geography*—Lectures and Recitations. *Chemistry*—Laboratory Practice. *French and German*, continued.

Third Term.

Zoölogy and Paleontology—Laboratory Practice, Lectures, Excursions (land and marine). *Botany*—Gray's Manual; Excursions. *Mineralogy*—Dana, Lectures and Practical Exercises. *French*, continued. *Drawing*—Free Hand Practice.

SENIOR YEAR.

First Term.

Zoölogy and Paleontology—Laboratory Practice, Lectures, Excursions. *Geology*—Dana's Manual. Excursions. *Meteorology*—Academical Lectures. *French*—Selections.

Second Term.

Zoölogy and Paleontology—Continued. *Botany*—Lectures on special subjects. *Geology*—Dana, Recitations and Lectures. *Anatomy and Physiology*—Academical Lectures. *French*—Selections.

Third Term.

Zoölogy and Paleontology—Continued, with Excursions. *Photography*—Practical Instruction.

7,—SELECT COURSE IN SCIENCE AND LITERATURE.

JUNIOR YEAR.

MODERN LANGUAGES.—*French and German*, continued. English Composition and Literature.

MATHEMATICS.—Peck's Mechanics, Norton's Astronomy.

NATURAL SCIENCE.—*Agricultural Chemistry*—Lectures. *Zoölogy*—Lectures and Excursions. *Botany*—Lectures and Excursions. *Mineralogy*—Lectures. *Physical Geography*—Lectures and Recitations.

HISTORY.—Recitations.

DRAWING.—Free Hand, and Architectural.

SENIOR YEAR.

LANGUAGE.—*French or German*, continued. Lectures on Language and Linguistic Ethnology. Compositions.

NATURAL SCIENCE.—*Botany and Zoölogy*, continued. *Geology*—Recitations and Lectures. *Meteorology*—Lectures. *Human Anatomy and Physiology*—Lectures. *Astronomy*—Lectures.

PHILOSOPHY AND HISTORY.—Lectures and recitations, in *History and Political Philosophy, International Law, Political Economy, Ethics and Metaphysics.*

II.—PARTIAL COURSES LEADING TO NO DEGREES.

A partial course in Agriculture, occupying seven months in the winter, is arranged for the convenience of those who cannot pursue a longer course of study.

Special students desirous to become proficient in some branch of Chemistry are also received in the Chemical Laboratory.

In Natural History arrangements are also made for the instruction of special students, not candidates for degrees. The same is true in Practical Astronomy. No formal examinations are required for admission to these advantages, but they are only offered to young men who are able and disposed to be faithful in the pursuit of the courses they select.

III.—HIGHER COURSES LEADING TO THE DEGREE OF DOCTOR OF PHILOSOPHY OR OF CIVIL ENGINEER IN YALE COLLEGE.

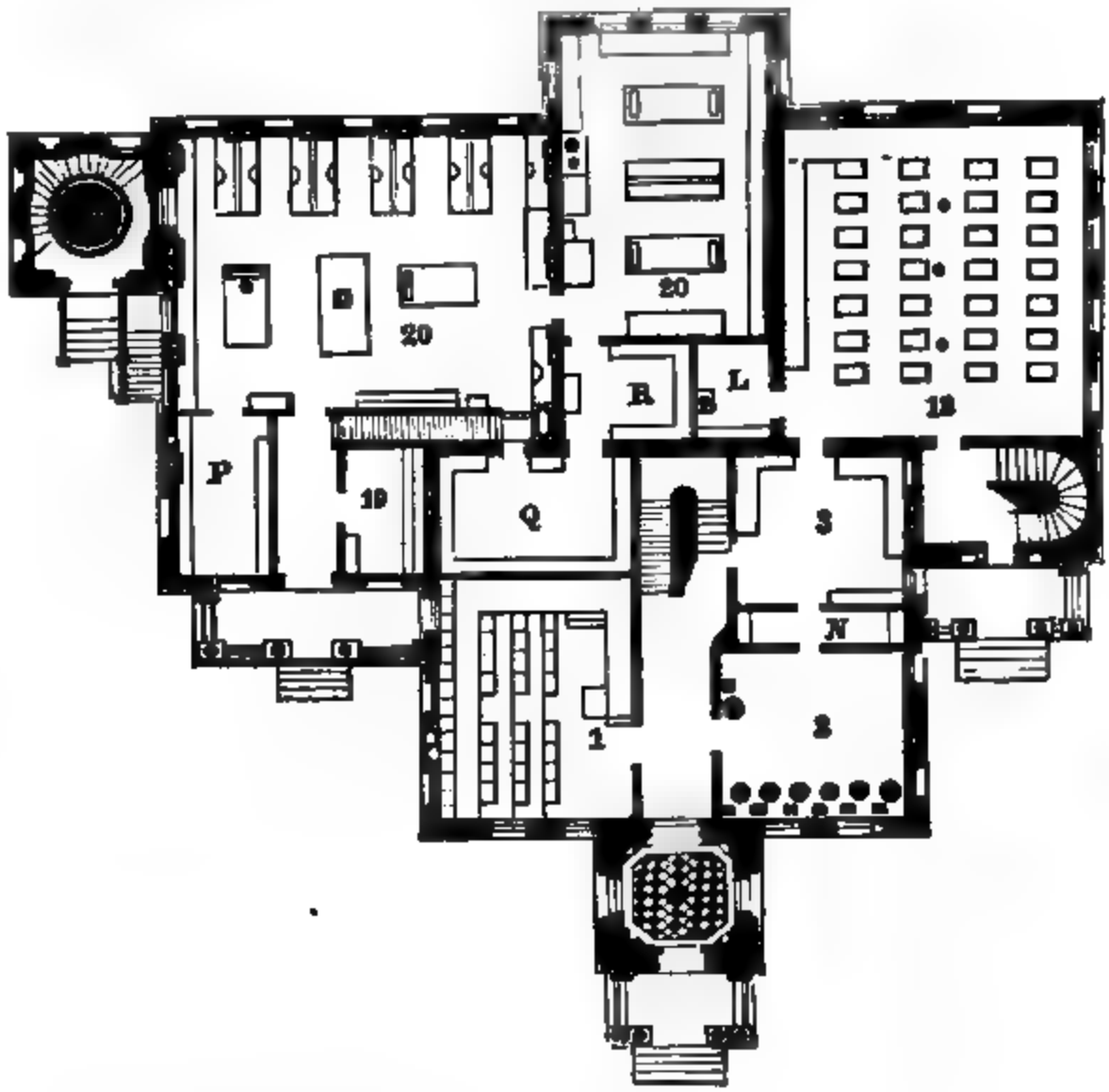
A higher course in Civil Engineering is arranged to follow the regular three years' course, and those who pursue it faithfully may receive the degree of Civil Engineer. (C. E.)

Candidates for the Degree of Ph. Dr. must have taken already a Bachelor's Degree, and must pursue in this College, a course of two years' instruction in the higher studies of at least three departments of science, terminating with a satisfactory examination.

PLANS AND DESCRIPTION OF SHEFFIELD HALL, OF THE SHEFFIELD SCIENTIFIC SCHOOL, YALE COLLEGE, NEW HAVEN, CONN.

Sheffield Hall is situated in Grove street, fronting College street, nearly a quarter of a mile north of the College square. It is built of stone and brick covered with stucco, and consists of a principal three story structure, and two wings (each of two stories,) now connected in the rear by another three story building. There are three public entrances on Grove street, of which the central one is the chief, leading to all portions of the building, the eastern door leads to the principal room of the Engineering Class and to the Metallurgical Museum above it; and the western door leads to the Chemical Laboratory.

There are two projecting towers—one in front, at the main entrance, and one at the northwest corner of the building. The principal tower in front is ninety feet high and sixteen feet square. In the second and third stories are studies for two of the professors. Above these rooms is the belfry-clock with its four dials, and surmounting the structure is a revolving turret in which the equatorial telescope is placed.



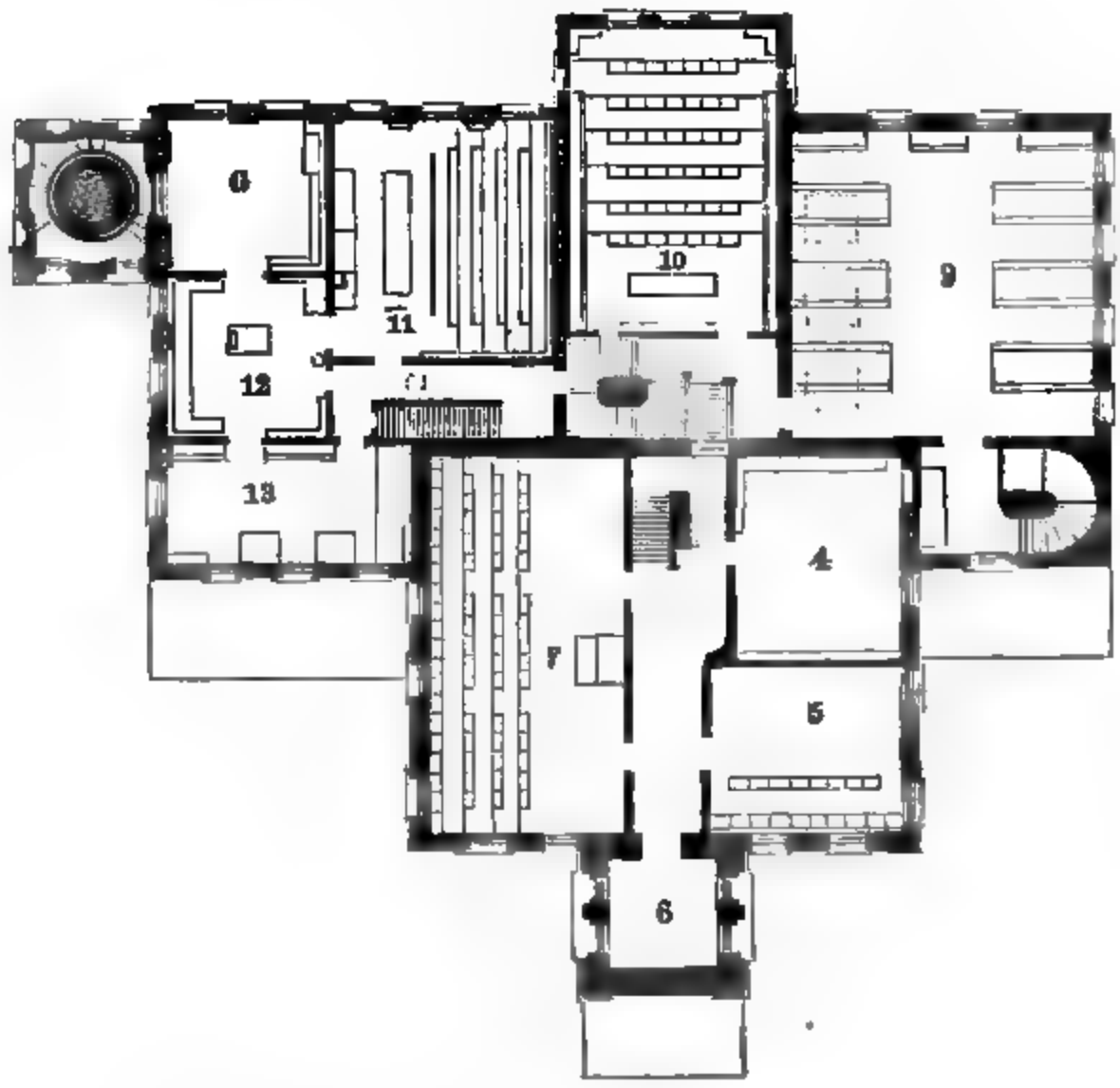
No. 1, Recitation-room, in Mathematics, Physics, etc.
" 2, " " " Engineering, etc.
" 3, Exhibition-room for engineering models, etc.
" 16, Drawing room for the Engineering and other classes.
" 19, Chemical Assistant's Office. 20, 20, Chemical Laboratory.
L, Closet.—P, Balance-room.—Q, Store room.—R, Chemical reagent room.

The northwestern tower, sixteen feet square and fifty feet high, was built for the reception of a Meridian Circle.

The extreme length of the edifice from the western tower to the east side is 117 feet; and the extreme depth is 112 feet. The three cuts which are given herewith exhibit the arrangement of rooms on each of the three stories. The basement, which is not here represented, contains a Janitor's apartment, and a metallurgical laboratory, in addition to the hot-air furnaces, store rooms, etc.

The Observatory occupies the two towers, each sixteen feet square, recently added to the edifice. In one of these is mounted an EQUATORIAL TELESCOPE; in the other, a MERIDIAN CIRCLE, with a SIDEREAL CLOCK; both telescope and circle being the recent gifts of Mr. Sheffield.

PLAN OF THE SECOND STORY.

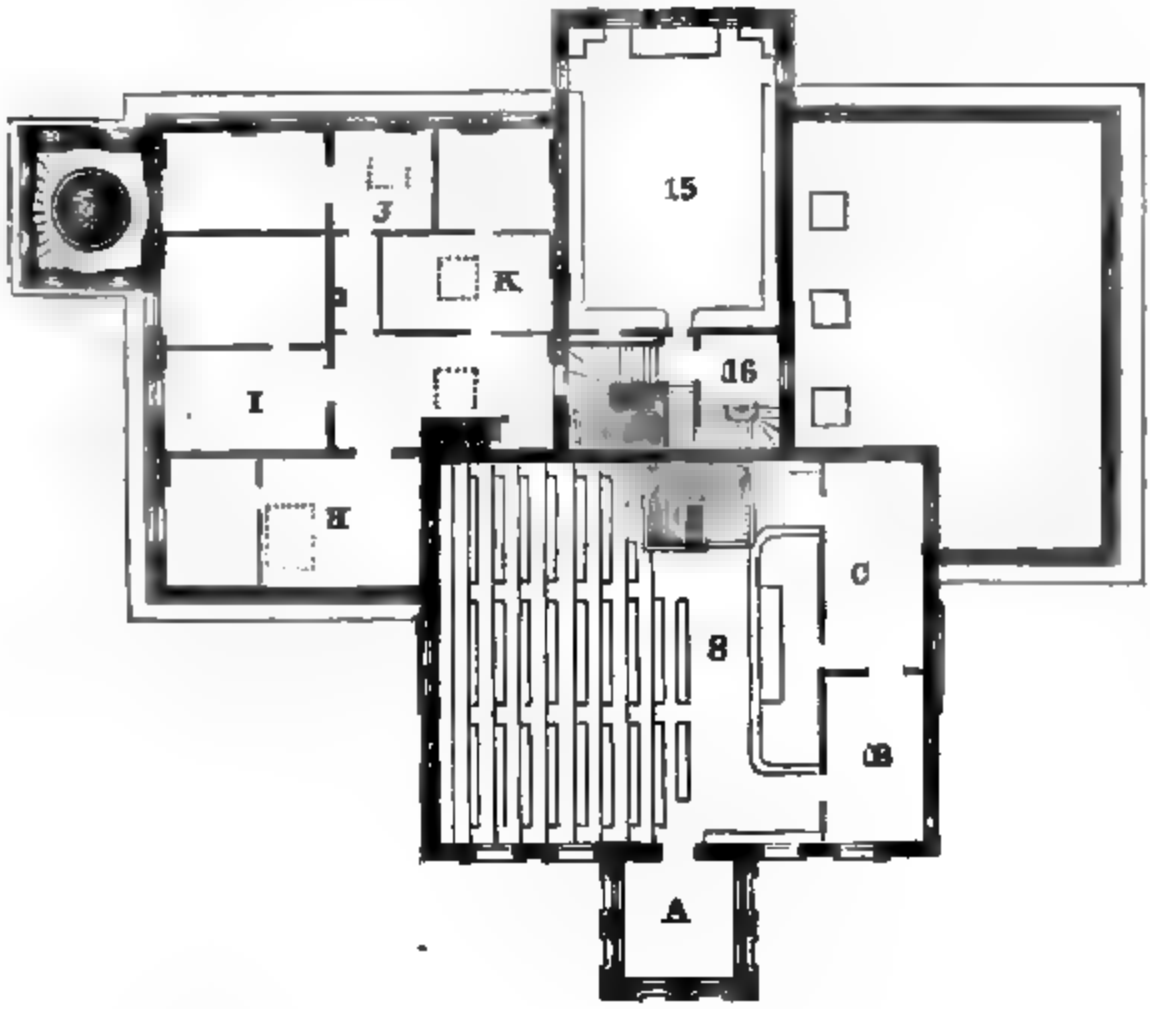


No. 4, Study—Prof. of Agriculture.
" 5, Recitation-room in Physical Geography, etc.
" 6, Study—Professor of Mining.
" 7, Recitation-room in Modern Languages, Mechanics, etc.
" 9, Metallurgical Museum.
" 10, Agricultural Lecture-room.
" 11, Chemical Lecture-room.
" 13, Private Chemical Laboratory.
" 12, Study—Professor of Mineralogy and Metallurgy.
8, Study—Professor of Analytical and Agricultural Chemistry.

The Equatorial Telescope, ordered of Messrs. Alvan Clark & Sons, of Cambridgeport, in November, 1865, was, early in October last, mounted in the revolving turret at the top of the front tower, some eighty feet above the ground, where it commands a good horizon. It is supported by a freestone pier, six feet in height, which stands on a massive floor of masonry arched in from the side walls, just above the tower clock. Though it thus partakes of whatever motion the tower itself is subject to, from winds and other causes, no noticeable inconvenience has been experienced, or is anticipated, from this source. The floor of the room, which is of wood, immediately above the stone floor, rests only in the outer walls, and does not touch the pier.

The object-glass has a clear aperture of nine inches, and is nine feet ten inches in focal length. The tube, made of pine handsomely finished, and ten inches in diameter, is at once stiff and light. Seven Huygenian eye-pieces give powers ranging from 40 to 620. All but one of these fit also a diagonal eye-tube containing a prismatic reflector. Another diagonal reflector—the first surface of an acute prism of glass—is used in observing the sun, the greater part

PLAN OF THE THIRD STORY.



No. 8, Public Lecture-room.
" 15, Library.
" 16, Librarian's room.
A, Study—Professor of Industrial Mechanics and Physics.
B and C, Apparatus-rooms.
H, Photographic Laboratory.
I, J, Dormitories.
K, Store-room.

of whose light and heat is transmitted, while the image formed by the reflected rays is viewed without inconvenience, with the full aperture of the telescope.

The equatorial mounting is the German, or Fraunhofer's—the declination axis carrying a circle of twelve inches diameter, graduated on silver so as to read by two verniers to 10″, and the polar axis carrying an hour circle of nine inches diameter, graduated to minutes of time, and reading by two verniers to five seconds.

Beneath the polar axis, in the curve of the U-shaped iron piece by which that axis is supported, is placed the driving clock. Its going is regulated by a half-second pendulum, and the intermittent motion of the scape wheel is changed into a smooth and equable motion for the telescope by the simple and ingenious device known as "Bond's Spring-Governor."

The performance of the telescope accords with the reputation of its makers. On favorable nights, it shows easily such test objects as δ Cygni, the companion of Sirius, the 6th star in the Trapezium of Orion, and, with more difficulty, γ Andromedæ. The second and third have been seen with the aperture reduced to five inches.

There is used with the telescope a bi-filar position-micrometer, with four eye-pieces, by Dollond.

A very simple observing chair enables the observer to change his position, quickly and easily, to any height required, without leaving his seat.

The revolving turret, resembling in form that of a "Monitor," rests, by a circular rail at its base, on eight grooved iron wheels, nine inches in diameter, the steel journals of which run in boxes of Babbitt's metal. It is turned by a crank, the pinion of which gears into a rack cast on the circular rail. The opening, three feet in width, extends entirely across, through the roof and sides, from base to base. It is closed by eight hinged shutters, so controlled by rods and levers as to be opened or shut with great facility.

The tower connected with the west wing was erected during the last summer, specially for the reception of the Meridian Circle purchased of the U. S. Government and formerly used in the East room of the Washington Observatory. This instrument was mounted in September on the massive granite piers, which came with it, and the bases of which are imbedded in the upper part of a shaft of solid masonry, thirty-six feet in height, nine in diameter at the base, and seven at the top. This shaft rises, independently of the building throughout, from a foundation ten feet below the surface of the ground, and is surrounded, at a few inches distance, by a double casing made of tarred felt and matched sheathing boards. It is thus well protected against sudden changes of temperature.

The Meridian Circle has a five-foot telescope, with an object glass of 3·8 inches aperture, and 58 inches focal length. It has three Ramsden eye-pieces. A diagonal eye-piece in addition has been ordered, for more conveniently observing objects at high altitudes. At the focus is a system of one horizontal, and eleven vertical, spider-lines, together with a micrometer thread movable in declination only. The mean equatorial interval of the vertical threads is 14s·167.

The axis, thirty inches in length, terminates in steel pivots two inches in diameter, and to opposite faces of its central cube are bolted the two conical frusta forming the tube of the telescope. This tube is so constructed at the

ends that the object-glass and eye-tube are readily interchangeable. On the axis, within the piers, are two circles forty inches in diameter. They are graduated on silver, the one to read by a vernier to single minutes, the other by six micrometer microscopes, to single seconds. Four of the microscopes are mounted at the corners, and two at intermediate points on the opposite sides, of a square alidade frame, which is carried by the axis, and held in position by adjusting screws connected with the pier. Attached also to the alidade is a spirit level. Suitable counterpoises prevent undue pressure of the pivots on the Y's. For finding the nadir point, and the level and collimation errors, a collimating eye-piece and vessel of mercury are used. There is also a striding level for the axis; an observing couch; and a reversing apparatus traversing the floor on rails between the piers.

This instrument, as originally constructed by Ertel & Sons, of Munich, had a thirty-inch circle at each extremity of the axis, outside of the piers. These were subsequently replaced by the present forty-inch circles on the axis inside of the piers, by Wm. J. Young, of Philadelphia, who made other minor alterations.

In the first and second volumes of the Washington Observations, this circle, in its original form, is fully described, and illustrated by plates. It has been put in adjustment, but not yet sufficiently used to test its performance.

The circle-room has a meridional opening from side to side, twenty inches in width, with roof-shutters, which are opened or shut by a single motion of a lever. The side shutters are ordinary doors.

A Sidereal Clock, by Appleton, London, the gift of William Hillhouse, Esq., of New Haven, is attached to the west wall.

The observatory possesses also a Pistor & Martin's Patent Sextant. The private instruments referred to as used by students in Practical Astronomy are: a superior portable Telescope, by Clark & Sons, of 4¼ inches aperture and five feet focal length; a Transit Instrument with three-foot telescope, and twelve-inch circle reading by two verniers to 10″; a Sidereal Clock and an Eight-day Sidereal Chronometer. The telescope of the transit instrument has an object-glass, by Fitz, of 2½ inches aperture, and a micrometer, so constructed as to be used with equal facility at all angles of position, without danger of disturbing the fixed system of threads. With this micrometer, and the spirit-level attached to the alidade of the circle, this instrument is practically a Zenith Telescope, and is used as such in observations for latitude by Talcott's method. The eye-piece constantly used is a diagonal one giving a power of 200, a power warranted by the excellence of the object-glass. The instrument is mounted on a heavy iron stand, cast in one piece, which is supported by a brick pier, four feet in height, with its foundation of masonry extending several feet below the surface of the ground.

The tower clock was made by Messrs. E. Howard & Co., of Boston. It has a wooden pendulum rod eight feet in length, with a zinc compensation-tube below the bob, specially ordered for this clock. The bob is of cast iron, and about twice as heavy as those usually furnished by the makers. The rate has thus far proved to be nearly uniform and quite satisfactory. The clock is set anew to zero, whenever its error amounts to half a minute. This has occurred but twice since August last. The hours are struck on a fine toned bell of 675 lbs. weight, suspended in a separate bell-tower on the main roof, some twenty-five feet from the clock.

MASSACHUSETTS.

I. INSTITUTE OF TECHNOLOGY, BOSTON.
II. AGRICULTURAL COLLEGE, AMHERST, HAMPDEN COUNTY.

MASSACHUSETTS, by accepting the congressional offer, came into possession of 360,000 acres of land-scrip, the proceeds of which, by acts of the Legislature approved April 10, 1861, and April 29, 1863, are to be divided between two establishments, the Massachusetts Institute of Technology in Boston, and the Massachusetts Agricultural College at Amherst. Before giving an account of these two institutions, we will add a few data towards a historical development of scientific instruction in this State.

HISTORICAL DATA.

The gradual recognition of science, and its application to the industries of a State, in its institutions of learning, and means of general education, is seen in the history of Harvard College, and of public instruction in Massachusetts.

The earliest curriculum of Harvard College, in 1642, and for a half century afterwards, with little Latin, less Greek, and no science beyond Arithmetic and Geometry, is almost a transcript of the English Public School of that day, and its degrees, although given in name and mode (*pro more Academiarum in Anglica*) after those of Cambridge, representing, as could only be expected, a much smaller amount of attainment in the graduates. The attempts to modify the studies and increase the attainments in science, have been in the end more successful here than in the mother institutions. The earliest indication of a desire for change was manifested in the efforts to induce Comenius—the great originator and advocate of realistic instruction in Europe, and at that time in England on an invitation of persons in the government to devise a system of public instruction—to accept the presidency of the College in 1654, which he declined, preferring to go to Sweden on the invitation of Chancellor Oxenstiern.

The first suggestion of change in the appliances and methods of teaching was made by President Hoar, in 1672. Dr. Hoar was a graduate of the College in 1650, and up to that time trained in its studies and methods, but resided in England, from 1653 to 1672;—during which period, although a settled clergyman, he received the degree of Medicine from the University of Cambridge, was intimate with members of the Royal Society, and by his letter to Sir Robert Boyle, dated Cambridge, December 13, 1672, familiar with the ideas of scientific and industrial education set forth by Milton in his "*Tractate*"; by Hoole in his translation of the *Orbis Pictus of Comenius*; by Hartlib in his *Plan of a College of Husbandry*; by Sir William Petty in his *Ergastula*, or Trades' Colleges; by Cowley in his *College of Experimental Philosophy*, and by Webster in his *Examen*, or the introduction of science into the public schools and universities. Writing to Boyle, he remarks: "We still hope some help from our mother land, of which your honored self, Mr. A., and some others

have given pledge. * * A large, well-selected garden and orchard for planting; an Ergastulum for mechanic fancies, and a laboratory chemical for those philosophers that by themselves would culture their understandings, are in our design, for the students to spend their times of recreation in; for readings or notions only are but husky provender."

But these designs were nearly two centuries in advance of the aspirations of the corporators of either English or American colleges. In Harvard College a regular Professorship of Mathematics and Natural Philosophy was first instituted in 1727. The Professorship of Chemistry, and the first laboratory, were established in 1783. The site of a Botanic Garden was purchased by citizens of Boston in 1807, although the corporation, in 1784, applied to the Legislature for help in this direction to enable the College to accept the offer of the King of France "to furnish such garden with every species of seeds and plants, which might be requested, from his Royal Garden, at his expense." In 1805 the Professorship of Natural History was founded by the subscription of $30,000 of a few citizens of Boston. In 1816 the Rumford Professorship of the Sciences as applied to the Arts, was endowed out of a bequest of Benjamin Thompson, of Woburn, Mass., (better known as Count Rumford of Bavaria,) "in order to teach by regular courses of academic and public lectures, accompanied with proper experiments, the utility of the physical and mathematical sciences for the improvement of the useful arts, and the extension of the industry, prosperity, happiness and well-being of society." In 1839 an Astronomical Observatory was commenced by a subscription of John Quincy Adams and others, and in 1848 munificently endowed by Edward B. Phillips, in the sum of $100,000. In 1820 the Professorship of Mineralogy and Geology was established, and the cabinet of specimens began to assume magnitude and value. In 1846 the building of the Lawrence Scientific School was erected by Abbot Lawrence, who also endowed the Professorship of Civil Engineering and Geology, to a total amount, with his son's donation, of $150,000. In 1859 the Museum of Comparative Zoölogy was established on the basis of an endowment of $50,000 by William Gray, and $100,000 by the State, and of subscriptions in the sum of $71,125 by individuals, and the consecration of the genius and enthusiasm of Louis Agassiz to its inauguration, the value of which no amount of money can represent, and which has since secured over $200,000 in money, and more than that in collections for the institution. In 1862, Samuel Hooper of Boston, gave $50,000 to establish a School of Mines. In addition to the professorships and endowments of purely scientific instruction above specified, should be added the bequest of Benjamin Bussey in 1841, which is now about to become available to the college, and one-half of which, (estimated at $300,000,) must be directed to a Manual Labor School. Although the recognition of science and its application to industry, and the increase of the agencies and resources of instruction in Harvard College have been slow, and mainly within the last twenty-five years, the institution is now manned and equipped to do its work in the most thorough and comprehensive manner.

In 1823 the Natural History Society of Boston was incorporated, and for its building, collections, and endowments, has received from the State and City, and from individuals, at least $400,000.

In 1835, John Lowell, a native of Boston, provided, by his testamentary bequest written in Egypt, for the delivery of courses of public lectures in Boston, for

the reasons and objects, among others, specified as follows: "As the prosperity of my native land, New England, which is sterile and unproductive, must depend, first, on the moral qualities, and second, on the intelligence and information of its inhabitants, I am desirous of contributing toward this second object also; and I wish courses of lectures to be established on physics and chemistry, with their application to the arts; also on botany, zoölogy, geology, and mineralogy, connected with their particular utility to man." On this foundation, besides the annual delivery of extended courses of lectures by the most eminent men of science in this country and in Europe, a permanent School of Design and Drawing has been established; and special lectures are now delivered every year in connection with the Massachusetts Institute of Technology.

But any survey of the means of original investigation, or of special study in any department of science, would be imperfect which should not include the University Library at Cambridge, with its 104,000 volumes, the Boston Athenæum, with its 90,000 volumes, and the Boston City Library, with its 130,000 volumes, all of which, with their buildings and special endowments, cannot represent less than one million of dollars.

In view of these noble institutions and munificent endowments, and more than these, the rich experience and splendid attainments of the Professors already engaged in the work of scientific investigation and instruction in Cambridge and Boston, we can better appreciate, and sympathize with the recommendations of Gov. Andrew in his message to the Legislature, in January, 1863, on the disposition of the National land-grant. After having referred to the danger of dividing the grant among several institutions, he calls attention to the number of expert professors required in the various departments of applied science, and then goes on to say:

"If our Commonwealth is to retain her wonted place in noble works, we must seize, at the earliest opportunity, upon as many men of this character as may be found in the country, and at once organize our institution, to be a model for other States that may avail themselves of the grant from Congress. Not only a laudable State pride demands this, but the highest considerations of patriotism and philanthropy demand it.

The Act of Congress does not make provision sufficient for an Agricultural School of the highest class in each State. Nor would it be possible now to find, disconnected from our colleges and universities, as many men of high talent, and otherwise competent, as would be required to fill the chairs of one such school. But Massachusetts already has, in the projected Bussey Institution, an agricultural school, founded, though not yet in operation, with a large endowment, connected also with Harvard College and the Lawrence Scientific School. She can therefore, by securing the grant from Congress, combining with the Institute of Technology and the Zoölogical Museum, and working in harmony with the college, secure also for the agricultural student for whom she thus provides, not only the benefits of the national appropriation, but of the Bussey Institution and the means and instrumentalities of the Institute of Technology, as well as those accumulated at Cambridge. The benefits to our State, and to our country, and to mankind, which can be obtained by this cooperation, are of the highest character, and can be obtained in no other way. The details of the connection of the Bussey Institution with the Scientific School and the College, are not yet fully wrought out; but I apprehend that little difficulty would be found in connecting it also with the grant from Congress, if the gentlemen who may be intrusted by the State with the work, will approach it with the perception of the absolute necessity for husbanding our materials, both men and money, and concentrating all our efforts upon making an institution worthy of our age and of our people. Its summit must reach the highest level of modern science, and its heads must be those whom men

will recognize as capable of planning a great work, and of working out a great plan.

The fifth chapter of the Constitution of Massachusetts, celebrates the wisdom of our ancestors, who "so early as the year 1636, laid the foundation of Harvard College, in which University many persons of great eminence have, by the blessing of God, been initiated in those *Arts and Sciences* which qualify them for public employments both in Church and State," reciting that "the encouragement of arts and sciences, and all good literature, tends to the honor of God, the advantage of the Christian religion, and the great benefit of this, and the other United States of America." And it declares that it "shall be the duty of Legislatures and Magistrates, in all future periods of this Commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them; especially the University at Cambridge, public schools, and grammar schools in the towns; to encourage private societies, and public institutions, rewards and immunities for the promotion of agriculture, arts, sciences, commerce, trades, manufactures and a natural history of the country."

I venture the opinion that the advantages presented by the various institutions which now cluster around the college, may be so combined with other institutions as to realize more fully in actual experiment the true idea of a University. I cannot doubt that the people of the Commonwealth have a right to those benefits; the prevention of all the waste of means, the weakening of resources, the repetitions of professorships, libraries, apparatus and other material, consequent on scattering instead of concentration. Model farms, and experimental culture in all the varieties of soil our lands present, as the wise and expert may hereafter advise, and also branches or subordinate schools, are not to be discouraged. Neither are the schools and colleges for academic study already provided or contemplated, nor any gifts or grants thereto, to be less favored in the future. Nor does unity of plan and co-operation in method, of necessity imply confinement of all the departments of an institution to one place. The object should be to centralize and economise means and power, while distributing and popularizing education and its fruits.

But, in order to fulfil the highest functions of a University adapted to the wants and development of modern society, to an intellectual and free people, its professorships, libraries and apparatus should be so combined and distributed as to include to faculties of Divinity, of Law, of Medicine, of Military instruction, of Letters and Natural Science, all of them, organized and represented in their highest perfection. The faculty of Divinity should have, as its basis, a strong corps of scholars versed in Hebrew literature and history, in ecclesiastic history, and in dogmatic theology, admitting as professors members of every church competent to teach. The teaching of the law school should include the civil law, comparative jurisprudence, political economy and diplomacy. The faculty of letters should combine the deepest scholars in ancient literature, including Sanscrit, and the other Oriental languages, as well as Greek and Latin; and in the antiquities proper, history in all its ramifications, the modern languages and their literature, philosophy in all its branches with its history. For the faculties of medicine and of natural sciences, should be combined mathematicians, astronomers, physicists, chemists, mineralogists, botanists, zoölogists, geologists, devoting themselves chiefly to the scientific pursuit of their study; and also men distinguished for their eminence in the application of the sciences to the useful arts, civil engineers, architects, mining engineers, military engineers, and agriculturists.

That we should continue to build on the foundation our fathers laid, endeavoring to make actual in the life of our society their ideal, I religiously believe. Let us plan to concentrate here the "gladsome light" of universal science. Let learning be illustrated by her most brilliant luminaries, and let the claims of every science be vindicated by its bravest champion. Two-thirds of an amount equal to the sum we annually, and wisely, expend in public and private instruction, would found professorships and furnish the fund which would give to Massachusetts a University worthy the dream of the fathers, the history of the State, and the capacity of her people."

After much discussion in the Legislature and the public press, the policy of concentration so eloquently set forth by Gov. Andrew, was rejected.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,

BOSTON.

HISTORY.

In the years 1858–9 a number of gentlemen residing in and near Boston, interested in science and the practical and fine arts, conceived the idea of bringing into close proximity in one or more buildings to be erected for the purpose, the Museums and Collections of the Natural History Society, the Horticultural Society, and others that might be formed illustrating the industrial and fine arts, so as by their union and co-operation to constitute a Comprehensive Museum, or "Conservatory of Arts and Sciences." With this view, after organizing as a "Committee of Associated Institutions," they petitioned the Legislature to allot to their use a portion of the newly-made land on the Back-Bay, on which to erect buildings suitable to their purpose.

The idea of establishing a School of Applied Science in connection with the proposed Museum, had not as yet been entertained. This was first suggested in a Memorial prepared by Prof. William B. Rogers, the present President of the Institute, and adopted by the above-named Committee, of which Hon. Marshall P. Wilder was the Chairman, and Dr. Samuel Kneeland the Secretary. In this memorial, which was submitted to the Legislature in the winter of 1860, reference is made to the expected early establishment of a "Comprehensive Polytechnic College," furnishing "a complete system of industrial education supplementary to the general training of other institutions, and fitted to equip its students with every scientific and technical principle applicable to the industrial pursuits of the age."

This, like the previous effort, failed to secure the favor of the Legislature, but it attracted attention to the importance of practical education, and opened the way for the more definite scheme of organization, which was soon after framed by Prof. Rogers, in the form of a Report setting forth the "Objects and Plan of an Institute of Technology, including a Society of Arts, a Museum of Arts, and a School of Industrial Science." This Report was adopted by the Committee of Associated Institutions, of which Prof. Rogers was now Chairman, in the Autumn of 1860, and furnished the frame-work on which the Institute has since been moulded.

The extensive circulation of the "Objects and Plan," accompanied by an appeal to the public for co-operation and support, led in January, 1861, to a preliminary and informal organization of the Institute, which was soon followed by an application to the Legislature for a charter, and for a grant of land on the Back-Bay for its accommodation and that of the Society of Natural History. This petition was favorably answered April 10th, 1861, when the Institute was incorporated, and the land allotted on which now stand the building of the Institute and that of the Society of Natural History, of the market value of $200,000.

The Institute was formally organized on the 8th of April, 1862, by the acceptance of the charter, the adoption of by-laws, and the appointment of William B. Rogers, President; John A. Lowell, Jacob Bigelow, Marshall P. Wilder and John Chase, Vice Presidents; and Charles H. Dalton, Treasurer. Its first meeting as a Society of Arts, was held December 17, 1862, at which time the late Dr. Thomas H. Webb was appointed Secretary. Since then, this Department of the Institute has continued to meet twice a month during the season, affording opportunities, which are eagerly availed of, for the exhibition of new inventions, and the discussion of questions in practical science and the arts. The members of the Institute number between three and four hundred, who are also members of the Society of Arts.

I. SCIENTIFIC SCHOOL.

The Scientific School of the Institute was opened in February, 1864, with a class of 15 students, in temporary accommodations in Mercantile Hall, Summer street, where also the Society of Arts held its meetings. In the autumn of 1866, when the School and other Departments of the Institute were transferred to the new building on the extension of Boylston street, the number of pupils had increased to 140, and the class of 1867–8, amounts to 170 students.

On the organization of the Institute, in 1862, through the liberality of gentlemen interested in the undertaking, a sum (about $50,000) was raised for commencing operations. Since then, large contributions have been received by legacies; from Dr. William Walker of Rhode Island, ($200,000,) Ralph Huntingdon, ($50,000,) William P. Mason, ($20,000,) and James Hayward, ($20,000,) of Boston, and from Nathaniel Thayer, ($25,000,) besides subscriptions in sums of $5,000 and less, amounting to about $60.000. A further important addition has been made to the funds of the school by the act of the Legislature assigning to the Institute three-tenths of the share of Massachusetts in the National land-grant appropriated to instruction in agriculture and the mechanic arts, netting the Institute $60,000; making about $480,000 which have been contributed to the Institute since its foundation.

The building of the Institute, one of the most spacious and elegant in Boston, includes commodious laboratories, lecture-rooms and rooms for drawing, as well as the Hall of the Society of Arts, offices for the Faculty and other officers, and a spacious hall for public occasions.

OBJECTS OF THE SCIENTIFIC SCHOOL.

The objects of the School of the Massachusetts Institute of Technology are:

To provide a full course of scientific studies and practical exercises for students seeking to qualify themselves for the professions of the Mechanical Engineer, Civil Engineer, Practical Chemist, Engineer of Mines, and Builder and Architect:

To furnish a general education, founded upon the Mathematical, Physical, and Natural Sciences, English and other Modern Languages, and Mental and Political Science:

To provide courses of Evening Instruction in the main branches of knowledge above referred to, for persons of either sex who are unable to devote themselves to study during the day, but who desire to avail themselves of systematic evening lessons or lectures.

CONDITIONS OF ADMISSION.

Candidates for admission to the school must have attained the age of sixteen, and are examined in Arithmetic, Plane Geometry, Elementary Algebra, and the ordinary English branches. In general the studies of a good English High School or Academy are the proper preparation for admission.

REGULAR COURSES OF STUDY.

In order to enter the second year's course, the student must be at least seventeen years of age, and must pass a satisfactory examination upon the first year's studies, besides passing the admission examination; and a like rule will apply to the case of students seeking admission into the classes of the succeeding years.

To make the opportunities of instruction as widely accessible as possible, students will be allowed to enter special divisions of either of the courses,—as, for example, the classes of mathematics, of engineering, of chemistry, of physics, or of mining and metallurgy,—on giving satisfactory evidence that they are prepared to pursue such special studies with advantage.

The regular course of instruction extends over four years, in the first two of which the instruction is uniform for all regular students, and embraces in the first year, Algebra, Solid Geometry, Plane Trigonometry and its applications, Mechanical Drawing, and the commencement of Descriptive Geometry, Free-hand Drawing, Elementary Mechanics, Chemistry with Manipulations, the English Language and Literature, and French or German; in the second year the same studies continued into the higher branches of Mathematics, with Descriptive Astronomy, Surveying, and Experimental Physics. In the third year the studies diverge according to the student's future profession. Courses are provided in Mechanical Engineering, in Civil and Topographical Engineering, in Practical Chemistry, in Mining Engineering, in Building and Architecture, and a general course in Science and Literature. Degrees and Certificates are granted in all these departments to students who pass satisfactorily the prescribed examinations.

I. REGULAR COURSES EXTENDING THROUGH FOUR YEARS.

FIRST YEAR.

MATHEMATICS. 1. *Algebra.*—Quadratic Equations; Imaginary Expressions; Ratio; Proportion; Progression; Permutations and Combinations; Binomial Theorem; Indeterminate Co-efficients; Theory of Logarithms, with Construction and Use of Tables. 2. *Solid Geometry.*—Plane and Solid Angles; The Prism and Pyramid; The Sphere, Cylinder, and Cone; Spherical Angles and Polygons. 3. *Plane Trigonometry.*—Different Methods of Measuring Angles; Trigonometrical Ratios and Functions; Construction and use of Trigonometrical Tables; Solution of Triangles. 4. *Applications* of Plane Trigonometry to Heights, Distances, Navigation, &c.

MECHANICAL DRAWING AND DESCRIPTIVE GEOMETRY. The use of mathematical instruments, and of water-colors and India ink, will be taught in connection with the Instruction in Geometry and Trigonometry. The course will include the graphical construction of problems in these branches.

The study of Descriptive Geometry will be commenced, and will include the graphical solution of problems of position relative to the point, the right line, and the plane.

FREE-HAND DRAWING. Instruction will be given in drawing with chalk upon the black-board, and with charcoal, crayons, the pencil, and pen and ink. The students will draw from models, casts and photographs, and from studies of landscape.

ELEMENTARY MECHANICS. 1. *Preliminary Ideas regarding Matter, Motion, and Forces.*—Uniform and varied Right-Line Motions; Composition and Resolution of Forces applied to a point. 2. *Mechanics of Solids.*—Composition of Forces applied to different points in a Mass; Statical Moments; Parallel Forces; Couples; Centre of Gravity; The Pendulum; Curve-line Motion; Friction; Elasticity and Strength of Materials; Impact; Elements of Machinery; Virtual Velocities; Mechanical Work; Viz Viva. 3. *Mechanics of Liquids and Gases.*—Pressure and Equilibrium of Fluids; Centre of Pressure; Principle of Archimedes; Specific Gravities; Equilibrium of Floating Bodies; Flow through Orifices, Tubes, etc.; Impulse and resistance of Water; Weight and Compressibility of Air; Barometer; Flow of Air and Gases; Resistance; Hydraulic and Pneumatic Instruments and Machines; Capillarity, and Osmotic Forces.

CHEMISTRY. The course of instruction in Chemistry consists:—1st, Of a weekly exercise which combines an illustrated lecture by the professor, and a recitation by the students upon the lecture of the preceding week:—2d, Of a weekly lesson in the laboratory, where every student is provided with a desk and the necessary apparatus, and will perform, under the supervision of the professors, such experiments as are useful to illustrate and enforce the laws of chemical action, the principles of chemical nomenclature, and the properties of those substances and the nature of those processes which are of importance in common life, or in the useful arts.

In his laboratory-work, the student will use a text-book, in which all needed directions to secure safety and success in performing the experiments are minutely given. The course will include the description and study of all the important chemical elements; but only inorganic chemistry will be treated of during this year.

ENGLISH LANGUAGE AND LITERATURE. The studies of the English department will embrace:—1st, Exercises in English Composition, arranged with special reference to the future wants of the students, and the cultivation of a habit of expressing their thoughts with clearness and precision:—2d, Lectures on the History and structure of the English Language:—3d, The Critical Study of Standard English Writers.

A knowledge of the Latin Language is not required for admission, and the course of instruction in English will not presuppose any acquaintance with Latin; but it is strongly recommended to young men who propose to enter this school to acquire, whenever possible, such a knowledge of Latin as will enable them to read easy Latin prose.

MODERN LANGUAGES. In the study of the Modern Languages, the first aim will be to enable the student to *read* French and German, so that, in the latter years of the course, French and German as well as English text-books may be used in any department.

German alone is studied during the present year. Special attention is given to the German grammar.

SECOND YEAR.

MATHEMATICS. 1. *Spherical Trigonometry.*—Deduction of the Formulæ; Napier's Circular Parts and Analogies; Bowditch's Rules; Gauss's Equations; Solution of Right and Oblique Triangles. 2. *Plane Co-ordinate Geometry.*—Elementary Principles and Definitions; The Point; Equations and Properties of the Straight Line, Circle, Parabola, Ellipse, and Hyperbola. 3. *Analytic Geometry of Three Dimensions.*—The Point; Equations of the Straight Line and Plane, and of Surfaces of the Second Degree, with their Classification and Properties. 4. *Differential and Integral Calculus.*—General Principles and Notation; Derivatives and Integrals of the Simple Functions.

DESCRIPTIVE ASTRONOMY. Form of the Earth; Diurnal Revolution; Parallax; Refraction and Twilight; Earth's Annual Motion; Seasons; Sun; Ecliptic; Spherical Co-ordinates and Figure of the Earth's Orbit; Time; Astronomical Instruments; Universal Gravitation; Kelper's Laws; Precession and Nutation; Moon's Orbit and Phases; Tides; Eclipses · Planets; Comets and Nebulæ; Constellations.

SURVEYING. Surveying by Measurement of Lines alone; Compass Surveying; Trigonometrical Surveying; Levelling; Topographical Surveying; Plane Table Surveying; Theory and Adjustments of Instruments; Field-practice in the preceding branches; Office-practice in Plotting Surveys, Computing Areas, etc., and in Drawing Plans.

MECHANICAL DRAWING AND DESCRIPTIVE GEOMETRY. In Mechanical Drawing, the course of the previous year will be continued, with application to Orthographical, Isometric and Spherical Projection, and to Shades and Shadows.

The study of Descriptive Geometry will be continued so as to include problems of position relative to such surfaces as occur in the Arts, and will be illustrated by a set of models.

FREE-HAND DRAWING. The exercises of the previous year will be continued, with the use of water-colors and distemper.

EXPERIMENTAL PHYSICS. 1. *Phenomena and Laws of Sound.*—Of Waves in general; Propagation, Reflection and Refraction of Sound; Musical Sounds, Laws of Vibrations of Columns of Air, Rods, Cords, Bells; Musical Instruments; Speech and Hearing. 2. *Phenomena and Laws of Heat.*—Expansion; Specific Heat, Fusion, Boiling, Evaporation; Tension of Vapors; Hygrometers; Steam Gauges; Communication, Reflection, and Refraction of Heat; Luminous and Obscure Rays; Sources and Mechanical Equivalent of Heat; the Steam Engine; etc. 3. *Phenomena and Laws of Light.*—Intensity; Photometers; Reflection; Refraction; Dispersion; the Spectrum; Achromatic Combinations; the Spectroscope; the Eye and Vision; Optical Instruments; Diffraction; Law of Interference; Doctrine of Undulations; Double Refraction, and Polarization.

CHEMISTRY. A systematic course of instruction will be given in Qualitative Analysis, by laboratory practice and oral and written examinations. Every student will work in the laboratory twice a week, during a greater part of the year.

The object of this instruction will be to enable the student to detect and prove the presence of any chemical element, whether in a simple or compounded condition. He will be taught to detect and isolate the more common gases and acids, and he will be continually exercised in the application of his acquired knowledge to the analysis of substances whose composition is unknown to him. Towards the close of the year, a course of Lectures will be given on the Elements of Organic Chemistry.

ENGLISH. The course for this year will embrace the study of General and Comparative Grammar, (in connection with the instruction of the Professor of Modern Languages), the further study of the History and Structure of the English Language, the reading of English standard writers, and continued practice in Composition.

MODERN LANGUAGES. French will be begun the second year, and taught upon the same principles as German during the first year.

The study of German will be continued. An advance class will be formed, composed of students of the second, third, and fourth years. The students of this class will have an opportunity to acquire some knowledge of the literature of the language; and, so far as practicable in such a course, they will be instructed in conversational forms.

THIRD YEAR.

I. COURSE IN MECHANICAL ENGINEERING.

1. Differential and Integral Calculus; Analytic Mechanics. 2. Applied Mechanics; comprehending—Strength of Materials used in construction; Estimation of the Resistances of Friction and Rigidity; Pure and Applied Cinematics; Dinapics of Solids, and the application to the Theory of Machines; Hydrostatics and Hydrodynamics; Thermodynamics; Estimation of the Useful Effect of Machines; Principles of Mechanism. 3. Descriptive Geometry applied to Masonry, Carpentry, and Machinery. 4. Drawing of Machinery.

5. Physics continued. 6. Logic, Rhetoric, and the History of English Literature. 7. Extended study of French and German, for the first of which Spanish may be substituted.

II. COURSE IN CIVIL AND TOPOGRAPHICAL ENGINEERING.

1. Differential and Integral Calculus; Analytic Mechanics; Applied Mechanics. 2. Spherical Astronomy; Higher Geodesy; Determination of Latitude and Longitude. 3. Survey, Location and Construction of Roads, Railways and Canals. 4. Measurement and Computation of Earth-work and Masonry. 5. Hydrographical Surveying; Tide Gauges; Soundings; River and Harbor Improvements. 6. Field-Practice. 7. Drawing of Plans, Profiles, Elevations, Sections, etc. 8. Descriptive Geometry, applied to Masonry and Carpentry. 9. Physics continued. 10. Logic, Rhetoric, and the History of English Literature. 11. Extended study of French and German, for the first of which Spanish may be substituted.

III. COURSE IN PRACTICAL CHEMISTRY.

1. Chemical Analysis, Quantitative,—embracing the Analysis and Commercial Testing of Ores, Metals, Alloys, and Mineral Materials; Soda-ash, Bleaching-salt, Saltpeter, Paints, Drugs and Manures; Drinking and Mineral Waters. 2. Lectures on Industrial Chemistry; on the manufacture of Glass, Pottery, Soda-ash, Acids, Soap, Gas, etc.; on the Arts of Dyeing, Calico-Printing, Tanning, Brewing, Distilling, etc. 3. Descriptive and Determinative Mineralogy. 4. Lectures on Structural and Systematic Geology. 5. Drawing,—of Apparatus, and the Machinery and Plans for Chemical, Dyeing, and Print works. 6. Physics continued. 7. Logic, Rhetoric, and the History of English Literature. 8. Extended study of French and German, for the first of which Spanish may be substituted.

IV. COURSE IN MINING ENGINEERING.

1. Differential and Integral Calculus; Analytic Mechanics; Applied Mechanics. 2. Spherical Astronomy and Higher Geodesy. 3. Field-practice in Engineering; Construction of Roads and Railways; Measurement of Earth-work and Masonry. 4. Descriptive and Determinative Mineralogy; Use of the Blow-pipe; Assaying in the Wet and Dry Ways. 5. Metallurgy.—Metallurgical Processes, Constructions and Implements; Furnaces, Crucibles, Blowing Machines, Fuel and Fluxes. 6. Structural and Systematic Geology; Successive Formations with their leading Fossils; Details of the Geology of North America. 7. Drawing.—Geological Sections and Maps; Coloring of Maps and Sections; Drawing of Furnaces, Refineries, and Metallurgical Apparatus. 8. Physics continued. 9. Logic, Rhetoric, and the History of English Literature. 10. Extended study of French and German, for the first of which Spanish may be substituted.

V. COURSE IN BUILDING, AND ARCHITECTURE.

1. Differential and Integral Calculus; Analytic Mechanics; Applied Mechanics. 2. Descriptive Geometry applied to Masonry and Carpentry. 3. Drawing of Projects in Architectural Design and Construction. 4. Physics continued. 5. Logic, Rhetoric, and the History of English Literature. 6. Extended study of French and German, for the first of which Spanish may be substituted.

VI. COURSE IN SCIENCE AND LITERATURE.

1. Differential and Integral Calculus; Analytic Mechanics. 2. Descriptive Geometry: Applications. 3. Physics continued.—Magnetism; Electricity; Meteorology. 4. Quantitative Chemical Analysis. 5. Structural and Systematic Geology. 6. Logic, Rhetoric, and the History of English Literature. 7. Extended study of French and German, for the first of which Spanish may be substituted. 8. Drawing—subjects chosen with reference to the special aptitudes and aims of the student.

Of the subjects 1, 2, 4, the student may omit one, and he may substitute for either of the remaining two some speciality of one of the Professional Courses.

FOURTH YEAR.

I. COURSE IN MECHANICAL ENGINEERING.

1. Construction of Machines and Study of Motors. Calculation of the Strength and Proportions of the Parts of a Machine. Hand Machinery: as Cranes, Derricks, Pumps, Turn-tables, etc. The Hydraulic Motors; Water-wheels, including Turbines; Water-pressure Engines. Power and Strength of Boilers. Steam Engines,—Stationary, Locomotive, Marine; Air and Gas Engines. Construction and Arrangement of Machinery in Mills for Grinding, for Textile Manufactures, etc. 2. Lectures on Combustion and Fuel; and on Warming, Ventilating, and Lighting. 3. Lectures on the Chemistry and Geology of the Materials used in Construction. 4. Descriptive Geometry applied to Masonry, Carpentry, and Machinery. 5. Drawing of Machines, Working Plans, and Projects of Machinery, Mills, etc. 6. Lectures on History, Political Economy, and the Science of Government. 7. Lectures on Mental and Moral Philosophy. 8. Instruction in Zoölogy, Physiology, and Botany. 9. Extended study of French and German, for the first of which Italian may be substituted.

II. COURSE IN CIVIL AND TOPOGRAPHICAL ENGINEERING.

1. Structures of Wood; Framing; Trusses, Girders, and Arches; Roofs and Bridges. 2. Structures of Stone; Foundations; Retaining Walls; Arches; Bridges. 3. Structures of Iron; Foundations; Beams, Girders, and Columns; Roofs and Bridges. 4. Supply and Distribution of Water; Distribution of Gas; Drainage. 5. Geology and Chemistry of the Materials used in Construction. 6. Descriptive Geometry applied to Masonry and Carpentry. 7. Field-practice. 8. Drawing of Plans, Profiles, Elevations, Sections, etc. 9. Lectures on History, Political Economy, and the Science of Government. 10. Lectures on Mental and Moral Philosophy. 11. Instruction in Zoölogy, Physiology, and Botany. 12. Extended study of French and German, for the first of which Italian may be substituted.

III. COURSE IN PRACTICAL CHEMISTRY.

1. Quantitative Analysis continued; Organic Analysis. 2. Preparation of Chemical Products, and Special Researches. 3. Lectures on Combustion and Fuel. 4. Lectures on Warming, Ventilating, and Lighting. 5. Drawing as in Third Year. 6. Lectures on History, Political Economy, and the Science of Government. 7. Lectures on Mental and Moral Philosophy. 8. Instruction in Zoölogy, Physiology and Botany. 9. Extended study of French and German, for the first of which Italian may be substituted.

IV. COURSE IN MINING ENGINEERING.

1. Construction of Machines. 2. Structures of Wood, Stone and Iron; Trusses; Arches, Girders, Roofs, and Bridges. 3. Quantitative Chemical Analysis. 4. Lectures on Combustion and Fuel. 5. Lectures on Warming, Ventilating and Lighting. 6. Geology of Coal, Iron, Copper, Lead, Zinc, Salt, Plaster, Silver, Gold, etc., with particular reference to North American localities. 7. Lectures on Mining—Prospecting, Breaking Ground, Boring, Blasting, Tubing, Sinking Shafts, Driving Tunnels, Ventilating and Lighting. The different Methods of working Mines. Mining Machinery and Motors,—Engines, Horses, Pumps, Wagons, Drums, Ropes, etc., for conveying and raising the Material,—The Dressing and Concentration of Minerals,—Crushers, Stamps, Washers, Amalgamators, etc. Quarrying and open Mining. Details of Mining in this country; with History and Statistics of Mining generally. 8. Drawing,—Geological Maps and Sections; Coloring of Maps and Sections; Plans and Sections of Mines, Quarries, and other open Workings; Mining Machinery and Implements; Plans of Ventilation. 9. Lectures on History, Political Economy, and the Science of Government. 10. Lectures on Mental and Moral Philosophy. 11. Instruction in Zoölogy, Physiology, and Botany. 12. Extended study of French and German, for the first of which Italian may be substituted.

V. COURSE IN BUILDING AND ARCHITECTURE.

This course will be practical as well as theoretical, and will embrace the thorough study of composition and design, and of the history of the art. It will consist chiefly of a series of projects in construction and design, to be worked out by the student. These will be illustrated by lectures upon the theory and practice of the art, pertinent to the subjects in hand.

Although the regular courses of the three earlier years of the school, embracing Mathematics, Chemistry, Physics, Drawing, and the scientific study of construction and materials, form the best preparation for the fourth year's course in Building and Architecture, yet other students will be admitted to it as special pupils; and it is hoped that practising draughtsmen, whose opportunities of study are limited, will avail themselves of those here offered. It will be the object of the course to furnish the instruction and discipline that cannot be obtained elsewhere, rather than to cover the whole ground of architectural study. Much of the ordinary detail of work must necessarily be left for students to acquire in architects' offices.

The following courses will be required of the regular students in this department:—

1. Study of Structures of Stone, Wood and Iron; Trusses, Arches, Girders, Roofs, and Bridges. 2. Lectures on Warming, Ventilating, and Lighting. 3. Lectures on the Geology and Chemistry of the Materials used in Construction. 4 Lectures on History, Political Economy, and the Science of Government. 5. Lectures on Mental and Moral Philosophy. 6. Instruction in Zoölogy, Physiology, and Botany. 7. Extended study of French and German, for the first of which Italian may be substituted.

VI. COURSE OF SCIENCE AND LITERATURE.

1. Applications of the Calculus. 2. Outlines of Zoölogy, Physiology, and Botany. 3. Geology continued; including Palæontology. 4. Quantitative Chemical Analysis; Organic Chemistry. 5. Lectures on Combustion and Fuel; on Warming, Ventilation and Lighting. 6. Lectures on Mental and Moral Philosophy. 7. Lectures on History, Political Economy, and the Science of Government. 8. Extended study of French and German, for the first of which Italian may be substituted. 9. Drawing as in Third Year.

Of the subjects 1, 3, 4, the student may omit one, and he may substitute for either of the remaining two some speciality of one of the Professional Courses.

MILITARY TACTICS.

The regular students of the School will be taught the use of small-arms, and the simpler parts of tactics; and, for this purpose, will be organized into one or more companies, to meet on stated days for military instruction and exercise.

METHODS AND APPARATUS OF INSTRUCTION.

1. *Lectures and Familiar Expositions.* As a general rule, each lecture will be preceded by an examination on the previous one, in which the teacher will have an opportunity of re-enforcing the Instruction already given, as well as of testing the progress of individual students. Text-books will be used in connection with the lectures.

2. *Written Examinations.* Beside the daily oral examinations already referred to as accompanying the lectures, written examinations will be held at stated periods, at which each class will be examined in the subjects appointed for study during the interval just elapsed.

3. *Laboratory Work in Chemical Analysis, Metallurgy and Industrial Chemistry.* In the chemical laboratories, provision is made for the thorough and comprehensive study of qualitative and quantitative analysis, embracing organic as well as inorganic substances, and for special instruction in whatever relates

to practical mineralogy, the chemical valuation of ores, and the various operations for the separation and refining of metals. In these laboratories, students of industrial chemistry will also have an opportunity of becoming practically familiar with the materials, implements, and processes of the more important chemical arts and manufactures. A high value is set upon the educational effect of laboratory practice, in the belief that such practice trains the senses to observe with accuracy, and the judgment to rely with confidence on the proof of actual experiment.

4. A *Laboratory for Physical Manipulations*, in which the student may be exercised in a variety of Mechanical and Physical processes and experiments, will be established at an early day.

5. *Designing and Drawing of Machines and Works of Engineering and Architecture.*

6. *Practical Exercises in Surveying, Levelling, Geodesy, and Nautical Astronomy.*

7. *Excursions for the Inspection and Study of Machines, Processes of Manufacture, Buildings, Works of Engineering, Geological Sections, Quarries, and Mines.* In aid of the practical studies of the School, and as a means of initiating the students into the actual details of the professions for which they are preparing, they will be required from time to time, in the progress of the course, assisted by one or more of their teachers, to make visits of inspection to machine-shops, engines, mills, furnaces, and chemical works, and to important buildings and engineering constructions which are within convenient reach.

With a like view, and under the same direction, they will be expected to spend such parts of vacations as may be assigned, in excursions for observation and practice.

EXAMINATIONS OF THE REGULAR COURSE.

Near the close of the months of January and May, general examinations will be held,—that of January embracing the subjects studied during the first half-year, that of May covering the studies of the whole year. Each examination on a distinct subject will be marked on a scale of 100, and the marks of each student will be reported to his parent or guardian. These returns are intended to enable the parent or guardian to judge of his son's or ward's proficiency in each department of instruction. No student who fails to pass the annual examination will be permitted to enter upon the studies of the following year without passing a new examination.

GRADUATION EXAMINATIONS.

The examination for degrees will be held in the month of May, and will be partly oral and partly in writing. In both, the questions will range over the entire series of studies on which the student is required to be prepared.

As part of these examinations, the candidates will be called upon to exhibit the drawings and projects prepared by them for the occasion, and to perform such laboratory manipulations and exercises as the Faculty may assign.

At the same time, the theses of the candidates will be presented for examination; and, where expedient, their authors will be called upon to explain or defend them.

DIPLOMAS AND CERTIFICATES.

As the diploma or certificate is intended to be, not only a reward to the student for his diligence and attainments, but an assurance to the public of his knowledge and skill in the particular department of science to which it relates, it will be conferred on such students only as give proof by their examinations and other exercises that they possess the prescribed qualifications; but all persons who fulfill this requirement shall be entitled to the testimonials of the Institute without regard to the length of time they may have spent in the School.

The degrees or diplomas corresponding to the leading divisions of the School, will be as follows:

1. A DEGREE IN MECHANICAL ENGINEERING.
2. " " CIVIL AND TOPOGRAPHICAL ENGINEERING.
3. " " PRACTICAL CHEMISTRY.
4. " " GEOLOGY AND MINING ENGINEERING.
5. " " BUILDING AND ARCHITECTURE.
6. " " SCIENCE AND LITERATURE.

To be entitled to either of these degrees, the student must pass a satisfactory examination on the whole course of studies and exercises prescribed in his department, including the elementary and general, no less than the advanced and special subjects. He must, moreover, prepare a dissertation on some subject included in the course of study, or submit an original report upon some machine or work of engineering, or some mine or mineral survey or scientific investigation, which shall be approved by the Faculty. He will be required, also, to have sufficient familiarity with French and German to be able to read without difficulty works in these languages, relating to science and the arts.

Besides the degrees and diplomas covering the complete courses of study above referred to, there will be given certificates of attainment in special subjects to such students as on examination are found to have attained the required proficiency in them.

II. AFTERNOON AND EVENING COURSES OF INSTRUCTION.

This department of the school is intended for the benefit of persons who desire to pursue courses of study in a systematic way by the aid of afternoon or evening lessons and lectures. It embraces a number of distinct courses, more or less varied from year to year by the omission or interchange of particular subjects, but including in their entire scope instruction in mathematics, physics, chemistry, geology, natural history, English and other modern languages and literature, navigation and nautical astronomy, architecture and engineering.

Except in the case of courses in which provision may be made for gratuitous instruction, a fee will be required, payable in advance.

LOWELL LECTURES.

As auxiliary to this Department, the Trustee of the Lowell Institute has established, under the supervision of the Institute of Technology, courses of instruction to be open to students of either sex, free of charge.

During the year 1865–6, six courses of instruction were given, as follows:

1. Eighteen Lectures on Mathematics, by Prof. Runkle.

2. Eighteen Lectures on Descriptive Geometry, by Prof. Watson.
3. Eighteen Lectures on the Chemistry of the Non metallic Elements, by Prof. Storer.
4. Eighteen Lectures on the Metals, by Prof. Eliot.
5. Eighteen Lectures on the English Language and its Literature, by Prof. Atkinson.
6. Eighteen French Readings, by Prof. Bôcher.

The Courses of Instruction for the year 1866–7, were:

1. A course of thirty practical lessons in Chemical Manipulation, by Professors Storer and Eliot, beginning Nov. 17.
2. Eighteen lessons in Mathematics, by Prof. Runkle, beginning Nov. 19.
3. Eighteen lessons in Navigation and Nautical Astronomy, by Prof. Osborne, beginning Jan. 22, 1867.
4. Eighteen lessons in French, by Prof. Bôcher, beginning Nov. 19.
5. Ten lessons in Grammar, Rhetoric, and Composition, by Prof. Atkinson, beginning Jan. 23, 1867.
6. Ten lessons in Anatomy and Physiology, by Dr. Samuel Kneeland, beginning Feb. 27, 1867.

The courses for 1867–8 are as follows:

1. A course of eighteen lessons in Geometry and Trigonometry, by Prof. Osborne, on Tuesdays and Fridays, at 7½ P. M., beginning November 12.
2. A course of eighteen lessons in the Calculus, by Prof. Runkle, on Tuesdays and Fridays, at 7½ P. M., beginning Jan. 17, 1868.
3. An elementary course of eighteen lessons in German, by Instructor Krauss, on Wednesdays and Saturdays, at 7½ P. M., beginning Nov. 13.
4. Two courses in Chemical Manipulation, by Prof. Storer, on Wednesday and Saturday afternoons, at 3 P. M., the first beginning on a day to be announced on the cards of successful applicants. The second will be a repetition of the first, with a new class, and will begin after the close of the first.
5. A course of ten lessons in Natural History, by Dr. Samuel Kneeland, Secretary of the Institute, on Tuesdays and Fridays, a 7½ P. M., beginning Jan. 14, 1868.
6. A course of ten lessons on Language and General Grammar, by Prof. Atkinson, on Tuesdays and Fridays, at 7½ P. M., beginning Feb. 18, 1868.

II. SOCIETY OF ARTS.

THE SOCIETY OF ARTS meets twice every month for the examination of new mechanical inventions, products, and processes, and for written and oral communications and discussions on the condition of the various departments of industry, the progress of discovery in each, and the bearings of science as associated with their advancement.

MASSACHUSETTS AGRICULTURAL COLLEGE.

AMHERST, HAMPDEN COUNTY.

HISTORY.

The Massachusetts School of Agriculture was incorporated in 1856, but its original incorporators failing to secure by private subscription or State appropriation the means to begin operations, the charter was transferred in 1860 to several enterprising citizens of Springfield, who after consultation with the leading agriculturists in the central part of the State, determined to raise $75,000 to open the institution in that city. The breaking out of the war suspended the canvass for subscriptions, and all efforts to establish the school, until 1863, when the Legislature, having accepted the conditions of the National land-grant of 1862, determined after much discussion, to divide the bounty of the government between two independent institutions, one of which should be devoted to the special education of young men in scientific agriculture and horticulture; and the other, (the Massachusetts Institute of Technology, at Boston,) to instruction in the mechanic arts.

The Massachusetts Agricultural College was accordingly established April 29, 1863—the location, organization, government, and course of study, were left with the trustees, (consisting of fourteen persons, and the Governor, the Secretary of the Board of Agriculture, the Secretary of the Board of Education, and the President of the College,) subject to the approval of the Legislature.

To the College thus established, was given the proceeds of the sale of one-tenth of the land-scrip received from the National government, for the purchase of a Farm, and two-thirds of the income of the fund obtained by the sale of the remaining nine-tenths, as an endowment, on condition that the further sum of seventy-five thousand dollars should be secured by valid subscription or otherwise, for the purpose of erecting suitable buildings.

The town of Amherst having pledged the sum, $75,000, for such buildings as were necessary to put the College into operation, and an eligible site, and farm of 383 acres having been secured in that town, at a cost of $41,000, the institution was permanently located there in 1864, and the improvement of the grounds and the erection of suitable buildings commenced. After many untoward hindrances and partial organizations, the buildings were in such state that the College was opened for the reception of students in October, 1867, under the presidency of Col. William S. Clark.

TRUSTEES.

Members ex-officiis.—His Excellency Alexander H. Bullock; Hon. Joseph White, Secretary of the Board of Education; Hon. Charles L. Flint, Secretary of Board of Agriculture; William S. Clark, President of the College.

Members elected by the Legislature.—Marshall P. Wilder, of Norfolk County; Charles G. Davis, of Plymouth County; Nathan Durfee, of Bristol

County; HENRY COLT, of Berkshire County; CHARLES C. SEWALL, of Norfolk County; PAOLI LATHROP, of Hampshire County; PHINEAS STEDMAN, of Hampden County; ALLEN W. DODGE, of Essex County; GEORGE MARSTON, of Barnstable County; WILLIAM B. WASHBURN, of Franklin County; GEORGE L. WHITING, of Dukes County; D. WALDO LINCOLN, of Worcester County; HENRY F. HILLS, of Hampshire County; —— ——, of Middlesex County.

BOARD OF OVERSEERS.

The State Board of Agriculture.

FACULTY.

WILLIAM S. CLARK, Ph. D., President, and Professor of Botany and Horticulture, and Director of the Botanic Garden; LEVI STOCKBRIDGE, Farm Superintendent, and Instructor in Agriculture; EBENEZER S. SNELL, LL. D., Professor of Mathematics; HENRY H. GOODELL, A. M., Professor of Modern Languages, and Instructor in Gymnastics and Military Tactics.

COURSE OF INSTRUCTION.

FRESHMAN YEAR.

First Term.—Algebra; Human Anatomy and Physiology; Chemical Physics.
Second Term.—Geometry; French; Chemistry.
Third Term.—Geometry; French; Botany.

Lectures upon Hygiene, Chemistry, Botany, and Agriculture; and Exercises in Orthography, Elocution, and English Composition, during the year.

SOPHOMORE YEAR.

First Term.—German; Agriculture; Commercial Arithmetic, and Bookkeeping.
Second Term.—German; Trigonometry; Analytical Chemistry.
Third Term.—Mensuration; Surveying; Analytical Chemistry; Zoölogy; Drawing.

Lectures upon Comparative Anatomy, Diseases of Domestic Animals, Organic Chemistry, and Market Gardening; and Exercises in English Composition, and Declamation, during the year.

JUNIOR YEAR.

First Term.—Physics; French or German; Agricultural Chemistry; Drawing.
Second Term.—Physics; Rhetoric; Horticulture.
Third Term.—Astronomy; Systematic Botany; History of the United States.

Lectures upon Physics, Mineralogy, the Cultivation of the Vine and Fruit and Forest Trees, and Useful and Injurious Insects; and Exercises in English Composition, and Debate, during the year.

SENIOR YEAR.

First Term.—Intellectual Philosophy; History; Physical Geography.
Second Term.—Moral Philosophy; Political Geography; the Civil Polity of Massachusetts and the United States.
Third Term.—Geology; Engineering; Political Economy.

Lectures upon Stock Farming, Architecture, Landscape Gardening, Geology, and English Literature; and Exercises in Original Declamation, and Debate, during the year.

Exercises in Gymnastics, Military Tactics, and the various operations of the Farm and Garden, through the course.

BUILDINGS.

The Trustees, in their report for 1867, give the following account of the buildings already erected:

It has been the design of the Trustees thus far to expend the fund of $75,000, pledged by the town of Amherst for such buildings as were necessary to put the College into operation, and try upon a moderate scale the experiment about which there has been so much discussion, of combining in an educational course, theory and practice,—scientific culture and manual labor. With this object in view they have erected a Dormitory 100×50 feet, and four stories high, with a basement for fuel. This edifice, besides rooms for one professor and forty-six students, contains two recitation rooms, a reading room and library, and two large rooms occupied by the State cabinet of specimens illustrating the natural history and geology of Massachusetts. This edifice, with fixtures for the public rooms, stoves, well, grading and out-buildings, cost $36,280.

The Boarding-house furnishes accommodations for a family, and has a dining-room 50×15 feet, where the students are provided with satisfactory board, at $3 per week. The cost of this building, including furniture, grading, and supplying with water, was $8,180.

The Chemical Library is 57×46 feet, and two stories high, and affords excellent rooms for lectures, practical chemistry, and apparatus. The building, including bell and grading, has cost about $10,360. It has not yet been provided with apparatus or furniture, and is used at present as a gymnasium.

The Botanic Museum is a two-story structure, 45×31 feet, with a deep cellar for storing plants, flower-pots, sand, and other material for winter use in the glass houses adjoining. The lower floor contains the president's office and lecture room, and the upper floor will be provided with cases for the exhibition of fruit models, specimens of seeds, woods, and interesting vegetable products. The cost of this building, including furniture and grading, will be $5,180.

The Durfee Plant houses are an elegant group of glass buildings with curvilinear roofs, covering 5,000 square feet of surface, and heated by hot water. It is divided into five compartments, the temperature and moisture of which are entirely under the control of the superintendent. They are named the dry stove, for succulent plants; the moist stove, for true tropical species; the palm-house, for larger species of tender trees and shrubs; the camellia house, for such as require comparatively little heat; and the victoria house, for aquatic and air plants. Besides these there are two propagating pits, each 50×12 feet, one of which is supplied with a hot-water tank for heating the sand beds, while in the other they are warmed by the circulation of water from the boilers in iron pipes. An abundant supply of soft water is procured from a reservoir on the hill north of the building, which is heated and aerated in a tank over the potting room and boilers. From the tank it is conducted in iron pipes to all parts of the house, and flows with sufficient force to feed a fountain in the victoria house, and shower all the plants as required. The plan and specifications, grading and foundations for this building, cost about $2,000, and the structure itself, with heating apparatus and water, about $10,000 more, which was generously paid by Dr. Nathan Durfee, of Fall River. When completed it will cover more than 10,000 square feet, and be one of the most tasteful, conveniently arranged, and delightfully located buildings of the kind in the country. The value of such an establishment for experiments in hybridizing, propagating, and cultivating useful and ornamental plants, as well as in teaching horticulture and systematic botany, can hardly be overestimated. By the wise liberality of Messrs. L. M. and H. F. Hills, of Amherst, the College has been provided with a fund of $10,000, the income of which is to be expended in the purchase of such seeds, plants and books as may be needed in this department.

Plans and specifications for a model barn have been procured, and the sum of $7,000 appropriated for its construction. The stone and much of the lumber will be taken from the lands of the College and hauled to the location selected, on the central ridge of the farm, about forty rods south of the dormitory, the present winter. The barn is intended to stand on the western slope of the ridge, and to be 100×50 feet, with posts 28 feet high. The upper, or threshing floor, is to be ten feet above the sills, and entered by a bridge from a wall fourteen feet east of the building. The lower story contains stables, root-room, granary, and feeding floor, with bay for hay, which is to be thrown down from the upper floor. In the second story is the tool-room and corn-house, and underneath the whole of the main building a cellar for manure. The barn

stands east and west, with an ell on the west end, extending south from the building 100 feet, for a shelter to the stock and for storage. On the east end of the barn is another ell, 30×20 feet, and two stories in height, with horse-stable and carriage-room above, and piggery below. The entire structure will hold about 175 tons of hay. Another barn of equal capacity will ultimately be necessary upon the north side of the farm.

With its present buildings, (which will cost $75,000, besides $10,000 given by Dr. Durfee, who has also given $10,000 to meet the annual expenses of the Plant-house,) the College will be able to educate about fifty young men, and with another dormitory building, with public rooms on the first floor, another boarding-house, and two houses for professors, another class of sixty could be accommodated. This will require an expenditure of $50,000.

STUDENT LABOR.

In most seasons of the year, students are required to labor, without pay, for two hours a day, and those who wish it are paid for additional work at the rate of twelve and a half cents per hour, and in special kinds of work at higher rates.

The Trustees have petitioned the Legislature for an appropriation of $50,000 to furnish additional buildings for said institution, for the following reasons:—

First.—Massachusetts has accepted from Congress a gift of 252,000 acres of land, and from the town of Amherst and from individuals, the sum of $95,000, and has appropriated from the treasury $20,000, for the express purpose of promoting education in agriculture, and has pledged herself to maintain forever an Agricultural College.

Second. After five years of preparation, the College has been put into successful operation and is filled with students, while numerous applications are being received for admission to the next class.

Third.—The course of instruction occupies four years, so that it is necessary to accommodate four classes in order to carry out the plan of organization adopted; but the first class occupies all the rooms of the college. It is evident, therefore, that either a further development of the institution must be stopped, and the number of students be limited to fifty, and the number of classes to one, or additional buildings must be completed before September next.

Fourth.—This is not only desirable for the credit of Massachusetts that she may have an Agricultural College worthy of her fame in educational matters, but it is the only true economy. The sum of $275,000 has been invested in the institution, the interest of which at six per cent. is $16,500. If this be devoted to the education of fifty students, they receive $330 as the actual cost of their education. If, on the other hand, the number of students is two hundred, as it should be for the successful working of the plan adopted, they receive annually $87.50 each from the income of the investment.

Fifth.—The erection of buildings for the accommodation of students and officers, is the best possible mode of endowing the college, since it increases the number of laborers on the farm and the amount of income received as tuition.

Sixth.—The number of students in the four classes should not be less than two hundred, in order to give the college a good standing among similar institutions, and to enable the trustees to secure the services of a thoroughly competent faculty.

Seventh.—The college deserves favorable consideration because it is established for the special benefit of the industrial classes, and offers to the young farmers of the Commonwealth an excellent scientific business and professional education at the lowest possible cost.

Eighth.—It is believed, if the State will now show faith in the success of the enterprise, and a determination to render the college worthy the honored name it bears, that wealthy individuals will cheerfully contribute to its funds as has been so often and so generously done for the other colleges of the Commonwealth.

NEW YORK STATE AGRICULTURAL COLLEGE.

CORNELL UNIVERSITY, ITHACA.

PRELIMINARY HISTORY.

THE largest apportionment of the national grant was bestowed upon the Empire State—nine hundred and ninety thousand acres in scrip. The offer was accepted promptly by the legislature, and at first the proceeds were voted (in 1863,) to the endowment, under certain conditions, of the "People's College" at Havana, an institution which had been struggling for several years to maintain its precarious existence. Before recording the final disposition of this munificent grant, it is proper to note several prior stages in the history of scientific industrial education in this great State.

The wise and beneficent labors of Stephen Van Rensselaer, in 1819, in procuring legislative aid "for the encouragement and improvement of agriculture" by forming County Societies, and a State Board—in securing at his own expense, in 1820, accurate and minute geological and agricultural surveys, and extensive analyses of various soils in the counties of Albany and Rensselaer—and in 1822–23, the more extensive geological exploration of the strata and rocks on both sides of the Erie canal, by Prof. Amos Eaton—in employing, in the summer of 1824, the same Professor with competent assistants, and sufficient apparatus and specimens, to lecture, with experiments and illustrations, on chemistry, natural philosophy, and natural history, in all the principal villages and towns on or near the route of the Erie canal—and to crown the whole, in establishing, in the fall of 1824, an institution in Troy "to give instruction in the application of science to the common purposes of life," and particularly "to qualify teachers for instructing the sons and daughters of mechanics, in the application of experimental chemistry, philosophy and natural history, to agriculture, domestic economy, and the arts and manufactures,"—these labors and the results mark a new era in the history of American education. The opening of the Scientific School in Troy, on the 5th of November, 1824, (incorporated as the Rensselaer Institute in 1826,) with buildings and professors furnished at his cost for fourteen years, entitle Stephen Van Rensselaer to be considered as the founder of this class of institutions in this country. From this Institute, for thirty years, proceeded more State geologists, principal and assistant engineers on public works, practical chemists, naturalists, and scientific professors, than from all the Colleges in the Union in the same period.

To the practical agriculturists of the State of New York, is the country indebted for the earliest efforts to establish a school of Agriculture. As early as 1837, the efforts of Jesse Buel, through the Cultivator, seconded by Dr. Beekman and others, funds were subscribed, a site selected near Albany, and a plan of organization formed for an institution to be devoted to agricultural education. But the project failed for the time, to be revived by Dr. Beekman in 1844, and almost realized through the liberality of Mr. John Delafield. But his

death in 1854 again postponed the consummation. In 1856, through the persistent efforts of members of the State Agricultural Society, and particularly of Col. B. P. Johnson, the sum of $40,000 was appropriated by the Legislature towards a College of Agriculture, on condition that a like sum should be raised by private subscription. This sum and more was soon raised, and a tract of 400 acres in the town of Ovid, in full view of Seneca lake, was selected as a site of the institution. The funds were all exhausted in the erection of a building, and although instruction was actually given to a few students for a few months in 1860, the College can hardly be said to have been inaugurated, before the single instructor on duty resigned and entered one of the first regiments which New York sent to the national army in 1861.

In the mean time the project of a "People's College" at Havana, had been started, and enlisted the interest of the friends of industrial education throughout the State, and with the assurances of large endowments from a single individual, of lands, workshops, machinery, and apparatus, suitable for a great industrial University, the Legislature of New York in 1863, as has been before stated, appropriated the National land-scrip assigned to this State by the act of Congress of 1862, to this projected College.

THE CORNELL ENDOWMENT.

As these conditions were not complied with, the legislature were led, (in March 1865,) by a generous donation from a citizen of Ithaca, Mr. Ezra Cornell, to devote the national grant, in connection with this private gift, to the endowment and maintenance of a new institution to be called the "Cornell University" and to be established at Ithaca, New York. One of the principal speeches in the Senate, having reference to this action, was made by Andrew D. White, then Senator from Onondaga, and now Chancellor of the University.

In addition to his gift of five hundred thousand dollars, Mr. Cornell has made the additional gift of two hundred acres of excellent land, with buildings, as a farm to be attached to the Agricultural Department; the Jewett collection in Geology and Palæontology, which had cost him ten thousand dollars, and other gifts to the amount of twenty-five thousand dollars.

Besides this, he has expended about three hundred thousand dollars in purchasing the land scrip and locating the lands for the University, and previous to all these gifts, he had erected in the village of Ithaca, at a cost of nearly one hundred thousand dollars, a free public library with large halls, and with lecture rooms which will be exceedingly useful as affording supplementary accommodations for the lectures and public exercises of the University.

The trustees are hopeful that under the judicious management of Mr. Cornell, the fund derived from the land grant will reach a very large amount. (Estimated by persons who know the value of the timbered land already located, on the scrip already issued, at not less than $1,000,000.)

A letter from Hon. T. Hillhouse, State Comptroller, June 19, 1867, to his Excellency Governor Fenton, reports that,—

"This State has received from the General Government, 6187 pieces of scrip, of 160 acres each, and representing 989,920 acres, of this 2900 pieces, representing 464,000 acres have been sold as follows: 425 pieces at 85 cts. per acre; 50 pieces at 83 cts.; and 625 pieces at 50 cts. There has also been sold to Hon. Ezra Cornell, 1800 pieces at 30 cts. per acre, and the prospective net profits on the sale and location, which cannot now be ascertained."

TRUSTEES.

The act of incorporation designated several persons to act as the Trustees of the University and they had power to add to their number, so that there should be seventeen trustees in addition to those who were *ex-officio*.

The names of the Trustees for 1867, are as follows:

His Excellency, REUBEN E. FENTON, Governor; His Honor STEWART L. WOODFORD, Lieutenant-Governor; Hon. EDMUND L. PITTS, Speaker; Gen. MARSENA R. PATRICK, President State Agricultural Society; Hon. VICTOR M. RICE, Superintendent of Public Instruction; EZRA CORNELL, Chairman of Board of Trustees; ANDREW D. WHITE, President of the University; FRANCIS M. FINCH, Librarian Cornell Public Library; ALONZO B. CORNELL, Ithaca; HORACE GREELEY, New York; EDWIN D. MORGAN, New York; ERASTUS BROOKS, New York; WILLIAM KELLY, Rhinebeck; Gen. J. MEREDITH READ, Albany; GEORGE H. ANDREWS, Springfield, Otsego Co.; ABRAN B. WEAVER, Deerfield, Oneida Co.; CHARLES J. FOLGER, Geneva; EDWIN B. MORGAN, Aurora; JOHN M. Parker, Owego; HIRAM SIBLEY, Rochester; JOSIAH B. WILLIAMS, ITHACA; GEORGE W. SCHUYLER, Ithaca, Treasurer of the University; WILLIAM ANDRUS, Ithaca; JOHN MCGRAW, Ithaca.

The trustees having been called together, appointed a committee on organization, of which Andrew D. White was chairman, who presented their report, October 11, 1866. (Albany, 8vo. 48 pp.) In this elaborate paper the scope of the proposed University is carefully indicated, and the views of the chairman of the committee in respect to the selection of professors, the course of study, the government of the students, manual labor, and many other important topics are fully expounded. Since it was printed, the first general announcement of the trustees has been given to the public. The instruction is to commence on the last Wednesday in September, 1868.

COURSES OF STUDY.

At the outset, there will be two divisions in the University, the first providing instruction in special sciences and arts, and the second providing what are called general courses, preparatory to various professional or special courses. In the first division, there are to be seven departments, viz. Agriculture, Mechanic Arts, Civil Engineering, Military Engineering and Tactics, Mining and Practical Geology, History, Social and Political Science. In the second division there will be eight courses of study, which are thus defined.

1. *First General Course, or "Modern Course."*

This will extend through four years. To Modern Languages, which have become so indispensable in a good education, will be mainly assigned the place and labor usually given to Ancient Languages. The course will be suited to the needs of students, so far as possible, by the allowance of options between studies in the latter years of the course, on a plan somewhat similar to that lately adopted at Harvard University.

2. *"Modern Course Abridged."*

This course will extend through three years. This, as well as the abridged courses which follow, are intended to meet the needs of those students who have not time for a full general course. It will give the *main* studies of the extended course, the *subordinate* studies being omitted so as to decrease the time one year.

3. *Second General Course, or "Combined Course."*

This course will extend through four years. In this the languages studied will be Latin and German, the remainder of the course being essentially the same as the "General Course." To those who wish to make a thorough study of Modern Languages this course will be valuable, as combining the most useful parts, practically, of the courses usually pursued in Colleges, with a broader course; giving the two sides of all the great Modern Languages and literatures, including our own, and aiding the scientific student greatly in the literature and nomenclature of science.

4. "*Combined Course, Abridged.*"

This will extend through three years. Its name explains its character.

5. *Third General Course, or "Classical Course."*

This will be mainly like the "First General Course," with the option of Ancient Languages for Modern.

6. "*Scientific Course.*"

This will extend through three years, affording a general scientific preparation for either of the first four departments in the "First Division," as named above. A special effort will be made to bring this department fully up to the needs of the times, both by the course adopted and by the professors elected to maintain it.

7. "*Scientific Course Abridged.*"

This will extend through two years. Its name explains its character.

8. "*Optional Course.*"

In this course the student, on consultation with friends and the appropriate instructors, selects any three studies for which he may be fitted, from the whole range of studies pursued in the entire University, follows them up to such point as may be agreed upon, and receives, from the Governing Board of the University, at the completion of his work, a certificate, showing the extent of the course he has taken.

The requirements for admission are both general and special.

GENERAL REQUIREMENTS.—All candidates for admission to any department or course must present satisfactory evidences of good moral character.

All candidates for admission to any of the special departments in the "*First Division*" must be at least sixteen years of age. All candidates for admission to any of the courses of the "*Second Division*" must be at least fifteen years of age.

Candidates for advanced standing will be examined in the previous studies of the course which they purpose to enter, and if they come from another College or University will present certificates of honorable dismission.

Entering the University will be considered a pledge to obey its rules and regulations.

Candidates for admission to any department or course must have received a good common English education, and be morally, mentally and physically qualified to pursue to advantage the course of study to which they propose to give their attention.

SPECIAL REQUIREMENTS.—1. In the department of Civil Engineering and Architecture, Military Engineering and Tactics, and Mining and Practical

Geology. In addition to the general requirements candidates will be examined in the whole of Elementary and Plane Geometry.

2. For the "Combined Course" in the Second Division, in which Latin is taken as an optional study in place of one of the Modern Languages, in addition to the general requirements the candidate will be examined in Cæsar's Commentaries, Cicero's Select Orations, six books of the Æneid and forty-five exercises in Arnold's Prose Composition, or in a course equivalent to this.

3. For the "Third General Course," or "Classical Course," an examination will be made similar to that for entering the first year at the existing Colleges of a good grade.

TUITION.

By the charter, free tuition is to be given to one student from each of the one hundred and twenty-eight Assembly districts of the State, who are to be selected by competitive examination from the public schools and academies, other students will pay thirty dollars for the year. Rooms for 200 students will be provided at moderate charges in and near the college buildings; and board must be obtained in private families or in clubs.

FACULTY.

A resident Faculty will be in readiness which, it is believed, will command the confidence of all friends of advanced and extended education. In addition to these, it is intended to secure, as non-resident professors, a number of gentlemen especially distinguished to deliver courses of lectures in their several departments. Several gentlemen of acknowledged eminence in science, literature and the practical arts, have already signified their willingness to accept such positions, and it is intended to announce the names of the Faculty, resident and non-resident, through the public prints early in the summer of 1868.

BUILDINGS.

One large stone building, 165 by 50 feet, and four stories in height, has already been erected; another of the same size is in progress. In these, besides dormitories, are library, lecture and recitation rooms, over thirty in number, and of various sizes.

LABORATORIES.

There will be two laboratories well equipped, one under the direction of the Professor of Agricultural Chemistry, and the other under the Professor of General Chemistry

COLLECTIONS.

The University already possesses the Jewett collection in Palæontology and Geology, purchased at a cost of ten thousand dollars, and has received a donation from the State of a collection of duplicates from the State Geological collection, and has funds now in hand to make large additional collections for illustration in the different departments.

LIBRARIES.

The trustees feel warranted in stating that the University will commence with a scientific and general library sufficient for the immediate wants of Faculty and Students, and constant appropriations will be made for its increase.

STUDENT LABOR AND PRACTICAL INSTRUCTION IN AGRICULTURE.

There is much labor to be done upon the farm attached to the Agricultural department, and a large number of students can be employed from one to three hours a day, at fair prices. Shortly after the organization of the University, the University Steward will organize a voluntary corps for systematized and remunerated labor, under the direction of the Professor of Agriculture and Engineering.

STUDENT LABOR AND PRACTICAL INSTRUCTION IN THE MECHANIC ARTS.

It is intended to erect workshops upon the University property where students, under proper direction, can have practical instruction in Mechanic Arts. The first of these will be a workshop fitted with the proper machinery for working in wood and iron, in which students can labor at fair prices upon agricultural implements and machinery in general, and upon models for the University collections of machinery and apparatus.

Accomplished artisans will superintend this work, and the attention of those young men who would qualify themselves, by scientific study, for the most responsible and remunerative positions as master mechanics and superintendents of workshops, is invited to this feature in the course of practical instruction.

PENNSYLVANIA STATE AGRICULTURAL COLLEGE.

CENTRE COUNTY.

HISTORY.

THE amount of scrip received by Pennsylvania was larger than that assigned to any other State except New York. It represented 720,000 acres of land. The proceeds were directed by the legislature to the "Agricultural College of Pennsylvania," established in Centre County, ten miles, from Bellefonte, the county seat. Prior to April 10, 1867, the amount of 260,000 acres had been sold for $151,136,—the price averaging a small fraction over 58⅛ cents per acre. The remaining 520,000 acres were sold at the date just named at an average price of 55½ cents per acre, or $286,600 ; but as the sales were made on time, the money will not be realized at once.

The Philadelphia Agricultural Society was founded in 1785, and held regular sessions for several years. In 1823, the Pennsylvania Agricultural Society was established, including practically members from only the Eastern Counties, and holding a few annual fairs. In 1851, a State Agricultural Society was organized by delegates from fifty-five counties, who assembled in Harrisburg, on the 21st of January. The first annual fair was held in October following, and was attended by 20,000 persons.

The Farmers High School of Pennsylvania, originated in a meeting of the State Agricultural Society, held at Harrisburg, Jan. 18th, 1853. At this meeting a committee, consisting of F. Watts, J. H. Ewing and H. N. McAllister, was appointed and reported favorably on the establishment of an Agricultural College. The whole subject was referred to an Agricultural Convention to be held at Harrisburg on the 8th of March following. At this Convention, composed of delegates from all parts of the State, it was voted to establish such an institution, to be styled "The Farmers' High School," with a model farm attached, and a committee of which F. Watts, President of the State Agricultural Society was chairman, to obtain an act of incorporation was appointed. Judge Watts discussed the whole subject fully in the Annual Report of the Society for that year, and obtained an act of incorporation, approved April 13, 1854. By this act, the management of the institution was intrusted to the Presidents of the County Agricultural Societies, and the President and Vice President of the State Agricultural Society. They were authorized "to select a site, erect buildings, and procure a good practical farmer for its principal, who with such other persons as should be employed as teachers, shall comprise the faculty." A Board, consisting of fifty *ex-officio* members proved too large and too little interested in this special work, and after repeated attempts to get a quorum, the original Committee of the State Society applied to the Legislature for a modification of the charter, which was obtained and approved Feb. 22, 1855. The number of Trustees was reduced and a portion of them selected from their known interest in the proposed institution.

In July, 1855, the executive Committee of the State Society appropriated $10,000 to the School, and out of several locations offered, a site of 200 acres belonging to a farm of Gen. James Irwin, in Center County, with a donation of $10,000 from the County to secure 200 acres adjoining in addition, was accepted. In 1856, a bequest of Elliot Cresson of Philadelphia was received,—subscriptions in aid of the College were solicited, and promises obtained; and in May, 1857, an appropriation of $50,000 was obtained from the State, on condition that a like amount should be raised by subscription.

With the cash resources already secured of $25,000 from the State, and $25,000 from other sources, contracts for building were made, which required at least double the amount for their completion. This additional sum was not raised—the buildings were not completed after the original plan—the school was opened on the 16th of February, 1859, under difficulties and disadvantages, which those only who have had experience in such pioneer work can appreciate. Buildings were only partially finished, and wholly unequipped with the furniture and apparatus of instruction, as well as for the domestic comfort of pupils and professors. The teaching force was inadequate—the farm was rough, and the site of a building in the process of construction, and with no funds in the treasury either to go on or wind up, presented much inconvenience as well as a forlorn aspect to students and visitors. But the printed Catalogue for the year 1859, shows an attendance of 123 pupils, and the report of a special committee of the State Society, appointed in May, 1859, to visit the institution, speaks favorably of what was doing, and hopefully of the future. On the strength of that report the Society, on the 17th of Jan. 1860, voted $1500 in aid of the School.

On the 7th day of December, 1859, Evan Pugh, Ph. D., was appointed president, and discharged the duties of professor of chemistry and scientific and practical agriculture. Dr. Pugh had studied in the Agricultural and Mining Schools of Germany,—was a man of practical views and indomitable energy, and while administering the government and instruction of nearly two hundred pupils, under every disadvantage, found time to aid those who were urging an application to the legislature for additional help, which on the 10th of April, 1861, was granted to the extent of $50,000. With this sum the buildings were completed, and in 1863, (April 1,) the legislature assigned the U. S. land-scrip for 720,000 acres of public lands to the institution, the name of which had been changed in 1862 to the Agricultural College of Pennsylvania. The death of Dr. Pugh, in the spring of 1864,—the disturbed condition of every great interest in consequence of the war, and a change in the practical character of the institution, for a time diminished the attendance of pupils. From this depression the College has not yet recovered.

In 1867, W. H. Allen, LL. D., the successor of Dr. Pugh, resigned, and Gen. John Frazer was appointed president, and professor of Analytical Mechanics; and the whole plan of instruction was changed so as to include not only a scientific course in Agriculture, but Mechanical and Civil Engineering, and Metallurgy, Mineralogy and Mining. In a circular of the Board of Trustees, dated June 24, 1867, the present organization and course of instruction is set forth in great detail, from which we make the following statement:

PRESENT ORGANIZATION.

TRUSTEES.

The trustees for 1868, are as follows:

His Excellency J. W. GEARY, Governor; Hon. F. JORDAN, Secretary of State; Hon. A. BOYD HAMILTON, President of the State Agricultural Society; and JOHN FRASER, President of the Faculty, *ex-officiis;* and the following elected members, viz.: DANIEL KANE, H. N. MCALLISTER, A. MCALLISTER, A. O. HIESTER, J. KELLEY, B. M. ELLIS, F. WATTS, J. MILES, and C. BIDDLE. The President of the Board is Hon. F. WATTS.

FACULTY.

The Professors are JOHN FRASER, President, and Professor of Analytical Mechanics, Logic, and Psychology; GEORGE C. CALDWELL, Chemistry; HENRY J. CLARK, Zoölogy and Geology; JOHN PHIN, Agriculture; J. Y. MCKEE, Greek; F. FOWLER, English; and J. T. ROTHROCK, Botany, Anatomy and Physiology.

There are also nine other lecturers and tutors, etc.

Two new professorships have been instituted in order to carry out more fully the requirements of the congressional grant,—namely a professorship of Mechanical and Civil Engineering, and a professorship of Metallurgy, Mineralogy and Mining.

COURSES OF STUDY.

Five courses of study are now announced;

1. In General Science, leading to the degree of Bachelor of Science.
2. In Agriculture, leading to the degree of Bachelor of Agriculture.
3. In Mechanical and Civil Engineering, leading to the degree of Civil Engineer.
4. In Metallurgy, Mineralogy and Mining, leading to the degree of Mining Engineer.
5. In Literature, leading to the degree of Bachelor of Arts.

I. *Course in General Science.*

FRESHMAN CLASS.

First Term.—Algebra; English—Orthœpy, Orthography, Composition, and Elocution; French or German; Botany; Human Anatomy and Physiology.

Second Term.—Geometry; English—General Grammar, Composition, and Elocution; French or German; Botany; Human Anatomy and Physiology.

Practicum during the year.—Elementary Laboratory Practice in Chemistry; Laboratory and Field Practice in Botany.

SOPHOMORE CLASS.

First Term.—Zoölogy; Trigonometry, Surveying and Levelling; Principles and Practice of Road making; English—Etymology, Composition and Original Declamations; French or German; Drawing.

Second Term.—Zoölogy; Analytical Geometry; Descriptive Geometry and Perspective; English—Synonyms, Composition, and Original Declamations; French or German; Drawing.

Practicum during the year.—Laboratory and Field Practice in Zoölogy; Office and Field Practice in Surveying, Levelling, and Road Making.

JUNIOR CLASS.

First Term.—Physics; Mechanics; Geology; English Literature and History of the English Language.

Second Term.—Physics; Mechanics; Geology; Logic; English Literature, Prosody, and History of the English Language.

Practicum during the year.—Laboratory and Field Practice in Geology; Higher Laboratory Practice in Chemistry.

SENIOR CLASS.

First Term.—Political Economy; Rhetoric; English Drama, and History of English Literature; Mental Philosophy; Astronomy; General Chemistry—Lectures with Experiments.

Second Term.—Civil Liberty and Self-Government; Constitution of the United States; Moral Philosophy; Physical Geography; Astronomy; English Poetry, and History of English Literature.

Practicum during the year.—Office and Field Practice in Astronomy; Laboratory and Field Practice, in connection with special studies in Zoölogy, Geology and Botany.

II. *Courses in Agriculture.*

JUNIOR CLASS.

First Term.—Botany; Human Anatomy and Physiology; English—Orthœpy, Orthography, Composition, and Elocution; French or German; Algebra.

Second Term.—Botany; Human Anatomy and Physiology; Geometry; English—General Grammar, Composition and Elocution; French or German.

Practicum during the year.—Laboratory and Field Practice in Botany; Elementary Laboratory Practice in Chemistry.

MIDDLE CLASS.

First Term.—Agriculture—Physical and Chemical characters of Soils, Tillage, Drainage, &c.; Zoölogy; Trigonometry, Surveying and Levelling; Principles and Practice of Road Making; English—Etymology, Composition, and Original Declamations; French or German; Drawing.

Second Term.—Agriculture—The Nutrition of Plants; Farm Manures, method of collecting and managing; Artificial Manures; Zoölogy; English—Synonyms, Composition, and Original Declamations; French or German; Drawing.

Practicum during the year.—Management of Manures, and Field Practice in Agriculture; Laboratory and Field Practice in Zoölogy; Office and Field Practice in Surveying, Levelling, and Road Making.

SENIOR CLASS.

First Term.—Agriculture—Character and Management of Grain, Forage, Root, Tuber and Fibre Crops; Rotation of Crops; The Management, Breeding, Fattening, &c., of Stock; Physics; Geology; Mechanics.

Second Term.—Agriculture—Management of Stock, continued; Farm Buildings; Agricultural Implements; Veterinary Surgery and Medicine; Physics; Geology; Agricultural Law.

Practicum during the year.—Laboratory Practice in Analysis of Manures and of Agricultural Products; Field Practice in Agriculture.

III. *Course in Mechanical and Civil Engineering.*

FRESHMAN CLASS.

First Term.—Algebra; Botany; Human Anatomy and Physiology; English—Orthœpy, Orthography, Composition, and Elocution; French or German.

Second Term.—Geometry; Botany; Human Anatomy and Physiology; English—General Grammar, Composition and Elocution; French or German.

Practicum during the year.—Laboratory and Field Practice in Botany; Elementary Laboratory Practice in Chemistry; Laboratory Practice in Mensuration, Graduation of Scales, Verniers, &c.

SOPHOMORE CLASS.

First Term.—Trigonometry, Surveying and Levelling; Principles and Practice of Road Making; Zoölogy; English—Etymology, Composition, and Original Declamations; French or German; Drawing.

Second Term.—Analytical Geometry; Descriptive Geometry and Perspective; Zoölogy; English—Synonyms, Composition, and Original Declamations; French or German; Drawing.

Practicum during the year.—Laboratory and Field Practice in Zoölogy; Office and Field Practice in Surveying, Levelling and Road Making.

JUNIOR CLASS.

First Term.—Physics; Calculus; Mechanics; Geodesy; Geology; Drawing; English Literature and History of the English Language.

Second Term.—Physics; Calculus; Mechanics; Geodesy; Geology; Drawing; English Literature, Prosody, and History of the English Language.

Practicum during the year.—Office and Field Practice in Topographical Surveying; Higher Laboratory Practice in Chemistry.

SENIOR CLASS.

First Term.—Analytical Mechanics; Machines; Constructions; Astronomy; Political Economy; Drawing; General Chemistry—Lectures with Experiments.

Second Term.—Analytical Mechanics; Machines; Constructions; Astronomy; Civil Liberty and Self-Government; Constitution of the United States; Drawing; General Chemistry—Lectures with Experiments.

Practicum during the year.—Office and Field Practice in Engineering and Practical Astronomy; Office Practice in Designs, Models, and Charts.

IV. *Course in Metallurgy, Mineralogy and Mining.*

FRESHMAN CLASS.

First Term.—Algebra; Botany; Human Anatomy and Physiology; English—Orthœpy, Orthography, Composition and Elocution; French or German.

Second Term.—Geometry; Botany; Human Anatomy and Physiology; English—General Grammar, Composition and Elocution; French or German.

Practicum during the year.—Laboratory and Field Practice in Botany; Elementary Laboratory Practice in Chemistry; Laboratory Practice in Mensuration, Graduation of Scales, Verniers, &c.

SOPHOMORE CLASS.

First Term.—Trigonometry, Surveying and Levelling; Principles and Practice of Road Making; Zoölogy; English—Etymology, Composition, and Original Declamations; French or German; Drawing.

Second Term.—Analytical Geometry; Descriptive Geometry and Perspective; Zoölogy; English—Synonyms, Composition and Original Declamations; French or German; Drawing.

Practicum during the year.—Laboratory and Field Practice in Zoölogy; Office and Field Practice in Surveying, Levelling and Road Making.

JUNIOR CLASS.

First Term.—Physics; Calculus; Mechanics; Geology; Mining; Drawing; English Literature and History of the English Language.

Second Term.—Physics; Calculus; Mechanics; Geology; Mining; Drawing; English Literature, Prosody, and History of the English Language.

Practicum during the year.—Laboratory and Field Practice in Geology, with a special reference to Mining; Higher Laboratory Practice in Chemistry.

SENIOR CLASS.

First Term.—Metallurgy; Mineralogy; Mining; Machines; Astronomy; Political Economy; Drawing; General Chemistry—Lectures with Experiments.

Second Term.—Metallurgy; Mineralogy; Mining; Machines; Astronomy; Civil Liberty and Self-Government; Constitution of the United States; Drawing; General Chemistry—Lectures with Experiments.

Practicum during the year.—Laboratory Practice in Metallurgy; Laboratory Practice in Analysis of Ores; Office Practice in Designs, Models, &c.

V. *Course in Literature.*

FRESHMAN CLASS.

First Term.—Livy; Latin Prose Composition; Cyropedia; Greek Prose Composition; Algebra; English—Orthœpy, Orthography, Composition and Elocution; Botany; Human Anatomy and Physiology.

Second Term.—Horace's Odes; Metrical Exercises and Latin Prose Composition; Herodotus; Greek Prose Composition; English General Grammar, Composition and Elocution; Geometry; Botany; Human Anatomy and Physiology.

SOPHOMORE CLASS.

First Term.—Cicero De Officiis; Latin Composition; Demosthenes; Select Orations; Greek Composition; Trigonomentry, Surveying and Levelling; Zoölogy; English—Etymology, Composition and Original Declamations.

Second Term.—Horace; Epistles and Satires; Latin Composition; Thucydides; Greek Composition; Descriptive Geometry and Perspective; Zoölogy; English—Synonyms; Composition and Original Declamations.

JUNIOR CLASS.

First Term.—Tacitus; Latin Composition; Oedipus; Tyrannus; Greek Composition; English Literature; History of English Language; Geology; Physics; Mechanics.

Second Term.—Juvenal; Plato; English Literature; Prosody; History of English Language; Logic; Geology; Physics; Mechanics.

SENIOR CLASS.

First Term.—Cicero pro Cluentio; Prometheus of Aeschylus; Rhetoric; English Drama; History of English Language and Literature; Political Economy; Mental Philosophy; Astronomy; Chemistry—Lectures with Experiments.

Second Term.—History of Roman Classical Literature; History of Greek Classical Literature; English Poetry; History of English Language and Literature; Moral Philosophy; Astronomy; Chemistry—Lectures with Experiments.

TERMS OF ADMISSION.

Candidates for admission to the Freshman Class in General Science, in Mechanical and Civil Engineering, and in Metallurgy, Mineralogy and Mining, and to the Junior Class in Agriculture, must have attained the age of sixteen years, and will be examined in the following subjects, viz.:

Arithmetic; Algebra, through Simple Equations; English Grammar; The History of the United States; Elementary, Political and Physical Geography; Elementary Natural Philosophy.

Candidates for admission to the Freshman Class of the Course of Literature, must have attained the age of sixteen years, and will be examined in the following books and subjects, or their equivalents, viz.:

Arithmetic; Algebra, through Simple Equations; English Grammar; Geography; Harkness' Latin Grammar and Latin Reader; Cæsar De Bello Gallico; Cicero—Select Orations; Virgil—The Bucolics and the first four books of the Æneid; Latin Prosody; Hadley's Greek Grammar; Whiton's Companion Book; Xenophon's Anabasis; Homer's Iliad, four books.

EXPERIMENTAL FARM.

The Instruction in Agriculture is under the care of the Professor of Agriculture, who teaches this branch not only in its scientific relations to Chemistry, Vegetable and Animal Physiology and Zoölogy, but as an experimental science, having its own methods, and special means and objects of research.

In order the more fully to attain these ends, there is attached to this department a Model and Experimental Farm, on which experiments will be instituted to investigate various points connected with practical agriculture, such as the best system of rotation of crops, the most suitable manures for different crops, and the best methods of applying them, especially in connection with the rotation of crops, the best methods of managing stock, and of combining stock-raising with other branches of agriculture, and the best methods of plant-culture as applied to the productions of the garden, the field, and the pleasure-ground.

Every student in this department is required to assist in the work connected with these experiments, and to record the experiments in a memorandum book, which is examined from time to time by his instructor.

For the benefit of the farming community, an Agricultural Journal, under the editorship of members of the College Faculty, will be commenced in the course of the current year. In the Journal will be published the experiments made at this College, and at other places in the United States and in Europe, with other matters of interest to agriculturists.

MILITARY INSTRUCTION.

The College has received a large supply of arms and accoutrements from the Ordnance Department of the State of Pennsylvania, and has adopted the following course of Military instruction occupying four years.

FRESHMAN CLASS.

First Term.—The School of the Soldier; Army Regulations.
Second Term.—The School of the Soldier; Bayonet Exercise; Army Regulations.

SOPHOMORE CLASS.

First Term.—The School of the Company; Bayonet Exercise; Camp and Outpost Duty.
Second Term.—The School of the Company; Sword Exercise; Camp and Outpost Duty.

JUNIOR CLASS.

First Term.—The School of the Battalion; The Composition, duties and forms of Courts Martial and Military Boards.
Second Term.—The School of the Battalion; Artillery Drill; Lectures on Military Art and Science.

SENIOR CLASS.

First Term.—Artillery Drill; Target Practice; Field Fortification; Marches and Reviews.
Second Term.—Review Drills; Target Practice; Field Fortification; Lectures on Ancient and Modern Campaigns.

One hour daily, is given to Military instruction. In suitable weather, the whole hour is devoted to drill. In weather unfit for drill, the hour is spent in the study of the topics specified in the programme.

The students of the College Department, such as have conscientious scruples excepted, are required to go through this course of military instruction, and to provide themselves with a fatigue suit of dark blue cloth, to consist of a single breasted jacket, a vest, trousers, and regulation cap; with brass buttons of the pattern of the State of Pennsylvania.

MANUAL LABOR.

Every student, who may desire it, has the privilege of diminishing his College expenses by working for the College in whatever capacity his labor may be deemed serviceable by the President. The student will receive adequate compensation for the labor performed in pursuance of this rule.

RELIGIOUS EXERCISES.

Devotional exercises are held in the College Chapel every morning, and all the students are required to be present.

Religious services are held in the College Chapel every Sabbath afternoon, and all the students are required to attend, except such as may have special permission to attend worship elsewhere. Such permission can be obtained only by presenting to the President a written request therefor from the parent or guardian.

DEGREES.

The Degree of Bachelor of Science is conferred on students who have completed the course in General Science, have passed a satisfactory examination at the end of the course, and have prepared a dissertation on some scientific subject, approved by the Faculty.

The Degree of Bachelor of Agriculture is conferred on students who have completed the course in Agriculture, have passed a satisfactory examination at the end of the course, and have prepared a dissertation on some Agricultural subject, approved by the Faculty.

The Degree of Civil Engineer is conferred on students who have completed the course in Mechanical and Civil Engineering, have passed a satisfactory examination at the end of the course, and have prepared a dissertation on some subject connected with Mechanical and Civil Engineering, approved by the Faculty.

The Degree of Mining Engineer is conferred on students who have completed the course in Metallurgy, Mineralogy and Mining, have passed a satisfactory examination at the end of the course, and have prepared a dissertation on some subject connected with Mineralogy, Metallurgy or Mining, approved by the Faculty.

The Degree of Bachelor of Arts is conferred on students who have completed the course in Literature, have passed a satisfactory examination at the end of the course, and have prepared a dissertation on some Literary subject, approved by the Faculty.

EXPENSES.

Board and Room Rent, per term of 20 weeks, $70; Tuition, $50; Washing, $5; Fuel, $5; Total, $130.

This bill must be paid in advance on entering. A strict compliance with this rule is required Candidates for admission are required to pay, on entering, a matriculation fee of $5.

The College is ten miles S. S. W. of Bellefonte, and can be reached by the Pennsylvania R. R. to Spruce Creek, or Tyrone. From Spruce Creek, by stage on Tuesday, Thursday and Saturday; and from Tyrone, by cars to Bellefonte twice a day, and hence by stage, or livery. It can also be reached by Philadelphia and Erie R. R. to Lock Haven, and hence to Bellefonte.

MICHIGAN STATE AGRICULTURAL COLLEGE.

NEAR LANSING.

HISTORY.

In the year 1855, the Legislature, in pursuance of the requirement of Article XIII, § II, of the Constitution of 1850, passed an act for the purchase of a farm and the endowment of a State Agricultural School; and after some modifications of the original plan, a tract of 676 acres was secured near Lansing, a building was erected, and in May, 1857, the institution was commenced with sixty-one scholars and six instructors. This institution was in a highly successful condition at the time when the National grant was made, and to its further endowment were directed the proceeds which are to come from the disposal of the land-scrip. The share of Michigan amounted to 240,000 acres, all of which has been located within the State for the benefit of the College, and none has yet been sold.

TRUSTEES.

The Trustees of the institution are as follows:

His Excellency, HENRY H. CRAPO, *ex-officio*, President of the Board; Hon. HEZEKIAH G. WELLS, of Kalamazoo, Vice President; Hon. DAVID CARPENTER, of Blissfield; Hon. JUSTUS GAGE, of Dowagiac; Hon. ABRAHAM C. PRUTZMAN, of Three Rivers; Hon. S. O. KNAPP, of Jackson; Hon. ORAMEL HOSFORD, of Olivet; T. C. ABBOT, A. M., *ex-officio*, President of the College; Hon. SANFORD HOWARD, Secretary; JOSEPH MILLS, of Lansing, Treasurer.

FACULTY.

The following persons are the instructors of the school:

T. C. ABBOT, *President*, Professor of Mental Philosophy and Logic; MANLY MILES, M. D., Professor of Animal Physiology and Practical Agriculture, and Superintendent of the Farm; R. C. KEDZIE, A. M., M. D., Professor of Chemistry; ALBERT M. PRENTISS, M. S., Professor of Botany and Horticulture, and Superintendent of the Gardens; SANFORD HOWARD, Secretary; GEORGE T. FAIRCHILD, A. M., Professor of English Literature; ALBERT J. COOK, M. S., Instructor in Mathematics; W. W. DANIELLS, B. S., Assistant Professor of Chemistry. S. S. ROCKWELL, Steward; ALBERT F. ALLEN, M. S., Foreman of the Farm; GEORGE W. HARRISON, B. S., Assistant Foreman of the Farm.

STUDENTS.

The number of students has been as follows:—In 1859, 105; 1860, 51; 1861, 65; 1862, 74; 1863, 52; 1864, 61; 1865, 88; 1866, 108; 1867, 97.

GENERAL OBJECTS OF THE COLLEGE.

The State Agricultural College proposes—

1st. To impart a knowledge of science, and its application to the arts of life. Especially are those sciences which relate to Agriculture and the kindred arts, such as Chemistry, Botany, Zoölogy and Animal Physiology, prosecuted to a

much greater extent than in institutions where the study of their practical applications is not pursued. The instruction given in the lecture-room is illustrated and enforced by the actual and prolonged study of plants and animals, and of the various practices and experiments of the farm and garden. Students will be taught to distinguish clearly between those principles and settled rules of agriculture, in accordance with which they may safely proceed, and those theories or practices which are either exploded, or are as yet the proper objects of experiment and discussion only, but whose too hasty adoption has led to repeated failures, and to the discredit of science.

2d. To afford to its students the privilege of daily manual labor. As this labor is to some degree remunerated, it might seem intended only to lessen the expense of the student. Its first use, however, is educational, being planned and varied for the illustration of the principles of science. The preservation of health, and of a taste for the pursuit of agriculture, are two other important objects. It is well known that students who pursue a college course very seldom thereafter engage in any industrial pursuit. Four or six years of study without labor, wholly removed from sympathy with the laboring world, at the period of life when habits and tastes are rapidly formed, will almost inevitably produce a disinclination, if not inability, to perform the work and duties of the farm. But to accomplish the objects of the institution, it is evident that the students must not, in acquiring a scientific education, lose either the ability or the disposition to labor on the farm. If the farmer, then, is to be educated, he must be educated on the farm itself; and it is due to this large class of our population that facilities for improvement, second to none other in the State, be afforded them.

It is believed that the three hours' work that every student is required to perform on the farm or in the garden, besides serving to render him familiar with the use of implements and the principles of agriculture, is sufficient also to preserve habits of manual labor, and to foster a taste for agricultural pursuits. It has been found in the past, sufficient to keep the students interested in every department of farm and horticultural work; and the daily labor of each one being performed at one time, does not occupy him longer than is requisite for preserving health and a robust constitution.

3d. To prosecute experiments for the promotion of agriculture. Agriculture is the creature of experiments. Very few farmers possess facilities for carrying on experiments accurately, and to definite results. From a lack of general acquaintance with the laws of Nature, their experiments, generally, unless guided by scientific men, are comparatively valueless for the determination of vexed questions of practice, and the establishment of general principles. An extensive laboratory, and other means at hand, enable the institution to enter on a series of experiments, to be prosecuted systematically and continuously from year to year.

4th. The organic law of the College, as well as the act of Congress donating lands for Agricultural Colleges, contemplate courses of instruction in the military art, and in the applications of science to the various arts of life. The practical applications of science are at present pursued mostly in directions desirable to the farmer—as surveying, leveling, laying out of grounds, mechanics as applied to implements, buildings, stock-breeding, etc. Other departments will be organized whenever adequate means are secured, whether from the Agricultural land fund, or from other sources.

5th. To afford the means of a general education to the farming class. This the Agricultural College endeavors to supply. The labor system preserves the student's health, and the habits and love of wholesome work. The professional part of the course gives him an insight into the nature of the objects and forces with which he has to deal. Added to this are the branches of study which help to make an intelligent and useful citizen, which cultivate his taste, and enable him to give expression to his knowledge and opinions.

REQUIREMENTS FOR ADMISSION.

Candidates for admission into the Preparatory Class must be not less than fourteen years of age, and must sustain a satisfactory examination in Arithmetic, Geography, Grammar, Reading, Spelling, and Penmanship.

Candidates for admission into the Freshman Class, or for any advanced standing, must sustain an examination in all the previous studies of the course.

DEPARTMENTS OF INSTRUCTION.

ELEMENTARY CHEMISTRY.—The primary forces—Heat, Light, Electricity, Magnetism, etc.; Chemical affinity and the laws of chemical combination; Elementary Substances—their history, properties, combinations and uses; application of Chemistry to the Arts and Manufactures; Organic Chemistry. In the study of Elementary Chemistry, the facts and principles of the science are illustrated by experiments.

ANALYTICAL CHEMISTRY.—General Analysis; Analysis of Soils; Analysis of Minerals, use of the Blow-pipe; Analysis of Manures; Analysis of the Ashes of Plants; Alkalimetry and Acidimetry. In prosecuting Chemical Analysis, the student spends three hours a day in the Laboratory, under the direction and supervision of the Professor in Chemistry, applying with his own hands the tests required to determine the composition and properties of bodies, thus securing a practical knowledge of the methods employed in these investigations.

AGRICULTURAL CHEMISTRY.—Formation and composition of soils; the relations of air and moisture to vegetable growth; Connection of heat, light and electricity with growth of plants; Nature and source of food of plants; Chemical changes attending vegetable growth; Chemistry of the various processes of the farm, as plowing, fallowing, draining, etc.; Preparation, preserving and composting of manure; Artificial manure; Methods of improving soils by chemical means, by mineral manures, by vegetable manures, by animal manures, by indirect methods; Rotation of crops; Chemical composition of the various crops; the Chemistry of the dairy. The instruction in Chemistry is imparted both by lectures and text-books.

PRACTICAL AGRICULTURE.—*First Year.*—Laying out of farms; Arrangement and planning of farm buildings; Farm implements; General principles of tillage; Principles of draining; Laying out and construction of drains; Methods of seeding; Harvesting of crops; Principles of stock-breeding; Breeds of domestic animals—their characteristics and adaptation to particular purposes.

Fourth Year.—General principles of farm economy; Manures, their management and mode of application; Succession of crops; Preparation of the soil for particular crops; Cultivation of crops; Management of grass lands; Stock-husbandry; Care of animals and principles of feeding; Fattening of animals; Management of sheep. In addition to the above course, instruction is given in the field in the various manual operations of the farm.

BOTANY.—A course is first given in Physiological Botany; Systematic Botany is then taken up, the natural orders being studied as to their botanical characteristics; their size and geographical distribution; their relative importance; the genera and species having agricultural value; those having commercial or medical value; those having ornamental value; and those which are obnoxious or detrimental, as weeds or poisonous plants. The orders are illustrated by diagrams, and numerous living and dried specimens. The living specimens are dissected and examined by the student, and their genera and species determined. The indigenous plants, together with those cultivated in the gardens and grounds, afford material for the study of this department of botany. In the study of Vegetable Physiology, structure is illustrated by means of diagrams. Several excellent microscopes are used in the study of minute structure.

HORTICULTURE.—In the course in Vegetable Physiology, the relations of that science to Horticulture are pointed out. The Sophomore class being employed during the year in the gardens and college grounds, is afforded abundant oportunities for the application of the instruction received in the class-room. It is intended that each student shall have practical experience in every cultural operation. In addition to these methods of instruction, a course of lectures is given on the history, theory and practice of horticulture.

ANIMAL PHYSIOLOGY.—In this department, particular attention is given to the Anatomy and Physiology of domestic animals. The course is illustrated by anatomical preparations and diagrams, representing the comparative structure of the organs of locomotion, digestion, circulation, respiration and reproduction of each branch of the animal kingdom. Dissections of animals are made, to render the student familiar with the appearance, situation and relation of the organs of the animal system in a state of health, and the changes produced by disease. Opportunities are given for the study of the minute structure of the various tissues by means of the microscope.

ZOÖLOGY.—Principles of the classification of animals, as founded on their structure and embryonic development. Descriptive Zoölogy, comprising the systematic arrangement of animals in accordance with their natural affinities, in classes, orders, families, etc.; habits and geographical distribution of animals.

ENTOMOLOGY.—The course in Entomology is illustrated by a valuable collection of native and exotic insects. Particular attention is given to the study of species injurious to vegetation; and the best method of checking their ravages is discussed. Students, by collecting and preserving specimens of our native species, become familiar with their habits in their several stages of development.

MATHEMATICS AND CIVIL ENGINEERING.—The Preparatory Class spend some time in the review of Arithmetic. The following branches of Mathematics and their application follow: Algebra, Geometry, Plane Trigonometry, Spherical Trigonometry, Analytical Geometry, Surveying, Leveling, Plotting, Mechanics, Strength of Materials, Arches, Framing, Bridge and Road Building. Students have the use of chain, compass, and other instruments for practice; and receive instruction in the field as well as in the lecture-room, each student being required to take charge of field surveys, and to become practically acquainted with the use of the Level.

GEOLOGY.—A course of daily recitations in Geology during the second half of the Freshman year, is illustrated by maps, diagrams and specimens.

ENGLISH LITERATURE. Instruction in this department is given by means of text-books and lectures. Rhetoric—Style. History of English Literature. Rhetoric—Arguments, Conviction, Persuasion, Fallacies in Reasoning. Select portions of English Classics receive critical examination in a course of reading prescribed for each class. The classes have regular and systematic instruction in the art of the selection, arrangement and expression of the matter related to the assigned or chosen topics for composition.

PREPARATORY.—The Preparatory course is designed, by a review of the ordinary branches of a common school education, to prepare the student to enter upon the regular College course of study. It serves also to qualify him to teach during the winter months.

COURSE OF STUDY.

PREPARATORY CLASS.

First Half Year.—Arithmetic, Robinson's Higher; Descriptive Geography, Mitchell's School; English Grammar, Green's.

Second Half Year.—Algebra, Robinson's Elementary; Natural Philosophy, Olmsted's School; Composition, Quackenbos'.

College Course.—FRESHMAN CLASS.

First Half Year.—Algebra, Robinson's; History, Webber's; Geometry, Robinson's; Book-keeping, Bryant & Stratton's.

Second Half Year.—Trigonometry, Robinson's; Surveying, Davies'; Practical Agriculture; Geology, Dana's.

SOPHOMORE CLASS.

First Half Year.—English Literature, Chambers', Spaulding's; Botany, Gray's; Elementary Chemistry, Youmans'.

Second Half Year.—Entomology, Harris'; Analytical Chemistry, Fresenius; Botany, Gray's, Darlington's, Lindley's; Horticulture.

JUNIOR CLASS.

First Half Year.—Physics, Snell's Olmsted; Agricultural Chemistry, Johnstone's; Inductive Logic, Herschel's.

Second Half Year.—Physics; Rhetoric, Whateley's, Day's Praxis; Animal Physiology, Dalton's.

SENIOR CLASS.

First Half Year.—Zoölogy, Carpenter's; Practical Agriculture; Mental Philosophy, Wayland's; Astronomy, Snell's Olmsted; Landscape Gardening, Downing's, Kemp's.

Second Half Year.—Civil Engineering, Mahon's; Moral Philosophy, Haven's; Political Economy, Carey's, Walker's; French, Fasquelle's.

Declamations and Compositions throughout the entire course.

MANUAL LABOR.

Each student not exempt for physical disability, is required to labor three hours a day on the farm or in the gardens. The number of hours may be increased to four or diminished to two and a half. Some compensation (see means of defraying expenses) is allowed; but the labor is regarded as an essential part of the educational system of the College, and is performed with special reference to illustrating and applying the instruction of the lecture-room. Students are not employed in those kinds of work only in which they may be most proficient, but, as the work is classified, each is made acquainted with all the operations of farming and gardening. The Sophomore Class work the

entire year under the direction of the Professor of Horticulture. The Juniors spend the year under the direction of the Professor of Practical Agriculture The other classes alternate between the farm and gardens.

MEANS OF ILLUSTRATION.

1. A farm of 676 acres, of which about 300 are under cultivation. 2. Botanical gardens of trees, shrubs, and herbaceous plants. 3. Vegetable gardens, small fruit garden, apple orchard, pear orchard, general lawn and grounds. 4. Galloway, Ayrshire, Devon and Short Horn Cattle; Essex, Suffolk and Chester White Swine; Southdown, Cotswold, Spanish Merino and Black-faced Highland Sheep. 5. A Chemical Laboratory and Apparatus. 6. Philosophical and Mathematical Apparatus. 7. A Museum of Animals and Minerals. 8. The Cooley Herbarium—a very valuable collection of plants. 9. Museum of Vegetable Products. 10. Library and Reading Room. 11. Buildings, Workshops, Tools, etc.

DEGREES.

The Degree of Bachelor of Science is conferred upon students who complete the full College Course, and sustain all the half yearly examinations in the same.

The Degree of Master of Science is conferred upon graduates of three years' standing, who give evidence of having been engaged during that period in scientific studies.

EXPENSES.

Tuition is free to all students from this State. Students from other States are charged $20 a year for tuition.

Board and washing are furnished at College Boarding Hall, (where students are required to board, unless permission to board elsewhere is granted by the Faculty,) at cost. The cost of board the past season has been $2.60; washing, 42 cents per dozen. Room-rent for each student is $4 a year, paid quarterly, in advance. Rooms are furnished with bedsteads and stoves; students furnish everything else. Mattresses and pillows may be rented of the College. The cost of furniture for rooms will vary with the taste of the students occupying them. Rooms can be comfortably furnished at a cost not exceeding four or five dollars for each student. A matriculation fee of $5, entitles the student to the privileges of the whole course. This fee is appropriated to the increase of the Library. At the opening of the year each student is required to pay to the Secretary $10, as an advance on board, which is allowed in the settlement of accounts at the end of the year.

Students receive remuneration for the labor they perform, the amount paid depending on their ability and fidelity. The highest wages for the present year have been seven and one-half cents per hour. The lowest rates do not exceed two or three cents per hour, if the student fails to render more valuable service. The wages for labor are applied on their board, in the quarterly settlements.

The winter vacation affords the student an opportunity for teaching. These earnings, added to the wages received during the term, will, if he is industrious and economical, enable him to defray a large part of his College expenses.

The report of the President, T. C. Abbot, for the year 1866, (30 pp., 8vo.) presents a full summary of the operations of the institution, with an able discussion of the various features which have here been successfully developed.

MARYLAND AGRICULTURAL COLLEGE.

PRINCE GEORGE COUNTY. ***Hyattsville P. O.***

I. HISTORICAL DEVELOPMENT.

THE MARYLAND AGRICULTURAL COLLEGE is the result of a public sentiment in the State in favor of such an institution which began to be exhibited more than twenty years ago. In 1845 the Board of Visitors and Governors of the Frederick County Academy established a Department of Agricultural Chemistry, and appointed Professor William Baer to fill it. In 1847, George D. Coad, Esq., chairman of the Committee of Agriculture in the House of Delegates of Maryland, in an able report recommending the appointment of an Agricultural Chemist for the State, expressed the hope that there would soon be "courses of agricultural education in the public academies and schools, or schools for that special purpose established."

In 1848, at the first anniversary meeting of the Maryland State Agricultural Society, the orator of the occasion, Col. Wilson M. Cary, urged "the necessity of professional education for the future farmers of the State," and "the introduction of those sciences immediately connected with their pursuit, into our colleges and seminaries of learning."

In 1850, Dr. White, of Montgomery county, introduced into the House of Delegates a proposition to enquire into the expediency of requiring the academies of the State which receive aid from the public treasury, to provide for instruction in Geology and Agricultural Chemistry. About the same time, Hon. Wm. Williams, President of the Senate of Maryland, offered to the State Agricultural Society one hundred and fifty acres of land in Somerset county, for the purpose of establishing an Agricultural College.

In 1854, Ramsey McHenry, as chairman of a committee of the State Agricultural Society, prepared an address "to the citizens of Maryland and contiguous States," urging the establishment "in connection with an experimental farm, of an educational institution to be entitled "The Agricultural College of Maryland." In the same year James T. Earle, in behalf of the State Society, addressed a memorial to the Congress of the United States, which was endorsed by the Committee on Agriculture of the U. S. Senate, and embodied in an able report of Mr. Morton, the chairman. Mr. Earle's associates on the committee were Oden Bowie, Governor of the State in 1868, Col. George W. Hughes, Clement Hill, and Francis P. Blair, aided by Hon. Charles B. Calvert, member of Congress. The specific recommendation of the memorial was the purchase of Mt. Vernon and establishing there, under the auspices of the Government, a National Agricultural and Educational Institution.

The prevailing sentiment indicated by these and many other expressions of interest in behalf of agricultural education, led to the belief that a large sum might be realized from individual subscriptions towards founding an Agricultural College, and application for a charter was made to the State Legislature of

1856, which was granted, and James T. Earle, John O. Wharton, Nicholas B. Worthington, Charles B. Calvert, George W. Hughes, Walter W. W. Bowie, Ramsay McHenry, J. Carroll Walsh, and Allen B. Davis, were appointed commissioners by whom subscriptions were to be obtained to the stock of the College.

The conditions of the charter required that a sum not less than fifty thousand dollars be subscribed to the stock within two years from July 1st, 1856, and a Board of Trustees elected, land obtained and buildings erected, and these conditions being complied with, the sum of $6,000 was to be paid annually by the State towards the expenses of the institution.

Within the prescribed time the sum of fifty-three thousand dollars was subscribed, a Trustee was elected from each county, and one from the city of Baltimore, to whom were added the same year, one Trustee from the District of Columbia, one from the Eastern shore of Maryland, and one from the Western shore: a farm of 423 acres was purchased, (since reduced by sale to 283 acres,) in Prince George County, and during the following year the main College building was erected, at a cost of about $46,000, and a total investment for land and buildings of about $100,000.

The College was open for students in October, 1859, and its catalogue for the first collegiate year numbered sixty-five, one-third of whom were from other States. At the commencement of the war, in 1861, the number was reduced to seventeen, and great embarrassment and difficulty resulted from this falling off, and from a burden of debt which had accumulated in the erection and furnishing of the College building, and the equipment of the farm.

The year following the number of students increased again, and in 1864 equaled that of the first year. Financial difficulties, however, continued to embarrass the affairs of the institution, and were further increased by the burning of a fine barn, with all its contents, and by the destruction of a large quantity of fencing and provender during the war. Finally, the necessity of closing at an early period seemed so obvious, that students were withdrawn in anticipation of it, and precipitated that misfortune, which was realized in April, 1866.

In this condition of affairs the Legislature came to its aid, and made the State joint owner of the property by paying its whole indebtedness, which amounted to $45,000, and assigning to its use the proceeds of the United States land-scrip to which Maryland became entitled by accepting the conditions of the act of 1862. The two hundred and ten thousand acres, to which this grant to the State amounted, was sold by the Comptroller, with the sanction of the Treasurer and the Governor, at the average price of 53 cents per acre, and yielded $112,504. Ten per cent. of this amount, i. e. $11,250, was "reserved to be paid into the treasury of the State, to reimburse the said State in part for the amount appropriated by this act to the said Maryland Agricultural College"—that is, the $45,000, by paying which to the creditors of the College the State became owner of one-half of the College real estate. This deduction left $101,253, of which $100,000 has been invested in Maryland State Stock, yielding six per cent., and the balance will be probably similarly bestowed. The income will therefore be $6,075, payable semi-annually, beginning with Jan. 1, 1868.

II. PRESENT ORGANIZATION AND CONDITION.

When the State became joint owner of the property by discharging the indebtedness of the institution, the Board of Visitors was reorganized by giving

to the stockholders seven, and to the State four members, viz: the Governor, Lieutenant Governor, Speaker of the House, and the Superintendent of Public Instruction. Of this Board, JAMES T. EARLE is President.

FARM AND BUILDING.

The large farm and grounds are located on both sides of the turnpike leading from Baltimore and Washington, three-quarters of a mile from College station on the Baltimore and Washington Railroad, and nine miles from Washington. P. O. address, Hyattsville, Prince George County.

The building is not yet completed on the original plan, but the present structure has six spacious lecture rooms, fifty-one chambers, a chapel, laboratory, and large accommodations for the domestic uses of the residents. There is besides, a residence for a Professor, with twenty-seven rooms for students.

INSTRUCTORS.

The President is CHARLES L. C. MINER, M. A., with the following Professors:
NICHOLAS B. WORTHINGTON, A. M., Moral and Mental Philosophy, English Language and Literature, Rhetoric and Logic.
JAMES HIGGINS, A. M., M. D., Agriculture and Natural Sciences.
R. T. BOGUE, A. M., M. D., Adjunct " " "
BATTISTA LORINO, LL. D., Ancient and Modern Languages.
PHIL MOORE LEAKIN, A. M., Mathematics.
DANIEL BARKER, Practical Agriculture, Horticulture and Pomology.

COURSE OF INSTRUCTION.

In accordance with the more especial wants, at present, of the State of Maryland, the Scientific course is adapted more particularly to agriculture than to the mechanic arts, although the studies in the Elements of Chemistry, Analytical and Technical Chemistry, Natural Philosophy, Physical Geography, Mineralogy and Geology, belong alike to both. The daily lessons in the field, above-described, field lectures from the Professor, lessons in keeping farm notes and farm accounts, instruction in Agricultural Chemistry and Botany, Vegetable Anatomy and Physiology, in Entomology, and especially in the analysis of soils and manures, constitute the separate studies for farmers.

The Literary course is conformed mainly to the common College curriculum, but less time is given to the ancient languages, and more to the study of English and other modern languages, of Chemistry and Natural Philosophy.

MANUAL LABOR.

Manual labor has been a feature in the College discipline from its organization, and it is claimed that it has worked well. During the current session (of '67–8) it has not been required, but the students of agriculture have spent a part of each day in regular garden and field work, under the charge of the Superintendent of the farm, hearing his questions, comments and explanations, and having their attention called to the details of every agricultural process.

MILITARY TACTICS.

No military instruction has yet been given. Circumstances being temporarily unfavorable for it the Board of Trustees postponed providing for it until the College should be in the actual enjoyment of the revenue from the U. S. grant, when the requirement will be faithfully met.

MODE OF INSTRUCTION AND DISCIPLINE.

The general mode of instruction is by study of, and close questioning on, the best text-books, with comment, explanation, and supplementary oral instruction; with lectures for the more advanced students. In the Scientific schools opportunity is given to closely watch, and as much as possible, aid in the processes for illustration. A rigid system of marks in all studies, promptly rendered to parents each month, proves a great stimulus to exertion.

DOMESTIC LIFE.—TUITION.

Most of the Professors eat at the same table and lodge in the same house with the students, thus not only preventing the neglect of their health and comfort which so often occurs, but being brought into close and friendly contact with them, checking indiscretions which might otherwise grow into disorder, and exercising a wholesome influence upon their moral and intellectual growth.

Board is provided by the College. The sum of $225 pays the board, lodging, washing, fuel and lights. The supplies for the table, drawn from the farm, garden, orchard and dairy, and the well-warmed and well-lighted rooms, with other liberal appointments, give the students a degree of healthful comfort very rarely seen in schools.

The charge for tuition is $75 per annum, half at the beginning and half at the middle of the school session.

Sixty free scholarships, open only to citizens of Maryland, are provided for by the State's annual appropriation.

STATISTICS FOR 1867.

The following is the return, with remarks, made to the Legislature of Maryland by the Superintendent of Public Instruction, (Rev. L. Van Bokkelen, LL. D.,) in his Report for 1867:

"The Agricultural College, of which I am, *ex-officio*, a Trustee, is thoroughly reorganized and has an able Faculty. To enable this important institution to accomplish its special work, an appropriation for farm buildings and apparatus is needed. With such addition to its facilities and the income from the United States land-grant, making the annual revenue over $12,000, there will be ample means for accomplishing the purposes of the institution which have not been thus far obtained.

STATISTICS FOR 1867.—State donation, $6,000. Salaries of Professors, $10,000. Students, 11. Tuition per annum, $75. Board per month, $22.50. Value of Property, $90,000. Volumes in Library, $1,600. Value of Apparatus, $500. Acres of land, 283. The College and agricultural equipments, the value of which is not estimated. During the year 1868, the College will have an additional annual revenue of $6,000 from sale of United States land-scrip."

BIBLIOGRAPHY.

1854. Address to the citizens of Maryland on an Experimental Farm and College of Agriculture. Memorial of the State Agricultural Society to the Congress of the United States for a National Agricultural Institution.

1858. Report of Register, with Act of Incorporation, List of Officers, and Names of Subscribers. 24 pages.

1859. First Circular of Maryland Agricultural College.

1864. Report of Trustees to Legislature of Maryland. 16 pages.

1865. Catalogue of Maryland Agricultural College for 1865–66. 16 pages.

NEW HAMPSHIRE COLLEGE OF AGRICULTURE
AND THE MECHANIC ARTS.

HANOVER.

HISTORY.

In New Hampshire the proceeds arising from the sale of 150,000 acres of scrip, assigned to the State, were appropriated by an act approved July 7, 1866, to the "New Hampshire College of Agriculture and the Mechanic Arts," to be established in connection with Dartmouth College at Hanover.

The scrip was sold prior to December 1867, for the sum of eighty thousand dollars, that is at the price of fifty-three and one fifth cents per acre, and the proceeds invested in six per cent. state bonds. The trustees of the institution are nine in number, five of them appointed by the Governor and Council and four by the Trustees of Dartmouth College. In consideration of this arrangement and the establishment of the college at Hanover, Dartmouth College furnishes the use of an experimental farm, the requisite buildings, and the libraries and apparatus, &c. This connection with the college may be terminated, on notice of one year, given by either party in the month of July 1874, or at any time after the termination of fourteen years from the beginning of the connection. A contract, embodying these provisions, has been signed by the two bodies of Trustees, but there are still some details to be settled, which delay the opening of the school.

The first meeting of the Board, for organization and the transaction of business, was held in the city of Concord, on the 28th of September, 1866. The Governor and Council had appointed the five following trustees: Hon. John D. Lyman, of Farmington, Joseph B. Walker, Esq., of Concord, William P. Wheeler, Esq., of Keene, John B. Clark, Esq., of Manchester, and Chester C. Hutchins, Esq., of Bath. The Trustees of Dartmouth College had appointed, on their part, Rev. Asa D. Smith, D. D., His Excellency, Frederick Smyth, Hon. Ira A. Eastman, and Hon. Anthony Colby. The Hon. Ira A. Eastman, however, declined to serve. The Board organized by electing the Rev. Asa D. Smith, D. D., as President, Joseph B. Walker, Esq., as Secretary, and His Excellency, Frederick Smith, as Treasurer. They have since appointed an Executive Committee, consisting of the President, Hon. John D. Lyman, and William P. Wheeler, Esq.

The trustees have announced that the instruction will be comprehensive of the various branches of applied science, and will extend through a course of four years duration. The requisites of admission will be "a mastery of the branches usually taught in our Common Schools." Twelve students, one from each senatorial district will receive gratuitous instruction. A report of these preliminary arrangements, including a copy of the contract between the two colleges was published in June 1867. (Concord, 12 pp., 8vo.)

In addition to the ordinary resources of a New England College, Dartmouth was able to offer for the basis of the national school of science, the advantages of the "Chandler Scientific Department," and of the "Thayer School of Architecture and Civil Engineering," and of a prospective agricultural bequest.

THE CHANDLER SCIENTIFIC DEPARTMENT was established by a resolution of the Trustees, in acceptance of the sum of fifty thousand dollars, bequeathed to them in trust by ABIEL CHANDLER, Esq., late of Walpole, and formerly of Boston, Mass.

Mr. Chandler gives and devises the above sum to the Trustees of the College, "to carefully and prudently invest or fund the principal sum, and faithfully apply and appropriate the income and interest thereof for the establishment and support of a permanent department, or school of instruction, in the College, in the practical and useful arts of life, comprised chiefly in the branches of Mechanics and Civil Engineering, the Invention and Manufacture of Machinery, Carpentry, Masonry, Architecture and Drawing, the Investigation of the Properties and Uses of the Materials employed in the Arts, the Modern Languages and English Literature, together with Book-keeping, and such other branches of knowledge as may best qualify young persons for the duties and employments of active life."

Under this provision of this bequest, the Chandler Scientific Department was established in 1856, and a course of scientific instruction has since been maintained, with opportunities of laboratory practice.

The THAYER SCHOOL OF ARCHITECTURE AND CIVIL ENGINEERING is established on a donation of $40,000, tendered to the Trustees, and accepted by them at their last meeting, by GEN. SYLVANUS THAYER, of Braintree, Mass., and the real organizer of the United States Military Academy at West Point. This munificence had its origin not merely in a regard, on the part of the venerable donor, for his Alma Mater, but in a foresight of the large demand for high attainments in this particular line, which the unfolding material resources of our Country are sure to make; and in a conviction that an increasing nubmer of our young men are disposed to select it as their profession. The Department is to be essentially, though not formally, post-graduate. The requisites for admission will, in some leading branches—particularly in Mathematics—embrace not less, and probably more, than the usual College curriculum. The course of study is to be of the highest order, passing beyond what is possible in Institutions for general culture, and is designed to prepare the capable and faithful student for the most responsible positions and the most difficult service. It will extend through at least two years, each divided into a Winter and Summer Term, and a portion of the latter being given to out-door practice. Temporary employment in Civil Engineering will occasionally be permitted, such as will conduce to the student's improvement, while it will be more or less remunerative. In the arrangement of details, reference will be had to the best methods, both in this country and in Europe. A suitable diploma will be given, on satisfactory examination, to those who complete the course.

VERMONT UNIVERSITY AND STATE AGRICULTURAL COLLEGE.

BURLINGTON.

VERMONT was entitled to five portions, or 150,000 acres in scrip. By an act of the Legislature, in 1864, the Vermont Agricultural College was established but by subsequent legislation this new institution was incorporated with the University of Vermont at Burlington, founded in 1791, and a plan was matured by which the Colleges at Middlebury and at Norwich might also become members of the State University. At present only the two first named institutions have been united. The first meeting of the Trustees was held Nov. 20, 1865, and on the 18th of July following, James B. Angell of Providence, was elected President.

FACULTY.

The Faculty of the entire University is as follows:

JAMES BURRILL ANGELL, A. M., President; Rev. JOSEPH TORREY, D. D., Professor of Moral and Intellectual Philosophy; SAMUEL WHITE THAYER, M. D., Professor of General and Special Anatomy; WALTER CARPENTER, M. D., Professor of the Theory and Practice of Medicine and Materia Medica; Rev. McKENDREE PETTY, A. M., Williams Professor of Mathematics; LEONARD MARSH, A. M., M. D., Professor of Vegetable and Animal Physiology; JOSEPH PERKINS, M. D., Professor of Obstetrics and Diseases of Women and Children; MATTHEW HENRY BUCKHAM, A. M., Professor of the Greek Language and Literature, and Professor *pro tempore* of English Literature; HENRY M. SHELLEY, M. D., Professor of Chemistry and Toxicology; CHARLES WHEELER THOMPSON, A. M., Professor *pro tempore* of Latin; JOHN ORDRONAUX, M. D., LL. B., Professor of Physiology, Pathology and Medical Jurisprudence; ALPHEUS BENNING CROSBY, M. D., Professor of Principles and Practice of Surgery; ELI WHITNEY BLAKE, Jr., A. B., Professor *pro tempore* of Chemistry and Physics; JAMES HARVEY HILLS, Instructor in Drawing.

CLASSES OF STUDENTS.

The Scientific Department of the College is organized on the following basis. Instruction will be provided—

I. For students who wish to pursue a course of three years in Analytical and Agricultural Chemistry, or in Civil Engineering, or in Mining and Metallurgy, and to become candidates for the degree of Bachelor of Science. By a four years' study, hereafter described, Bachelors of Science may attain to the degree of Bachelor of Philosophy.

II. For students who do not desire to take a full course of three years, or of four years, but wish to pursue certain portions of the course.

III. For young men who desire to obtain such instruction as can be furnished them by a course of lectures specially adapted to the wants of agriculturists, and to be given in February and March.

REQUIREMENTS FOR ADMISSION.

Applicants for admission to the Agricultural College must be at least fifteen years of age, and must bring satisfactory testimonials of good character, and be able to sustain an examination in all the parts of a common school education, and particularly in English Grammar, Geography, Arithmetic, and Algebra as far as Quadratic Equations.

COURSE OF STUDIES FOR CANDIDATES FOR DEGREES.

The courses marked out for the candidates for the degree of Bachelor of Science occupy three years, and those for the candidates for the degree of Bachelor of Philosophy occupy four years. During the first year all the students pursue the same course. At the beginning of the second year they will select one of three prescribed courses for the following year, and will not be allowed to change from one course to another except by special permission of the Faculty. Examinations will be held in the same manner as in the Academic course.

FIRST YEAR.

For all Sections.

First Term.—Algebra; Chemistry; Free Drawing; Book-keeping.
Second Term.—Geometry; Chemistry; French.
Third Term.—Geometry; Chemistry; French.
English, Compositions and Declamations through the year.

Section of Analytical and Agricultural Chemistry.

SECOND YEAR.

Chemistry—Laboratory Practice, Applications to Agriculture, Analyses of Soils, Relations of Soils to Vegetable Productions, etc., etc. Mathematics—Trigonometry, Analytical Geometry. Mineralogy. Vegetable Anatomy and Physiology, including Botany, Forestry, etc.; Animal Anatomy and Physiology, Habits of Domestic Animals, Insects injurious to Vegetation, etc. Geology. English, Composition and Drawing. Advanced French (elective.)

THIRD YEAR.

Chemistry—Laboratory Practice, Mineral Analyses, etc. German, through the year. Mechanics, Optics, Astronomy. Physical Geography, Metallurgy. English, Compositions. Drawing.

Engineering Section.

(First Year—see above.)

SECOND YEAR.

Mathematics—Trigonometry, Descriptive Geometry, Calculus. German, through the year. Field Engineering; Drawing, Topographical, Mechanical and Architectural. Mineralogy, Geology. English, Compositions. Advanced French (elective) two or three times a week.

THIRD YEAR.

Mechanics, Optics, Astronomy. Mechanics applied to Engineering. Physical Geography, Metallurgy. Drawing. English, Compositions.

Section of Mining and Metallurgy.

(First Year—see above.)

SECOND YEAR.

Mathematics—Trigonometry, Descriptive Geometry. Mineralogy. German, through the year. Drawing—Mechanical and Architectural. Vegetable and Animal Physiology, (see section of Analyt. and Agr. Chemistry.) English, Compositions.

THIRD YEAR.

Mechanics, Optics, Astronomy, Geology. Lectures on Mining and Metallurgy, Laboratory Practice, Analysis of Minerals, Assaying, Drawing. Compositions.

Those who have passed their examinations on any one of the above courses, shall receive the degree of Bachelor of Science. Those who, after attaining the degree of Bachelor of Science, shall successfully pursue the studies of the Senior Class in the Academic course, (the classics being excepted,) or advanced studies in the Scientific Department for one year, shall receive the degree of Bachelor of Philosophy.

SPECIAL COURSES.

Those who do not desire to pursue a full course in the Agricultural College, will be permitted to pursue such portions of the course as with the advice and approval of the Faculty they may select, and may be properly prepared to undertake. Special facilities in laboratory practice will thus be afforded to those who are pursuing a course of study in the Medical Department of the University.

LECTURES FOR FARMERS.

To meet the wants of young men, who cannot leave their homes in the summer or autumn, a special course of lectures on Agricultural subjects will be given in February and March, provided there is sufficient demand for such a course to justify the establishment of it. No examination will be required for attendance upon this course. Among the topics treated will be Agricultural Chemistry and Physiology, Agricultural Zoölogy, Physical Geography, etc. A special fee, hereafter to be announced, will be charged for attendance on these lectures.

MILITARY TACTICS.

Provision will be made for military drill and instruction in tactics.

REGULATIONS.

The students in the Agricultural College (except the young men who are attending only the course of lectures to farmers) are required to attend prayers in the chapel, and are in every respect subject to the same rules of order and discipline as the students in the Academic department.

EXPENSES.

Tuition, $15 per term. Room and rent incidentals as before.

Those who pursue the Laboratory courses, must also incur an additional expense of about $40 a year for chemicals, breakage, etc.

GENERAL REMARKS.

The Corporation are determined to make the course of instruction in both departments of the institution thorough and complete. The Chemical Laboratory, the Philosophical Apparatus, the collections made to illustrate the physical sciences, already afford large facilities for instruction, but the increasing wants of the institution will be promptly met. The corps of Professors and Instructors will be enlarged, as the needs of the University may require. While care is taken to meet the wants of those young men who cannot pursue a full course in either the Academic or the Agricultural department, it is the aim of the Corporation to maintain the highest standard of discipline and culture in the regular Academic course, and to provide for a full, systematic and rigorous course of scientific study.

IOWA STATE AGRICULTURAL COLLEGE AND MODEL FARM.

STORY COUNTY.

HISTORY.

In 1858 the Legislature passed an act (March 22) appropriating $10,000 for the purchase of a farm on which to locate an Agricultural College, and at the same time entrusted its management to a Board of Trustees, of thirteen members, one from each Judicial District, and the Governor, and President of the State Agricultural Society. They are to serve for four years without pay, but are allowed mileage. The terms of one half of the Board will expire May 1, 1868, and of the other half two years later.

The county of Story donated $10,000 in the bonds of the county bearing 7 per cent. interest, and individuals gave in bonds and notes about $7,000 more. The Legislature in the act of 1858, also gave five sections of land in Jaspar county originally granted by Congress for the building of a capital, out of which the College has realized $14,000.

The two hundred and forty thousand acres assigned to the State of Iowa by the act of Congress of July 2, 1862, were appropriated by the Legislature (March 29, 1866) to the "State Agricultural College and Model Farm.

The scrip was located within the State by an agent whom the Trustees appointed, and the lands have since been offered for sale or for lease. The plan of leasing for ten years has been preferred. The lands selected on the government scrip are valued at $480,000.

The Agricultural College was located in Story County, thirty miles due north from the capital of the State, on a farm of 640 acres, situated about midway between Nevada and Boonsboro, bought with a legislative appropriation of $10,000. Prior to the reception of the National grant the institution had acquired in various ways a fund of $30,000 in land, bonds, &c., after the purchase of the site and erection of a farm house. Subsequent to the bestowal of the National endowment, the Legislature, in 1864, appropriated $20,000 for the erection of a college building, and in 1866 the sum of $91,000 for the same purpose.

The College building will have sufficient accommodation for the board, lodgment and tuition of 200 students, and the requisite Professors. The structure is five stories high, one hundred and fifty-six feet in length, by seventy in width, the wings being capable of extension if additional room should be required.

The Faculty, course of study, &c., are yet to be determined. A committee consisting of Gov. W. Stone, Lt. Gov. Gue, and Peter Melendy, President of the State Agricultural Society, were appointed to visit the agricultural and other scientific industrial institutions of other States, inquire into their operations, and nominate a President and Faculty for the Iowa College.

WISCONSIN COLLEGE OF ARTS—STATE UNIVERSITY.

MADISON.

HISTORY.

The State University of Wisconsin, located at Madison, was established in 1851, on the basis of the United States University land-grant of 46,000 acres. Out of this grant a "University fund" of $300,000 was realized, the income of which by the Constitution of the State should be appropriated to the support of the University—but the productive capital has been practically diminished by the purchase of land and the erection of buildings, to the amount of over $100,000; and in addition, the State charges to the income of this fund $1,000, as the cost of its management, thereby diminishing the annual income at least $3,000—enough to secure at least three or four additional professors.

Of the National land-grant for Agricultural Colleges, two hundred and forty thousand acres constituted the amount appropriated to Wisconsin. Up to 1867, little more than $8,000 had been received from this source; though the scrip had been located in the State on lands valued in the aggregate at $300,000.

In April, 1866, the Legislature decided to reorganize and enlarge the State University, and to establish two Colleges in it, the College of Arts, and the College of Letters. The income of the College land-scrip fund and the income of the University fund, were both appropriated to this institution, making an aggregate of property, (including land unsold,) valued at $706,773, with an annual available income for the present of about $13,000.

TRUSTEES.

The Regents of the University for 1867–8, are as follows:

J. B. Parkinson, Fayette; Aug. L. Smith, Appleton; B. R. Hinkley, Oconomowoc; Samuel Fallows, Milwaukee; Jacob S. Bugh, Berlin—terms expire in 1868. Edward Salomon, Milwaukee; Angus Cameron, La Crosse; C. S. Hamilton, Fond Du Lac; H. C. Hobart, Milwaukee; N. B. Van Slyke, Madison—terms expire in 1869. Jno. G. McMynn, Racine; F. O. Thorpe, West Bend; R. B. Sanderson, Poynette; J. C. Cover, Lancaster; Henry D. Barron, St. Croix Falls—terms expire in 1870. Thomas S. Allen, Secretary of State, *ex-officio* Secretary; W. E. Smith, State Treasurer, *ex-officio* Treasurer.

FACULTY.

The Faculty of the same year are as follows:

Paul A. Chadbourne, M. D., President, and Professor of Mental and Moral Philosophy; John W. Sterling, LL. D., Professor of Natural Philosophy and Astronomy; Ezra S. Carr, LL. D., Professor of Chemistry and Natural History; ——— ———, Professor of Agriculture; T. N. Haskell, A. M., Professor of Rhetoric and English Literature; William F. Allen, A. M., Professor of Ancient Languages and History; John P. Fuchs, M. D., Professor of Modern Languages and Literature; John P. Parkinson, A. M., Professor of Mathematics; R. E. Harmon, A. B., Tutor.

COLLEGE OF ARTS.

REQUIREMENTS FOR ADMISSION.

The requirements for admission to the College of Arts, (which is the Scientific School of the University,) are as follows:

Candidates are examined in English Grammar, Geography, in Mental and Written Arithmetic, in Plane and Solid Geometry, and in Algebra to Quadratic Equations. None are received until they are at least fifteen years of age.

COURSE OF INSTRUCTION.

FIRST YEAR.

First Term.—Mathematics—Alegebra begun, Loomis; German—Ahn's Method; Natural History—Botany. Elective Studies—Practical Botany and Agriculture, French and Latin.

Second Term.—Mathematics—Algebra completed, Loomis; Conic Sections, Loomis; German—Select Readings; History. Elective Studies—History of Useful Plants, Physical Geography, Climatology, French, Latin.

Third Term.—Mathematics—Plane Trigonometry, Mensuration, Surveying and Navigation, Loomis; German—Schiller's or Goethe's Plays; Natural History—Botanical Analysis; History. Elective Studies—Horticulture, French, Latin. Themes and Declamations weekly during the year.

SECOND YEAR.

First Term.—Mathematics—Spherical Trigonometry, Loomis; Analytical Geometry, Loomis; Rhetoric—Day; Natural History—Mineralogy, Dana; Human Anatomy—Lectures; Chemistry, Youmans. Elective Studies—Laboratory Practice, Qualitative Analysis, Blowpipe Analysis.

Second Term.—Physics—Snell's Olmsted begun, Lectures; Civil Polity—Political Economy, Perry; Chemistry—Organic and Applied; Natural History—Zoölogy begun, Agassiz. Elective Studies—Laboratory Practice, Quantitative Analysis.

Third Term.—Physics—Snell's Olmsted completed, Lectures; Civil Polity—International Law, Constitution of the United States; Natural History—Zoölogy completed, General Physiology. Elective Studies—Differential and Integral Calculus, Natural History of Domestic Animals, Entomology. Themes and Declamations weekly during the year.

THIRD YEAR.

First Term.—Astronomy—Snell's Olmsted; Mental Philosophy—Haven; English Literature—Shaw begun. Elective Studies—Examination of Soils, Forestry.

Second Term.—Logic, Whately; Moral Philosophy—Hopkins; English Literature—Shaw completed; Rhetoric—Bascom; Asthetics—Bascom. Elective Studies—Modern Languages, Chemical Analysis, Determinative Mineralogy.

Third Term.—Natural Theology—Chadbourne; Analogy—Butler; Evidences—Hopkins, Lectures; History—Guizot's History of Civilization, General Review. Elective Studies—Reviews. Critical Essays, Declamations, and Forensic Disputations, weekly during the year.

The degree of Bachelor of Philosophy is conferred on those who complete this course.

The price of Tuition is $6 per term of thirteen weeks.

EXPERIMENTAL FARM.

By section 15 of the organic act it is provided that "immediately upon the organization of the Board, it shall be their duty to make arrangements for securing, without expense to the State or to the funds of the University, suitable

lands, in the immediate vicinity of the University, not less than two hundred acres, including the University grounds, for an experimental farm, and as early as possible thereafter, to make such improvements thereon as will render it available for experimental and instructional purposes, in connection with the Agricultural course in the College of Arts." In obedience to this provision the Board of Regents, after a full and thorough examination of such lands as were offered to them for that purpose, and such others as they believed could be obtained, have purchased for this experimental farm a piece of land embracing that part of section 14, in township seven, north of range nine east, which lies west of the University grounds, and that part of section 23 in the same township and range which lies between the Sauk road on the south and the tract in section 14 adjoining on the north, also five town lots adjoining the University grounds on the south-west corner, comprising in all about 195 acres, and including Professor Reed's and Mrs. Hobbins' stone and brick dwellings, at an aggregate cost of $27,054. Application has been made to the proper authorities for the vacation of the streets intersecting the town lots purchased, which will undoubtedly be granted.

The University grounds proper, heretofore belonging to the institution, contain about 41 acres; they are contiguous to the above described piece and with it form *one* tract with an area of over 235 acres. The utility and advantage of having the experimental farm so closely connected with the institution of which it is to form an important part, must be apparent to every one. The land purchased is, according to the opinion and judgment of all such members of the Board as are practically familiar with farming, and of all such persons as could be consulted by individual members of the Board and as have given thought and study to the establishment of experimental farms, peculiarly well adapted for this purpose on account of the great many varieties and differences in its soil and location. It is to be borne in mind, that the object in view is the establishment of an *experimental farm*, where agriculture is to be practically taught by experimenting on different soils and location of the land, and *not a model farm*, where the best kind and largest quantity of particular products are sought to be obtained from a particular piece of land. The Board believe that by this purchase they have secured to the University for a reasonable price the best possible piece of land for that purpose. The buildings too, which are upon the land, will be of great and immediate usefulness to the institution in its contemplated development.

REPORT.

The annual report for 1866, has been printed in an octavo pamphlet of twenty-four pages; and the Catalogue for 1866–7 gives additional information.

WEST VIRGINIA AGRICULTURAL COLLEGE.

MORGANTOWN.

THE scrip received by this State amounted to 150,000 acres. It was directed that the funds derived from selling this scrip should go to the endowment of the Agricultural College of West Virginia to be located near Morgantown, Monongalia County, on the property formerly belonging to Monongalia Academy and the Woodburn Female Seminary, and which was tendered to the State as a partial foundation for the new institution.

TRUSTEES.

Eleven Trustees, one from each Senatorial District, having been appointed by the Governor, assembled at Morgantown, April 3, 1867, and elected Hon. W. E. Stevenson of Wood county, President, and Dr. T. H. Logan of Wheeling, Secretary. Rev. Alex. Martin, D. D., was chosen President of the College, and in June following his inauguration took place. The address which he delivered at that time has been printed. (Morgantown, 1867, 8vo., 30 pp.)

ENDOWMENT.

The property of the school is thus stated in the address:

Proceeds of Congressional land scrip,	$90,000
The College, (formerly Woodburn,) grounds and buildings,	25,000
The Academy grounds and buildings,	15,000
Effects surrendered as the Library and personal property of the above,	390
Cash, Bonds, &c., surrendered as endowment of the above,	7,556
Total,	$137,946

The proceeds of the scrip are invested in bonds of the State, bearing interest at six per cent. With this moderate endowment, the Trustees propose to maintain a Preparatory department, a College proper, a Scientific department, and an Agricultural department.

FACULTY.

The Faculty consists of the following persons:

Rev. ALEX. MARTIN, D. D., President, and Professor of Mental and Moral Philosophy; Rev. J. W. SCOTT, D. D., Vice President, and Professor of Languages; Col. J. R. WEAVER, A. M., Professor of Mathematics and Military Tactics; Prof. S. G. STEVENS, A. M., Professor of Natural Sciences; Prof. F. S. LYON, A. M., Professor of English Literature, and Principal of Preparatory Department, and Prof. O. W. MILLER, Assistant Professor of *Do.*

STUDENTS.

The College opened in September, 1867, and before its close there were 188 students in the different departments.

NEW JERSEY AGRICULTURAL AND MECHANICAL ARTS COLLEGE.

HISTORY.

NEW JERSEY directed the proceeds of her portion of the National grant, 210,000 acres, to the maintenance of a Scientific School in Rutgers College, at New Brunswick, by an act approved April 4, 1864. The school thus established as the "New Jersey College for the benefit of Agriculture and the Mechanic Arts," was opened for the full number of State students, in September, 1866.

COURSES OF STUDY.

The courses of study are as follows:

I. CIVIL ENGINEERING AND MECHANICS.

II. CHEMISTRY AND AGRICULTURE.

Either of these will occupy three years.

During the first year and the first term of the second year, the studies of the two courses will be the same.

The courses of study include the following subjects:

Practical Chemistry, Chemical Analysis, and Chemistry applied to the Arts.

Land Surveying, Topographical Surveying, Civil Engineering, Architecture and Draughting.

Mechanical Philosophy, Machinery, Hydraulics.

Agriculture.

Geology and Mineralogy, and their application to Mining and Metallurgy.

Botany and Geology, with their relations to Vegetable and Animal Physiology.

Astronomy and Navigation. Military Tactics. French and German.

Instruction will also be afforded in Rhetoric, Mental Philosophy, History, Political Economy, and International Law.

Courses of Lectures to adults upon various departments of Agriculture and the Mechanic Arts will also be given at stated times, through the second term of the year.

ARRANGEMENT OF STUDIES.

THIRD CLASS.—FIRST YEAR.

I. *Course in Civil Engineering and Mechanics.*

First Term.—Algebra; Quadratic Equations; Geometry, four books; Draughting—Constructing Problems; Elementary Principles of Zoölogy and Mineralogy; Rhetoric, Exercises in Elocution and Composition; French.

Second Term.—Algebra, Finished; Geometry, finished; Geometrical Draughting; Meteorology and Modes of Keeping Meteorological Register; History—Composition and Declamation; French.

Third Term.—Trigonometry and Surveying; Elements of Botany; Physical Geography; History—Composition and Declamation; Draughting; French.

II. *Course in Chemistry and Agriculture.*

First Term.—Algebra, Quadratic Equations; Geometry, four books; Draughting—Constructing Problems; Elementary Principles of Zoölogy and Mineralogy; Rhetoric, Exercises in Elocution and Composition; French.

Second Term.—Algebra, finished; Geometry, finished; Geometrical Draughting; Meteorology and Modes of Keeping Meteorological Register; History—Composition and Declamation; French.

Third Term.—Trigonometry and Surveying; Elements of Botany; Physical Geography; History—Composition and Declamation; Draughting; French.

SECOND CLASS.—SECOND YEAR.

I. *Course in Civil Engineering and Mechanics.*

First Term.—Analytical Geometry; Surveying and Levelling, with Field Practice; Descriptive Geometry and Draughting; Elements of Chemistry and Mineralogy; Rhetoric, Composition and Declamation; French.

Second Term.—Differential and Integral Calculus; Shades, Shadows and Perspective; Physics and General Chemistry; Mental Philosophy—Essays; German.

Third Term.—Mechanics; Railroad Engineering and Topography; Draughting; Mental Philosophy—Essays; German.

II. *Course in Chemistry and Agriculture.*

First Term.—Analytical Geometry; Surveying and Levelling, with Field Practice; Descriptive Geometry and Draughting; Elements of Chemistry and Mineralogy; Rhetoric, Composition and Declamation; French.

Second Term.—Analytical Chemistry, qualitative; Physics and General Chemistry; Mineralogy; Agriculture, its Principles; English Composition and Declamation; German.

Third Term.—Physics and Chemistry; Analytical Chemistry, quantitative; Agriculture, its Processes; Mental Philosophy—Essays; German.

FIRST CLASS.—THIRD YEAR.

I. *Course in Civil Engineering and Mechanics.*

First Term.—Optics and Acoustics; Astronomy and Use of Astronomical Instruments; Strength of Materials and Engineering Constructions; Moral Philosophy; German.

Second Term.—Geodetical Surveying; Machines, Motive Powers—Machinery used in Engineering; Geology; Political Economy; German.

Third Term.—Hydraulic Engineering; Military Engineering and Field Fortifications; Designs for and Discussions of Constructions and Machines; Constitution of the United States; Architecture.

II. *Course in Chemistry aud Agriculture.*

First Term.—Metallurgy and Mining; Elements of Geology; Moral Philosophy—Essays; German; Agriculture, its Products; Farm Accounts.

Second Term.—Elements of Technology; Agriculture, its Products, continued; Geology; Political Economy; German.

Third Term.—Agriculture—Horticultural Products and Rural Embellishment; Theses on Scientific and Practical subjects; Constitution of the United States.

THEORY AND PRACTICE OF AGRICULTURE.

OUTLINE OF THE COURSE.

Instruction in the Theory and Practice of Agriculture will be conveyed for the present mainly by Lectures, except where suitable text-books can be obtained.

Opportunities for observation upon the College Farm will be given from time to time, and we hope to secure ere long, a cabinet of specimens and models by which the lectures delivered may be illustrated and exemplified. During the Terms mentioned below, the following subjects will be treated:

I. *Second Year*, SECOND TERM.—Agriculture, its *Principles.*

Its development and present condition as an Art. Its connection with the several branches of science. The economic requisites of vegetable growth, including soils, and the theory of manures.

II. *Second Year*, THIRD TERM.—Agriculture, its *Processes.*

Tillage, plowing; the physical manipulations of the land. Implements and Machinery. Drainage, Irrigation, etc. The Practice of Manures. Farm Buildings—their construction and arrangement.

III. *Third Year*, FIRST TERM.—Agriculture, its *Products.*

1. *Farming and Farm Crops.*—The cereals, their cultivation, their management and uses. Hemp, Flax, and other commercial crops. Root crops and the Legumes. Grasses, and the care of Pasture Lands. Rotation of crops, and the use of Artificial Fertilizers.

IV. *Third Year*, SECOND TERM.—*Products continued.*

2. *Animals and Animal Products*—The Principles of Breeding and the various Improved Breeds. The care of Domestic Animals and Fattening for Market. Dairy Management, including Milk, Butter and Cheese. Animals of Draught.

V. *Third Year*, THIRD TERM.—*Products continued.*

3. *Horticultural Products and Rural Embellishment.*—The Orchard, including the Nursery propagation of Trees. The Market Garden; forcing of plants and fruits. The Vineyard; manufacture of wine, cider, etc. Ornamental Trees and Shrubs, Landscape Gardening.

Either during the First Term of the Second Year, or subsequently, the study of Book-keeping will be continued with special reference to *Farm Accounts*, which is believed to be one of the most important branches of study, and opportunities of practice will ultimately be afforded the students in keeping the accounts of the College Farm. The study of *Botany* will also be continued with direct bearing upon the plants, useful or injurious, which the farmer most frequently meets. Some attention will also be given so *Entomology*, either as a separate branch, or in connection with those farm and orchard products which suffer most from insect depredators.

The lectures of the different terms are adapted as far as possible to the seasons when they can best be practically exemplified.

For College graduates and other advanced students who may wish to take a one year course in Agriculture only, the lectures will be so arranged that such students can attend a double course during two-thirds of the year, thus:

1st Term—the lectures numbered III; 2d Tm., I and IV; 3d Tm., II and V.

MILITARY TACTICS.

During each year, the students will be drilled in Military tactics. They will also be instructed in the principles of Military Engineering and Fortification, and will be afforded opportunities for visiting the various military posts and fortifications in the vicinity. For this purpose the school is furnished with arms by the Quartermaster's department of the State.

APPLIANCES.

Among the advantages for the profitable pursuit of the above studies, are:

1. The Library, the Collections, the Literary Societies, and all the facilities for literary education furnished by Rutgers College.

2. A Farm, where special attention will be given to Market Gardening, and to the cultivation of fruits; where the best modes of culture and the most improved implements are used; and where a system of keeping a full and com-

plete account of all the operations, expenses and income of the farm can be studied.

3. An Observatory, arranged and fitted with all the instruments needed for teaching practical astronomy.

4. Accommodations for the Laboratory and Museum, with ample room for lectures and experimental science, and for the practical operations of analytical chemistry; and where special provision is made for exhibiting the collections of the minerals, rocks, fossils, plants and animals of the State.

5. Full sets of instruments for Surveying and Engineering.

6. Excursions to mines, manufactories, &c., under the direction of Professors.

ADMISSION, FEES, ETC.

Applicants for admission to either of the above courses, as candidates for a diploma, must be, at least, sixteen years of age, and must bring testimonials of good moral character. They must also pass a satisfactory examination in the following subjects, viz: Arithmetic, Algebra to Quadratic Equations, English Grammar and Geography.

Persons desiring to enter the school for the purpose of pursuing special branches, will be required to pass an examination on the subjects necessary to fit them for pursuing those branches to advantage.

Adults who wish to attend upon any of the courses of lectures, and are not candidates for diplomas or certificates, can do so, subject only to the rules for fees and discipline.

The proper time for entrance is at Commencement (June 17th and 18th, 1867,) or at the beginning of the College year, (Sept. 20th, 1867,) when new classes are formed; but students will be admitted to a class at any time, upon their passing a satisfactory examination on the subjects the class have passed over.

Examinations are held at the close of each term.

Diplomas will be conferred upon those who have passed satisfactory examinations upon all the subjects prescribed in either course of study; and Certificates will be given to those who pass examinations in special branches.

Fees.—The charge for tuition is $75 a year; one-third, or $25, being payable at the commencement of each term; incidentals, $8.

Students in Analytical Chemistry are charged $15 additional, each term, for chemicals and use of apparatus.

The fee for conferring the diploma is $7.50.

FACULTY.

The President of the College is Rev. W. H. CAMPBELL, LL. D.; and the scientific Professors are, GEO. H. COOK, in Chemistry and Natural History; DAVID MURRAY, Mathematics and Natural Philosophy; and Col. JOSIAH H. KELLOGG, U. S. A., in Engineering and Military Science. A Professor of Agriculture is to be appointed. Rev. T. S. DOOLITTLE is Professor of Rhetoric, etc., and there are two Tutors, one in Chemistry and one in Modern Languages.

STATE STUDENTS.

Every county is entitled to send as many free students to the Scientific School as the county sends representatives to the Assembly.

The number of students in 1866–7, was 26.

KENTUCKY AGRICULTURAL AND MECHANICAL COLLEGE.

AT LEXINGTON.

HISTORY.

KENTUCKY's portion of the grant, amounting to three hundred and thirty thousand acres, was accepted by the State, January 27, 1863, and its appropriation was determined by the Legislature, February 22, 1865. By the enactment last mentioned, the "Agricultural and Mechanical College of Kentucky," became a special or distinct department of the University of the State, established at Lexington. The scrip was sold for $164,960, and is invested in Kentucky State bonds, bearing interest at 6 per cent. per annum, yielding an income of nearly $10,000 annually.

The history of the University has a romantic interest, but it would occupy too much time to narrate it here, in much detail. It was organized in 1858, chiefly or wholly in consequence of the earnest efforts of Mr. John B. Bowman, of Mercer County, who conceived in 1855, while pursuing the occupations of a farmer, the plan for founding for the people of his native State, "A Modern American Christian University," especially accessible to poor young men of the industrial classes in society. In one hundred and fifty days of actual labor, as he himself writes, subscriptions were obtained to the amount of $150,000, and soon increased to $200,000,—a large proportion being secured by notes of $500 and $1,000, from farmers in Central Kentucky.

In February, 1858, a charter was secured for the new institution, under the name of the Kentucky University, and in September, 1859, the College of Arts was opened, under the presidency of Robert Milligan, in the town of Harrodsburg. Various obstacles prevented its permanent establishment at that place.

At length the Trustees of Transylvania University, instituted at Lexington in 1798, made overtures for a union with the new establishment, and after various negotiations it was decided to combine these two foundations, and unite with them the third foundation derived from the Congressional grant. A bill permissive of this arrangement having been passed by a large majority in the General Assembly, Kentucky University was removed to Lexington, the grounds, buildings and endowment of Transylvania University were formally transferred to it, and the State Agricultural and Mechanical College was made one of its departments. The capital of the entire University now exceeded $500,000, which was soon enlarged by subscriptions from the citizens of Lexington, to the amount of $100,000 more. Somewhat later, Mr. Bowman purchased for the permanent site of the University, Ashland, the homestead of Henry Clay, and Woodland, an adjoining estate which extends within the limits of the city. The entire tract contains 433 acres of land of much beauty and fertility, (cost $140,000,) and is already the seat of the Agricultural and Mechanical College.

The Kentucky University, thus reorganized, consists of six Departments or Colleges, namely: 1, Of the Arts; 2, Of Agriculture and Mechanics; 3, Of the

Bible; 4, Of Normal Instruction; 5, Of Law; and 6, Of Medicine. An Academy or Preparatory School is also maintained. It is with the second only of these departments with which we are now concerned.

AGRICULTURAL AND MECHANICAL COLLEGE.

Ten schools or sections will be organized in this College, in one or more of which the student may, at his option, be enrolled. In order to graduate in any school, he must remain in it at least a year, and must pass a satisfactory examination. In order to take a Bachelor's degree, he must have graduated in several of the schools.

COURSES OF INSTRUCTION.

I. SCHOOL OF PHILOSOPHY.

JUNIOR CLASS.

First Term.—Mental Philosophy, begun.
Second Term.—Mental Philosophy, completed.

SENIOR CLASS.

First Term.—Moral Philosophy.
Second Term.—Christian Ethics.

II. SCHOOL OF THE ENGLISH LANGUAGE AND LITERATURE.

FRESHMAN CLASS.

First Term.—Fowler's English Grammar; Klipstein's Anglo-Saxon Grammar and Analecta Anglo-Saxonaca; Lectures on the Science of Language; Exercises in English Composition and Elocution.

Second Term.—Fowler's English Grammar; Klipstein's Anglo-Saxon Grammar and Analecta Anglo-Saxonica; "Anglo-Saxon Version of the Holy Gospels;" Lectures on the Science of Language; English Composition and Elocution.

SOPHOMORE CLASS.

First Term.—Blair's Lectures on Rhetoric and Belles-Lettres; Essays, Declamations, and Debates.

Second Term.—Kames' Elements of Criticism; Chamber's English Literature; Essays, Declamations, and Debates.

JUNIOR CLASS.

First Term.—Chamber's English Literature; Whately's Logic; Essays, Declamations, and Logical Disputations.

Second Term.—Chamber's English Literature; Whately's Rhetoric; Essays, Original Declamations, and Logical Disputations.

SENIOR CLASS.

First Term.—Lectures on English Literature; Readings in English Literature, with Critiques; Theses, Original Orations, Disputations, and Exercises in Extemporaneous Speaking.

Second Term.—Lectures on English Literature; Readings in English Literature, with Critiques; Samson's Elements of Art Criticism, with Lectures; Theses, Original Orations, Disputations, and Extemporaneous Speaking.

II. SCHOOL OF MATHEMATICS.

FRESHMAN CLASS.

First Term.—Towne's Algebra.
Second Term.—Davies' Legendre's Geometry, Books I, II, III, IV, V, VI.

SOPHOMORE CLASS.

First Term.—Davies' Legendre's Geometry, Books VII, VIII, IX; Plane Trigonometry and Measurement.

Second Term.—Loomis' Surveying and Navigation; Loomis' Geometry.

JUNIOR CLASS.

First Term.—Loomis' Calculus.
Second Term.—Snell's Olmsted's Mechanics.

SENIOR CLASS.

First Term.—Davies' Spherical Trigonometry; Snell's Olmsted's Astronomy, begun.
Second Term.—Astronomy, completed.

IV. SCHOOL OF CHEMISTRY AND EXPERIMENTAL PHILOSOPHY.

JUNIOR CLASS.

First Term.—Elementary Chemistry and Physics; Instruction given by daily Lectures, fully illustrated by experiments, specimens, &c., and impressed by daily Examinations; Applications of these branches of science.
Second Term.—Lectures on Chemistry, illustrated by experiments, continued twice a week; Elementary Physics, with experiments, three times a week.

SENIOR CLASS.

During the Session.—Experimental and Applied Chemistry and Chemical Physics; five Lectures a week, more thorough than during the Elementary Course, and illustrated to the greatest possible extent by experiments, models, diagrams, specimens, &c. The numerous applications of the science to Agriculture, the Arts, and Manufactures, are specially indicated, and the Art of Testing in general and the Detection of Poisons considered. Organic Chemistry is discussed during the latter part of the course, and such instruction given in the Chemistry of Vegetable and Animal Physiology as the alloted time allows.
Practical Chemistry.—Provision will be made for instruction in Practical Chemistry, including the Chemistry of the Soil, as soon as students are sufficiently prepared.
Text-Books.—Yuman's New Class Book of Chemisty; Fownes' Chemistry for Students; Quackenbos' Natural Philosophy; Graham's Elements of Chemistry.

V. SCHOOL OF NATURAL HISTORY.

SOPHOMORE CLASS.

First Term.—Terminology and Outlines of Structural and Systematic Botany; Collection and examination of Specimens; General Views of the Animal Kingdom; Collection and Preservation of Insects, Birds and Mammals.
Second Term.—Structural and Physiological Botany, embracing the Laws of Propagation, Hydridization, Training, Pruning, Budding, Grafting, &c.

JUNIOR CLASS.

First Term.—Human Physiology and Comparative Anatomy and Physiology, especially of domestic animals; the making of Illustrative Preparations; Collection of Zoölogical Specimens.
Second Term.—Exotic Botany, including the Green-house, the Grapery, and Principles of Treatment; Geology; Outlines of Mineralogy and Lithology; Sources and Materials of Mineral wealth; Building Stones; Mineral Veins; the Location and Working of Mines and Wells for Petroleum, Salt, Artesian Waters, &c.; Collection of Specimens.

SENIOR CLASS.

First Term.—Systematic Zoölogy; Collection of Specimens; Outlines of Historical and Dynamical Geology.
Second Term.—Entomology; Insects injurious or beneficial to Vegetation; Preparation of a Thesis.

VI. SCHOOL OF HISTORY.

JUNIOR CLASS.

First Term.—Smith's History of Greece; Liddell's History of Rome; Lectures.
Second Term.—The Student's Gibbon; Political Economy; Lectures.

SENIOR CLASS.

First Term.—Student's History of France; Student's Hume; Lectures.

Second Term.—History of the United States; Constitution of the United States.

VII. SCHOOL OF MODERN LANGUAGES.

JUNIOR CLASS.

First Term.

German.—Ahn's New Method; Adler's Reader. *French.*—Fasquelle's Grammar; Telemaque. *Italian.*—Cuore's Grammar; Foresti's Reader. *Spanish.*—Schele De Vere's Grammar; Velasquez's Reader.

Second Term.

German.—Ahn's Method; Adler's Reader; Schiller's Maid of Orleans. *French.*—Fasquelle's Grammar; Telemaque; Voltaire's Charles XII. *Italian.*—Cuore's Grammar; Foresti's Reader; Tasso. *Spanish.*—Schele De Vere's Grammar; Valesque's Reader; Don Quijote.

SENIOR CLASS.

First Term.

German.—Schiller's Mary Stuart and William Tell; Composition and Conversation in German. *French.*—Corinne; Racine; Composition and Conversation in French. *Italian.*—Tasso; Goldoni. *Spanish.*—Don Quijote.

Second Term.

German.—Goethe's Iphigenia and Reineke Fuch's; Lessing's Minna Von Barnhelm. *French.*—Moliere's Comedies; Voltaire's Tragedies. *Italian.*—Dante. *Spanish.*—Calderon.

VIII. SCHOOL OF CIVIL ENGINEERING AND MINING.

In this School will be taught Geometrical and Topographical Drawing, Tinting, Shading, and Lettering; Descriptive Geometry; Lineal Perspective; Shades and Shadows; Practical Astronomy; Road Engineering; the use of Engineering Instruments; Leveling; Architectural Drawing, Geology of Mining Districts; Metallurgy; Mining Engineering; Construction of Furnaces; Determination; Mineralogy; and History of Mining Operations.

IX. SCHOOL OF FINE ARTS.

In this School will be taught Music, Drawing, Painting, and Landscape Gardening.

X. SCHOOL OF MILITARY TACTICS.

The Course will comprise Practical and Theoretical Instruction in the Tactics of the different Arms, Military Discipline, including the Duties of Guards, Sentinels, &c., in accordance with the Tactics and Regulations prescribed for the United States Army.

STATE STUDENTS.

By the provisions of the act of the Legislature establishing the Agricultural and Mechanical College of Kentucky as one of the Colleges of the University, each Representative district in the State is entitled to send to the College three properly prepared students, free of charge for tuition, for each member the district is entitled to send to the General Assembly. Said students also have the right to receive, free of charge for tuition, the benefit of the instruction given in any College of the University, except the Colleges of Law and Medicine. To enjoy these privileges, young men must be selected by a majority of the Justices of the Peace in the several districts, and be properly vouched for by their

certificate. And it is most earnestly recommended to the justices to select a Board of Teachers in each district for the examination of applicants, and to institute a system of competitive examinations, giving all, even the humblest youth, a chance for this State honor. It is expected that the State students will be selected and sent to the College with the settled purpose on their part of completing the whole course of studies prescribed.

It is very important that students be present at the beginning of the session, on the first Monday in October. They may experience great difficulty in securing rooms and in arranging their course of study, if their attendance should be delayed for any length of time.

MILITARY INSTRUCTION.

The act of Congress granting the land scrip requires any Agricultural College receiving the benefit of the grant, to give instruction in military tactics. In accordance with the provisions of this act, regular instruction is given to the students of this College, at stated times, in the Infantry Drill, and Military Discipline and Police, in accordance with the regulations prescribed for the United States army.

The Faculty may, for sufficient reasons, exempt any student from Drill.

A uniform of cadet grey cloth, such as is usually worn at the military schools in the country, is required, and can be obtained by students on their arrival at the College, at a cost not exceeding that of an ordinary suit.

THE ESTATE.

For productive, as well as educational purposes, the Estate is divided into two departments—1. The Farm, including the Vegetable Garden; 2. The Ornamental and Experimental Grounds and Gardens, which include the "Woodlands" and the adjoining Plats.

The Farm is under the charge of a Superintendent who is a practical farmer. He will have the oversight of all the practical details of the Field, and will give thorough instruction in the art of agriculture.

The Ornamental and Experimental Grounds and Gardens, including the orchards, vineyards, nurseries, etc., are under the charge of a competent Horticulturist, who will give thorough practical instruction in his department.

In these two departments students will learn to apply, by their own labor, the science that they acquire in the Halls.

THE LABOR SYSTEM.

All students of the Agricultural and Mechanical College, except such as may be exempted on account of actual physical disability, will be required to spend a portion of their time in active labor on the Estate, or at such of the Mechanical Arts as may be carried on in connection with the same. For this purpose they shall be divided into two classes.

The first class shall be composed of those students who may desire "to sustain themselves, in whole or in part, by their labor, while acquiring their education." These shall be required to labor not less than four consecutive hours a day, for six days in the week, on the Farm, for which they shall receive from five to ten cents an hour. During the hours of labor, they shall be under the exclusive control of the Superintendent of the Farm. This class of students shall be divided into two sections. The first section shall labor four hours in the forenoon; the second section shall labor four hours in the afternoon.

All other students shall constitute the second class. They shall be required to labor, without compensation, not less than two hours a day, for five days in the week, in the Ornamental and Experimental Grounds and Gardens, for the purpose of physical exercise and practical instruction. During the hours of labor this class of students shall be under the exclusive control of the Superintendent of the Grounds and Gardens, and shall be arranged into as many sections, and shall labor at such hours, as the Faculty may deem proper.

During the winter months, active labor may be suspended, in whole or in part, by the Faculty, upon the recommendation of the Superintendents.

DORMITORIES.

All rooms upon the Estate, which are set apart as dormitories, are reserved for State students. Those upon "Ashland" will be assigned to students of the first class under the labor system. Those at "Woodlands" will be assigned to students of the second class, under that system.

FACULTY.

The special Faculty consists of Prof. JOHN A. WILLIAMS, Presiding officer, and Professor of Mental and Moral Philosophy, and the following Professors:

HENRY H. WHITE, in Mathematics and Astronomy.
ROBERT PETER, in Chemistry and Experimental Philosophy.
JAMES K. PATTERSON, in Latin, Political Economy and History.
ALEXANDER WINCHELL, in Geology and Natural History.
JOSEPH D. PICKETT, in English Language and Literature.
WILLIAM E. ARNOLD, in Military Tactics.

Six Instructors, a Farm Superintendent, and two Stewards, are also employed.

NUMBER OF STUDENTS.

The number of students enrolled during the session of 1866–7, was 190.

LIBRARIES, MUSEUMS, AND APPARATUS.

Libraries.—There are Law, Medical and Miscellaneous Libraries belonging to the University, which comprise about 15,000 volumes, open to all students.

Museums.—The University Museums contain many valuable collections illustrative of the various departments of Natural History and the Sciences. The Anatomical Museum, is very large, and was secured originally at great cost.

Apparatus.—There is a large collection of valuable Chemical, Philosophical, and Astronomical Apparatus, besides a good Laboratory belonging to the University, ample for the present purposes of illustration and instruction.

TUITION.

Three hundred State students may be received gratuitously; all others pay $30 per session of nine months.

REPORT.

The report of the Regent, (John B. Bowman,) dated June 26, 1867, is printed with the Catalogue of the University for 1867. Lexington, 8vo., 104 pp.

CALIFORNIA AGRICULTURAL, MINING AND MECHANICAL ARTS COLLEGE.

HISTORY.

By an act of the Legislature passed in 186-, the California share in the National grant was directed to the establishment of a new institution, (the site of which is still undetermined,) to be known as the Agricultural, Mining and Mechanical Arts College.

From unofficial sources, we learn that the Trustees of the "College of California," established at Oakland, (across the bay from San Francisco,) have offered to the Trustees of the "Agricultural, Mining and Mechanical Arts College," a site of land, well adapted to the proposed institution, provided that it shall be located there; and in addition they have offered to give up their own charter, and pass over to the State, their buildings, collections, and all other property, provided that on this foundation and at this place the State shall found the "University of California," bestowing upon it the National scientific school grant, the College of California property, and the State University land-grant. If this plan can be successfully carried out, the prospects of higher education in California will be most encouraging.

The National grant for industrial education amounts to one hundred and fifty thousand acres of land. Previously, (by an act approved March 3, 1853,) Congress had granted to California, seventy-two sections, or forty-six thousand and eighty acres of land for the use of a "Seminary of Learning," the proceeds of which are known as the "Seminary fund." The valuation of the Oakland property is unknown to us.

In 1864, Prof. J. D. Whitney, the State Geologist, John Swett, Superintendent of Public Instruction, and J. F. Houghton, Surveyor General, a Board of Commissioners especially designated for this purpose by the Legislature, presented a report to His Excellency F. F. Low, Governor of the State, on the establishment of a State University. In this document, which is attributed to the pen of Prof. J. D. Whitney, the concentration of the Industrial School land-grant and the Seminary fund, in one institution, was forcibly advocated, and the importance of organizing at first a school of Practical Science, was clearly set forth. The following propositions were laid down:

"*First*—That there is no provision in the Congressional Acts granting lands to the State, and nothing in the Constitution of the State itself, which particularly defines the character of the proposed institution, and that therefore the Legislature is free to act in the matter within very wide limits.

Second—That the interests of the State require the consolidation of the proceeds of the grants of land for a University and for an Agricultural and Mechanical School, so that both these shall be parts of one institution.

Third—That it is not advisable, at least for the present, to organize a Collegiate Department in connection with the proposed institution.

Fourth—That the institution required by the State, and which will be best adapted to the wants of the people of the Pacific coast, in a School of Practical Science, or a Polytechnic School, meaning thereby an institution where the elements of the Exact and Natural Sciences will be taught, and their practical application to the wants of everyday life, as to mechanics, mining, manufacturing, and agriculture.

Fifth—That the collections of the State Geological Survey should be eventually made over to the State University or Polytechnic School, or this institution, organized for the purposes of higher education, in accordance with the Constitution of the State, whatever its name may be; that the interests of the State demand that these collections should be placed in a fire-proof building, which may be called the "State Museum," where they will be accessible for the purposes of instruction, not only to the student, but to the general public; and that for that purpose a Board of Commissioners should be appointed to take the matter in hand, select a suitable location, and erect a building, from funds to be drawn from the State Treasury and other sources, as will be explained further on, and that this Board should also report to the next Legislature a plan for organizing and setting in motion a State Polytechnic School. * * *

"The following reasons have led to the recommendation of San Francisco as the point where the proposed University should be established.

First—It is the most populous city of the Pacific coast. The number of its inhabitants is probably now over one hundred thousand—a number at least five times as great as that of any other city this side of the Rocky Mountains. This concentration of population at San Francisco is still going on, and will undoubtedly continue for an indefinite period, as this city has natural advantages which no other point on the Pacific coast can show. It is and must remain the commercial and manufacturing emporium of the North Pacific coast of America, and however great the fluctuations in the prosperity of the State of California may be, the march of this city will be onward, since the whole region from Mexico to British Columbia contributes to its support.

Second—It is the most central point of the State. One-third, at least, and probably as many as two-fifths of the population of the State lives in the immediate vicinity of the Bay of San Francisco. By its system of river and bay steamers, it connects together Northern, Southern, and Central California; it is the point where all persons coming from abroad by sea must land, and from which radiate lines of communication in all directions towards the interior. A much larger proportion of the population of the State visit San Francisco than any other point. But:

Third—It is by far, and out of all proportion, the wealthiest city in the State. One-third of the taxes which support the State Government is collected at San Francisco, and if the present rate of increase continues, as there is every reason to believe it will, this city will soon be paying one-half the expenses of the State.

Fourth—The climate of San Francisco is equable, bracing, and healthy, and is better fitted for sustained study and vigorous intellectual effort than that of any other part of the State."

MAINE STATE COLLEGE OF AGRICULTURE

AND THE MECHANIC ARTS.

ORONO.

HISTORY.

MAINE was entitled to 210,000 acres in scrip. Having accepted the grant, the Legislature established (Feb. 25, 1865) the State College of Agriculture and the Mechanic Arts, leaving the site to be determined by the Trustees. In 1866, 193,600 acres of scrip had been sold at a little more than fifty-three cents per acre. Thus the sum of $102,759 was realized, which was invested in bonds of the State of Maine, amounting to $104,500. This sum will be increased by the sale of the remaining 16,320 acres.

Sixteen Trustees were originally appointed by the Legislature, one from each county, and Hon. Hannibal Hamlin was made the first President of the Board. He was succeeded by Hon. W. A. P. Dillingham. In January, 1867, the Trustees voted to request the Legislature to reduce this number to five or seven.

In January, 1866, the Trustees determined to establish the College in the town of Orono, upon land which was offered to them by the towns of Orono and Oldtown. The place selected is on the White and Goddard farms, a large and valuable estate of about three hundred and seventy acres, possessing high natural productiveness, sufficient diversity of soil for the various experimental purposes of an agricultural school, and having a fine frontage on the Penobscot river, while the rear of the farm is rich in an extensive tract of forest.

The site of the College is one of the most attractive in the State to a mind that appreciates natural beauty. It is one mile from the village of Orono with its churches, schools, stores, bank and vast water-power which furnishes a basis for manufacturing industry of various forms, and will be made tributary, no doubt, to the growth and success of the mechanical department of the College. Seven miles from Orono is the city of Bangor, already noted for its ship-building interest and commerce, as well as for its interior trade and extensive lumbering operations.

When the department of marine architecture in the College shall have been established, the Bangor ship-yards will furnish the students with practical illustrations in every branch of the business.

In addition to the gift of a site, the Trustees have received from the citizens of Bangor, the sum of $14,000 in cash. Phineas Barnes of Portland, has been chosen President of the College, but for want of a building but little progress has been made in organizing the institution.

A Report on the steps thus far taken to organize the College, was presented to the Legislature in 1867, and printed. (Augusta, 24 pp., 8vo.) As a part of this document, the written suggestions of F. L. Olmsted, Landscape Architect of New York, are given in respect to the arrangement of the grounds and the construction of the building.

HODE ISLAND.

SCIENTIFIC DEPARTMENT OF BROWN UNIVERSITY.

PROVIDENCE.

HISTORY.

THE AGRICULTURAL AND MECHANICAL COLLEGE in Rhode Island, provided for by the National land-grant of 1862, constitutes the Scientific Department of Brown University, which corporation has stipulated to provide a College or Department of the character contemplated by the act of Congress in order to promote the liberal and practical education of the industrial classes.

Rhode Island received scrip for 120,000 acres of land, which was very promptly accepted by the Legislature at its January session in 1863. The scrip was sold in 1866 for $50,000, (payable in five unequal installments between August, 1866, and August, 1870,) which is at the rate of forty-one and two-thirds cents per acre. At the date of the fourth annual report in reference to this fund, dated Feb. 12, 1867, $1,000 had been realized and invested in an U. S. five-twenty bond, bearing interest in gold at five per cent. per annum. The fund was appropriated to a scientific department in Brown University, at Providence. Until a much larger sum is received, no report can be made of the mode in which the income is employed. Four brief annual reports, thirteen pages in all, have been printed, addressed to the Governor of the State by the Corporation of the University. The second of these rehearses the difficulties which were encountered in an effort to locate for the College the National grant within the limit of the State of Kansas.

Since the above brief statement was in type we have received the "Fifth Annual Report of the Corporation of Brown University to Governor Burnside, for the year 1867," from which the following extracts are made:

The income from the fund will be sufficient to begin to educate students under the arrangements between the State and the University, by or before the next collegiate year, Sept. 2d, 1868.

By the resolution of the General Assembly, the Senators and Representatives are constituted a Board of Commissioners to present to the Governor and Secretary of State during the January session in each year, the names of worthy young men from the several towns as candidates to be educated as State beneficiaries in Brown University, under the Agricultural College Act, and from that class of persons who otherwise would not have the means of providing themselves with the like benefits.

From the candidates so nominated, the Governor and Secretary of State, with the President of the University, are to select, on or before Commencement Day, (the first Wednesday in September,) of each year, the scholars to be educated.

The department in the University to teach the branches of learning required by the Agricultural College act, has been organized, and the course of studies has been so liberally arranged as to supply the demands of a scientific and practical education for the present day; besides which all the courses of instruction given in the University are thrown open free to the students in the Agricultural department.

KANSAS STATE AGRICULTURAL COLLEGE.

MANHATTAN, RILEY COUNTY.

HISTORY.

THE KANSAS STATE AGRICULTURAL COLLEGE was established February 16, 1863, on the basis of the National land-grant, and went into operation in September following.

The amount of land appropriated to Kansas, was 90,000 acres, which was located in the State by a commission who visited and inspected each quarter section. The land thus located is offered for sale at prices ranging from $3.00 to $8.00 per acre, the agent in charge being Hon. I. T. Goodnow, late Superintendent of Public Instruction. It is expected that these lands will yield an endowment of 500,000 dollars. Until the fund arising from the sale of these lands reaches the amount of $150,000, the Legislature agrees to advance an amount sufficient to pay the current expenses of the institution.

TRUSTEES.

The Trustees consist of the Governor, the Secretary of State, the Superintendent of Public Instruction, the President of the College, and nine other persons appointed by the Governor and Senate, as follows, (1867–8,):

Gov. S. J. CRAWFORD, President of the Board; Hon. R. A. BARKER, Vice President; Hon. T. H. BAKER, Secretary; Judge JOHN PIPHER, Treasurer; Rev. P. MCVICAR, Sup. Pub. Instruction; Rev. J. L. REASER, Rev. E. GALE, Rev. R. CORDLEY, Rev. D. EARHEART, Judge L. D. BAILEY, Hon. S. D. HOUSTON, Hon. I. T. GOODNOW; Rev. J. DENISON, President of the College.

LOCATION.

The College is located in the Kansas valley, near Manhattan, Riley County. It is about 115 miles west of Leavenworth, and about the same distance from Wyandotte at the mouth of the Kansas river. Its distance west from Lawrence is 80 miles, and from Topeka about 50, and it is 15 miles northeast from Ft. Riley. It stands on a beautiful eminence back of the town, running northwest and southwest. From the base of the building, but especially from its top, is a panoramic view seldom surpassed for beauty and loveliness. The beholder, facing the west, will see the valley of the Wild Cat Creek, running up to the northwest some 15 miles and skirted with undulating bluffs. Facing the east, the scene that opens to view, is made up of the thriving town of Manhattan, spread out at the Junction of the Big Blue and the Kansas rivers, and the valley of the Kansas extending far on below with its majestic bluffs and intervening creeks. The field of view at the left takes in a part of the valley of the Big Blue, but the conspicuous figure in front is Blue Mont, the parent of the bluffs that line the valleys of the Big Blue, and the last one the river passes ere it unites with the Kansas. A straight edge, sixty miles long, with one end laid on the top of this cone-shaped bluff and the other end on the top of the bluff nearly opposite Marysville in Marshall County, would be touched by a series

of similar bluffs running the whole distance, the most of which are truncated, though on a few the tops still remain.

Manhattan is very easy of access by railroad and otherwise. The Depot of the Union Pacific Railroad Way E. D. is about two miles from the Institution.

TUITION.

Tuition is free in all the Departments except Instrumental Music. Ladies share the privileges of the Institution equally with gentlemen. A contingent fee of three dollars a term, or nine dollars a year, is charged to meet expense of fuel, lights, sweeping, &c. In Music, for instruction on the Melodeon, $8 per term; on Piano, $10 per term. For use of Melodeon, $1; for use of Piano, $2. For use of Library, 50 cents per term.

LODGING AND BOARD.

Board at the Boarding House, (a new, ample, and well furnished stone building, in charge of Col. F. Campbell,) is furnished at $4 per week, with an additional charge of $5 per term for fuel and lights. Washing done at reasonable rates. A portion of the students board themselves at less expense.

TERMS OF ADMISSION.

1. Candidates for admission to the Freshmen Class are required to pass a satisfactory examination in English Grammar, Ancient and Modern Geography, including outlines of History and English Composition.

2. Harkness' Introductory Latin, his Latin Grammar, his Latin Reader and Latin Prose Composition, Cæsar, Sallust, Cicero's Orations, and six Books of Virgil's Æneid.

3. In Greek, Harkness' 1st Book in Greek, with Fables, Anecdotes and Mythology, Hadley's Greek Grammar, and Zenophon's Anabasis.

4. Arithmetic, Mental and Written, Robinson's Elementary Algebra entire, and four Books of Robinson's Geometry.

Candidates for admission to the Scientific course will not be examined in Greek, nor the Latin Authors after Sallust, but in all the other studies. Candidates for advanced standing will be examined in all the preceding studies pursued by the classes they enter, or their equivalent.

Those wishing to enter the Academic, or Preparatory Department, should be prepared to pass a satisfactory examination in the four fundamental rules of Arithmetic, and the Elements of English Grammar, Geography, Spelling, and Reading.

COURSES OF STUDY.

Seven courses of study are announced on the programme, of which it appears that the "Classical," and the "Preparatory," are the more thoroughly carried out. The series announced is as follows:

CLASSICAL COURSE.
AGRICULTURAL AND SCIENTIFIC COURSE.
MILITARY SCIENCE AND TACTICS.
MECHANIC ARTS AND CIVIL ENGINEERING
ACADEMIC AND PREPARATORY COURSE.
COMMERCIAL AND MERCANTILE COURSE.
NORMAL COURSE.

AGRICULTURAL AND SCIENTIFIC COURSE.

FIRST YEAR.

First Term.—Soils in their relation to Vegetation, Water, Atmosphere, and also in their relation to vegetable products. Recitations, Lectures, and Field Practice on the Farm. University Algebra, and Modern History.

Second Term.—Subsoil Plowing, Tillage, Draining, and Fertilizers. University Algebra, Natural Philosophy, (Wells, with Lectures.)

Third Term.—Botany, (Gray's.) Zoölogy, (Agassiz.) Meteorology, (Brockelsby, with Lectures.) Botanical Lectures, Excursions, and Field Instruction. Geometry, (Robinson's.)

SECOND YEAR.

First Term.—Structure and Physiology of Plants; Buildings; Fall Crops and use of Farm; Machinery, and best Farm Implements; Preservation of Seeds; Recitations, Lectures, and Field Instruction. Geometry, (Robinson's.) Logic, (Coppee's.)

Second Term.—Philosophy and care of Domestic Animals; Diseases of Cattle and Horses; Propagation and Culture of Forest Trees adapted to Hedges, and their Cultivation; Recitations, and Lectures. Trigonometry, (Robinson's.) Logic, (Coppee's.)

Third Term.—Horticulture, and Kitchen Gardening; Propagation and Training of Fruit Trees, Vines, (especially the Grape,) Small Fruits, Vegetables, Grafting; Recitations, and Lectures; Surveying, and Engineering.

THIRD YEAR.

First Term.—The Staple Grains, Forage, Root and Fibre Crops of the Northern and Middle States, with their varieties, and soils adapted to them; Insects injurious to vegetation; Origin and Natural History of Domestic Animals. Conic Sections, (Robinson's.) Mental Philosophy, (Haven's.)

Second Term.—Raising and care of Domestic Animals; Characteristics and Adaptation of Breeds; Cattle for Beef, Draft, and Dairy; Horses; Sheep; Swine; Pasturing, Soiling, and Stall Feeding; Agricultural Botany; Description of Weeds and noxious Plants; Farm Book-keeping. Chemistry, (Wells', with Lectures.) Physiology, (Hitchcock's.)

Third Term.—History of Agriculture and Sketches of Husbandry in foreign lands. Adaptation of Farming to Soil, Climate, Market, and other natural and economical conditions. Systems of Farming; Stock; Sheep; Grain, and mixed farming. Geology, (Dana's.) Moral Philosophy, (Haven's.) Political Economy, (A. Walker's.)

Agricultural, Zoölogical, Botanical and Geological Excursions, during the Fall and Spring terms of the second and third year, will be conducted under the guidance of the Agriculturist, or the Professor of Natural Science, and are intended to be thoroughly practical in their character.

Daily and weekly exercises in Music, Calisthenics, Composition and general Reading, the same each year as in the Classical Course.

CLASSICAL COURSE.

FRESHMEN YEAR.

First Term.—Livy, (Keightly's History of Rome.) Latin Prose Composition. University Algebra, (Robinson's.) Herodotus, (Johnson's.) Modern History, (Lord.)

Second Term.—Ovid. University Algebra, (Robinson's.) Homer's Iliad, and Greek Prose Composition, (Anthon's.) Natural Philosophy, (Wells'.)

Third Term.—Horace, (Anthon's.) Homer's Iliad. Keightly's History of Greece. Geometry, (Robinson's.) Botany, (Gray's.)

Daily exercises each term in Vocal Elements, Music and Calisthenics, and weekly exercises in Elocution and Composition.

Read Bancroft's History of the United States.

SOPHOMORE YEAR.

First Term.—Cicero de Officis de Senectute, (Anthon.) Æschines de Corona, (Felton's Lectures.) Geometry, (Robinson's.) Rhetoric, with Lectures and criticisms of English Authors in Prose and Poetry.

Second Term.—Tacitus Germania. Thucydides, and Greek Composition. Trigonometry, (Robinson's.) Logic, (Coppee's.)

Third Term.—Tacitus Agricola. Greek Tragedies, (Woolsey.) Surveying, (Robinson's.) Engineering, (Robinson's.) Zoölogy, (Agassiz.)

Daily exercises each Term, in Music and Calisthenics, and weekly exercises in original Declamation, and Composition.

Read Greeley's American Conflict, McCauley's History of England D'Aubigne's History of the Reformation, and Motley's Dutch Republic.

JUNIOR YEAR.

First Term.—Tacitus' Histories. Greek Tragedies, (Woolsey.) Conic Sections, (Robinson's.) Mental Philosophy, (Haven's.) Meteorology, (Brocklesby's, with Lectures.)

Second Term.—Plato; Analytical Geometry; Chemistry. Physiology, (Hitchcock's, with Lectures.)

Third Term.—Moral Philosophy, (Haven's.) Calculus, (Robinson's.) Chemistry, (Wells', with Lectures.) Acoustics, and Optics.

Provision will be made as soon as possible for instruction in the German, French and Spanish Languages.

Daily and weekly exercises in Elocution, Declamation and Composition, the same as the previous year.

Read Guizot's History of Civilization, Thier's French Revolution, and Hallam's Constitutional History of England.

SENIOR YEAR.

First Term.—Political Economy, (A. Walker's.) Astronomy, (Robinson's.) Geology and Mineralogy, (Dana's, with Lectures.) Philology, (Fowler's English Language, Dwight and Marsh's Lectures.)

Second Term.—Constitutional Law. Mechanics. English Literature, (Hallam.) Butler's Analogy.

Third Term.—International Law, (Woolsey.) Evidences Christianity, (Paley and Hopkins.)

INSTRUCTORS.

The Faculty consists of—

REV. JOSEPH DENISON, D. D., President, and Professor of Mental and Moral Science and the Greek Language.

B. F. MUDGE, A. M., Professor of Natural Science and Higher Mathematics.

REV. J. H. LEE, A. M., Professor of the Latin Language and Literature.

J. EVERTS PLATT, Professor of Mathematics and Vocal Music.

MRS. LAURA C. LEE, Teacher of Instrumental Music.

J. EVERTS PLATT, Principal of Preparatory Department.

ILLINOIS STATE INDUSTRIAL UNIVERSITY.

PRELIMINARY MOVEMENTS.

ILLINOIS claims to have been the earliest State to make a combined and persistent effort for the appropriation of National lands to encourage industrial education. These efforts are succinctly described by Hon. John Brooks, Superintendent of Public Instruction, in his report dated January 1, 1865:

"To Illinois belongs the high honor of inaugurating this beneficent social enterprise, and of making the first organized movement toward the melioration of the producing classes, by proposing means for the specific and higher education of the toiling masses of the nation. The earliest published records of organized effort for purposes of industrial elevation in the United States, so far as is now known, are those of the convention of 1851, which was held in the town of Granville, in Putnam county in this State, the declared object of which convention was, to take into consideration such means as might be deemed most expedient to further the interests of the agricultural community, and particularly to take steps towards the establishment of an Agricultural University. During the session of this convention, the following resolutions, among others, were passed:

Resolved, That as the representation of the industrial classes, including all cultivators of the soil, artisans, mechanics, and merchants, we desire the same advantages and privileges for ourselves, our fellows, and our posterity, in each of our several pursuits and callings, as our professional brethren enjoy in theirs; and we admit that it is our own fault that we do not also enjoy them.

Resolved, That we take immediate measures for the establishment of a University in the State of Illinois, expressly to meet the felt wants of each and all the industrial classes of our State.

A second convention, to advance the cherished object of industrial education, was assembled in the city of Springfield, in the month of June, 1852. During this session, the convention ordered that a memorial be presented from that body to the Legislature of the State, at its next session, declaring the object of the organization, and praying for the use of the College and Seminary fund to aid in establishing and maintaining a University 'for the benefit of the great industrial classes and interests of the State.' In that memorial, the convention expresses its desire that immediate steps be taken for the consummation of the object recommended, and proposes 'to appeal to Congress, in conjunction with eminent citizens and statesmen in other States, who have expressed their readiness to co-operate with us, for an appropriation of public lands *for each State in the Union*, for the appropriate endowment of a University for the liberal education of the industrial classes, in their several pursuits in the several States in the Union.' The desire expressed in the proceedings quoted, to appropriate and use, for purposes of industrial education, the College and Seminary fund of the State, was entertained and urged prior to the establishment of the State Normal University. By section eight of the act incorporating that institution, it will be seen that this fund is now permanently devoted

to the interests of Normal education. The State Industrial University is, however, rendered independent of such incidental aid and support by the munificent Congressional bequest of 1862.

In the month of November, 1852, a third convention met in the city of Chicago. At this time was formed the 'Industrial League of the State of Illinois,' the object of which organization was to enlist the influence and energies of the working classes in behalf of the favorite scheme of education which had been so ardently cherished by its friends. It was resolved at this meeting 'to memorialize Congress for the purpose of obtaining grants of public lands to establish and endow industrial institutions in each and every State in the Union.'

The convention again assembled in the city of Springfield, in January, 1853. During its session, the convention addressed a memorial to the State Legislature then in session, requesting the joint action of the Senate and House of Representatives, to assist in procuring from Congress a grant of lands for the establishment and endowment of an Industrial University in each State of the Union. The following is quoted from the memorial of the convention:

'We would therefore respectfully petition the honorable Senate and House of Representatives of the State of Illinois, that they present a united memorial to the Congress now assembled at Washington, to appropriate to each State in the Union an amount of public lands, not less in value than $500,000, for the liberal endowment of a system of Industrial Universities, one in each State in the Union, to co-operate with each other, and with the Smithsonian Institute at Washington, for the more liberal and practical education of our industrial classes and their teachers, in their various pursuits, for the production of knowledge and literature needful in those pursuits, and developing to the fullest and most perfect extent the resources of our soil and our arts, the virtue and intelligence of our people, and the true glory of our common country.'

The memorial of the convention was favorably entertained by the Legislature, and on the 8th day of February, 1853, joint resolutions were passed by that body, praying Congress to donate public lands to the several States for purposes of industrial education. It is believed that this action of the Legislature of Illinois, applying to Congress for a grant of lands for the industrial education of the nation, was several years in advance of the action of any other State Legislature in the United States.

Subsequent meetings were held by the friends of the enterprise at various places in the State; the subject was discussed in all its bearings; the theme was renewed at the annual meetings of the State and County Fairs; the scheme was advocated in public lectures, and addresses delivered to large and interested audiences of the people in the larger cities and towns of the State; and the labor of its friends was not intermitted until Congress, on the second day of July, 1862, passed an act, conveying to the States, upon conditions specified, the magnificent bounty described in the act itself, and before referred to.

At the session of the State Legislature next following the passage of the act of Congress, the bounty proposed by the General Government was formally accepted by the State, and the public faith was pledged to a compliance with the conditions of the grant. At the special session of the Legislature in the month of June, 1863, an effort was made by parties acting in the interest of certain literary institutions, located in the central and southern portions of the State, to divert the Government grant from its legitimate direction, and to secure its appropriation to local and sectarian purposes, entirely foreign to the object contemplated by Congress. The State may be congratulated upon the failure

of this effort, for by such a disposition of the grant, only a private benefit would have been secured, while all the important public advantages anticipated from the donation would have been lost to the State forever. In the same month, (June, 1863,) and during the time the proposition to apply the grant to private uses was pending before the General Assembly, another 'Convention of the Friends of Agriculture' assembled in the city of Springfield, and addressed to the Legislature a formal protest against the proposed diversion of the grant. At the same time, a committee of gentlemen, composed of one from each congressional district of the State, was appointed to collect facts and statistics relating to the establishment of a central Industrial University, and to mature a plan for its constitution and endowment.

Later conventions were held, in January, 1864, in the city of Springfield, and during the State Fair in Decatur, in the fall of the same year. In these meetings resolutions were passed, favoring the endowment of ONE UNIVERSITY, and deprecating any appropriation of the National bequest for any merely partisan or sectional uses."

In addition to these historical statements by Mr. Brooks, it is only just to add that Dr. J. B. Turner, of Jacksonville, had, several years previous to the date (1851) of the first Convention named above, been indefatigable in his efforts to enlighten public opinion on the value of industrial training, and to secure a National appropriation in aid of such education.

INDUSTRIAL UNIVERSITY.

The amount of land-scrip to which Illinois became entitled, was 480,000 acres. The definite action of the Legislature in regard to the disposal of the proceeds of the grant was not matured until the spring of 1867, when the "Illinois Industrial University" was formally incorporated.

Its location was deemed of such immediate advantage as to lead to a lively competition from different counties and townships, and was finally awarded to Champaign County by the offer in land, buildings, and bonds, to the value of $400,000. The University domain, including ornamental and parade grounds, experimental and model farms and gardens, comprises over one thousand acres.

TRUSTEES.

The institution is placed under the control of twenty-eight Trustees appointed by the Governor, and four additional *ex-officio* Trustees, viz: the Governor of the State, the State Superintendent of Public Instruction, the President of the State Agricultural Society, and the Regent of the University when elected.

The names of the Trustees for 1867, were as follows: His Excellency R. T. OGLESBY, Governor; Hon. N. BATEMAN, Superintendent of Public Instruction; A. B. MCCONNELL, President of the Agricultural Society; J. M. GREGORY, LL. D., Regent, *ex-officiis*, and the following appointed persons:

Lemuel Allen, Alexander Blackburn, Mason Brayman, A. M. Brown, Horatio C. Burchard, J. C. Burroughs, Emery Cobb, J. C. Cunningham, Robert Douglass, M. L. Dunlap, Samuel Edwards, Willard C. Flagg, O. B. Galusha, M. C. Goltra, David S. Hammond, George Harding, S. S. Hayes, J. P. Hungate, John S. Johnson, Luther Lawrence, Isaac S. Mahan, E. B. McMurray, J. H. Pickrell, Burden Pullen, Thomas Quick, J. W. Scroggs, Charles H. Topping, John M. Van Osdel.

A meeting of this body was held at Springfield, March 12th, 1867, twenty-six

members being present, and the Governor in the Chair. J. M. Gregory, LL. D., for several years Superintendent of Public Instruction in Michigan, and at the time of his appointment President of a College in Kalamazoo, was elected Regent of the University, at a salary of $3,000 per annum; Willard C. Flagg was elected Corresponding Secretary, John W. Bunn, Treasurer, and O. B. Galusha, Recording Secretary.

PLAN OF ORGANIZATION.

Various preliminary steps were taken in respect to the organization of the University, the most important of which was the appointment of a committee on the selection of a course of study and the appointment of a Faculty; and the adoption of the following resolutions in respect to the establishment at Chicago of a Polytechnic Department or Branch of the University:

Resolved, That a Mechanical or Polytechnic Department of the Illinois Industrial University be and the same is hereby established at Chicago, at such point as a majority of the members of the Board of Trustees residing in the Third Grand Division and first Congressional District, shall determine.

The said members of said Division and District are hereby authorized and empowered to receive contributions and subscriptions for said department, and as a committee of the Board, to take all other necessary and lawful proceedings for the organization of said department, and the direction and control thereof.

Provided, That said branch be located as near the centre of the city as possible.

Provided, That no part of the funds, scrip, or other property of the University, other than such as may belong to or be received for such department, or be donated for its support or endowment, be used in the establishing or carrying on of said Mechanical or Polytechnic branch or department.

The committee on organization, consisting of Messrs. J. M. Gregory, N. Bateman, M. Brayman, S. S. Hayes, and W. C. Flagg, have published a report, recommending the establishment of the following departments:

I. *The Agricultural Department*—Embracing:

1. The course in Agriculture proper. 2. The course in Horticulture and Landscape Gardening.

II. *The Polytechnic Department*—Embracing:

1. The course in Mechanical Science and Art. 2. The course in Civil Engineering. 3. The course in Mining and Metallurgy. 4. The course in Architecture and Fine Arts.

III. *The Military Department*—Embracing:

1. The course in Military Engineering. 2. The course in Military Tactics.

IV. *The Department of Chemistry and Natural Science.*

V. *The Department of Trade and Commerce.*

VI. *The Department of General Science and Literature*—Embracing:

1. The course in Mathematics. 2. The course in Natural History, Chemistry, etc. 3. The course in English Language and Literature. 4. The course in Modern Languages and Literature. 5. The course in Ancient Languages and Literature. 6. The course in History and Social Science. 7. The course in Philosophy, Intellectual and Moral.

PROPOSED COURSES OF STUDY.

The course of instruction may properly employ four classes of Teachers:—1st. *Professors*, or principal instructors in each department of study. 2d. *As-*

sistant Professors—younger, or less accomplished teachers, employed in sub-departments, or to aid in departments in which the work cannot be fully done by one man. 3d. *Lecturers*, or non-resident Professors—men eminent in some speciality of art or science, who may be employed to visit the University at specified seasons, and give courses of lectures. 4th. *Tutors*, or young men employed temporarily to give instruction in the more elementary studies.

The committee indicate the following as among the more important departments or chairs of instruction:

1. The Professorship of Practical and Theoretical Agriculture.
2. " " of Horticulture.
3. " " of Analytical and Practical Mechanics.
4. " " of Military Tactics and Engineering.
5. " " of Civil Engineering.
6. " " of Botany and Vegetable Physiology.
7. " " of Zoölogy and Animal Physiology.
8. " " of Mathematics.
9. " " of Chemistry.
10. " " of Geology, Mineralogy, and Physical Geography.
11. " " of English Language and Literature.
12. " " of Modern Languages.
13. " " of Ancient Languages.
14. " " of History and Social Science.
15. " " of Mental and Moral Philosophy.

In addition to these, the committee suggest the following Lectureships:

1. The Lectureship of Veterinary Science.
2. " " of Commercial Science.
3. " " of Human Anatomy, Physiology, and Hygiene.
4. " " of Constitutional, Commercial, and Rural Law.

MILITARY DEPARTMENT.

The Military Department will be made an important and efficient part of the University, and the plan reported by Major J. H. Whittlesey of the United States Army, for providing a system of National military education, will be accepted, when offered, in all its details. Drill exercises will be introduced from the outset, and a uniform of Cadet gray will be worn by all the students after the opening of the next autumn term.

THE LABOR SYSTEM.

All students, unless excused on account of sickness or physical inability, will be required to join in the work of the farm, and the garden, of fruit growing and animal husbandry, for from two to three hours per day, for which compensation will be made.

BOARD, TUITION, ETC.

Students can obtain rooms in the order of application, in the University buildings, at $4 per term, or in private families. Meals are furnished at cost.

Each student pays a matriculation fee of $10, and, if from Illinois, $5 per term; if from out of the State, $20 a year.

The formal opening will be on the 11th of March, 1868.



MARYLAND AGRICULTURAL COLLEGE.

THE STATE AND EDUCATION.

THE RIGHT AND DUTY OF THE STATE TO ESTABLISH, AID, AND SUPERVISE PUBLIC SCHOOLS.

THE STATE AND EDUCATION,

AND SYSTEMS OF PUBLIC INSTRUCTION.

PRELIMINARY REPORT.

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I. THE STATE AND EDUCATION.

AN ADDRESS TO THE PEOPLE OF NEW JERSEY IN 1838.*

FELLOW CITIZENS:—We were appointed by the Convention of your own delegates to address you on the subject of Common Schools. We approach you with solicitude, as deeply sensible of the great importance of the interest intrusted to us; yet, as freemen speaking to freemen, with prevailing confidence.

The points which we propose for your attention, and, if we might, would press into every heart, are few, simple and practical; the necessary consequences, it seems to us, from principles which all admit. We say that *knowledge is the universal right of man:* and we need bring no clearer demonstration than that intellectual nature, capable of it, thirsting for it, expanding and aspiring with it, which is God's own argument in every living soul. We say that the assertion for himself of this inherent right, to the full measure of his abilities and opportunities, is *the universal duty of man:* and that whoever fails of it, thwarts the design of his Creator; and, in proportion as he neglects the gift of God, dwarfs and enslaves and brutifies the high capacity for truth and liberty which he inherits. And all experience, and every page of history confirm the assertion, in the close kindred, which has everywhere been proved, of ignorance and vice with wretchedness and slavery. And we say farther, that the security of this inherent right to every individual, and its extension, in the fullest measure, to the greatest number, is *the universal interest of man;* so that they who deny or abridge it to their fellows, or who encourage, or, from want of proper influence, permit them to neglect it, are undermining the foundations of government, weakening the hold of society, and preparing the way for that unsettling and dissolving of all human institutions, which must result in anarchy and ruin, and in which they who have the greatest stake must be the greatest sufferers. A lesson, clearly taught by

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* The Convention assembled in Trenton on the 27th and 28th of January, 1838, Chief Justice Hornblower presiding. The address was prepared by the Rt. Rev. George W. Doane, in behalf of a Committee consisting of Bishop Doane, *Chairman*, L. Q. C. Elmer, M. J. Rhees, T. Frelinghuysen, S. Green, D. B. Ryall, A. B. Dod, A. Atwood, and S. R. Gummere.

that divine philosophy, in which the Maker of mankind becomes their Teacher; reveals the world as but one neighborhood, and men as brethren of one family; and writes upon all social institutions these golden truths, the fundamentals and essentials of the true political economy, which neither individuals nor nations have ever disregarded with impunity,—"all things whatsoever ye would that men should do to you, do ye even so to them"—"none of us liveth to himself"—"whether one member suffer, all the members suffer with it; or one member be honored, all the members rejoice with it"—"bear ye one another's burdens, and so fulfill the law of Christ."

If the truth of these positions be established, their application is self-evident. And there never was a nation, since the world was made, in which their obligation was so clear, or its application so important. In the theory of our constitution, the people are the governors. In practice, they ought to be. And is ignorance the qualification for good government? Would you select a man to make your laws who can not read? Or one who can not write to execute them? Yet the authority which they exercise, and the abuses of which they are capable, are nothing, in comparison with theirs, from whom all power proceeds, and without whose permission no wrong can be done. Fellow citizens, we are republicans. Our country is our *common wealth.* We have all an equal share in her. Her laws are alike for the protection of all. Her institutions are alike for the advantage of all. Her blessings are our common privilege. Her glory is our common pride. But common privileges impose a common responsibility. And equal rights can never be disjoined from equal duties. The constitution which, under God, secures our liberties, is in the keeping of us all. It is a sacred trust which no man can delegate. He holds it for himself, not only, but for his children, for posterity, and for the world. And he who can not read it, who does not understand its provisions, who could not on a just occasion, assert its principles, no more sustains the character of an American citizen, than the man who would not seal it with his blood.

It is in vain to say that education is a private matter, and that it is the duty of every parent to provide for the instruction of his own children. In theory, it is so. But there are some who can not, and there are more who will not, make provision And the question then is, shall the State suffer from individual inability, or from individual neglect? When the child who has not been trained up in the way in which he ought to go, commits a crime against the State,

the law, with iron hand, comes in between the parent and his offspring, and takes charge of the offender. And shall there be provision to punish only, and none to prevent? Shall the only offices in which the State is known be those of jailor and of executioner? Shall she content herself with the stern attribute of justice, and discard the gentler ministries of mercy? It was said of Draco's laws that they were writ with blood. Is it less true of any State which makes provision for the whipping-post, the penitentiary, the scaffold, and leaves the education of her children to individual effort or precarious charity? It was well said by the distinguished head of our Judiciary,* even more distinguished as the President of the late convention for Common Schools, "the State has an interest in every child within her limits." May not still more than this with equal truth be said,—the welfare, nay, the being of the State is bound up in the character of every child? Think of the blessings which Washington, and Franklin, and Fulton, and Marshall, have brought down upon our land! Think of the scorn and execration which the name of Arnold brings with it, the single name in our whole history at which the nation needs to blush!

If the positions be maintained, that *the education of the people is indispensable to the preservation of free institutions*, and that *it is therefore the duty of every free State to provide for the education of her children*, we are prepared, fellow citizens, for the inquiry, *how far has provision been made for the discharge of this duty in the State with which we are most intimately connected, the State of New Jersey?* That the duty of making some provision for this end has long been recognized, the twenty-one years which have elapsed since the passage of the first act "to create a fund for the support of free schools" sufficiently attest. That what has been done is insufficient you have yourselves borne witness in the general impulse which, in December and January last, originated so many of those primary assemblies—in our republic the true sources of power and influence—for the consideration of this subject; and in that large, intelligent, and most respectable convention, composed of delegates, chosen by yourselves, to express your own views on the provisions for the public instruction, by which it was resolved with singular unanimity, that "the general laws of this State on the subject of Common Schools are essentially defective and ought to be repealed." Into the question, "What shall be substituted for the present law?" the convention did not enter. It was for them to de-

* Chief Justice Hornblower, by his deportment as the presiding officer of the Convention, adds new dignity to his office, and to himself.

clare the wishes of the people for a more effective system of instruction. The plan and its provisions they left with perfect confidence to the wisdom of the Legislature. The course which the convention pursued is even more becoming for us. The rather, as the matter is at this very moment in the course of legislative action. And after all, fellow citizens, the question, "What the law is?" is by no means so important as the question, "What is public sentiment?" If the people are but right the Legislature never will be greatly wrong. Or if they should, the remedy is easy, and the cure infallible.

Omitting all considerations, then, of what has been or of what may be legislative enactments on the subject, we address you as the Sovereign People, and we say that "*it is your duty and your highest interest to provide and to maintain, within the reach of every child, the means of such an education as will qualify him to discharge the duties of a citizen of the Republic;* and will enable him, by subsequent exertion, in the free exercise of the unconquerable will, to attain the highest eminence in knowledge and in power which God may place within his reach. We utterly repudiate as unworthy, not of freemen only, but of men, the narrow notion that there is to be an education for the poor, as such. Has God provided for the poor a coarser earth, a thinner air, a paler sky? Does not the glorious sun pour down his golden flood as cheerily upon the poor man's hovel as upon the rich man's palace? Have not the cotter's children as keen a sense of all the freshness, verdure, fragrance, melody, and beauty of luxuriant nature as the pale sons of kings? Or is it on the mind that God has stamped the imprint of a baser birth so that the poor man's child knows with an inborn certainty that his lot is to crawl, not climb? It is not so. God has not done it. Man can not do it. Mind is immortal. Mind is imperial. It bears no mark of high or low, of rich or poor. It heeds no bound of time or place, of rank or circumstance. It asks but freedom. It requires but light. It is heaven-born, and it aspires to heaven. Weakness does not enfeeble it. Poverty can not repress it. Difficulties do but stimulate its vigor. And the poor tallow chandler's son that sits up all the night to read the book which an apprentice lends him lest the master's eye should miss it in the morning, shall stand and treat with kings, shall add new provinces to the domain of science, shall bind the lightning with a hempen cord and bring it harmless from the skies.* The Common School is *common*, not as inferior, not as the school for poor men's children, but as the

* See Franklin's Life.

light and air are common. It ought to be the best school because it is the first school; and in all good works the beginning is one-half. Who does not know the value to a community of a plentiful supply of the pure element of water? And infinitely more than this is the instruction of the common School; for it is the fountain at which the mind drinks, and is refreshed and strengthened for its career of usefulness and glory.

Fellow citizens, it is the wise ordinance of God that man shall work for what he values. In all the dealings of your ordinary life, you act upon the principle. You plow your fields. You urge your spindles. You ply your fisheries. You tend your shops. With sweat of brow, or sweat of brain, each precious thing that man possesses must be gained and kept. At no less price can liberty and its attendant blessings be enjoyed. "That which makes a good constitution," said wise and prudent William Penn,* "must also keep it, men of wisdom and virtue: qualities which, because they descend not with inheritance, must be carefully propagated by a virtuous education of youth." Ask not, then, when we enjoin on you the duty of providing for the public instruction, where the cost shall come from? Were your house beset with robbers would you stop to ask the cost of its defense? If an invading army were to land to-morrow on our shores must we stop to count the cost before we march to meet and to repel them? The Common Schools are in the place to us of arms, and troops, and fleets. They are our nurseries of men. They are indeed "the cheap defense of nations."

What constitutes a State?
Not high-raised battlements or labored mound,
Thick wall, or moated gate;
Not cities proud, with spires and turrets crowned,
Not bays and broad-armed ports,
Where, laughing at the storm, rich navies ride;
Not starred and spangled courts,
Where low-browed baseness wafts perfume to pride,
No—MEN, high-minded MEN.
* * * * *
Men who their duties know,
But know their rights, and knowing, dare maintain;
Prevent the long-aimed blow,
And crush the tyrant, while they rend the chain:
These constitute a State.†

Fellow citizens, it is for you to say what shall be the present character, what shall be the future destiny of New Jersey. We

* Preface to the Frame of Government, 1682. † Sir William Jones, in imitation of Alcæus.

have indeed a goodly heritage. But it has been long and shamefully neglected. We have undervalued our privileges. We have overlooked our duties. We have been content to be a pendent merely, when we ought to be an independent State. There is now, thank God, the sound as of a trumpet in the land that stirs the old heroic blood. We feel the remnant sparks of the forgotten fire which warmed our fathers' hearts. The spirit of the elder day is breathing on us with its quickening and invigorating power. Let us accept the omen. Let us obey the noble impulse. Let us arise to duty and to glory. Men of New Jersey, it is you that are to rise. You are the State. You create and you control the Legislature. You enact and you sustain the laws. Yours are the means. Yours is the influence. Yours is the work. You make, *you are the State.* Go on as you have now begun. The system of Common Schools which shall be adopted by the present legislature, take into your own hands. If it is not what it should be, see that the next legislature make it such. Act together. Act with system. Act like men. The organization for the purpose is complete. The General Committee, the Committees of correspondence for the counties, the Committees of the townships—there is not an inch of ground that is not reached, there is not a citizen of New Jersey whose heart may not be roused by this electric chain. Lay to your hands, then, and employ it well. The work is great, and great must be the effort, and great the confidence. You must trust yourselves. You must trust your fellow citizens. You must trust the legislature. A system of public instruction is a great and arduous enterprise. You must repose such confidence in those who are to frame it as shall enable them to do it well. When it is framed you will do wisely to commit its oversight, subject to legislative supervision, to a judicious Board,* selected carefully from your most tried and faithful men, with wisdom to direct and with devotion to exert its powers. Above all, give the direction of the engine, with a large and liberal discretion, to a skillful engineer. And when it is made, and manned, and set in operation, you must still support it, you must watch over it, you must be yourselves a part of it. The School Fund is not equal to the work. And if it were, it would not be so well for you. Tax yourselves for the support of

* It is said that there are prejudices against a Board of Education, and a Superintendent. We can hardly think that they are general. If so, our appeal is to the good, sterling, common sense of the people of New Jersey. Is there a turnpike road, or a steamboat, or a bank, or a cotton factory, whose affairs are not intrusted to a Board of Managers? Is there a mill in all the State without a miller, or a locomotive in the land without an engineer? Is the education of the people less important than all these? Or is the system of public education to be the only case of a machine that goes alone?

Common Schools and you will never be in danger of taxation from a foreign power—you will need less taxation for the support of pauperism, and the punishment of crime. Look to your school-houses. See that they are convenient of access, that they are comfortable, that they are neat and tasteful. Look to the teachers. See that they are taught themselves, and apt to teach; men that fear God, and love their country. See that they are well accommodated, well treated, well remunerated. Respect them and they will respect themselves, and your children will respect them. Look to the scholars. Have them much in your eye, and always in your heart. Remember you are to grow old among them. Remember you are to die, and leave your country in their hands.

"Good Common Schools," says Governor Everett, of Massachusetts, "are the basis of every wise system of popular education." This is precisely what they are, the basis of a system; but the basis only. Let us now lay their broad foundations deep and strong—foundations that will stand themselves and bear the noble structure which our children and our children's children, as we trust, will rear upon them. We are the citizens of a small State. We can not, by our votes, control the electoral college. We can not, by our political influence, aspire to be the empire State of the confederacy. But there is a nobler empire, whose dominion does not come by numbers or by physical power. We may aspire, if we are just to ourselves and to our opportunities, to wield the suffrages of mind. The men of Athens were but few, their territory small, their soil indifferent. Yet did Athenian arms prevail against the myriads of the East; and to Athenian letters and Athenian arts admiring nations still award the palm. In the same noble lists let us engage; and make the mastery of intellect the prize of our ambition. Let us devote ourselves and consecrate the State to the great work of education. Let us lay hold in earnest of the remarkable advantages which we possess in this respect, in our accessible position, our temperate climate, our freedom from absorbing interests, the moderate habits, and the simple manners of our people. Let us sustain our present seats of learning; and let kindred institutions in every varied form be multiplied about us. Let us collect the children of the land: and on their minds make the mark which shall go down to latest generations. Let other States excel in commerce, or in agriculture, or in manufacturies. But let the staple of our State be mind; the products of our soil, with God to bless the culture, knowledge, and patriotism, and virtue; our highest object and our noblest aim to be the State of Common Schools, Academies, and Colleges, the educating State, the nursery of freemen.

That which makes a good Constitution must keep it, viz: men of wisdom and virtue: qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth, for which spare no cost, for by such parsimony, all that is saved is lost. WILLIAM PENN. *Instructions to Council.*

Promote, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened.

GEORGE WASHINGTON. *Farewell Address.*

The wisdom and generosity of the Legislature in making liberal appropriations in money for the benefit of schools, academies and colleges, is an equal honor to them and their constituents, a proof of their veneration for letters and science, and a portent of great and lasting good to North and South America, and to the world. Great is truth—great is liberty—great is humanity—and they must and will prevail.

JOHN ADAMS. *Inaugural.*

I look to the diffusion of light and education as the resources most to be relied on for ameliorating the condition, promoting the virtue, and advancing the happiness of man. And I do hope, in the present spirit of extending to the great mass of mankind the blessings of instruction, I see a prospect of great advancement in the happiness of the human race, and this may proceed to an indefinite, although not an infinite degree. A system of general instruction, which shall reach every description of our citizens, from the richest to the poorest, as it was the earliest, so it shall be the latest of all the public concerns in which I shall permit myself to take an interest. Give it to us, in any shape, and receive for the inestimable boon the thanks of the young, and the blessings of the old, who are past all other services but prayers for the prosperity of their country, and blessings to those who promote it. THOMAS JEFFERSON.

Learned institutions ought to be the favorite objects with every free people; they throw that light over the public mind which is the best security against crafty and dangerous encroachments on the public liberty. They multiply the educated individuals, from among whom the people may elect a due portion of their public agents of every description, more especially of those who are to frame the laws: by the perspicuity, the consistency, and the stability, as well as by the justice and equal spirit of which, the great social purposes are to be answered.

JAMES MADISON.

Moral, political, and intellectual improvement, are duties assigned by the author of our existence to social, no less than to individual man. For the fulfillment of these duties, governments are invested with power, and to the attainment of these ends, the exercise of this power is a duty sacred and indispensable. JOHN QUINCY ADAMS.

For the purpose of promoting the happiness of the State, it is absolutely necessary that our Government, which unites into one all the minds of the State, should possess in an eminent degree not only the understanding, the passions, and the will, but above all, the moral faculty and the conscience of an individual. Nothing can be politically right that is morally wrong; and no necessity can ever sanctify a law that is contrary to equity. Virtue is the soul of a Republic. To promote this, laws for the suppression of vice and immorality will be as ineffectual as the increase and enlargement of goals. There is but one method of preventing crime and of rendering a republican form of government durable; and that is, by disseminating the seeds of virtue and knowledge through every part of the State, by means of proper modes and places of education; and this can be done effectually only by the interference and aid of the legislature. I am so deeply impressed with this opinion, that were this the last evening of my life, I would not only say to the asylum of my ancestors and my beloved native country, with the patriot of Venice, "*Esto perpetua*," but I would add, as the best proof of my affection for her, my parting advice to the guardians of her liberties, establish and support PUBLIC SCHOOLS in every part of the State. BENJAMIN RUSH.

There is one object which I earnestly recommend to your notice and patronage; I mean our institutions for the education of youth. The importance of common schools is best estimated by the good effects of them where they most abound, and are best regulated. Our ancestors have transmitted to us many excellent institutions, matured by the wisdom and experience of ages. Let them descend to posterity, accompanied with others, which by promoting useful knowledge, and multiplying the blessings of social order, diffusing the influence of moral obligations, may be reputable to us, and beneficial to them. JOHN JAY.

The first duty of government, and the surest evidence of good government, is the encouragement of education. A general diffusion of knowledge is the precursor and protector of republican institutions, and in it we must confide as the conservative power that will watch over our liberties and guard them against fraud, intrigue, corruption and violence. I consider the system of our Common Schools as the palladium of our freedom, for no reasonable apprehension can be entertained of its subversion, as long as the great body of the people are enlightened by education. To increase the funds, to extend the benefits, and to remedy the defects of this excellent system, is worthy of your most deliberate attention. I can not recommend, in terms too strong and impressive, as munificent appropriations as the faculties of the State will authorize for all establishments connected with the interests of education, the exaltation of literature and science, and the improvement of the human mind.

DE WITT CLINTON. *Message as Governor.*

The parent who sends his son into the world uneducated, defrauds the community of a lawful citizen, and bequeathes to it a nuisance.

CHANCELLOR KENT.

For augmenting the aggregate amount of intelligence and mental power, in any community, the grandest instrumentality ever yet devised is the institution of Common Schools. The Common School realizes all the facts, or fables, whichever they may be, of the Divining Rod. It tries its experiments over the whole surface of society, and wherever a buried fountain of genius is flowing in the darkness below, it brings it above, and pours out its waters to fertilize the earth. Among mankind, hitherto, hardly one person in a million has had any chance for the development of his higher faculties. Hence, whatever poets, orators, philosophers, divines, inventors or philanthropists, may have risen up to bless the world, they have all risen from not more than one millionth part of the race. The minds of the rest, though equally endowed with talent, genius and benevolence, have lain outside the scope of availibility for good. These millions, with the exception of the units, have been drudges, slaves, cattle; their bodies used, their souls unrecognized. Ah, nowhere else have there been such waste and loss of treasure, as in the waste and loss of the Human Faculties. All spendthrift profusions, all royal prodigalities, are parsimony and niggardliness, compared with the ungathered, abandoned treasures of the human soul. As civilization has advanced, perhaps one child in a hundred thousand, and, in more favored nations, one child in ten thousand, has been admitted to the opportunities of knowledge. Forthwith, the men capable of constructing the institutions or the engines of human improvement and adornment appeared; and in numbers, too, far beyond the proportionate share of the constituencies from which they sprang. But if, instead of striking the fetters of prohibition from one in a hundred thousand, or from one in ten thousand, those fetters are stricken from all, and incitements to exertion and aids to self-development are supplied to all; then, immediately, quick as water gushes from unsealed fountains, Shermans rise up from the shoemaker's bench, Beechers come from the blacksmith's anvil, and Bowditches and Franklins from the ship-chandler's and the tallow-chandler's shop, and a new galaxy shines forth over all the firmament of genius. These are truths which the uneducated nations do not understand;—truths too, which the caste-men, whether of birth or of wealth, do not wish to understand. HORACE MANN. *Inaugural at Antioch College.*

The theory of our government is,—not that all men, however unfit, shall be voters,—but that every man, by the power of reason and the sense of duty, shall become fit to be a voter. Education must bring the practice as near as possible to the theory. As the children now are, so will the sovereigns soon be. How can we expect the fabric of the government to stand, if vicious materials are daily wrought into its framework? Education must prepare our citizens to become municipal officers, intelligent jurors, honest witnesses, legislators, or competent judges of legislation,—in fine, to fill all the manifold relations of life. For this end, it must be universal. The whole land must be watered with the streams of knowledge. HORACE MANN.

II. THE STATE AND EDUCATION.

WHAT constitutional right has the government to impose the burthen of taxation on individual property, or to employ the public funds, however obtained, for the furtherance of any such object as that of popular instruction? Is not education a personal advantage, accruing to the individual instructed, as much as the possession of property, or any other good—and by what right does the government undertake to bestow personal benefits at all, much more to compel one class of men, because they are men of substance, to bear the expense of benefits gratuitously bestowed on another class?

In the first place, the power over education is one of the powers of *public police*, belonging essentially to government. It is one of those powers, the exercise of which, is indispensable to the preservation of society—to its integrity, and its healthy action. It rests on the same foundation as that which is employed in defining and taking cognizance of crime, in erecting courts, both of civil and of criminal jurisdiction, in establishing jails and penitentiaries, and in compelling the performance of contracts, and the reparation of injuries. In this point of view, it is one among a number of means to the same end, either of which, or all of which, may be freely used, according to the wisdom and discretion of the public authorities. All are lawful, and equally lawful and constitutional modes of action. In the present case, however, the choice is not a question of expediency or economy only—though certainly important in the latter point of view; but it becomes a question of humanity also. For while it will always be necessary to provide for the punishment of offences against society, when committed, and for the compulsory observance of personal obligations, and redress of personal grievances, yet it is vastly preferable, undoubtedly, that, if such a thing were possible, there should be no grievances to be redressed, no broken promises, and no committed crimes. It is the aim, and the undoubted tendency of education, properly understood and conducted, to accomplish this object—an object of incalulable benefit to human society. As a measure, designed to operate only as a law of police, the public support of education goes behind all crime, and all injurious and disturbing action in society, and seeks to occupy the intellect and the affections of men, and simply by informing the mind and molding the temper, by demonstrating that it is the interest and the happiness of each to be just and generous towards all, by letting a little light in on the understanding, and touching the heart, either to take from them the disposition to offend one

another, or to injure society, or to arm them with strength of purpose to resist every temptation to do so.

But there is another and broader ground, still, on which to rest the power and duty of the state, in regard to education. That which we have already noticed, is enough for the authority, if the state choose to exercise it, and in the opinion of your committee, enough for the duty also. But the consideration which we now approach, is not only sufficient for the abundant justification of authoritative action—it demands action, and the state could not justify itself to the people without it.

The people of this state, having united themselves together in a civil society, have agreed to secure to themselves, or to attempt to secure to themselves, the highest advantages of the social compact, through the agency of certain forms of government and administration. We have adopted the representative system; and we start from the position, that the whole political power of the country, much of it for immediate exercise, and all of it by ultimate reference, is in the hands of the people. And, on this grand position, as a basis, do all our constitutional forms absolutely rest. But just as children are unfit to govern themselves, so are uneducated men, being still children, though of huge growth, unfit to govern themselves. In one mode or another, associations of such men always have had, and always will have, protectors and masters; and we hardly need add, that a people with masters of any sort, as the basis of a free representative system, is a contradiction in terms. It is evident, therefore, that popular cultivation, as diffusive and general as the numbers composing the republic, is indispensable to the preservation of our republican forms—and hence arises the great constitutional duty of the government. *It is the duty of self-preservation, according to its actual mode of existence, for the sake of the common good.* The highest good of the whole, as a body, is the object in view; that good is to be attained only, according to the very terms of the original compact, through our adopted forms; and the duty of preserving and maintaining those forms, in their vigor and purity, becomes, at once, the very highest duty and obligation of those who are intrusted with the administration. It is a duty, every instant, and perpetually, in force. No change of administration can affect it; and the moment it is denied or neglected, that moment is the cause of the republic repudiated and betrayed.

It is easy, we think, to know when this duty of maintaining our constitutional forms, by the care which is taken of the structure on which they rest, is in the way of being faithfully performed. The duty is *not* well provided for, unless some rational plan of public instruction shall have been devised and adopted, the object and the probable effect of which shall be, to lead to the cultivation of every child in the community, at least so far as to fit them all, without exception to the extent of their capabilities, for an intelligent discharge of the common and ordinary duties and responsibilities of social and political life, to which all, or nearly all, are called by the very conditions of our social and political forms. The future mother must be educated in every female child—a

matter not to be neglected if we would have men in the republic; and in every male child, must be educated the future elector, juror, and local administrator.

The duty of being educated is, undoubtedly, one of positive obligation, resting on every citizen, as part of the original compact between every citizen and the whole body of citizens; and as far as instruction is attainable in youth, the obligation rests on parents and guardians. It is a duty which by no means concerns the individual only; it is one in which every other individual, and the whole community have a deep interest. The verdict of jurors, and the decision of a contested election, perhaps by the casting vote of a single person, are matters of vast concernment to others, besides those who render the verdict, or turn the election.

But while there can be no doubt about this personal duty, and the claims which the community has on every member in regard to it, it is clearly one which could not, especially with us, be enforced by any direct and arbitrary exercise of power. Happily, we think, nothing of this sort is necessary, any more than it would be desirable.

There are evidently two difficulties in the case to contend with. One of them is, that so long as men differ in endowment and in the allotments of Providence, and so long as the rights of property shall be respected, there will always be a considerable portion of the community unable, for want of the necessary means, to sustain the expenses of education. Whenever this is the case, we hold it to be the duty of the state to supply the necessary means; and on this principle the state has long acted.

The other difficulty in the case is the more serious one of the two. It is, that perhaps a large majority of those who have the means of meeting the necessary outlays for the proper education of their children, are not disposed to use them for any such purpose. The burthen in many cases is undoubtedly a heavy one, and it is difficult to convince parents of the unquestionable truth, that they can make no provision for their offspring by pecuniary aids, which can in any degree compensate for the want of adequate mental and moral cultivation.

This is a difficulty to be met by the state, with measures of a delicate character -measures calculated to induce and to persuade—measures aiming to bring in public opinion to its aid, and appealing at once to the good sense, the pride, and the interest of the parties concerned. Whatever compulsory action is resorted to, must be of a gentle and paternal character, and be surrounded and accompanied with every circumstance of kindness, and with whatever is best adapted to move and to interest. Such, in a great measure, has been and is the nature of the system of public instruction long in operation in this state, so far as designed to meet the difficulty here suggested; and your committee propose some important measures, regarded by them as worthy of great consideration, not certainly to change materially the features of the system in this respect, but to modify them, and if possible to give them efficiency.

There is one other test to which your committee would refer, as one by which we may know whether the state has performed, or is performing,

its great constitutional duty of self-preservation for the common good, by taking due care of the subject of popular instruction. That test is, whether or not the system be such as makes education a thing of practicable and probable attainment by the class of the comparatively indigent. For if it be otherwise, there can be no security for the continuance of our constitutional forms. In this age of the world, the rich in any civilized community will be educated; and if the poor can not be, and are not, the necessary consequence is, that a separation takes place. Knowledge is power, and it will be exercised; and a selfish aristocracy, formed of those who are at the same time rich and educated, will bear the class of the indigent and ignorant to the wall. The community being once divided into these two great classes, it matters little, to the present argument at least, whether the powerful bear sway wisely and well, or oppressively: in either case the balance is destroyed which makes our government what it is; our constitutional forms are not preserved; and so much of common good as depended upon them, much or little, is sacrificed.

Nor is it enough, in our judgment, to satisfy the demands of the test now referred to, that our common schools are made accessible to all classes, the poorest as well as the better conditioned. If the system stopped here, it would aid in creating the very distinction and separation which ought to be avoided. In the first place the condition of the common schools themselves must be elevated; and if it is not, the consequence will soon be, that they will come to be regarded as the seminaries of the poor, when the rich will desert them; yielding them neither countenance nor support any further than forced to do so, or contributing to sustain them, like other institutions for the poor, as public charities. The condition of these schools then must be elevated. They must be common places of resort for all classes as far as possible, where the youth of the same neighborhood, however otherwise separated, may meet, as youth now meet in our academies and colleges, to sacrifice all distinctions except such as grow out of various success in the prosecution of the same studies.

But this is not all; the way to the higher schools—to the academies and colleges—must be open, at least to the young man of genius and enterprise among the classes of the indigent, as well as to his more wealthy rival.

There is one way, and only one in which this can be done; and that is, by such liberal endowment of the better schools, by private munificence and state patronage, as will bring down the wages of instruction to the person taught, to a moderate sum. When this is accomplished, the balance between the wealthy and poorer classes will be easily struck; for though their relative numbers will still be unequal in these schools, the sum of knowledge and intellectual power among the sturdy and ambitious sons of poverty, will be, out and out, equal to that acquired and displayed by the more numerous class of those among whom must always be many whom indulgence and luxury have enervated.

D. D. Barnard. *Report as Chairman of Leg. Committee*, 1838.

In this particular, New England may be allowed to claim, I think, a merit of a peculiar character. She early adopted and has constantly maintained the principle, that it is the undoubted right, and the bounden duty of government, to provide for the instruction of all youth. That which is elsewhere left to chance, or to charity, we secure by law. For the purpose of public instruction, we hold every man subject to taxation in proportion to his property, and we look not to the question, whether he himself have, or have not, children to be benefited by the education for which he pays. We regard it as a wise and liberal system of police, by which property, and life, and the peace of society are secured. We seek to prevent, in some measure, the extension of the penal code, by inspiring a salutary and conservative principle of virtue and of knowledge in an early age. We hope to excite a feeling of respectability, and a sense of character, by enlarging the capacity, and increasing the sphere of intellectual enjoyment. By general instruction, we seek, as far as possible, to purify the whole moral atmosphere; to keep good sentiments uppermost, and to turn the strong current of feeling and opinion, as well as the censures of the law, and the denunciations of religion, against immorality and crime. We hope for a security, beyond the law, and above the law, in the prevalence of enlightened and well-principled moral sentiment. We hope to continue and prolong the time, when, in the villages and farm-houses of New England, there may be undisturbed sleep within unbarred doors. And knowing that our government rests directly on the public will, that we may preserve it, we endeavor to give a safe and proper direction to that public will. We do not, indeed, expect all men to be philosophers or statesmen; but we confidently trust, and our expectation of the duration of our system of government rests on that trust, that by the diffusion of general knowledge and good and virtuous sentiments, the political fabric may be secure, as well against open violence and overthrow, as against the slow but sure undermining of licentiousness.

DANIEL WEBSTER. *Discourse at Plymouth*, 1822.

COLONY OF MASSACHUSETTS.

It being one chief project of the old deluder, Satan, to keep men from the knowledge of the Scriptures, as in former times by keeping them in an unknown tongue, so in these latter times by persuading from the use of tongues, that so at least the true sense and meaning of the original might be clouded by false glosses of saint-seeming deceivers; that learning may not be buried in the grave of our fathers in the church and commonwealth, the Lord assisting our endeavors—

It is therefore *ordered*, that every township in this jurisdiction, after the Lord hath increased them to the number of fifty householders, shall then forthwith appoint one within their town to teach all such children as shall resort to him, to write and read; whose wages shall be paid, either by the parents or masters of such children, or by the inhabitants in general, by way of supply, as the major part of those that order the prudentials of the town shall appoint; provided, those that send their children be not oppressed by paying much more than they can have them taught for in other towns; and it is further *ordered*, that when any town shall increase to the number of one hundred families or householders, they shall set up a Grammar School, the master thereof being able to instruct youth so far as they may be fitted for the University; provided, that if any town neglect the performance hereof above one year, that every such town shall pay £5 to the next school till they shall perform this order.

Order of General Court, 1647.

COLONY OF CONNECTICUT.

Forasmuch as the good education of children is of singular behoof and benefit to any commonwealth; and whereas many parents and masters are too indulgent and negligent of their duty in that kind—

It is therefore ordered by this court and the authority thereof, That the selectmen of every town in the several precincts and quarters where they dwell, shall have a vigilant eye over their brethren and neighbors, to see, first, that none of them shall suffer so much barbarism in any of their families, as not to endeavor to teach by themselves or others, their children and apprentices so much learning, as may enable them perfectly to read the English tongue, and knowledge of the capital laws, upon penalty of twenty shillings for each neglect therein; also, that all masters of families, do, once a week at least, catechise their children and servants, in the grounds and principles of religion, and if any be unable to do so much, that then, at the least, they procure such children or apprentices to learn some short orthodox catechism, without book, that they may be able to answer to the questions that shall be propounded to them out of such catechisms by their parents or masters, or any of the selectmen, when they shall call them to a trial of what they have learned in this kind; and further, that all parents and masters do breed and bring up their children and apprentices in some honest lawful calling, labor or employment, either in husbandry or some other trade profitable for themselves and the commonwealth, if they will not nor can not train them up in learning, to fit them for higher employments; and if any of the selectmen, after admonition by them given to such masters of families, shall find them still negligent of their duty, in the particulars aforementioned, whereby children and servants become rude, stubborn and unruly, the said selectmen, with the help of two magistrates, shall take such children or apprentices from them, and place them with some masters—boys till they come to twenty-one, and girls to eighteen years of age complete—which will more strictly look unto and force them to submit unto government, according to the rules of this order, if by fair means and former instructions they will not be drawn unto it. *Code of* 1650.

COLONY OF NEW HAVEN.

Whereas, too many parents and masters, either through an over tender respect to their own occasions and business, or not duly considering the good of their children and apprentices, have too much neglected duty in their education while they are young and capable of learning—It is ordered that the deputies for the particular court in each plantation within this jurisdiction for the time being; or where there are no such deputies, the constable, or other officer or officers in public trust, shall from time to time, have a vigilant eye over their brethren and neighbors within the limits of the said plantation, that all parents and masters, do duly endeavor, either by their own ability and labor, or by improving such schoolmaster, or other helps and means as the plantation doth afford, or the family may conveniently provide, that all their children and apprentices, as they grow capable, may through God's blessing attain at least so much as to be able duly to read the Scriptures and other good and profitable printed books in the English tongue, being their native language, and in some competent measure to understand the main grounds and principles of Christian religion necessary to salvation. And to give a due answer to such plain and ordinary questions as may by the said deputies, officer or officers be propounded concerning the same. And when such deputies, or officers, whether by information or examination shall find any parent or master one or more negligent, he or they shall first give warning, and if thereupon due reformation follow, if the said parents or masters shall thenceforth seriously and constantly apply themselves to their duty in manner before expressed, the former neglect may be passed by; but if not, then the said deputies and other officer or officers, shall three months after such warning, present each such negligent person or persons to the next plantation court, where every such delinquent, upon proof, shall be fined ten shillings to the plantation, to be levied as other fines. And if in any plantation there be no such court kept for the present, in such case the constable, or other officer or officers warning such person or persons, before the freemen or so many of them as upon notice shall meet together and proving the neglect after warning, shall have power to levy the fine as aforesaid. But if in three months after that, there be no due care taken and continued for the education of such children or apprentices as aforesaid, the delinquent (without any further private warning,) shall be proceeded against as before, but the fine doubled. And lastly, if after the said warning and fines paid or levied, the said deputies, officer or officers, shall still find a continuance of the former negligence, if it be not obstinacy, so that such children or servants may be in danger to grow barbarous, rude, and stubborn, through ignorance, they shall give due and seasonable notice that every such parent and master be summoned to the next court of magistrates, who are to proceed as they find

cause, either to a greater fine, taking security for due conformity to the scope and intent of this law, or may take such children or apprentices from such parents or masters, and place them for years, boys till they come to the age of one and twenty, and girls till they come to the age of eighteen years, with such others who shall better educate and govern them, both for the public conveniency and for the particular good of the said children or apprentices.

Colony Law. 1655.

COLONY OF PLYMOUTH.

Forasmuch as the maintenance of good literature doth much tend to the advancement of the weal and flourishing state of societies and republics, this court doth therefore order, that in whatever township in this government, consisting of fifty families or upwards, any meet man shall be obtained to teach a grammar school, such township shall allow at least twelve pounds, to be raised by rate on all the inhabitants. *Order of Legislature.* 1669.

In the early history of almost every town in every state of New England, a portion of the public land was reserved, or special grants were made by individuals for "gospel" and school purposes.

On the 17th of May, 1784, Mr. Jefferson, as chairman of a committee for that purpose, introduced into the old Congress an ordinance respecting the disposition of the public lands, but this contained no reference to schools or education. On the 4th of March, 1785, another ordinance was introduced—by whom does not appear on the Journal, and on the 16th of the same month was recommitted to a committee consisting of Pierce Long, of New Hampshire, Rufus King, of Massachusetts, David Howell, of Rhode Island, Wm. S. Johnson, of Connecticut, R. R. Livingston, of New York, Charles Stewart, of New Jersey, Joseph Gardner, of Pennsylvania, John Henry, of Maryland, William Grayson, of Virginia, Hugh Williamson, of North Carolina, John Bull, of South Carolina, and William Houston, of Georgia. On the 14th of April following, this committee reported the ordinance—by whom reported, no clue is given; which after being perfected, was passed the 20th of May following, and became the foundation of the existing land system of the United States.

By one of its provisions, the 16th section of every township was reserved "*for the maintenance of public schools;*" or, in other words, one section out of every thirty-six composing each township. This same provision was incorporated in the large land sale, in 1786, to the Ohio Company; and, the following year, in Judge Symmes' purchase. The celebrated ordinance of 1787, for the government of the Territory Northwest of the river Ohio, and which confirmed the provisions of the land ordinance of 1785, further declared, that, "RELIGION, MORALITY and KNOWLEDGE, being necessary to good government, and the happiness of mankind, SCHOOLS, AND THE MEANS OF EDUCATION, SHALL BE FOREVER ENCOURAGED." From that day to the present, this noble policy has been confirmed and extended, till its blessings now reach even the distant shores of the Pacific, and FIFTY MILLIONS OF ACRES of the public domain have been set apart and consecrated to the high and ennobling purposes of education; together with five per cent. of the net proceeds of the sales of all public lands in each of the States and Territories in which they are situated.

LYMAN DRAPER. *Report of Supt. of Public Instruction*, 1858.

When the rich man is called from the possession of his treasures, he divides them, as he will, among his children and heirs. But an equal Providence deals not so with the living treasures of the mind. There are children just growing up in the bosom of obscurity, in town and in country, who have inherited nothing but poverty and health, who will, in a few years, be striving in generous contention with the great intellects of the land. Our system of free schools has opened a straight way from the threshold of every abode, however humble, in the village or in the city, to the high places of usefulness, influence and honor. And it is left for each, by the cultivation of every talent; by watching with an eagle's eye, for every chance of improvement; by bounding forward, like a greyhound, at the most distant glimpse of honorable opportunity; by redeeming time, defying temptation, and scorning pleasure to make himself useful, honored, and happy.

EDWARD EVERETT.

It is a noble and beautiful idea of providing wise institutions for the unborn millions of the West; of anticipating their good by a sort of parental providence; and of associating together the social and the territorial development of the people, by incorporating these provisions with the land titles derived from the public domain, and making school reservations and road reservations essential parts of that policy.

CALEB CUSHING.

Doubtless it will be urged that a general tax on property, for this object, (Public Schools,) would fall on many who have no children, and is therefore unjust. Carry out the principle of this objection, and it would overthrow the whole system of taxation. One would say that he never uses the public roads, and therefore he must not be taxed for them. Another never goes out in the evening, and therefore must not be taxed for lighting the streets. Another denies the right of all government and prefers to be without any protection but that of virtue, he must not be taxed for courts and legislatures. But taxation, we apprehend, is never based on the principle that the individual wants it for his direct benefit, but that the public wants it; for the public has a right in all property as truly as the individual, and may draw upon it for its own uses. And one of these uses is the education of the youth; for there is a very important sense in which children belong to the State, as they do to the family organization. Indeed, if we revert to the Jewish, Persian, Lacedemonian, and Roman States—all those ancient fabrics that rose in the youth time of nature—we see the State to be naturally endowed with a real instinct of civil maternity, making it the first care of her founders and constitutions, to direct the education of the youth. And why should she not? These are her heroes of the future day, her pillars of state and justice, her voters on whose shoulders she rests her constitution, her productive hands, her sentinels of order, her reliance for the security of life, liberty, and property.

DR. H. BUSHNELL.

III. THE STATE AND EDUCATION.

Third Article.

What Lycurgus thought most conducive to the virtue and happiness of a city, was principle interwoven with the manners and breeding of the people. This would remain immovable, as resting on inclination, and be the strongest and most lasting tie; and the habits which education produced in the youth, would answer in each, the purpose of a lawgiver. For he resolved the whole business of legislation into the bringing up of youth—which he looked upon as the loftiest and most glorious work of a lawgiver, and he began with it at the very source. PLUTARCH.

You [Athenians] will confer the greatest benefit on your city, not by raising the roofs, but by exalting the souls of your fellow-citizens; for it is better that great souls should live in small habitations, than the abject slaves should burrow in great houses. EPICTETUS.

That the education of youth ought to form the principal part of the legislator's attention, can not be a doubt, since education first molds, and afterwards sustains the various modes of government. The better and more perfect the systems of education, the better and more perfect the plan of government it is intended to introduce and uphold. In this important object, fellow-citizens are all equally and deeply concerned; and as they are all united in one common work for one common purpose, their education ought to be regulated by the general consent, and not abandoned to the blind decision of chance, or to idle caprice.

ARISTOTLE.

What, under heaven, can there be more worthy of our most strenuous attention, than knowledge; what more worthy of our highest admiration? Is calmness or serenity of mind the object of our wishes? What so likely to secure it as the pursuit of that knowledge which enables us to enjoy life in the happiest manner? Or do we esteem above all things unsullied integrity and spotless virtue? Either the study and acquisition of wisdom point out the path, or there is none, to the attainment of these distinctions. CICERO.

By learning, the sons of the common people become public ministers; without learning, the sons of public ministers become mingled with the mass of the people. *Chinese maxim.*

I promised God, that I would look upon every Prussian peasant child as a being who could complain of me before God, if I did not provide for him the best education, as a man and a Christian, which it was possible for me to provide. DINTER. *Autobiography.*

If you suffer your people to be ill educated, and their manners to be corrupted from their infancy, and then punish them for their crimes to which their first education disposed them, what else is to be concluded from this but that you first make thieves, and then punish them?

Though there be not many in every city which be exempt and discharged of all other labors, and appointed only to learning—that is to say, such in whom, even from their very childhood, they have perceived a singular towardness, a fine wit, and a mind apt to good learning—yet all in their childhood be instructed in learning. And the better part of the people, both men and women, throughout all their whole life, do bestow in learning those spare hours which we said they have vacant from bodily labors. SIR THOMAS MORE. *Utopia.*

To make the people fittest to choose, and the chosen fittest to govern, will be to mend our corrupt and faulty education; to teach the people faith, not without virtue, temperance, modesty, sobriety, economy, justice; not to admire wealth, or honor; to hate turbulence and ambition; to place every one his private welfare and happiness in the public peace, liberty and safety. MILTON. *Way to establish a Free Commonwealth.*

The discipline of slavery is unknown
Among us—hence the more do we require
The discipline of virtue; order else
Can not subsist, nor confidence, nor peace.
Thus, duties rising out of good precept,
And prudent caution needful to avert
Impending evil, equally require
That the whole people should be taught and train'd.
So shall licentiousness and black resolve
Be rooted out, and virtuous habits take
Their place; and genuine piety descend
Like an inheritance, from age to age. WORDSWORTH.

Train up thy children, England! in the way
Of righteousness, and feed them with the bread
Of wholesome doctrine. Where hast thou thy mines
But in their industry?
Thy bulwarks where but in their breast?
Thy might but in their arms?
Shall not their numbers therefore be thy wealth,
Thy strength, thy power, thy safety, and thy pride?
Oh grief then, grief and shame,
If in this flourishing land
There should be dwellings where the new-born babe
Doth bring unto its parent's soul no joy!
Where squalid poverty
Receives it at its birth,
And on her wither'd knees
Gives it the scanty food of discontent! ROBERT SOUTHEY.

The education of the common people requires, perhaps, in a civilized and commercial society, the attention of the public more than that of people of some rank and fortune. * * *

They have little time to spare for education. Their parents can scarce afford to maintain them even in infancy. As soon as they are able to work, they must apply to some trade by which they can earn their subsistence. That trade, too, is generally so simple and uniform, as to give little exercise to the understanding; while, at the same time, their labor is both so constant and so severe, that it leaves them little leisure and less inclination to apply to, or even to think of any thing else. * * *

For a very small expense the public can facilitate, can encourage, and can even impose upon almost the whole body of the people, the necessity of acquiring these most essential parts of education. * * *

The public can facilitate this acquisition, by establishing in every parish or district a little school where children may be taught for a reward so moderate, that even a common laborer may afford it; the master being partly but not wholly paid by the public; because if he was wholly, or even principally paid by it, he would soon learn to neglect his business. * * *

A man without the proper use of the intellectual faculties of a man, is, if possible, more contemptible than even a coward, and seems to be mutilated and deformed in a still more essential part of the character of human nature. Though the state was to derive no advantage from the instruction of the inferior ranks of people it would still deserve its attention, that they should not be altogether uninstructed. The state, however, derives no inconsiderable advantage from their instruction. The more they are instructed, the less liable they are to the delusions of enthusiasm and superstition, which, among ignorant nations, frequently occasion the most dreadful disorders. An instructed and intelligent people, besides, are always more decent and orderly than an ignorant and stupid one. They feel themselves, each individually, more respectable, and more likely to obtain the respect of their lawful superiors, and they are therefore more disposed to respect those superiors. They are more disposed to examine, and more capable of seeing through, the interested complaints of faction and sedition; and they are, upon that account, less apt to be misled into any wanton or unnecessary opposition to the measures of government. In free countries, where the safety of government depends very much upon the favorable judgment which the people may form of its conduct, it must surely be of the highest importance that they should not be disposed to judge rashly or capriciously concerning it.

ADAM SMITH. *Wealth of Nations, Book V., Education of Youth.*

But there are other things, of the worth of which the demand of the market is by no means a test; things of which the utility does not consist in ministering to inclinations, nor in serving the daily uses of life, and the want of which is least felt where the need is greatest. This is peculiarly true of those things which are chiefly useful as tending to

raise the character of human beings. The uncultivated can not be competent judges of cultivation. Those who most need to be made wiser and better, usually desire it least; and if they desired it, would be incapable of finding the way to it by their own lights. It will continually happen, on the voluntary system, that, the end not being desired, the means will not be provided at all, or that the persons requiring improvement having an imperfect or altogether erroneous conception of what they want, the supply called forth by the demand of the market, will be any thing but what is really required. Now any well-intentioned and tolerably civilized government may think without presumption that it does or ought to possess a degree of cultivation above the average of the community which it rules, and that it should, therefore, be capable of offering better education and better instruction to the people, than the greater number of them would spontaneously select.

Education, therefore, is one of those things, which it is admissible in principle that a government should provide for the people. The case is one to which the reasons of the non-interference principle do not necessarily or universally extend.

With regard to elementary education, the exception to ordinary rules may, I conceive, justifiably be carried still further. There are certain primary elements and means of knowledge, which it is in the highest degree desirable that all human beings born into the community should acquire during childhood. If their parents, or those on whom they depend, have the power of obtaining for them this instruction, and fail to do it, they commit a double breach of duty; toward the children themselves, and toward the members of the community generally, who are all liable to suffer seriously from the consequences of ignorance and want of education in their fellow-citizens. It is therefore an allowable exercise of government, to impose on parents the legal obligation of giving elementary instruction to children. This, however, can not fairly be done, without taking measures to insure that such instruction shall always be accessible to them, either gratuitously or at a trifling expense.

JOHN STUART MILL. *Political Economy*, v. 9, § 8.

That the people should be well educated is in itself a good thing: and the state ought therefore to promote this object, if it can do so without any sacrifice of its primary object. The education of the people, conducted on those principles of morality which are common to all the forms of Christianity, is highly valuable as a means of promoting the main end for which government exists; and is on this ground an object well deserving the attention of rulers.

THOMAS BABBINGTON MACAULEY. *Church and State.*

Athens, by this discipline and good ordering of youth, did breed up, within the circuit of that one city, within the compass of one hundred years, within the memory of one man's life, so many notable captains in war, for worthiness, wisdom, learning, as scarce to be matchable, no not in the state of Rome, in the compass of those seven hundred years, when it flourished much. ASCHAM. *Schoolmaster*

It is certain, that as things now stand, the two great parties into which the community is unhappily split upon this mighty question, are resolved that we should have no system of education at all—no National Plan for Training Teachers, and thereby making the schools that stud the country all over, deserve the name they bear—no national plan for training young children to virtuous habits, and thereby rooting out crimes from the land. And this interdict, under which both parties join in laying their country, is by each pronounced to be necessary for the sacred interests of religion. Of religion! Oh, gracious God! Was ever the name of thy holy ordinances so impiously profaned before? Was ever before, thy best gift to man—his reason—so bewildered by blind bigotry, or savage intolerance, or wild fanaticism; bewildered so as to curse the very light thou hast caused to shine before his steps; bewildered so as not to perceive that any and every religion must flourish best in the tutored mind, and that by whomsoever instructed in secular things, thy word can better be sown in a soil prepared, than in one abandoned through neglect to the execrable influence of the evil Spirit?

And shall civilized, shall free, shall Christian rulers, any longer pause, any more hesitate, before they mend their ways, and attempt, though late yet seriously, to discharge the first of their duties? Or shall we, calling ourselves the friends to human improvement balance any longer, upon some party interest, some sectarian punctillo, or even some refined scruple, when the means are within our reach to redeem the time and do that which is most blessed in the sight of God, most beneficial to man? Or shall it be said that between the claims of contending factions in church or in State, the Legislature stands paralyzed, and puts not forth its hand to save the people placed by Providence under its care, lest offense be given to some of the knots of theologians who bewilder its ears with their noise, as they have bewildered their own brains with their controversies? Lawgivers of England! I charge ye, have a care! Be well assured, that the contempt lavished for centuries upon the cabals of Constantinople, where the council disputed on a text, while the enemy, the derider of all their texts, was thundering at the gate, will be as a token of respect compared with the loud shout of universal scorn which all mankind in all ages will send up against you, if you stand still and suffer a far deadlier foe than the Turcoman—suffer the parent of all evil, all falsehood, all hypocrisy, all discharity, all self-seeking—him who covers over with pretexts of conscience the pitfalls that he digs for the souls on which he preys—to stalk about the fold and lay waste its inmates—stand still and make no head against him, upon the vain pretext, to soothe your indolence, that your action is obstructed by religious cabals—upon the far more guilty speculation, that by playing a party game, you can turn the hatred of conflicting professors to your selfish purposes!

Let the soldier be abroad, if he will; he can do nothing in this age. There is another personage abroad, a person less imposing—in the eyes of some insignificant. THE SCHOOLMASTER IS ABROAD; and I trust to him, armed with his primer, against the soldier in full uniform array.

LORD BROUGHAM.

Education makes the man; that alone is the parent of every virtue; it is the most sacred, the most useful, and, at the same time, the most neglected thing in every country. MONTESQUIEU.

It is not for the sake of a parish only, nor for the mere local interests, that the *law wills* that every native of France shall acquire the knowledge necessary to social and civilized life, without which human intelligence sinks into stupidity, and often into brutality. It is for the sake of the state also, and for the interests of the public at large. It is because liberty can never be certain and complete, unless among a people sufficiently enlightened to listen on every emergency to the voice of reason.

Universal education is henceforth one of the guarantees of liberty, and social stability. As every principle in our Government is founded on justice and reason, to diffuse education among the people, to develop their understandings, and enlighten their minds, is to strengthen our constitutional government, and secure its stability. M. GUIZOT.

The education required for the people is that which will give them the full command of every faculty, both of mind and of body; which will call into play their powers of observation and reflection; which will make thinking and reasonable beings of the mere creatures of impulse, prejudice and passion; that which in a *moral* sense will give them objects of pursuits and habits of conduct favorable to their own happiness, and to that of the community of which they will form a part; which, by multiplying the means of rational and intellectual enjoyment, will diminish the temptations of vice and sensuality; which, in the social relations of life, and as connected with objects of legislation, will teach them the identity of the individual with the general interest; that which, in the physical sciences—especially those of chemistry and mechanics—will make them masters of the secrets of nature, and give them powers which even now tend to elevate the moderns to a higher rank than that of the demi-gods of antiquity. All this, and more, should be embraced in that scheme of education which would be worthy of a statesman to give, or of a great nation to receive; and the time is near at hand, when the attainment of an object, thus comprehensive in its character, and leading to results, the practical benefits of which it is impossible for even the imagination to exaggerate, will not be considered an Utopian scheme.

E. H. HICKSON. "*Westminster Review.*"

Did I know the name of the legislator, who first conceived and suggested the idea of common schools, I should pay to his memory the highest tribute of reverence and regard. I should feel for him a much higher veneration and respect, than I do for Lycurgus and Solon, the celebrated lawgivers of Sparta and Athens. I should revere him as the greatest benefactor of the human race; because he has been the author of a provision, which, if it should be adopted in every country, would produce a happier and more important influence on the human character, than any institution which the wisdom of man has devised.

JUDGE SWIFT.

PUBLIC INSTRUCTION IN ZURICH.

TERRITORY—POPULATION—GOVERNMENT.

THE CANTON OF ZURICH ranks second in population (266,265 in 1860,) and seventh in territory (659 square miles,) among the Cantons of Switzerland. The religion of a large majority (255,000,) is Protestant, and its government is a representative democracy—every citizen being a voter at the age of twenty. The cantonal legislature consists of two hundred and twelve members, who are elected for ten years, and who choose a smaller council of twenty-five members, (one-third going out every two years,) whose president is the chief magistrate of the Canton. The Canton is represented in the Federal Diet or Congress by thirteen members.

The Canton of Zurich is divided politically into eleven districts, (*Bezirke*,) subdivided into counties, (*Zuenfte*,) and the latter subdivided into communes, (*Gemeine.*) Every county, according to the number of its inhabitants, elects members for the Great Council, which is only complete after the members elect from the counties have elected thirteen more members by their votes. Bankrupts or persons convicted of dishonorable crimes are disfranchised permanently or for a time. The Great Council, as representative of the people, is intrusted with the legislation. As the supreme authority of the country, it has the power to appoint all officers of the Canton, or to confirm appointments proposed. It elects the administration of the Canton (*Regierungarath*—Government council,) but only part of the Board of Education. By the free vote of the counties the government of each district is selected, (*Bezirks collegium*,) which fills all district offices, or has the final approval of all nominations. It appoints for instance the judges of the district, and proposes to the Government council three names for district governor, (the head of the administration in the district,) who is the representative of the Government council in the district.

The subdivision of the Canton in regard to education is as follows:—School community or neighborhood, parochial community (school circle,) district, Canton. The members of the school community are all those who are required to contribute for the support of the school, and entitled to its benefits; these select their school board. If a parochial community has several schools and consequently several school communities, the members of the parochial community are not identical with the members of the different school communities, as for instance resident citizens may

be members of a school community. The school districts agree with the political districts, the school circles with the parochial communities.

SYSTEM OF PUBLIC INSTRUCTION.

The Public Schools of the Canton are classified as follows:—

I. PRIMARY SCHOOLS, (General popular school—communal school.)
   1. Day school.
      a. Elementary school, attended by children from 6–9 years old.
      b. Real school, " " " " 9–12 " "
   2. Repetition school, " " " " 12–15 " "
   3. Singing school, attended by pupils beyond the age of 15 years, who at the same time attend the class for religious instruction.

II. SECONDARY SCHOOL, (Superior popular district school,) attended by pupils of 12–15 years, and connected with the day-school.

III. SUPERIOR AND PROFESSIONAL SCHOOLS, (Cantonal schools.)
   1. The School of the Canton.
      a. Gymnasium, preparatory for professional studies.
         a. *Lower gymnasium*, for boys of 12–16 years.
         b. *Higher gymnasium*, for boys of 16–19 years.
      b. Industrial school, preparatory for technical vocations and technical professional studies.
         a. *Lower school*, for boys of 12–15 years.
         b. *Higher school*, for boys of 15–18 years.
   2. THE SUPERIOR SCHOOL, (University,) connected with the Cantonal schools, particularly with the gymnasium—a school of purely liberal studies, as well as a professional school for the statesman, jurist, physician, theologian and teacher of Superior schools.
   3. PROFESSIONAL SCHOOLS, joined to the Secondary-school.
      a. Seminary for Teachers.
      b. Veterinary school.
      c. Agricultural Institute.

The attendance at the day school is obligatory to all children. Scholars who, after passing the day school, do not enter the secondary or the canton school, are required by law to attend the repetition school, in which instruction is given on one day per week, and afterwards the singing school, which demands their attendance for one hour in the week.

Fathers who have given evidence of their ability to instruct in the primary elements of education, are permitted to teach their children at home, instead of sending them to the primary school. Whoever occupies a public teachership, or acquires the certificate of eligibility for such position, is a member of the Board of Teachers of the Canton of Zurich. Those who teach in secondary and primary schools, and have acquired the qualification for secondary or primary instruction, compose the body of public teachers.

All the members of the Board of Teachers are voting members of the

School Synod. All the public teachers of a district form a district-chapter of teachers. The teachers at a seminary belong to the chapter of the district in which the institute is situated. The director of the seminary has the privilege of an advisory member of *all* the chapters. Synod and chapter elect their officers from their own members every two years.

Every parochial community elects a school committee, with the resident pastor as chairman, for the inspection of their schools and general superintendence of their interests; the other members of this committee—to the number of five at least—are elected by the parochial members for a term of four years, in the manner that the term of half of them expires every two years. They can be reëlected.

The teacher is entitled to a seat in this school committee as advisory member. The superintendence over the schools of a district is vested in a district school committee, composed generally of seven members, two of whom must be pastors, and two teachers, and the remainder must be elected from citizens not of these professions. The two theologians are elected by the ministerial chapter, and the two teachers by the chapter of teachers of the district; the three other members by the government of the district (*Bezirks collegium.*)

The term of office is six years; every three years a new election of three members takes place, but the old members can be reëlected. The district-school committee elect three alternates, one from the teachers, one from the ministers, and the third from the residents of the district.

Every member of the district school committee is appointed inspector of a certain number of schools in his district. Each primary school must be visited twice a year by the parochial school committee and by the inspector. The inspector conducts the public examination and makes a report on the condition of the school to the district committee. Beyond the inspection of schools it is the duty of the district committee to see that all laws regarding public instruction are faithfully observed; they are the representatives of the Cantonal Board of Education.

Every secondary-school district (which comprehends generally the several school communities of more than one parochial commune,) has for the administration and superintendence of the secondary schools a secondary-school committee, two members of which are elected by the district school committee, and the remaining two by the parochial school committee, for the same term as the members of the last named committee.

The number of members of the secondary-school committee elected by the parochial committee depends on the number of school communities united in the secondary-school district. Every school community shall have at least one member in this secondary-school committee; the latter elect their president from the members, and each member is required to visit the school at least twice in every year. Moreover every secondary school is visited by a district inspector.

The Board of Education superintends all matters of instruction of the

entire Canton. For the purpose of consultation the Board is divided into two sections, the first for secondary, the other for primary education.

The proceedings of the Board of Education are always published in the official papers. The Director of Education, a member of the Great Council, is President of the Board; and of the other six members, two are elected by the School synod from the teachers, and four are appointed by the Government council.

The Board of Education selects the presidents of the district school committees from the members of the same; the presidents of the district committees form the superintending board of the high school. All superintendents of other schools of the Canton are either appointed directly by the Board of Education, or nominated by them for appointment to the Government council. An exception from this rule is the Agricultural Institute, which belongs to the Department of the Interior, and is under the special direction of the Committee of Agriculture attached to this department. The members of the superintending board of this Institute are elected by the Government council on the nomination of the Department of the Interior. The directors of cantonal schools have a privileged seat in the meetings of their superintending board, and are advisory members. Every parochial and secondary-school committee makes a yearly report to the district committee after the annual examinations; the district committee, on the basis of the reports from the parochial committee and the inspectors, submits an annual report on the condition and progress of schools of their district to the Board of Education, and the Director of Education, from these and from the reports of superintendents of superior schools, completes the report on education in the district. The presidents of the chapter of teachers report on the proceedings of the chapter to the director of the Seminary, and the latter renders a total account on the chapters. The reports of the Director of Education and of the director of the seminary are presented to the School synod, which generally orders the publication of the same.

All the officers of the parochial, secondary and district committees labor gratuitously. As members of special committees for inspection of new buildings, etc., they are paid actual expenses. The recorder of the district committee and the president of the chapter receive a moderate remuneration; the members of the Board of Education receive mileage in proportion to the distance they reside from Zurich.

In school matters, appeal can be taken from the decision of the parochial committee to the district committee, and finally to the Board of Education.

The definite appointment of primary teachers is made by the school community; that of secondary teachers by the secondary-school committees; teachers of the cantonal schools are appointed by the Board of Education, or nominated for appointment to the Government council. In regard to the Agricultural Institute, the Department of the Interior and the Committee on Agriculture again take the place of the Board of

Education. All primary and secondary teachers elected must be approved by the Board of Education; but this approval is solely with reference to the manner of election, and an election can only be set aside, when not performed according to the forms of law. The members elect of the different school committees also need the approval of the Board of Education, or rather of the delegates appointed for the district. Where no definite election is made by the district or parochial committee, the Director of Education makes temporary appointments from the number of candidates for teachership. All definite appointments at primary schools, the teachers' seminary, the school of the canton, the veterinary school, and the professorships at the high-school, are for life; those for the secondary-schools are generally for a term of six years. A teacher definitely appointed can not be deprived of his position except by judicial sentence, or non-election on the expiration of his term of office.

State, commune and family coöperate to defray the expenses of public instruction. According to the latest reports, the contributions of the Canton of Zurich for purposes of public instruction amount to one-fifth of its total expenses.

Since all funds and benefactions for special objects of education or for the maintenance of superior schools have been sequestered by the State, to form the general school funds, the total of expenses of superior schools (as far as fees of instruction and contributions of the most favored communes render necessary,) are defrayed from the treasury of the State, as also the amounts granted in aid of public instruction. The different primary and secondary schools have their own funds, administered by officers who are at the same time treasurers of the parochial communes, subject to the control of the district inspector.

I. PRIMARY SCHOOLS.

The Canton of Zurich, in all its communes, has 471 day schools, with 28,030 pupils. Repetition schools and singing schools are in charge of the same teachers; in the year 1852–53 the total number of scholars was 20,796.

The primary schools of the different school communes are divided or undivided schools. If a division becomes necessary, it is generally so arranged that one teacher officiates at the elementary school, and another at the real school. Where the schools are undivided, the elementary class, that of repetition and of singing, are under one person. A division must take place whenever the number of pupils has increased to one hundred and twenty. During each year, vacations of from four to eight weeks are prescribed by law; also the number of lessons per week is fixed for day schools at twenty-seven, for the repetition-school at six hours. In order to effect a regular attendance at school, the following means are used:—

The teachers take notice of absentees every half day; those who have not the permission of the teacher or of the president of the school com-

mittee, fall under the head of "culpable." To come one quarter of an hour after commencement three times, is considered, if without excuse, as absence without leave. The teacher or school committee may demand in writing from the parent or master of the scholar, the cause of his absence without leave; if the parent, etc., should be convicted of misstating the reasons of absence, a public censure before the school committee is the first remedy, and upon repetition a fine of from one to four francs. If the pupil of a day-school is absent without proper excuse three times during three scholastic months, the teacher must report such fact to the school committee, and the latter inform the parents, guardian or master. If the same scholar absents himself again three times during the same quarter, the parents, etc., are summoned before the school committee; and if this culpable absence occur a third time, the committee impose a fine of from two to eight francs. During the second quarter no notice is sent, but the parents, etc., are summoned immediately before the committee, if they have been exhorted or fined within the preceding three months; and instead of a third notice a summons before the committee is immediately served, and instead of a third summons the fine is imposed without delay. In schools of repetition and singing, culpable absence, twice within six months, is followed by notice to the parents; if again occurring, by a summons before the committee, and if not remedied yet, by a fine of from two to eight francs. If the parent, etc., does not pay due attention to the summons, an extra fine of one franc can be imposed. All fines flow into the school fund; if not paid within a certain time, they are levied by process of law. If children move into another district, their absence from school must be entered on their certificate.

In the year 1850–51, the total absentism of day-scholars was 372,940 with excuse, and 43,428 culpable; in the year 1851–52, 343,083 with excuse, and 52,456 culpable, so that at average each pupil has been absent nine to ten times.

No factory is permitted to employ any child which has not passed the day-school, during a time when instructions are given; and the pupils of a repetition-school or singing-school must be allowed a regular attendance in those classes by their employers. Boys and girls who have not reached the age of sixteen years, shall not be required to work beyond fourteen hours per day.

Sexes are not separated in any primary school. Classification in the day-school is according to age; in the first class of the elementary-school, children from six to seven years are admitted; in the second class, those from seven to eight years, etc. The teacher of an ungraded school in this manner must engage often six different classes, and it becomes important for him to say much in few words, and while he instructs one class, to give suitable occupation to the others. An examination decides whether children at the age of twelve years will pass into the repetition-school or remain longer in the real-school.

The object of primary schools in the selection of branches and methods of instruction aims at this:—"to educate the children of all classes after uniform principles, and train them to become intelligent, active, useful, moral, and religious persons." This they try to accomplish by the following plan of instruction:—

1. Elementary instruction, (6–9 years of age.)
   - *a.* Reading and writing, with special regard to the development of memory, the ability of speech and thought.
   - *b.* The four principles of arithmetic.
   - *c.* The elements of music (singing.)
   - *d.* Biblical histories, as suitable for infant minds.
2. Real school, (nine to twelve years.)
   - *a.* Exercises in composition and language.
   - *b.* Elements of grammar, by framing sentences.
   - *c.* Practical arithmetic.
   - *d.* Selections of practical geometry, more calculated to form the geometric eye, than for strictly scientific study.
   - *e.* History and geography, chiefly national.
   - *f.* Natural history, philosophy and physical geography in regard to agriculture and mechanics.
   - *g.* Biblical history, Christian morals, development of the æsthetic by instruction in singing, drawing, etc.

Religious instruction is imparted in the day-school by the teacher, in the repetition-school by the pastor. The singing-school is at the same time the class of catechumens.

The matter of instruction is distributed among the different classes, as follows:—

Elementary School.—During the first year the aim should be only to develop the senses and the understanding. Instruction in language comprehends the training of the organs of hearing and of speech by pronouncing elementary sounds and syllables, the resolution of the latter into sounds, the knowledge of printed and written letters, words and syllables. Instruction in arithmetic has for its object a correct idea of number, exercises in the value of fundamental numbers (1–10) by addition and subtraction, and a knowledge of numerical signs. Drawing and writing should exercise the eye and hand, and instruction in religion should be limited to quickening the moral and religious sensibilities by simple narratives.

During the second year, instruction in language proceeds to reading of simple sentences and easy histories; arithmetic extends the previous exercises to units, tens and hundreds; in drawing, after points and lines in the first year, the pupils may learn about angles, etc.; in religion, they will aim to cultivate the moral and religious sensibilities.

The third year should complete the formal elementary instruction, viz.: in language, to the reading of descriptions and histories, hymns, etc.; in arithmetic, multiplication and division by the fundamental numbers

(1–10) of hundreds, tenths and units; in mental arithmetic, practical problems; in drawing, straight and curved lines, curvilinear figures; in religion, interpretation of Bible verses, etc.

Real School.—In this grade the school instruction is more specific. Instructions are required of a general kind; yet all branches must be studied in the national language, which must be used for practice in thought, speech, and writing.

In the fourth year of the elementary course, the instruction in language proceeds to definitions in grammar and part of etymology. In arithmetic, the multiplication and division is continued in numbers of three figures, and the four ground rules in denominate numbers. In geometry, lines and angles are explained, so as to show to the eye of the scholar geometric form and properties. Of the real sciences the plan of this year incloses: Geography of the Canton of Zurich and of Switzerland; selections from general history; descriptions in natural science. Instruction in singing includes rhythmical exercises and the first principles of method; drawing aims at a quick eye and a steady hand, having regard also to the improvement in penmanship, particularly to German current hand. In religion a catechetical instruction in Old Testament history is given.

The fifth year completes in language the grammar on etymology and syntax; in arithmetic, all operations with fractions; in geometry the peculiarities of the square, sphere, and parallels; weights and measures. The history of Switzerland and an introduction into general geography belong to this course; in singing, practice of melodic and dynamic exercises; drawing and writing from copies, and after more difficult sketches; religion, embracing the history of the New Testament.

The sixth year embraces the complete course of grammar, syntax, business correspondence, plane surveying, selections from natural history and philosophy, singing, more difficult copies in drawing and writing in German and Latin text; instruction in religion so as to interpret difficult passages of Scripture, etc.

In the *Elementary School*, fourteen hours are devoted to language; five to arithmetic; five to geometry; three to religion. In the *Real School*, twelve hours are given to language; four to arithmetic; two to geometry; three to selections from natural history and philosophy, etc.; four to drawing, writing and singing, and two to religious instruction.

The *Repetition School*, occupying only six hours in the week, aims at a careful review of the most essential parts of the previous course. The singing school, in which once a week the pupils of the repetition-school and the catechumens are collected and taught in reference to church singing.

Obligatory school-books are selected in the following manner: A work is sent to the Board of Education for examination; or the Board requests a person, who from his pedagogic experience and position as teacher commands their confidence, to prepare a school-book after a plan indi-

cated. The manuscript is then examined by a committee of experts, who may suggest alterations, and finally, indicate a partial acceptance. The author is allowed a fixed sum for the copyright by the Board. The book is printed, and each public teacher is furnished with a copy. After it has been some time in the hands of the teachers, a meeting of the teachers' chapter is held, for consultation on its merits: each chapter elects a representative, and the representatives of all the chapters, at the call of the senior member, assemble in Zurich, where, after a thorough discussion, and by a free and independent vote, (they receive no instructions from their electors,) they either recommend the book for adoption as an obligatory means of instruction, or for modification in certain points, or reject it altogether. Their resolution is presented to the Board of Education, which takes a final decision, generally in accordance with the vote of the teachers. Religious means of instruction are submitted also to the approval of the church council. The expense of delegates of the chapters while away from their homes, and corresponding to the distance from Zurich, is defrayed. The composition in type is preserved until the decision from the Board of Education is made known; in the latter years the State has undertaken the publication of some school-books, and found that this could be done at very little expense, so that for instance a little volume of two sheets comes to five cents.

The course of education of primary teachers is generally as follows:— Primary school, secondary school, Seminary. In order to secure a sufficient number of able young men for the profession of teachers, a preparatory institute has been established by the State. Every pupil of a secondary-school at the age of fourteen years can present himself to the district committee for examination as candidate of teachership. His examination, made by a special commission of that committee, shall be chiefly with regard to mental ability and physical constitution. The Director of Education selects from the candidates proposed by the district committee. Every year a candidate is admitted from each district; and if there is no candidate from one district, the place is filled from the names of the examined of another district. Each pupil of a secondary-school, who is approved as a candidate for teachership, is paid a yearly subsidy of forty-six francs, sixty-seven centimes, upon the recommendation of the director of the Seminary, based on the teacher's report of the conduct and progress of the pupil, rendered each semester.

The admission into the Seminary, and the granting of free scholarships, takes place in the order of the date of registry of the candidates examined and approved.

In the Spring of each year an examination is held for those who wish to obtain the qualification as primary teacher, and for those desiring to obtain a certificate of a higher degree. Strangers are admitted to these examinations, and whoever gives satisfaction can obtain the certificate, no matter what his course of education has been. Admittance is refused only to those who failed at three previous examinations; those who have

been by law deprived of municipal privileges, and those who are unfit for the profession on account of defects of the body. Applications must be made to the Board of Education. The examination is extended on all branches of primary schools, and consists of oral, written and practical exercises; an examination in writing is had only in regard to language and mathematics. Trial lessons may be dispensed with, if the recommendations and certificates of the candidate warrant an exception. The examination is public, and the teachers of the Seminary are the examiners, in conjunction with experts appointed by the Board of Education, from its members or from other teachers. The expert as well as the examiner, after examining a candidate, mark down the result by figure I., II. or III. From these figures and those affixed to the written examination, the total of the certificate is made up by the examining commission, which makes proposal to the Board of Education, in the case of each candidate, as to his non-admission, or to a certificate No. I., (very able,) No. II., (able,) or No. III., (conditional.) The Director of Education issues the certificate in the name of the Board, and the candidate is in possession of the same within a few days after the examination. The members of the examining commission are allowed mileage, etc.; but no charges are made to the candidates. One or more candidates may have an extra examination, for which two members of the Board of Education are appointed. These extra examinations also are gratuitous for candidates of primary schools, but candidates for secondary-schools must defray expenses.

Those who obtain certificate No. III. can pursue a Course of Completion; the pupils of this course are instructed by the teachers of the Seminary, from the beginning of May to the end of July, chiefly in the practical use and theoretical methods of the obligatory studies. At the end of the course an examination is held for those who desire to obtain a better certificate; but no one is forced to subject himself to this examination if he chooses to return with certificate No. III., in which case he is liable to be called upon to take part in a future Course of Completion. The scholars of this course are all teachers in office, for a candidate, after passing this examination, generally finds a temporary or definite engagement. Teachers without means receive a contribution from the State, towards the expenses of a deputy and of their residence at the Seminary. The teachers of the Seminary are paid extra for the Course of Completion.

A public-school teacher can hold only certain offices of the Canton or districts, viz.: 1. that of a member of the Great Council; 2. that of a member of the district or parochial school committee. Other offices can be accepted by the teacher only with permission of the district-school committee, which is granted when no disadvantage arises to the school from duties required of such office.

No teacher of the Canton is required to perform any public duty not immediately connected with his profession.

The teachers of Zurich as a class are organized into chapters and a

synod. Primary and secondary teachers compose the chapter; and these together with all the other public teachers form the synod, which thus unites all the teachers of the primary, secondary and high-schools. The chapter usually meets once every three months, and may meet oftener. The place of meeting varies, but must always be in a school-house. All the members of the chapter are obliged to attend; the proceedings of the chapter are not public; officers are elected for two years, and consist of a president, a vice-president, and a secretary. Every member of the chapter, who has not been a public teacher of the Canton during fifteen years, is required to furnish to the president annually a composition in writing on a subject selected by himself. The proceedings of the chapter must occupy at least four hours; they are opened by singing, which is usually followed by some practice in teaching; after which the pupils of the school withdraw, and a discussion on the previous practice and method begins. A discourse of an educational character, followed by a criticism and discussion, and if time permits, on some subject of pedagogy, are part of the regular proceedings. If occasion demands, opinions are expressed on books of instruction, the election of members of the school committees, of officers of the chapter, deputies, librarian, etc., takes place, and scientific lectures are given. Each chapter has a library, for the increase of which the State pays thirty francs per year. A librarian, elected by the members of the chapter, superintends the same. The presidents of chapters assemble annually in Zurich to deliberate on the order of the meetings for the next year. The Board of Education presents a subject for prize composition every year, for which every public teacher may compete. One school in every district is declared the model school, and is selected annually, according to the report of the district committee, by the Board of Education. Each model school receives from the State an annual sum for the increase of its means of instruction and an addition to the teachers' salary. Candidates, *i. e.*, members of the chapter, not definitely appointed, and teachers with certificate No. III., are required to visit the model school; they are also required to present themselves once in a year before the president of the chapter, and render an account of their private studies for further improvement in knowledge, which generally give satisfactory results. All elections in the chapter are by secret ballot, except those for temporary committees. In the last meeting of the chapter preceding the assembling of the synod (last Monday in August,) the "wishes and instructions of synod" are considered, and a deputy to the synod is elected. All the deputies from chapters meet on the evening preceding the meeting of the synod, at the place where the latter is to be held, and thus form the pro-synod; they decide finally on all subjects and petitions of the chapters which shall be the order of the day in the proceedings of the synod.

On the morning of the day of meeting of synod, the members are called to church by a ringing of bells. Singing, a short prayer, and the address of the president open the session; the members who take part

in the assembly (which is not obligatory,) are required to appear dressed in black cloth. The Board of Education is represented by three deputies; the members of district committees can attend as advisory members; the public are admitted. The opening is followed by the reception of new members, the report of the Board of Education on the progress of schools, the report of the director of the Seminary on the labor of the chapters, and the reports of committees. The two first reports are generally ordered to be printed. Next follows a pedagogic lecture, a criticism and discussion of the same; these lectures (always written) are delivered according to a fixed programme, and the meeting can order the publication of lecture and criticism. A pamphlet, containing the proceedings of the school synod, the reports, and sometimes the lecture, is furnished gratuitously to each member. After the debates mentioned above, resolutions are passed with reference to the petitions and wishes of the synod to be presented to the Cantonal authorities; finally the election of officers takes place, whenever the terms of any of them are expiring, or of such as are elected by the synod; also the selection of special committees. The synod elects a president, vice-president, secretary for two years, not to be reëlected, two members of the Board of Education, and the members of special committees. The meeting is closed by singing. The place where synod is to be held is changed every year. The budget of the State is charged with a certain sum for the expenses of printing, etc., of the synod. Extraordinary meetings of synod may be held, upon resolution of the synod or of the Board of Education, or upon the demand of three chapters. A committee of the school synod of Zurich has published a collection of songs for male choirs and one for mixed choirs, music and poetry in part by Zurich teachers, which are distributed all over Europe on account of the fine selection and the unexampled low price. In some parts of the canton they have a voluntary teachers' union, the members of which meet every two or three weeks, and in an afternoon session labor for their professional improvement. In these meetings they make extempore speeches on subjects of instruction, experiments in methodic and practical teaching, criticism of new books, etc.

Each school has its treasury and a fund (*Schulgut*) administered by the school administrator, who is elected by the commune for the term of four years, and can be reëlected. Every member of the school commune is eligible for this position; but the office gives no salary. The interest accruing from the school fund only is used, and forms one item of the revenue of schools for current expenses. All the citizens of a community are members of the school commune in which they reside; those who acquire citizenship must pay a certain sum in order to become members of the school commune, proportionate to the amount of the fund. Into this school fund, according to law, are paid:—

1. All ground-rents and tithes, if any existing.
2. Fees of immigration, which means a sum paid when a member of

the commune marries a woman belonging to another commune, which sum is considerable if the wife is from another country. (For a Swiss woman it amounts to four francs, for a German to forty francs.)

3. Fees of marriage, amounting to two francs at least.

4. Voluntary school tax, the proceeds of a collection on one Sunday in the year, when a sermon is preached in all the churches on Education, and which is distributed among the schools of a parish in proportion to the number of pupils.

5. Voluntary contributions and donations.

6. Legacies.

As all these receipts flow into the school fund, while the interest of the principal can only be expended, an increase is very wisely provided, and accrues from year to year.

In the year 1850–51, the total of school funds in the Canton amounted to 225,791 francs, 73 centimes; in the year 1851–52, to 230,415 francs, 31 centimes. Besides the interest of the fund, the school treasury receives the proceeds of public lands, fees for tuition, fines, part of the fees of settlement in a commune, contributions from the State, and taxes. From the treasury are paid: salaries of teachers, pensions, means of instruction, care, heating, repair and building of school-houses, interest on debts, and other current expenses. If the receipts are smaller than the expenses, the school commune may order a general tax, of which three-fourths is levied on the income, one-eighth in equal parts on all citizens, and an eighth in equal parts on all householders. The fee of settlement depends on the value of the property of a commune, and one-third of this fee goes into the school treasury, one-third into the fund for the poor, and one-third to the commune.

For each pupil of the day-school, one shilling per week is paid; for each pupil of the repetition-school, half a shilling. (A shilling is 85-100 francs.) This school fee is paid from the fund for the poor, when the parents have no means, and are depending on charity; if the parents are poor, but not depending on charity, the State pays part of the instruction, and school-books for their children. Though children do not attend the school of the commune, yet the fees for tuition must be paid as long as they are required by law to attend school. The fees of tuition form a part of the teacher's salary, but they are collected with other taxes and paid to the teacher by the administrator. The school commune is obliged to pay annually one hundred francs towards the teachers' salary, to furnish him two cords of wood, a suitable residence, and a piece of garden land, or in place of these, an amount of money to be fixed by the school committee. The communes are not obliged to pay pensions to teachers, and do this voluntarily only to deserving teachers, or when, in case of dissatisfaction not justifying a removal, but making the suspension of the teacher desirable, they have purchased the latter at the price of a pension. As a general rule, pensions are paid by the State, in consideration of age, years of service, previous salary and usefulness of the person.

The maximum of pensions is one hundred and sixty francs. Moreover the State gives aid to thirty or forty old teachers, who are still in service, when they need a temporary assistant, by sums of forty to sixty francs per year; and the two oldest teachers of the Canton receive a yearly subsidy of twenty francs, which are taken from the interest of a fund bequeathed for this purpose by an unknown friend of the schools.

To the fees for tuition and the contribution of the school commune must still be added a third part which the State pays towards the salary of teachers, and which till 1850 amounted to one hundred francs for each teacher. During the year 1850 the salaries of teachers were increased, and whenever the same, as derived from the State, (one hundred francs,) the commune, (one hundred francs,) and half of the tuition fee, does not reach the sum of three hundred and sixty francs, the deficit is made up by the State. It has also been resolved that after ten years of service, the minimum of a teacher's salary shall be four hundred francs; and be increased according to age and the number of pupils.

In the Canton of Zurich, the sale of salt is a monopoly of the State, and from the profits resulting from it in each commune, six per cent. is paid into the school fund; the sum thus realized is distributed by the school committee to the different school communes, in the ratio of the number of their pupils, and may be incorporated into the school fund or used for current expenses.

Finally the State devotes annually twenty thousand francs for the purpose of, 1. to facilitate improvements in instruction, and for the benefit of the school in general when necessary; 2. to contribute towards the fees of tuition for children of poor families, and their school-books, which latter are given gratuitously or at a moderate price; 3. to encourage school communes of limited means to introduce modern improvements. In distributing these contributions among the communes, the following questions must be answered by the school committee:—

1. Would there have been a deficit in the treasury of the school commune for the year ending December 31st last, if the *receipts* were derived solely from the interest of the school fund, rents of estates, sale of products, fees of tuition, fines, fees of settlement; and the *expenses* had been only for teachers' salaries, pensions, cost of means of instruction, heating and repair of school-house, interest on debts, and minor current expenses? How large would the deficit be in this case? If this deficit should be made up by a general school-tax, how much would be imposed per thousand francs of property, or would have to be laid on each household and on each citizen?

2. How many pupils of parents, not depending on charity, but poor, and who pay not more than one franc of State tax per year, have attended the day-school, repetition and singing-school during the last three months?

3. Have special efforts been made, during the last year, in the school-district, for the promotion of school matters? What was the object of these efforts?

When an affirmative answer is given to question No. 3, the following is added:—

4. What was the total number of pupils in the day-school, the repetition and singing-school, and the amount of taxable property in the school commune at the end of the scholastic year?

The duty to provide suitable school-houses rests upon the school commune. Freeholders are required to contribute for the building of the school-house in the place in which they reside; other citizens are taxed for the school-house in their home, that is, the place in which they hold citizenship. There are distinct regulations existing with regard to the details in the arrangement of new school-houses, as for instance on the selection of the building lot, description of school-rooms, seats and desks, etc., residence of the teacher, partition of the building, style and material, etc.

A school-room for 100–120 pupils must be of 1062 18-16 square feet, not less than ten feet in height; the windows six feet high, and four feet wide. The teacher's residence must occupy one half of the building, and must contain a study, kitchen, two chambers, a cellar, woodshed, etc. Lightning rods must be attached to every school-house.

When the frame and roof is completed, the commune can petition the State for a contribution, for the purpose of erecting a residence for the teacher, showing by accounts properly verified, and attested by the different school-committees, the cost of the building thus far, and also the condition of the property of the commune. In the year 1851–52, four thousand three hundred and two francs were granted for such purposes by the State; at the end of that year, three hundred and forty-one school-rooms were reported as in good condition, ninety-eight as tolerably good, and thirty-one as not satisfactory.

II. SECONDARY SCHOOLS.

By the establishment of secondary public schools, the State has gratified the desires of those parents who wish to give their children of the age of twelve years an education beyond that of primary schools, or to prepare them, in the vicinity of their homes, for the studies of the superior schools. The main object of the secondary-school, however, is a better general education of the people, not to prepare for professional or high-schools. According to the intention of the founders of these schools, they should aim at training a class of intelligent citizens, who would be able to become leaders in public life or suitable members of the school-committees; while the plan of instruction in primary schools embraces language, number, form, art, religion. The different branches of science appear more distinctly in the plan of secondary-schools. Yet the secondary-school teacher who would introduce an abstract system of distinct

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Note.—The author observes here, that there is a popular current in favor of some modification in the school organism. For instance, the office of Cantonal Inspector should be created; the preparatory school of the Seminary should be discontinued, and the course at the Seminary extended to four years, etc.

parts of science, would not fulfil the object of his school, which is rather more to select useful and instructive matters of science, and to present them in a striking and direct manner, with the vivacity peculiar to the people. The subjects of instruction in the secondary-school are: Religion, the German and French languages, arithmetic and geometry, history and geography, natural science, drawing, penmanship and singing. All these studies, except the French language, are obligatory upon all pupils.

A distinct plan of instruction, binding on all teachers, does not exist; the peculiar demands of each district are taken into account, perhaps more than is beneficial.

Each scholastic year in itself shall offer something complete, some total part of science, which however must be arranged so as to form a basis for the instructions of the next year.

This demand, which is difficult to observe, is made by the law, in order to give a kind of finished education to those who can attend this school but for one or two years. The complete course is for three years; those who attend the secondary-school for two years are no longer required to join the repetition-school. Usually the secondary-school is divided into three classes; the hours of instruction are thirty-three per week, and vacations of seven weeks per year. As boys and girls enter the secondary-schools, a division into more classes often becomes necessary, since many branches can not well be taught to both sexes alike. Notwithstanding this, however, a teacher of a good secondary-school gives to his pupils the same instruction that can be obtained in the three or four classes of a higher burgher-school in Germany from a number of teachers. It frequently happens that talented pupils from the highest class of the seconary-school are admitted in the first class of the lower school of industry, or after some private study, into the lower class of the upper school of industry. The forty-eight secondary-schools of the Canton are so distributed as to be accessible to all; they were attended during the year 1851–52 by twelve hundred and sixty pupils. Where the number of pupils is large, or when several districts unite their means, several teachers are engaged, who divide the several branches of instruction among themselves according to their preference. Those who enter a secondary-school must be twelve years old, and are required to prove, in an examination, that they have obtained the knowledge imparted by primary schools. The teacher has a vote in the decision of the examining committee. The fee of tuition amounts to sixteen francs for each pupil, and goes into the school fund. Whenever the condition of the school permits, four free scholarships must be granted.

Almost all secondary teachers obtain their professional education at a seminary; next they take their residence for some time in the French cantons of Switzerland, in order to acquire a perfect knowledge of that language. There are also secondary teachers who never attended a seminary, but attended the instructions at a cantonal school, a polytechnic

school, or a high-school, etc. In order to become qualified as secondary teacher, a satisfactory examination is all that is required; the examining committee consists of the teachers of the Seminary, and one expert for each branch appointed by the Board of Education. Strangers are admitted to these examinations. Except mathematics and the two languages, the candidate may decline examination in one branch; but if he gives satisfaction in all the other branches, he will obtain the qualification of secondary teacher. One who does not pass the examination satisfactorily in mathematics and languages, obtains only a qualification for certain branches, and may be engaged for these branches as assistant of the teacher of any school, but he can not take the sole charge of a secondary-school himself. The certificate of examination contains a note on the efficiency of the candidate in each branch of secondary instruction.

Uniformity of books and means of instruction have not been secured in the schools of Zurich; efforts are made in this direction. The approval of the Board of Education is required, before any work can be introduced into schools.

All secondary-schools have a school fund (*Schulgut*,) made up from contributions of the State, private donations, and increased here and there by foundations for the benefit of higher schools. From the year 1833 the State made annual contributions to each of the fifty secondary school-districts for the purpose of establishing seconday popular schools, at first to the amount of three hundred and twenty francs, and since 1836, of seven hundred and twenty francs, and the withdrawal of this amount was threatened if a secondary-school were not established and in active operation in the district in the year 1840. Several districts organized their school in 1839, when a considerable school fund had accrued from the regular contributions and the interest thereof. The State still continues the contributions; thus the receipts of a secondary-school are derived from: 1. the State (seven hundred and twenty francs;) 2. the interest of the school fund; 3. the fees of tuition. In 1851–52, the amount of school funds in the Canton was 230,415 francs, 31 centimes. At first, from doubts of the permanency of secondary-schools, teachers were engaged for a term of six years; this fear has disappeared, and their office is now for life. Each secondary teacher receives from the school fund eight hundred francs, and a free residence, or in place of it an additional sum of one hundred francs. The school committee can make additions to this fixed salary. The administrator of the secondary school fund is nominated from the members of the school committee. Instruction in religion is usually given by the resident pastor; and a remuneration made for his labor. Assistant teachers for singing, penmanship, etc., are to be paid by the teacher of the school; the latter may occupy the position of resident pastor or assistant pastor, together with that of secondary teacher.

City Schools of Zurich and Winterthur.

The city schools of Zurich embrace the *primary* school, *secondary*

classes, and a *special school* for the poor. The schools of Winterthur also embrace a *primary* school (two divisions, one for the sons of citizens, the other for the children of residents,) a *gymnasial class*, and *one class* of *a school of industry* (about equal to the lower class of the gymnasium and the school of industry of the canton,) and a *technical school*. In all the city schools the system of classes and sexes has been introduced. At the end of the year 1851–52, the city schools of Zurich numbered forty-six teachers and seventeen hundred and fifteen scholars; those of Winterthur, thirty teachers and one thousand and nineteen scholars. Both cities have a school board, who superintend the schools in the same manner as the parochial school committee, and sustain a relation to the Board of Education similar to that of the district-school committee. The school board in both cities is composed of thirteen members, elected by the school commune, or by the city council (in Zurich.) Two members must be elected from the teachers, and two from the pastors, for the school board of Zurich. In Winterthur, two members are elected from the citizens, and the rector and chief pastor of the city are ex-officio members of the board. In both cities the teachers of city schools form an association, and the school board asks for the advice of this association in all school matters. Teachers are elected by the city commune, from candidates proposed by the school board. In 1851–52, the school fund of the city amounted in Zurich to 615,532 francs, 94 centimes; in Winterthur, to 588,333 francs, 28 centimes. Preference is shown to the children of citizens in regard to conditions of admittance.

III. SUPERIOR OR PROFESSIONAL SCHOOLS.

The Cantonal Schools.

The schools of the Canton include the Teachers' Seminary, the School of Agriculture, the Veterinary School, the Cantonal School and the High School (University.) The name of superior schools comprehends the three last named.

There is a cantonal school treasury, under the supervision of the school administrator. This treasury receives:

1. Fees of tuition and of registration (cantonal and high-schools).
2. Contributions from the State and the city.
3. Duties on stamped paper (containing a certificate of the health of cattle brought into the city,) which are part of the receipts of the veterinary school.
4. Annual contribution of the city of Zurich. Its amount has been twenty thousand francs per year since 1836, when this sum was granted in order to secure the location of the schools in Zurich.

The costs of maintaining the school buildings and furniture are defrayed by the State directly; other expenses are paid from the cantonal fund, and if that is not sufficient, the State furnishes what is necessary. Thus the expenses of cantonal schools are paid entirely by the State, since the cantonal treasury is but an auxiliary of the former.

The cantonal schools (with exception of the Seminary,) have in common a library, composed of the books of the ancient convent, of the university, of the gymnasium, of the school of industry and the veterinary-school.

For the increase of the library, each faculty of the high-school and each committee of teachers of the other schools draws a fixed amount from the cantonal treasury. Beyond this the following contributions are to the same purpose: Voluntary donations made by professors; fees paid for obtaining academical degrees, etc. Each faculty of the high-school and each committee of teachers selects the books to be purchased for the library from their separate allowances. The general library is accessible to all members of cantonal schools; books suitable for students are carefully selected. The teachers of the Seminary pay an annual fee of four francs for the use of the library; others a fee of eight francs for the year.

The Board of Education disposes of a certain sum of money as yearly stipends for talented poor students of the higher schools; this sum is spent often only in part, and a reserve fund is formed from it, from which poor students are sometimes enabled to visit a foreign university. The total of stipends granted in 1853 was eleven thousand nine hundred and seventy-two francs; in 1851–52, eleven thousand five hundred and seventy-five francs, of which eight thousand one hundred and seventy-five francs were for students of the superior cantonal schools, and three thousand four hundred francs for six students in foreign universities. The amount of a stipend varies from sixty to one hundred and twenty, one hundred and eighty, two hundred and forty, three hundred and fifty or four hundred and fifty-five francs and more, and is left altogether to the discretion of the Board of Education, who decide on the relative abilities of the applicant, his morality and assiduity. Students receiving stipends are under special superintendence of teachers of the university, appointed for this purpose by the Board of Education.

Teachers' Seminary.

The Canton of Zurich has a Seminary for the training of well qualified teachers for its public schools. Conditions of admission in the Seminary are: The candidate must be sixteen years old, of sound health, and not deformed in body or deficient in limb; he must present creditable testimonials as to moral deportment, and in a satisfactory examination show the amount of knowledge of the programme of a secondary-school, in the following branches: 1. Biblical history; 2. German and French languages; 3. Arithmetic and geometry; 4. History; 5. Geography; 6. Natural history; 7. Singing, drawing, and penmanship.

Admittance is at first for a trial term of three months; afterwards, upon the recommendation of the teacher, a permanent registration is accorded.

Branches of instruction at the seminary are: 1. Religion and moral philosophy; 2. Pedagogics; 3. The German language; 4. The French language; 5. Mathematics; 6. History; 7. Geography; 8. Natural his-

tory; 9. Singing, and playing the violin; 10. Penmanship; 11. Drawing; 12. Gymnastics; 13. Theory of farming and practical work.

Instruction on the violin is not obligatory, but all other branches are. As an exception, students may be dispensed from participation in the gymnastic exercises. All instruction must be given with special reference to the future vocation of the students and to the special object and organization of public schools; and strict attention should be given to observe that the matter of instruction is thoroughly understood and well digested, and that the student is practiced in the treatment and application of each subject. The same principle should be followed in teaching pedagogics. There are three classes in the Seminary, but no class teachers; every teacher is selected for certain branches.

The course of instruction is three years, and resulting from this there are three classes. For practical training in teaching, a practice-school is connected with the Seminary, which in organization and labor should be a model of an undivided primary-school.

The commission of superintendence of the Seminary is composed of seven members, appointed by the Board of Education from its own members or from other persons, for a term of four years, so that two members are appointed every two years. This commission makes regular visitations at the Seminary; supervises the labor of director and teachers, the industry and deportment of the scholars; they approve plans of instruction and other propositions of the director, and his reports to the Board of Education. The director is an advisory member of this commission; other teachers may be consulted in its sessions.

The director, who must belong to the Protestant church, is elected by the Board of Education upon recommendation of the section for popular instruction, and his appointment must be approved by the Government council. His engagement is for life, though usually a trial term of two years precedes the permanent appointment.

The convention of teachers under the presidency of the director forms the immediate board of supervision; the plan of studies, the order and time of lessons, of certificates and censures of pupils, of their definite admission and promotion into higher classes, and the use of extraordinary means of discipline, are submitted to them.

The director receives a salary of twelve hundred to eighteen hundred francs, with board, residence, fuel, light, etc., for himself and family; every regular teacher is paid one thousand to fourteen hundred francs. An annual sum of four hundred francs is granted for means of instruction, and of four hundred francs for apparatus or tools for gymnastics or practical farming; as well as three thousand two hundred francs for the salaries of assistant teachers and the teacher of the practice-school.

In 1851–52, the number of pupils was sixty-two, of whom about forty reside on the premises. The students of the first and second classes are generally required to live in the Seminary. The expenses of thirty-nine pupils defrayed by the State amounted to six thousand three hundred

and thirty-eight francs, being an average of one hundred and sixty-two francs. Only one pupil received an entirely free scholarship, two others three quarters, twenty-four received one half, and two, one quarter of the expenses. Every student receiving stipends obliges himself to accept any position the State may confer upon him within the first two years after leaving the Seminary.

Cantonal or State Institution.

Immediately adjoining the day-school is the School of the Canton, divided into two divisions, Gymnasium. and School of Industry.

Gymnasium. The gymnasium has two divisions, the lower and the upper gymnasium. Branches of instruction in the lower gymnasium comprise: 1. Religion; 2. German language; 3. Latin; 4. Greek; 5. French; 6. History; 7. Mathematics; 8. Practical arithmetic; 9. Geography; 10. Singing; 11. Gymnastics.

There are four classes in the lower gymnasium, the course of each being for one year; scholars entering the lowest class must have attained the age of twelve years, and present a good testimonial from their former teacher; they are also subject to examination.

The branches of instruction in the upper gymnasium are: 1. Religion; 2. German; 3. Latin; 4. Greek; 5. Hebrew; 6. French; 7. History; 8. Mathematics; 9. Natural science; 10. Philosophy; 11. Singing; 12. Gymnastics.

The upper gymnasium has three classes; the course for each is of one year. Pupils entering the first class of the upper gymnasium must be sixteen years of age; for the second class, seventeen years, etc.; they are also required to give satisfaction in an examination as to their knowledge and moral deportment.

The Board of Education decides in regard to the distribution of branches of instruction, and the extent to which each science shall be taught. Teachers are engaged for the branches in which they are efficient; the system of class teachers has not been introduced.

The several teachers of the gymnasium form a convention (board) of teachers, which decides on the general course of instruction, the order of lessons and discipline, as far as the Board of Education has not already made decision; they express their opinion on the introduction of schoolbooks, when invited to do so by the Board of Educatien. The president of the gymnasium is called rector, and he is intrusted with the management of the gymnasium in general and the upper gymnasium in particular; the lower gymnasium is under the special direction of a prorector. The rector is elected from the teachers of the upper gymnasium, the prorector from those of the lower gymnasium, by the Board of Education, for a term of two years, being eligible to reëlection.

Every scholar of the gymnasium pays four francs as a fee of registration, unless he has previously paid that sum at another cantonal school; each scholar of the upper division contributes two francs, and of the lower division one franc, towards the collections of the cantonal schools. The

tuition fee for the lower gymnasium is twenty francs, and for the upper gymnasium, thirty-two francs per year. A moiety of the tuition fees is divided among the teachers of the gymnasium engaged in the first and second classes, according to the number of lessons they teach.

School of Industry. The school of industry has two divisions: the lower and the upper school. Branches of instruction for the lower school of industry are: 1. Religion; 2. Mathematics; 3. Natural history and philosophy; 4. German; 5. French; 6. History; 7. Geography; 8. Practical arithemetic; 9. Geometrical design; 10. Drawing; 11. Penmanship; 12. Singing; 13. Gymnastics.

The lower school of industry has three classes of one year's course for each; the Board of Education decides on the plan of instruction; a boy must be twelve years old before he can be received in the lower class, and have a good certificate from former teachers.

Branches of instruction taught in the upper school of industry are: 1. Theoretical mathematics; 2. Applied mathematics; 3. Natural philosophy; 4. Chemistry; 5. Natural history; 6. History; 7. Geography; 8. German; 9. French; 10. English; 11. Italian; 12. Drawing; 13. Geometrical design and drafting of machines; 14. Manufacture; 15. Commercial arithmetic and book-keeping; 16. Penmanship; 17. Singing; 18. Gymnastics. These branches are distributed by the Board of Education upon three years, in such a manner as to allow pupils who will devote themselves to technical or to commercial pursuits, to finish their course in three or two years respectively. A pupil who applies for admission into the upper school of industry, must be fifteen years of age; and if not coming from the lower division of the school, he is examined in all branches which need preparatory knowledge, and must be well recommended.

Pay and organization of teachers is similar to that of the gymnasium; teachers are selected by the Board of Education, and confirmed by the Government council. The teacher of gymnastics is engaged for a term of six years.

In 1851–52, the School of the Canton was attended: in the lower gymnasium by one hundred and twenty-seven, upper gymnasium by sixty-two; lower school of industry by one hundred and twenty-four, upper school of industry by sixty-eight pupils and twenty-one non-resident pupils.

The Veterinary School.

The course of the veterinary-school of the canton of Zurich embraces the following branches:—Natural philosophy; chemistry; botany; zoölogy; comparative, pathologic and surgical anatomy; physiology; dietetics; training of animals; general pathology and therapeutics; general, special and operative surgery; theory of infectious and contagious diseases; obstetrics; shoeing of horses; practice in treating sick animals, etc. A blacksmith shop and a hospital for sick animals are connected with the school.

The full course of this school is three years, and the above branches of instruction are suitably divided according to the plan of teaching. Teachers are elected by the Board of Education. A director presides over the veterinary-school, elected from the teachers by the Board of Education for the term of two years. There are two regular teachers, with a salary of twelve hundred to fourteen hundred francs, and assistant teachers are engaged as necessary, for which purpose, eighteen hundred francs per year are set apart, and for other incidental purposes, one thousand francs.

Boys of sixteen years of age can be admitted into this school, if they have attended a three years' course of secondary-schools or are otherwise qualified; they must pay a registration fee of eight francs, and a tuition fee of twenty-four francs, half of which goes into the school fund, while the other half is divided among the teachers in proportion to their number of lessons. Private teachers fix their own terms, with the approval of the commission of inspection. The latter consists of five members appointed for the term of five years by the Board of Education, one of whom must be a member of the Board of Education, and one a member of the board of health. They superintend the execution of all laws and regulations, as well as of the resolutions of the Board of Education in reference to this school, and see that teachers and pupils perform their duties.

The usual attendance is from twenty-one to twenty-five.

Agricultural School.

The agricultural-school was opened May 1st, 1853, and is the youngest one of the cantonal schools. The object, "to train young men in the theory and practice of agriculture," is pursued in part by formal instruction, in part by cultivating an estate near the city of Zurich. This estate belongs to the hospital of the canton, and is leased at a yearly rent of two thousand eight hundred francs. The Great Council granted to the Government council a credit of sixty thousand francs, at three per cent. interest, in order to enable them to give to the agricultural-school a proper outfit. The locality is calculated to accommodate thirty students; not more than ten new pupils shall be admitted at a time; they must pass a satisfactory examination before the commission of supervision. Two annual courses complete the term of the school. A citizen of the canton pays for board, tuition, etc., two hundred and fifty francs the first year, two hundred francs for the second year; others are required to pay three hundred and fifty and two hundred and fifty francs; two free scholarships are attached to the school. A director with a salary of one thousand three hundred and sixty francs, one teacher with a salary of six hundred and forty francs, and a master-farmer with a salary of four hundred francs, compose the board of instruction. During the Summer, three hours per day are devoted to instruction and eight hours to labor; during the Winter, six hours to labor and four hours to instruction.

The course of instruction embraces the following branches:

1. Arithmetic, problems from business life.

2. Geometry—measurement, surveying, drafting.

3. Mineralogy—different kinds of rock; what parts fit for improving the soil; springs and artesian wells; order of stratas, petrifactions, etc.

4. Botany—anatomy and physiology of plants; forest trees, herbs for meadows, weeds, poisonous herbs, etc.

5. Zoölogy—anatomy and physiology of animals, chiefly of domestic animals; useful and destructive animals.

6. Mechanics, as far as relating to agriculture.

7. Chemistry—soil and its associations; analysis of soil, of manure, etc.; fermentation, brewery, distillery, manufacture of vinegar, starch, soap, cheese, oil, etc.

8. Agriculture—knowledge of soil, manure, training of plants, of cattle, medical treatment of animals, book-keeping for farmers.

Instruction in the German or French language is not part of the programme, but may be given after the regular lessons. Practical labor is exacted in the field and the meadow; the orchard and the forest; in attending to the animals and repairing of harness, etc.

The agricultural-school has from sixteen to twenty pupils annually.

The University.

This institution, which is always attended by over two hundred students, was founded in the year 1833, during the period of enthusiasm for instruction, and now occupies a distinguished position, being a realization of the ideal of a Swiss university, as nearly as this could be effected with the means of a small canton. We will here only indicate the peculiar points of its organization, which are not found at all universities:

A citizen of the canton, though admitted at another university, can be registered as a student, only if he has passed the final examination of the gymnasium or of the school of industry. Teaching and learning are free; yet it has been provided in the interest of students, that recitations must be held on the lectures in certain chief branches. The degree of Master of Arts is not required of private lecturers at the university (*privat docenten;*) they must obtain the permission of the Board of Education on the recommendation of the faculty, who may exact an examination from the candidate. Upon a favorable report of the faculty, a trial lecture must be delivered, after which, if satisfactory, the candidate is pronounced qualified as private lecturer (*docent.*)

The cantonal hospital is open to students of medicine.

Scientific collections are large and well arranged.

Private Schools.

All private schools in the Canton of Zurich are subject to inspection and control of the school committee of the district in which they are situated, and their plans of instruction must be approved by the Board of Education.

Federal Polytechnic School.

This great Scientific University is located at Zurich, but the Federal Government contributes $45,000 annually to its support.

NORMAL SCHOOL

AT

KUSSNACHT, IN THE CANTON OF ZURICH.

THE Normal School at Kussnacht is about a league from the town of Zurich, and the buildings are prettily situated on the borders of the lake of the same name. This institution was re-organized in 1836, though the modifications made have been rather in the details than in the general principles. It now consists of a school for teachers, a preparatory school for this seminary, and three primary model schools. It is intended to supply teachers for the different grades of primary schools of the canton, and during a portion of the year lectures are also delivered in the seminary to the older teachers, who are assembled for the purpose in their vacations.

The superintendence and control of the Normal School is vested by the legislative council in the council of education, who appoint a committee of superintendence from their own body. This committee visits the school at least once a month, attends its examinations, and, in general, inspects its management. The executive power is delegated to a director, who has the immediate charge of the school, and arranges the plan of instruction, in subordination to the council of education. He examines the candidates for admission, inspects the classes of the seminary, and of the schools attached to it, and lectures in the school of repetition for the older teachers. He is also responsible for the discipline, and reports half-yearly the state of the institution to the council of education. He is moreover present at the meeting of the committee of superintendence. There are three other teachers, besides a variable number of assistants. These teachers in turn have charge of the pupils of the Normal School in and out of school-hours. There are conferences of all the teachers, at which the director presides. The manners of the people and the purpose of the seminary render the discipline of very trifling amount. The pupils of the Normal School reside in the village of Kussnacht, but spend the greater part of their time at the school, under the direction of its masters. All the time devoted to study, recitation or lecture, and regular exercise, is passed there.

To be admitted as a candidate for the Normal School, a youth must be sixteen years of age, and of suitable morals. intellectual, and physical qualities for the profession of a teacher. He must have spent two years in the higher division of primary instruction (called here secondary) in the model school, or some equivalent one, or have passed through the preparatory department of the Normal School, which gives a preference to the candidate, other qualifications being equal. The examination of candidates takes place once a year, and in presence of the committee of superintendence, or of a deputation from their body. The formal right of admitting to the school is, however, vested alone in the council of education. The subjects of examination are Bible history, speaking and reading, grammar, the elements of history, geography and natural philosophy, arithmetic and the elements of geometry, writing, drawing, and vocal music. The council of education fixes the number of pupils who may be admitted, and the most proficient of the candidates are selected. There are forty stipendiary places, ten of the value of one hundred and sixty Swiss francs, (forty-eight dollars,) and thirty of half that sum.

Natives who are admitted all receive their instruction gratis. If there is room in the school, foreigners may be received, paying twelve dollars per annum for their instruction. The number of pupils at the date of my visit, in the autumn of 1837, was one hundred and ten. The stipendiaries are bound to serve as teachers in the canton two years; a very moderate return for the education received.

There are two grades of courses in the Normal School, one of two years for pupils intending to become teachers in the lower primary schools, the other of three years for the higher primary schools. The courses begin in April, and continue, with seven weeks of vacation, throughout the year. The subjects of instruction are: Religious instruction, German, French, mathematics, history, geography, natural history and philosophy, pedagogy, writing, drawing, and vocal and instrumental music. French is only obligatory upon the students of the three years' course. Gymnastic exercises and swimming are regularly taught and practised.

There is, besides, a lecture of an hour and a half on the art of building, once a week, attended by all the students. Those who learn instrumental music have lessons two hours and a half every week, and two hours on Sunday are occupied with singing in concert. One of the teachers devotes two extra hours every week to the assistance of some of the pupils in their studies, or to repetitions.

At the close of each year there is a public examination, and the pupils are classed according to its results. On leaving the institution, they are arranged in three grades; the first, of those who have gone very satisfactorily through the school, the second, of those who have passed satisfactorily, and the third, of those who have not come up to the standard. Certificates of the first two grades entitle their holders to compete for any vacant primary school.

The courses of practice begin in the second year, when the pupils take regular part in the exercises of the schools attached to the seminary. These are, first, two model schools for children from the ages of six to nine, and from nine to twelve, at which latter age the legal obligation to attend the school ceases. The third, called a secondary school, contains pupils from twelve to sixteen years of age. The system of instruction used in the lower schools is attended with very striking results. The lessons are not divided into distinct branches, studiously kept separate, as in most elementary schools, but are connected, as far as possible, so as to keep the different subjects constantly before the mind. Thus, a lesson of geography is, at the same time, one of history, and incidentally of grammar, natural history, of reading and writing, and so on through the circle of elementary instruction. The Pestalozzian lessons on form are made the basis of writing, and with good success. The lowest class is taught to speak correctly, and to spell by the phonic method, to divide words into syllables, and thus to count. To number the lessons. To make forms and combine them, and thus to write, and through writing to read. The second passes to practical grammar, continues its reading and writing, the lessons in which are made exercises of natural history and grammar. Reading and speaking are combined to produce accuracy in the latter, which is a difficulty where the language has been corrupted into a dialect, as the German has in northern Switzerland. Movable letters are used to give exercises in spelling and reading. The plan of the Pestalozzian exercises in grammar is followed, and when the pupils have learned to write, a whole class, or even two classes, may be kept employed intellectually, as well as mechanically, by one teacher. In reading, the understanding of every thing read is insisted upon, and the class-books are graduated accordingly. I never saw more intelligence and readiness displayed by children than in all these exercises; it affords a

strong contrast to the dullness of schools in which they are taught mechanically. The same principles are carried into the upper classes, and are transplanted into the schools by the young teachers, who act here as assistants. The examination of the second school in Bible history, with its connected geography and grammar lessons; in composition, with special reference to orthography and to the hand-writing; and the music lesson, at all of which the director was so kind as to enable me to be present, were highly creditable.

There are three classes in each of these schools, and the pupils of the Normal Seminary practice as assistant teachers in them at certain periods; the director also gives lessons, which the pupils of the seminary repeat in his presence.

In the highest, or secondary school, the elementary courses are extended, and mathematics and French are added.

The pupils of the preparatory department of the seminary spend two years in teaching in the two model schools, and in receiving instruction in the "secondary school" under the special charge of the director of the seminary. This establishment has furnished, during three years of full activity, two hundred teachers to the cantonal primary schools. These young teachers replace the older ones, who are found by the courses of repetition not able to come up to the present state of instruction, and who receive a retiring pension. The schools must thus be rapidly regenerated throughout the canton, and the education of the people raised to the standard of their wants as republicans.

COURSE OF INSTRUCTION

PURSUED IN THE NORMAL SEMINARY AT ZURICH, SWITZERLAND.

	1st Class and 1st School year.		2nd Class and 2nd School year.		3d Class and 3d School year.	
	1st Half year.	2nd Half year.	1st Half year.	2nd Half year.	1st Half year.	2nd Half year.
Religion and Morals.	Geography of Palestina, Jewish Archæology, History of the Christian Church.	Faith and morals, as founded on revelation.	Lectures on the Bible, with questions.	Lectures on the Bible, with practical illustrations and references.	Deeper and more abstruse points of doctrine, with scriptural proofs and practical illustrations.	Continuation of the above.
German Language.	Grammar, exercises in reading and recitations, composition.	Grammar, continuation of exercises in reading and recitations, composition of letters and speeches.	Etymology, and logical exercises, recitations, and composition.	Repetitions of the more difficult parts of grammar, more extended compositions, laws of poetry.	The more important peculiarities of the German language, verbal expositions of the written exercises.	View of German literature, poetical exercises.
French Language.	Exercises in reading, and translation of easy pieces of French into German, introduction to the grammar, and etymology.	Continuation of the above beginning of the translation of German into French: grammar: vocabulary.	Continued exercises of reading and transl. into German: grammar: syntax: trans. from German into French: speaking.	Continuation of exercises in reading and translation: conclusion of syntax: recitations of easy pieces.	Further expositions of grammar, more difficult translations from & into French and German respectively: composition.	Continuation of the above short sketch of French literature.
Arithmetic.	Elementary rules of arithmetic, Vulgar and Decimal Fractions.	Proportion, mental arithmetic.	Continuation of exercises in the elementary rules.	Continuation of exercises in Proportion: Simple Equations.	More difficult applications of the preceding rules.	Quadratic and Cubic Equations: Logarithms, Properties of Numbers: Progression.
Geometry.	The doctrine of parallel lines, properties of triangles, similar triangles.	Measurement of triangles, and straight line figures, planimetry.	Further exposition of the properties of triangles, and of straight line figures.	The circle: elements of stereometry: easy questions in practical geometry.	Continuation of planimetry: plain and solid angles: projection of straight line figures: questions in the above subjects.	Polygonal figures: elements of trigonometry: practical geometry: projection of bodies with straight or curved surfaces: sections.
History.	History from the beginning of the world to the subjection of Greece to the Romans.	From the building of Rome to the Westphalian Peace.	History of Switzerland from the beginning to the Westphalian Peace.	History of Switzerland as it bears on that of the rest of the world to the present period.	General history from 1399 to 1815.	General history from 1815 to the present time.

Geography.	Introductory explanations, the ocean and continents, with their respective divisions.	Special geography of Europe.	The most important points of mathematical and physical geography.	Geography of Asia, Africa, America, and Australia.	More extended expositions of mathematical and physical geography.	Special geography of Asia, Africa, America, and Australia.
Natural History.	General introduction to natural history, description of elementary bodies, general characteristics of minerals.	Unmetallic minerals, metals, mountains, introduction to botany.	Systems of botany, description of plants, special information on the plants known to the pupils.	Introduction to zoology: classification and descriptions, introduction to the natural history of man	Natural history of man: further expositions of the natural history of the lower animals.	Introduction to geology: fossils.
Physics.	: :	: :	The common phenomena arising from the various properties of differently constituted bodies.	Acoustics, optics, heat, magnetism, electricity.	Further exposition of the above subjects.	Further exposition of the above subjects.
Singing.	Elementary exercises of the voice, easy choral exercises.	Melody, religious hymns and choral singing	Further exercises in Sol Fa, also with words, exercises in solo singing and choral singing.	Continuation of the above, special exposition of the art of teaching music.	Continuation of the above.	Continuation of the above.
Art of Writing.	Exercises in German and Roman character, in legal writing, and in black letter writing, music, and stenography.				: :	: :
Drawing.	Sketches from objects placed before the pupil, and from nature; special exercises in shading.				: :	: :
Art of Teaching.	: :	: :	Introduction to psychology, methods of instruction.	Further exposition of methods of instruction, and of the cantonal laws and regulations relative to schools, practical teaching in the primary school.	Fundamental principles of the science of teaching.	Practical teaching in the secondary school.

UNIVERSITY OF ZURICH.

PROGRAMME FOR 1866–67.

I. FACULTY OF THEOLOGY.

42 COURSES OF LECTURES A YEAR, BY 11 PROFESSORS.

INTRODUCTION to the study of theology; do. to the study of the Old Testament; Interpretation of the Psalms; Theology of the Old Testament; Introduction to the New Testament; Practical exercises on the Old Testament; Theology of the New Testament; Interpretation of the Book of Job; do. Prophet Isaiah; do. Minor Prophets; do. Prophet Zachariah; Elucidation of some of the most difficult texts of the Old Testament; Hebrew archæology; Geography and history of the Bible; History of the Canon of the New Testament; Interpretation of Jesus' discourses according to Matthew; Interpretation of the Gospel according to St. John; Synopsis of the four Gospels; Interpretation of the Acts of the Apostles; do. Epistle to the Romans; do. Epistle to the Galatians; do. to the Philippians and Philemon, with practical exercises; do. Timothy and Titus' Epistles; Interpretation of the seven Catholic Epistles on Jesus' doctrine; Conversation on several points of the New Testament; Exegesis on the Fathers of the Christian Church; Elements of dogmatics; History of dogmatics (2 courses;) Christian dogmatics; Practical exercises in dogmatics; Christian morals; Symbolics; Theory of church government; Catechetics; Practical exercises in catechetics; Practical exercises in homiletics; Liturgics; History of the Church (3 courses); Practical exercises on the same subject, embracing various periods, (3 courses;) History of Protestant theology (2 courses.)

II. FACULTY OF JURISPRUDENCE.

JURIDICAL, SOCIAL, AND ECONOMICAL SCIENCES.

49 COURSES OF LECTURES A YEAR, BY 11 PROFESSORS.

Philosophy of jurisprudence, or law of nature; History of the Roman civil procedure; Introduction to the study of law (2 courses;) History and institutes of the Roman law (2 courses;) Institutes of Gajus; Pandects; Contracts of the Roman law; Law of inheritance after the Roman law; Law of property: Law of buildings; Practical exercises in civil law (2 courses); Introduction to the study of law; International law; Common law among nations of German origin, embracing the law of Germany proper, the neighboring states of Switzerland, the Netherlands, and England; Explanation of the Mirror of Suabia; Procedure in common law (3 courses;) Practical exercises on the same; Laws of the Swiss cantons compared with each other; Private law of the canton of Zürich; Commercial law; Law of exchange (2 courses;) Law of insurance; Commercial jurisprudence in the common Germanic law (2 courses;) The same compared to the English and American law; Practical exercises on criminal law; Theory and history of commerce and manufactures; Theory of money, banks and science of finances (2 courses;) Elements of national economy; Science of police; National economy (3 courses;) Practical exercises on political economy; National economy applied to agriculture; Agriculture and manufactures in Switzerland; Constitutional law in general; do. of Switzerland; Laws of cities and townships.

III. FACULTY OF MEDICINE.

63 COURSES OF LECTURES A YEAR, BY 15 PROFESSORS.

Osteology and syndesmology (2 courses;) Human anatomy (2 courses;) General anatomy (histology,) (2 courses;) Dissecting (2 courses;) Repetitorium of anatomy; Zoölogy; Comparative anatomy; Medical physics, introductory to physiology; Inorganic chemistry; Organic chemistry; Pharmaceutical chemistry; Physiological chemistry; Materia medica (2 courses;) Physiology of the blood circulation, with a view to pathology; Special (medicinal) botany; Theoretical obstetrics (2 courses;) Sexual diseases of women; Obstetrical clinics (2 courses;) General pathological anatomy; Pathology and therapeutics of syphilis, with demonstrations; History of development of man; Practical microscopy (2 courses;) Human physiology; Physiological experiments on animals; Special pathology and therapeutics; Exercises in prescribing medicines; Medical jurisprudence (2 courses;) Same for lawyers; (2 courses;) History of medicine; Microscopical course of pathological anatomy; Pathological demonstrations and dissections; General therapeutics and special pharmacology; Pathological histology, with microscopical demonstrations; Pathology of the mouth; Special ophthalmia, (eye-lids, cornea, iris, lens, etc.;) Ophthalmological clinic (2 courses;) Diseases of the ear; Practical operation for diseased eyes; Medical clinic at the hospitals (2 courses;) Polyclinic; Practical exercises in laryngoscopy and otoscopy; Eye-diseases of accommodation and refraction; Medicinal mineral springs; Theoretical and practical dentistry; Operative course in dentistry.

IV. FACULTY OF PHILOSOPHY.

157 COURSES OF LECTURES A YEAR, BY 36 PROFESSORS.

A. *Metaphysical, philological, historical section.*

a. Metaphysics, Pedagogics.—Logic and introduction to the study of metaphysical sciences; Logic and metaphysics; Psychology in general; Psychology viewed from natural sciences; Psychology in connection with pedagogics; Psychological exercises on the third book of Aristotle's work "On the soul;" Philosophical exercises on the first book of Aristotle's metaphysics; Philosophical ethics; Philosophy of religion; General history of religion; History of ancient philosophy; History of philosophy from Cartesius up to Hegel; Sense of hearing; Mental diseases (2 courses;) History of education, and the present state of the higher schools of Germany and Switzerland.

b. Philology, Archæology—History of Literature.—Methodology and history of archæology; Sanscrit and explanation of the Nala (2 courses;) History of Greek literature and drama; Pindarus; Æschylus' Perser, or the Seven against Thebes; Æschylus' Agamemnon; Sophocles' Aias; Sophocles' Philoctetes; Herodotus, Book I.; Thucydides; Plato's Gorgias; Plato's Symposion; Greek epigraphics, with practical exercises; Greek metrics; Explanation of selected fragments from the Greek; Ancient metrics; Explanation of Lucretius' *De rerum naturâ*, lib. I.; Explanation of Plautus' Pseudulus; Philological exercises (2 courses;) Terence's Andria and selected extracts from other comedies; Sallust's Catilina; Cicero pro Quintio; Cicero de finibus bonorum et malorum, with grammatical exercises; Selected poems of Tibullus; Exercises in grammar and writing Latin and Greek; Critical exercises in paleography; Comparative grammar of the principal languages of the Indo-Germanic nations; Sanscrit grammar (3 courses;) Elements of Sanscrit; Sanscrit Kâlidâsas Meghadûta; Arabic (2 courses;) Mythology of the Germanic nations; Interpretation of the ancient authors; Interpretation of Hartmann's Iwein; The Edda; History of German poetry in the middle ages; Explanation of the poems of Walter von der Vogelweide; History of German literature from Klopstock's period; Practical exercises in speaking German; English grammar and exercises; Shakspeare's Hamlet explained and translated; History of English poetry from Chaucer to the present time; Byron's Childe Harold, translated and explained; Exercises (oral and written) in the English language; Villehardouin,

Conquête de Morée; Explanation of the Chanson de Roland; Provençal grammar, with translations; Practical exercises in the French language.

c. History, History of Art, Geography —Synopsis of ancient history; Synopsis of the middle ages and modern history; General history of the 19th century; History of the French revolution up to the empire (2 courses;) History of Europe; Modern history, 1814–1848; History of Switzerland from the Reformation up to 1830; Survey of the works written on Swiss history; Helvetia under the Romans; History of Switzerland in the 17th and 18th centuries; Glance at the Swiss history in the 15th century; History of the Helvetic republic; Conversations on universal history (2 courses;) Historical exercises (2 courses;) History of geography (3 courses;) Russian possessions in the Northern regions; The British empire and its development in the five divisions of the globe; The Osmanic empire in the three divisions of the globe; The eastern region of China and Japan; Explanation of the sculptures in the museum of archæology of Zurich; Political history of Switzerland.

B. *Section of Mathematics and Natural Sciences.*

Elementary mathematics and elements of geodesy; Higher algebra; Descriptive geometry, axonometry and free perspective; Analytical geometry of space; Analysis of algebra; Introduction to higher mathematics; Analysis of complex numbers; Differential and integral calculus (2 courses;) Differential and integral calculus applied to geometry and natural sciences; Select portions of integral calculus; Introduction to celestial mechanics; Elements of astronomy and of mathematical geography, with practical demonstrations (2 courses;) Experimental physics; Experimental physics, heat, light, magnetism, electricity; Electro-dynamics and electro-magnetism; Elasticity and elastical vibrations, treated mathematically; Mechanical theory of heat; Exercises in physical experimentation for teachers; Repetitorium of physics in the German language; Same in the French; Mensuration of bodies for pupils advanced in mathematics; Experimental chemistry, inorganic; Same, organic; Selected portions of chemistry; Zoö-chemistry; Practical pharmaceutical chemistry, for druggists and medical students; Qualitative and volumetric analysis; Analytical, theoretical chemistry; Quantitative analysis; Theoretical chemistry (stoecheometry;) Practical chemical investigations in the laboratory; Same, for advanced pupils; Exercises in chemical experimentation for teachers; Compounds of cyanogene; Essential oils and aromatic compounds; Chemistry of daily life; History of chemistry; Practical instruction in chemico-physiological exercises; Mineralogy; Determination of mineral species; Crystallography; General geology; Practical geology and lithology; Chemical geology; General botany; Special botany, including officinal plants, with botanical excursions; Pharmaceutical botany; Vegetable physiology, with microscopical exercises; Fossil plants; Important plants in economy and manufactures; Diseases of cultivated plants; Fossil insects; Physical geography (2 courses.)

EDUCATION OF GIRLS.

INSTITUTIONS AND SUGGESTIONS.

FEMALE EDUCATION.

PRELIMINARY REPORT.

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MATERIAL FOR FINAL REPORT.

Information has been received respecting the institutions, and teachers and benefactors of Schools for Girls, named below:

1. Boarding School for Young Misses at Bethlehem, *Penn.*, 1786 to 1808.
2. Rev. William Woodbridge and his labors in behalf of Female Education in Massachusetts and Connecticut, from 1779.
3. Caleb Bingham (in 1789) and Ebenezer Bailey (1825,) and the Education of Girls in the Public Schools of Boston, *Mass.*
4. Rise and Progress of the Female Academy (1787 to 1796,) with Notes on Schools (public and private) for Girls, in Philadelphia.
5. Miss Alice Lalor, and the Schools of the Visitation nuns at Georgetown, *D. C.*, and other places, from 1801.
6. Mrs. Elizabeth Bayley Seton, and St. Joseph's Academy at Emmetsburg, *Md.*, and other Schools of the Sisters of Charity, from 1809.
7. Mrs. Emma Willard, and the Female Seminary at Troy, *N. Y.*
8. Miss Catharine E. Beecher, and the Female Seminary at Hartford, *Conn.*
9. Miss Mary Lyon, and the Mt. Holyoke Female Seminary at South Hadley, *Mass.*
10. Mrs. A. Lincoln Phelps, and the Patapsco Female Institute at Ellicott's Mills, *Md.*
11. Packer Female Institute at Brooklyn, *N. Y.*
12. John Kingsbury, and the Young Ladies' High School, Providence, *R. I.*
13. George B. Emerson, and a select School for Girls in Boston, *Mass.*
14. Rutgers Female College, New York City.
15. Mathew Vassar and Vassar College, Poughkeepsie, *N. Y.*
16. Lake Erie Female Seminary at Painesville, *Ohio.*
17. Academy of the Visitation, near Wheeling, *West Virginia.*

CIRCULAR RESPECTING FEMALE EDUCATION.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., 1867.

The undersigned desires to obtain in response to this Circular,

First, (A.) Information on the system and condition of Female Education generally in your State, or such portion of the same (county, city, or district) as you feel authorized from your knowledge of institutions, and of the subject in the same, to speak;

Second, (B.) A particular account of a few Schools for Girls, which are regarded as the best of their class—public, denominational, or incorporated, and whether for both sexes, or for girls exclusively, and for resident or non-resident pupils;

Third, (C.) Copies of any printed documents—address, report, catalogue, circular, &c., relating to the general subject, or to any institution.

HENRY BARNARD,
Commissioner of Education.

A. FEMALE EDUCATION GENERALLY.

1. Name and general condition of the State, or portion of the same to which the Return refers—as to number, occupation, property, valuation and population.

2. Any historical data respecting the home or school instruction of girls—the date and peculiarities of the first school avowedly or exclusively for them—when they were for the first time admitted to Academies and public High Schools—date of the first Boarding School for girls—present number of institutions especially for them—any facts illustrative of their home instruction and training.

3. Citation of any law of the State which recognises any distinction of sex in the general provision for schools and education, and of any law conferring on any institution special privileges respecting female education.

4. Citation of any Regulations of the local Public School authorities, making special provision for girls, or excluding girls, to any extent, from participation in the school privileges of boys.

5. The practice in your Public Schools (naming the locality of the school) so far as it is exceptional to girls, viz.: (*a*) in the conditions of admission; (*b*) seating and classification in the house; (*c*) studies, books and teachers; (*d*) extent to which instruction in all or certain studies is given; (*e*) kind, and conditions of diploma, or certificate of graduation.

6. Your experience, and the testimony of any teacher who has had such experience as entitles his or her opinion to special respect, as to (1) the relative mental powers of male and female students, and their relative aptitudes and success (for example) in language (our own or foreign, ancient or modern,), mathematics, logic, mental, moral, and political philosophy, the natural sciences,

&c.; and (2) the modifications and limitations which such experience has suggested in a course of school instruction for girls, having regard to general culture, and not to special training for teaching or other occupation.

7. Your experience, or the results of your observation and inquiries of institutions within your own knowledge, as to the co-education of the sexes—in respect to the (*a*) health; (*b*) intellectual vigor; (*b*) moral susceptibility and power; (*c*) manners and tastes; (*d*) character and influence of the female pupils in after life.

8. Your experience, and the results of similar observation, as to the separate education of girls in Boarding Schools, or other Seminaries, in the particulars specified in the foregoing paragraph.

9. Your experience, or the results of your observation and inquiries, as to Special Institutions and Courses of Instruction for girls, having reference to external circumstances, such as wealth and social position, or to the future occupation, such as teaching, heads of families, &c.

10. Any suggestions on the great subject of the right education of woman.

B. Particular Institutions.

Any information, as to the origin and objects—denominational control—endowments—grounds, buildings and material equipment—studies—instructors—students—domestic and sanitary arrangements—daily routine—tuition, following in general the order of topics given in the Circular respecting Academies.

C. Printed Documents.

All documents forwarded in response to this Circular, will be preserved in the Library of the Department of Education.

I. SUGGESTIONS ON THE EDUCATION OF GIRLS.

BY VARIOUS AUTHORS.

In addition to elaborate articles, new and old, on the subject of *Female Education*, we propose to bring together, in successive numbers, the best suggestions we have taken note of in our reading, by different authors in different ages and countries, as to the instruction and practical training of girls.

St. Jerome.

Jerome—or Eusebius Hieronymus Sophronius—and better known from his canonical title as *St. Jerome*, was born of Christian parents, at Stridon, a town in Pannonia, on the confines of Italy, about the year 331. Gifted with fine natural powers, he enjoyed and improved all the opportunities of learning which the best schools and the most erudite teachers in Rome and Gaul could afford, and to the acquisitions from books and living teachers, he added the fruits of the widest travel, and of profound meditation for years in the solitudes of the East. He wrote on almost every subject—defending the doctrines of the church as held at Rome, preaching religious abstinence and mortification, and obtaining a remarkable influence over the women of his time. Under his eloquent exhortations, many of the wealthy and noble ladies of Rome devoted themselves to perpetual chastity, distributed their possessions among the poor, and spent their time in attendance on the sick. Among these converts was Paula, a descendant of the Scipios and the Gracchi, who, on the death of her husband, having provided for her family, visited the holy places of the East and finally established herself at Bethlehem—building three monasteries for devout women, all under one rule, and a house for St. Jerome and his brethren. Her son, Toxotius, married *Læta*, a daughter of a Pagan priest, who became a convert under Jerome's preaching. For the education of their daughter, St. Jerome wrote a letter, which has been the highest authority in regard to female training with devout Catholics ever since. This daughter resided for a time with her grandmother at Bethlehem, and succeeded her in the government of the monasteries which St. Paula founded. St. Jerome is best known to the general scholar for his translation and edition of the Scriptures, styled the "*Latin Vulgate*," and for his "*Catalogue of Ecclesiastical History*." Incidents in his life and representations of his character are favorite subjects in pictures, prints, and sculpture. The "*Last Communion of St. Jerome*," by Domenichino, in the Vatican at Rome, is one of the most celebrated pictures of the world.

Letter* of St. Jerome to Læta, on the Education of her Daughter.

Of this kind must be the education of a soul which is intended for a temple of the Holy Ghost:—Let her not learn to hear or say any thing but what savors of the fear of God. Impure language let her not understand, or know any thing of worldly songs; while her tongue is yet tender, let its acquaintance be only with sweet psalms. Keep her away from the wantonness of youth; nay, let even her maidens and attendants be debarred all secular connections, lest what they have learnt amiss they should teach worse. Let her have letters made of box and ivory, and learn to call them by their proper names; these will amuse her, and thus amusement will become instruction. And let her not only know the letters in their order, so as to repeat their names by rote, but change the order frequently, mixing the middle with the first, and the last with the middle, till she can recognize them by sight as well as sound. But when her trembling hand begins to hold a pen, let its tender joints be guided by the hand of another, placed over hers; or else let the letters be engraved upon a tablet, so that she may trace out their forms without wandering from the lines of the engraving. Induce her to put syllables together by rewards, and encourage her with such little gifts as please the mind of infancy. Give her also companions in her lessons, to excite her emulation, and even sting her by the praises they receive. Do not find fault with her, if she is slow; but call out her powers by commendation, making her feel pleasure in excelling, and pain in being excelled. Above all things, take care that she does not get disgusted with her studies; lest any prejudice against them, contracted in her infancy, should extend beyond it. Let the very names by which she learns to make up letters into words be not taken at random, but selected and brought together with a view to some good purpose; the names, for instance, of prophets and apostles, with the whole line of patriarchs, from Adam downward, according to St. Matthew and St. Luke; thus, while otherwise engaged, her memory will be preparing for its future duties. Then you must look out for a tutor of approved age, and character, and learning; nor will a man of learning blush to do that for a relation, or for any noble virgin, which Aristotle did for the son of Philip, for whose sake that philosopher condescended to the office of a clerk, and instructed him in the first rudiments of knowledge. Small things must not be despised, when great things can not come to pass without them. The letters themselves, and the first rules of education, sound very differently from the mouth of the rustic and the learned. You must take care, therefore, that the silly affectation of women does not give her a habit of pronouncing her words imperfectly; and that she does not idly amuse herself in dress and jewels,—of which things, one is fatal to the morals, the other to the elocution: do not let her learn in infancy what she will have to unlearn afterward. The Gracchi are said to have been not a little indebted for their eloquence to their mother's conversation. The style of Hortensius was formed in his father's bosom. It is a hard thing to get rid of that which the untutored mind has first imbibed. Who can restore the wool of purple dye to its native whiteness? The vessel long retains the taste and smell with which it has been fresh imbued. Greek history tells us that Alexander, the most powerful of kings, the conqueror of the world, never could throw off the defects in manner and gait which he had contracted in his infancy from his instructor, Leonides. For we are all disposed to imitate the bad; and we can soon copy a man's vices, though we can not reach unto his virtues. Take care, therefore, that her nurse is not

* St Jerome's Works, Vol. I., fo. 26. Edition of Erasmus. Basil, 1516. We have omitted a few introductory paragraphs of St. Jerome's Letter to Læta as irrelevant to the main subject.

drunken, or wanton, or fond of talking; but let her have a modest woman to carry her, and one of becoming gravity to nurse her. Above all, let the infant soldier know the Captain, and the army, for whose service she is trained. Let her long for them, and threaten to go over to them. Let even her dress and apparel remind her for whom she is intended. Do not pierce her ears for ear-rings, or defile with artificial colors the beauty that is consecrated unto Christ. Load not her neck with gold and pearls, nor burden her head with jewels, nor give her hair a flaming dye,—too true an omen of the flames of hell. Let her pearls be of a different kind from such as she may sell and buy, "the pearl of great price."

Eli, the high-priest, offended God by the vices of his sons. A man can not be a bishop, if he has profligate and disobedient children. On the other hand, we are told that "a woman shall be saved in child-bearing, if they continue in faith, and charity, and holiness, with sobriety." If the virtues of those who are of mature age and independent will are imputed to the parents, how much more of those who are but babes and sucklings, and do not know their right hand from their left,—the difference, that is, between good and evil! If you are so anxious that your daughter should avoid a viper's sting, why are you not equally careful that she be not stricken by "the hammer of the whole earth;" that she drink not of the golden cup of Babylon; that she go not forth with Dinah, or wish to see the daughters of a strange land; that her feet grow not wanton, or her garments trail behind her? Poisons are never given, unless the cup is smeared with honey; and vices can not deceive, except under the shade of virtues. How, then, you will say, are the sins of the fathers not imputed to the children, and of the children to the fathers, but "the soul which sinneth, it shall die?" This is spoken of those whose years admit of wisdom, of whom it is written in the gospel, "He is of age, let him speak for himself." But so long as he is a child, and thinks as a child, till he has arrived at years of discretion, and the point where good and evil, like the Pythagorean letter,* become divergent—up to that time his actions, good or evil, are imputed to his parents. Unless, indeed, you suppose that the sons of Christians, if they continue unbaptized, bear all the guilt of sin themselves, and that none of it falls on the head of those who refuse to bestow that sacrament upon them, especially at a time when its recipients could not reject it; just as, on the other hand, the salvation of the infant is a gain unto the parents. It was in your own power to offer your daughter or not (though here your condition is peculiar, inasmuch as you had vowed her to God's service before she was conceived;) but now she is offered, you can only neglect her at your own peril. He who offers a victim lame or mutilated, or blemished in any other way, is guilty of sacrilege; how much heavier the punishment of him who offers a part of his own body, and the purity of an untainted soul, to the acceptance of his King, if he is careless in preserving that which he has so disposed!

When she is growing up, and beginning, like her Bridegroom, to increase in wisdom, and stature, and favor with God and man, let her go with her parents to the temple of her heavenly Father; but let her not depart from the temple. Let them seek her in the journeys of the world, among her kinsfolk and acquaintance, and find her nowhere but in the sanctuary of the Scriptures, asking questions of prophets and apostles about the spiritual marriage of the soul with Christ. Let her imitate Mary, whom the angel Gabriel found alone in her chamber; and therefore, perhaps, she was alarmed, because she beheld the form of a man to whom she was a stranger. Let her imitate her of whom it is said, "The king's daughter is all glorious within."

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*The letter Y was made by the Pythagoreans a symbol of the parting road of human life one of its branches representing virtue, the other vice

Let her, moreover, not eat in public, that is, be present at her parents' meals; lest she should see dainties to excite her longing. For though some persons think it a higher virtue to despise present pleasure, to my mind there is greater security for temperance in not knowing the object of desire. I remember reading in a book at school, "that you will hardly find fault with that which has become habitual." Let her learn, even now, not to drink wine, "wherein is excess." However, abstinence is irksome and dangerous to the young, before the body has attained its full strength and proportions. Up to that time, therefore, let her use the bath, if necessity requires; and take a little wine, for her stomach's sake; and have animal food, lest her limbs fail her before they begin to do their duty. I say this as a matter of indulgence unto her, not of command to you—to prevent weakness, not to inculcate luxury. Otherwise, why should not a Christian virgin do that altogether which Jewish superstition does in part, by the rejection of certain animals and meats; not to mention the Indian Bramins and Egyptian Gymnosophists, who live entirely upon barley flour, and rice, and fruits? If glass is of such a value, are not pearls of greater price? Let the daughter of promise live as those lived who were the children of promise. Where the grace is equal, let the labor be equal also. Let her be deaf to instruments of music, and be a stranger to the very use of the pipe, and harp, and lyre.

Let her every day repeat a lesson culled from the flowers of Scripture, learning a number of verses in Greek, and immediately afterward being instructed in Latin; for, if the tender mouth is not properly molded from the very commencement, the pronunciation will acquire a foreign accent, the faults of which will pass into her native tongue. *You* must be her governess, and the model of her untutored infancy; take care that she sees nothing in you, or in her father, which she would be wrong in doing. Remember that you are her parents, and that she learns more from your example than your voice. Flowers are soon dead; the violet, and the lily, and the crocus, soon fade in an unwholesome air. Never let her go into public, unless accompanied by you; nor enter the sanctuaries built over martyrs' tombs, or churches, without her mother. Beware of the nods and smiles of the young and gay; let the solemn vigils and nocturns be spent without departing from her mother's side. Do not let her attach herself too closely to any one of her maidens, or make her ear the depositary of her secrets. All should hear what is said to one. Let the companion she chooses be not well dressed or beautiful, or with a voice of liquid harmony; but grave, and pale, and meanly clad, and of solemn countenance. Set over her an aged virgin, of approved faith, and modesty, and conduct, to teach and habituate her, by her own example, to rise up by night for prayer and psalms, to sing her morning hymns, and to take her place in the ranks, like a Christian warrior, at the third, and sixth, and ninth hours; and, again, to light her lamp and offer up her evening sacrifice. Let the day pass, and the night find her at this employment. Prayer and reading, reading and prayer, must be the order of her life; nor will the time travel slowly when it is filled by such engagements.

Teach her also the working of wool, to hold the distaff, to place the basket in her lap, to ply the spindle, and draw out the threads. But let her have nothing to do with silk, or golden thread. Let the clothes she makes be such as to keep out the cold, and not a mere compromise with nakedness. Her food should be a few herbs, and so forth, with sometimes a few small fishes. But not to go into details on this subject, of which I have elsewhere spoken more at length,—let her always leave off eating with an appetite, so that she may be able to read and sing immediately. I do not approve of protracted and inordinate fastings, especially for those of tender years, where week is added unto week, and the use

of oil and fruit prohibited. I have experienced the truth of the proverb, "A tired ass will not go straight." But the rule to be constantly observed in fasting is this: take care that your strength is equal to your journey, lest, after running the first stage, you break down in the middle of it.

But to return to the subject: when you go into the country, do not leave you daughter at home; she must neither be able or know how to do without you, and be afraid of being left alone. She must not converse with people of the world, or be in the same house with ill-conducted virgins. She must not be present at the marriages of her servants, or have any thing to do with the games of noisy domestics.

Let her delight not in silk and jewels, but in the holy writings, where there is no gold or mosaic painting, like that on Babylonian leather, to arrest the eye; but sound learning, corrected by sound faith, to inform the mind. Let her first learn the Psalter, and give her hours of leisure to these holy songs. From the proverbs of Solomon she will gather practical instruction; Ecclesiastes will teach her to despise the world; in Job she will find examples of virtue and endurance. Then let her go to the Gospels, and never lay them down. The Acts of the Apostles, with the Epistles, must be imbibed with all the ardor of her heart. When her mind is thoroughly stored with these treasures, she may commit the prophets to her memory, together with the Heptateuch, and the books of Kings and Chronicles, with those of Esdras and Esther. The Song of Solomon she may read last without danger; if she reads it earlier, she may not discern that a spiritual union is celebrated under carnal words. All the Apocryphal books should be avoided; but if she ever wishes to read them, not to establish the truth of doctrines, but with a reverential feeling for the truths they signify, she should be told that they are not the works of the authors by whose names they are distinguished, that they contain much that is faulty, and that it is a task requiring great prudence to find gold in the midst of clay. The works of Cyprian should be ever in her hands. She may run over the Epistles of Athanasius, and the books of Hilary, without any danger of stumbling. Let her pleasures be in such treatises and writers of such character as most evince the piety of an unwavering faith. All other authors she should read to judge of what they say, not simply to follow their instructions.

You will answer here, "How can a woman living in the world, in the midst of so vast a population as that of Rome, look after all these things?" Do not, therefore, undertake a burden which you are unable to bear; but as soon as you have weaned her with Isaac, and clothed her with Samuel, send her to her grandmother and aunt. Restore its most precious jewel to the chamber of Mary, and place her in the cradle of the infant Jesus. Let her be brought up in the convent, in the company of virgins; let her never learn to swear; to think falsehood a sacrilege; be ignorant of the world; live the life of an angel; be in the flesh, but not of it; believe every human being to be of the like nature with herself. Thus, to say nothing more, you will be released from the difficulty of keeping her, and the risk of watching over her. Better to regret her absence than to be in perpetual anxiety, what she is saying, with whom she is conversing, whom she is recognizing, whom she is glad to see. Resign to the care of Eustochium the infant whose very cries are even now a prayer for thine own good. Make her the companion of her holiness, hereafter to be its heiress. From her earliest years let her look to her, love her, admire her, whose very words, and gait, and dress, are a lesson of the virtues. Let her dwell in the bosom of her grandmother, who may reproduce in her grandchild what she before experienced in her daughter, and who knows by experience how to bring up, and keep

and instruct virgins, whose glory it is, in the virgins she has nurtured, to be daily bringing forth fruit a hundred fold. O happy Paula! happy virgin! happy child of Toxotius, more ennobled by the virtues of her aunt and grandmother than by her high descent! O Læta, that you could see your mother-in-law and sister-in-law, and the mighty souls that animate their feeble bodies! I doubt not your natural modesty would then set the example to your daughter, and change the first command of God for the second law of the Gospel. You would then care little for the longing after other children, but would rather offer up yourself to God. But as there is a time for indulging, and a time for abstaining from it; as a wife has no power over her body; as unto what calling soever a man is called, in that let him remain in the Lord; as he, who is under the yoke, ought to run so as not to leave his fellow in the mire,—restore that whole in thy daughter which thou hast divided in thyself. Hannah never received again the son whom she had vowed to God, after he had been once presented in the temple, thinking it unbecoming that a future prophet should be brought up in the house with one who was yet looking to have children. When she conceived and brought forth, she dared not enter the temple and appear empty before God, till she had first payed what she owed; but after this sacrifice she returned home, and brought forth five children, because she had brought forth her first-born unto God. Admirest thou the happiness of that holy woman? Imitate her faith. If you only send Paula, I will undertake the office of her nurse and teacher; I will carry her on my shoulders, old as I am; I will mold into form her lisping words, much prouder of my office than any worldly philosopher,—training up not a Macedonian king to die by Babylonian poison, but a hand-maiden and bride of Christ, a fit offering to an everlasting kingdom.

SUGGESTIONS ON FEMALE EDUCATION.

GERMAN AUTHORITIES.

It is an evidence of the corruption or of the over-refinement of female education, that far more care is bestowed upon the art of outwardly pleasing, than upon the cultivation of inward good qualities.

Thus we see young women at great pains to adorn themselves, wherever they have an opportunity to be seen; but all the careful order and neatness of their costume is mere artifice; and not an expression of their actual character.

They learn dancing and music, foreign languages, all to make an impression on strangers in society; to excite astonishment; but to establish and maintain unity and love amongst all the members of a household, by humility, courtesy, childlike attachment, judicious treatment of servants, a kind indulgence to the weakness of others, and encouragement to doing good, is an art unknown to them.

They read books, study works of art, attend plays, chatter about scientific affairs, and know how to be witty and to say cutting things; but in their own homes to comfort those who suffer, to make up for deficiencies, to be content with a little, to do nothing for themselves and all for others, and quietly but efficiently, voluntarily, without bustle, to give new attractions to the uniformity of the quiet life of home, the art of doing this is unknown to them. And yet it is here that their true sphere of greatness lies.

In learning, wit, artistic knowledge, in everything which is the business of a man, man can surpass her.

The more a woman departs from that sphere of activity which nature has designed for her, to shine upon the theatre of masculine action, so much the more does she lose her natural grace, and become intellectually ugly.

ZSCHOKKE.

For scientific education, so far as this belongs to girls, instruction by a man is best. For how entirely different, how much clearer and deeper are the perceptions of the masculine mind!

The delicate feminine feelings can be developed only in a woman.

All girls taught among boys by men, retain all their lives more or less of an unwomanly character.

Women who grow up under the care of women only, as in convents, or in very large boarding-schools, are liable to pass entirely under the dominion of feminine littleness, from which they never escape.

Men who live long, or always, without the beneficial influence of the female sex, are punished for it by the infliction of the most wretched pedantry. This is the revenge of insulted nature.

CAROLINE RUDOLPHI.

Awakened from this dream,
What is left to me of this angel?
A strong mind in a weak body;
A hybrid between man and woman;

Unfit either for dominion or love;
A child with the weapons of a giant;
A creature half way between a wise man and an ape.
Who, in order to crawl painfully along after those who are stronger,
Has fled away from the proper beauty of her sex;
Who has also submitted to be cast down from a throne,
To lose the charm of the sacred mysteries in her keeping,
And to be stricken out of Cytherea's golden book,
All for the sake of the approbation of a newspaper!

SCHILLER. (*Poem.*)

Said a king to his son, "Be diligent
In learning all arts, in acquiring all manner of knowledge.
If you come to need then, they will be your capital;
If you do not, they will always be accomplishments.

RUECKERT. (*Poem.*)

Girls are destined to become prudent and economical housewives, and the faithful helpmeets of citizens; and as mothers, to have charge of the first education of their children.

For these domestic and civic duties they should be educated, from childhood up.

ARETIN.

Of the moral qualities which education should always aim to cultivate in the young, there are some whose development we feel to be especially appropriate to the female character; such as softness and tenderness of feeling; depth of sensibility; mildness; pliability; patience; self-forgetting and self-sacrificing love; contentment; and submission to limitation within a narrow sphere; a quality the most important of all.

But as these qualities border upon many faults, such as excessive excitability and variableness, irritableness and willfulness, passion, pretentiousness, coquetry, envy, detraction, injustice, talkativeness, meanness, and indolence, these tendencies should be allowed to indicate objects to be sought by education; and the following principles in particular should be established:

1. The education of girls should, from their childhood up, be a preparation for their future duties. Playing with dolls is proper for their younger years, and after that, they should be made acquainted with household work.

2. They should of course be therefore trained to industry and economy; which are under all circumstances prime virtues for women; and also

3. In domesticity; which nothing will better teach, than the mother's example.

Too frequent visiting and going out with companions of the same age, however innocent, gives girls a habit of chattering about nothing, and makes them afraid of work, lazy and disorderly, and inclines them towards dissipation.

But there is nothing more useful as a means of moral training, than judicious familiar intercourse with high-minded and intelligent men and women. This is a protection to feminine virtues, and instructs in the real tone of good society, far better than idly frequenting the ordinary heartless and mindless circles. In domestic life, where they are much more secure from the foolish flatteries of superficial youths and men, they will learn practically the virtues of accommodation, patience, perseverance, contentment, subordination, etc.

4. Education ought not to destroy the desire of pleasing, which is natural to women, but to keep it pure and to elevate it. To this end it should be deeply impressed on their minds, that unfeigned good will, un-

assumingness, good nature without being undignified, simplicity, good taste, and gracefulness in speech, attitude and movement, are all attainable in proportion as no direct effort is made for them.

5. Since it is the lot of the female sex to make others happy and to be made happy, by love, education must teach them to set the greatest value, not upon external beauty, which fades in a few years, but upon such lasting virtues as endure under all circumstances; upon mental beauty.

6. As the duties of the housewife and mother require many sorts of mechanical labor, sometimes alone and sometimes in the family circle, her instruction and education should be adapted to give her mind activity and regularity, and the habit of reflection even upon the smallest matters. She should also however learn to live with reference to others than herself. Instead of permitting herself to be absorbed in silent fancies and reveries, she should be conversable and sociable, cheerful and joyous, and should bring cheerfulness and pleasure into life, so often troubled and burdensome.

Elaborate intellectual training, half-learning, ingenious reasoning on such matters as their husbands are concerned with, does not promote a husband's happiness, but rather interferes with it; often occasions others to admire her more than he does; and leads to vanities and errors of all kinds.

But quick intelligence and a modest desire for information, "which gladly hears when acute men are talking, and takes pleasure in understanding them," a genial manner of discussing affairs, and the display of real sympathy with others, will be a source of pleasure to parents and to companions, and afterwards to a husband; and will animate the social circle of every house in which exists a real family life.

While the husband and father feels care, both within and without the house, it almost never leaves the wife and mother, who does her duty; and often increases with advancing years, with every increase of household and family. With reference to this state of things, piety, which gives resignation and faith, is infinitely valuable.

Even an unbeliever respects real religion in a woman; for it often moderates the impatience and anger of a husband, gives that meek and quiet spirit (I. Peter, iii; 4,) which is of great price not only before God, but before man; and which is so often able to avert even the stormy violence of wrath and passion.

Such religion, if only it remains free from devotion for mere show, and from metaphysical speculation or that visionary exultation which is often nothing but disguised over-sensibility, is a most valuable possession, which parents can not be too early solicitous to secure to their children, and which they may perhaps be able also to hand down to their grand-children, and to render a permanent family trait.

But if irreligiousness gets possession of women, the prospects for the education of their children are much obscured. NIEMEYER.

For girls, domestic education should be as stringently insisted on, as public education for boys.

Girls' schools are the very worst means; only to be used in case of absolute necessity, and when private education within the family is quite impossible.

When it becomes absolutely necessary that part of the education of girls should be given outside of the family, this external education ought not to have any influence upon the development of the disposition.

This portion of the education should proceed, for girls, wholly within the family; so that any education to manual skill, given outside of the family, should not occupy too much space, for fear of making some unde-

sirable impressions, which may weaken the influence of the family on the disposition. SCHLEIERMACHER.

Errors and failures in the education of girls can only be made up for with great difficulty.

The independent power of the masculine mind can regain its purity, after error; but the more sensitive and plant-like nature of girls loses its proper growth forever by one injury.

Hence arises the educational rule, with boys to seek to strengthen their power of independent exertion for the struggle with the world; but with girls, to preserve their susceptible natures from evil impressions, and the pure tone of their minds from being untuned.

Therefore fathers and educators should avoid all coarseness, harshness and rudeness in the presence of female pupils; and to give no shocks to those feelings which pertain to the department of exterior observances, in which it is the special privilege of the female sex to govern, and to exercise a very stringent dominion. BAUR.

For house and family, the husband is everything.

But within the house, within the family, the wife is all; she is the inspiring, embellishing and controlling power.

Man acts in the outer world.

But for woman, the representation of that world on the stage is a recreation in her moments of leisure.

Home is the central point for all the exertions of the man, how various soever in direction; for home he traverses, searches, conquers, all the world.

But the wife rules by goodness over the sanctuary for which man has exerted his powers; she is the economical preserver of the treasures which he earns.

Man, surrounded in the outer world by deceit and hatred, often forced by circumstances to conceal his real nature and to seem other than he is, finds again in the love and naturalness of woman, himself and his own natural character.

Naturalness is woman's most beautiful ornament.

Upon this depends her wise attractiveness, and her tender love of family life.

Everything assumed, forced, artificial, displeases; is dead outside paint; and indicates that something disgusting is behind it.

As the child pleases by innocence and truthfulness, so does the maiden, the wife, the matron, by simple, modest, loving, cheerful, childlikeness.

Though her exterior changes, yet her soul shall preserve everlasting youth.

Nature has taught her to love; has taught her the duties of wife and of mother.

She will always remain a true pupil of nature, down to the latest times.

What is foreign to her real destiny, she must remove as unnatural.

But it is the chief fault of female education, that girls are even more than boys, educated to untruthfulness, pretences, and dissimulation.

We seek to root out of them the natural, unpretending simplicity and loftiness of their innocence, and to supply its place with a feigned nature. ZSCHOKKE.

Loveliness belongs to women.

Even its bodily manifestation is the glory of womanhood.

Only the delicate mental character of woman can cherish the feelings, impulses and tendencies, which exist in her, and the beautiful appropriateness of the numerous phases of her character; and only her delicate

frame can permit these easy and unrestrained motions which in graceful persons so much delight us.

Physical beauty excites desire; loveliness, intellectual pleasure.

Happy in itself, it causes happiness in others.

An imperious woman may detain us for a moment; but we are never weary of waiting near a lovely one.

Beauty departs with the fresh bloom of youth; loveliness shines even among the ruins of age, with an indescribably delightful brightness.

Beauty is for the eye alone; loveliness rather for the heart.

Purity and goodness are the essential constituents of loveliness.

Out of its clear and peaceful eyes looks an unspotted heart, unconscious of any wild passion or inner rebellion. EHRENBERG.

Only in cities, where men pervert nature and the natural order of things, making man womanish, and turning night into day, and among universal corruption, do we find it not surprising that women become mannish, pursue literature, and consider themselves better fitted for the admiration of society than for the quiet of the domestic circle.

There it is thought admirable for maidens to become remarked for making conquests; to be well read in romances; and to act romances; while they waste the substance of their parents by their expenses, and repay their blind affection with shameless disobedience. There it is thought admirable for mothers to be more devoted to public amusements than to their children; and for wives to belong more to other men than to those to whom they have pledged their faith. And there it may be very proper for women who have grown too old for such luxurious follies, to end by becoming devotees or intriguantes. ZSCHOKKE.

Early let woman learn to serve, for that is her calling:
For by serving alone she attains to ruling;
To the well-deserved power which is hers in the household.
The sister serves her brother while young; and serves her parents;
And all her life is still a continual going and coming,
A carrying over and bringing, a making and shaping for others.
Well for her if she learns to think no road a foul one,
To make the hours of the night the same as the hours of the day;
To think no labor too trifling, and never too fine the needle;
To forget herself altogether, and live in others alone.
And lastly, as mother, in truth, she will need every one of the virtues.
GOETHE.

In educating girls, the mode of instruction required is entirely different from that which is proper for boys.

The latter, by reason of their natural tendency to lawlessness, must be early brought under discipline, sent to school, accustomed to regular mental labor and to obedient subjection to regular rules, as is required by the future lives and duties of men.

On the other hand, as Fenelon says, "a too pedantic regularity, which requires incessant study without any intermissions, is very injurious to girls."

A definite daily order of exercises should be prescribed to girls to be strictly followed.

But they must from childhood up be accustomed, whenever it is necessary, to leave their book or their piano, to take care of some little child, or to be of some assistance to their parents.

Such interruptions can not of course be put down in the order of exercises; they are exceptions to the general rule.

Then, after doing these kindnesses, they should return to their work and read or play on as quietly as if they had not been interrupted.

This species of discipline should teach them to love not merely with words, but in deed and in truth. Goethe says, "By such services they attain to ruling, to their proper power in the household."

VON RAUMER.

In order to avoid one-sidedness and defects in female education, it must not be without female influence; for male instructors are liable to influence girls too much towards their own character, which may result in losing the delicacy of the feminine character, and in the acquisition of some traits of an inappropriate kind.

Still, the supreme direction of the education of girls should be in charge of a man. BAUR.

Inspiriting music, breathing courage and boldness, is proper for men; but that which imports moderation, mildness, modesty, for women.

PLATO.

The principle that children should read nothing bad or vulgar, admits of full application to music.

For if they have from an early period only heard, sung and played what is good, it will become a second nature to them, as their sphere of vision enlarges with their growth to flee from all bad music, and to like what is beautiful and good, in whatever form it may appear.

The case is far otherwise with very many who have had the ill fortune from their childhood to hear and practice and live in associations with bad music only. It is very uncommon, and very difficult, for such persons to bring themselves back from their impure music to that which is pure, to cure themselves of their seated habits, and to accustom themselves to such music only as is correct and beautiful. VON RAUMER.

Music is on some accounts a dangerous study.

If a painting containing a mis-drawn limb, or anything immoral, a correct eye will find abundant grounds for criticism; or shame, at least in the presence of others, will direct the observation elsewhere.

But everything impure, unnatural, immoral, may creep into music; and thus we may look plainly and fully at what we should for decency's sake be obliged to turn away from if presented by the pencil or by words.

Plato wrote in opposition to immoral music. What would he have said if he could have witnessed the misery which we have now-a-days to endure from our present music, so unnaturally composed, so excessively feeble or wild or amorous, and yet so seldom rising to true fire and energy.

In music as now too often employed in education, we find everywhere art and ornament, a mass of wonderful difficulties, overloading instead of feeling and clearness; but after subtracting what is to be attributed to the gratification of the composer's vanity, we have left very little that gives us hope or pleasure. And accordingly our young ladies, as soon as they have a home of their own to live in, usually fling all their artistic music, with delight, to the winds.

Music will only seem divine to us, when it carries us into a state of ideal sensibility; and the musician who can not do this is nothing but a mechanic—nothing more, even, than a vulgar hod-carrier.

Healthy feeling is never confused, nor does it go beyond self-control.

Your favorite symphonies, fantasias, pot-pourris, &c., are often the most ridiculous stuff in the world. They begin with some passage full of mystery; then comes a volley as if of artillery; then a sudden silence; then an unexpected waltz-movement; then, just as this begins to be inspiriting, an equally sensible and sudden plunge into a passage full of depth and melancholy; then into a furious storm; then, out of the middle of the storm, we are presented, after a brief pause, with some mere trifling,

and lastly with a finale in the nature of a hurra! and then everybody gathers around with cries of delight.

Such things please, it is true; but how?

But the worst thing of all is, that under the favorite name of "effects," we find the most destructive and poisonous matter recommended; especially such convulsive, distorted, extravagant, astounding, raving confusions of sounds, as excite everything evil in man.

If many of our virtuous maidens knew what that music is which they often have to hear, and even to sing and play, they would perish with shame and indignation. THIBAUT.

The house should be free from unpleasant pictures, and from ambiguous or wanton ones. It should, on the contrary, be adorned as much as possible with such as are pure and beautiful; whose silent, but ennobling and constant companionship will be found to exercise upon children an immeasurable influence for good.

Girls particularly, should from an early age be allowed to amuse themselves with pictures of celebrated works of art, churches, palaces, galleries of painting, &c.

Productions of art make deep and lasting impressions, even upon the minds of children.

But all premature criticism on such subjects should be avoided, for fear of affected admiration and pert foolish fault finding.

A silent and natural examination of works of art, where the beholder "forgets self and the world, and lives in the objects only," is the true one; and can not do harm.

Girls should learn drawing chiefly for the sake of practising at home. The teacher should pay especial attention to drawing from nature; and should use copying as a mere technical exercise.

Such instruction, but above all, the quiet and intelligent study of the works of great masters educates girls to the love of what is beautiful and good, and to disgust at what is ugly and bad. This love and disgust will have much influence even upon their daily life at home; for their eyes when thus trained, would quickly detect anything inconsistent, untasteful or misplaced about them, and would never be at ease until it was corrected.

Botany, as a science in the masculine sense, is not a proper study for girls.

Girls should rather be trained in the direction of art. They should look upon flowers, not as an analyzing botanist does, but as a sensitive flower-painter would.

The love of girls for flowers is to be cultivated; they may tend them most carefully, and follow their development from their first sprouting up to the ripening of the seed.

This pleasure in flowers is like the pleasure that girls find in taking care of domestic animals, lambs, poultry, pigeons, &c. VON RAUMER.

The gods have destined and fitted the nature of man and woman for society; in that not each of them is capable of everything, but that each is suited for that in which the other is deficient; in order that both together may fulfill a complete destiny.

The one is stronger and the other weaker, that the timidity of the latter may make her more prudent, and that the strength of the former may make him a protector.

The one procures what is needful without, and the other takes care of it in the home.

The woman is weaker and better fitted to a sedentary life and can not so well endure wind and weather.

Man can not so well bear quiet and stillness; and movement is natural to him. ARISTOTLE.

The principal duty of woman, as well as the peculiar sphere of her efforts, has been much more distinctly defined by nature than that of men, whose sphere of activity is out of all comparison wider and more various.

Man needs to develop all the infinite endowments of his nature; to gradually bring into activity all the perfections whose germs slumber within him; and to make use of all these powers in all the relations and changes of life.

But how much more limited is the sphere of the activity of the other sex!

The destiny of the young girl is, to be a wife and a mother.

The wife must live for her family; must watch over its property; must thus have special charge of the ordering and management of all little matters as they come up; and above all, must nurse, or at least watch over and take care of the children to whom she has given birth, until they can take care of themselves, and have become so far educated and independent by her example and her teaching, as not to need her protection. This period is earlier reached by sons, who receive their education from the world, than by girls, who usually go from their mother's care into the charge of a husband.

The bodily organization of women in part prepares them for this sphere of duty; as do also the mental endowments and powers of that sex; the perfectibility of which clearly shows that woman as well as man belongs to a higher race of beings.

The cultivation of their understanding, judgment and reason, in part by studies of a generally useful character, in part adapted especially to the needs of the sex, should be the main purpose of their education.

Learning, properly so called, is useless to them, and commonly injurious.

The education of the sense of beauty—of the taste—is only harmful when it is made the principal object.

As the cultivation of the taste is closely connected with that of the fancy and of the feelings, it must be conducted with the extremest care; and the materials for it must be chosen with the utmost caution.

Most of our novels and plays, and very many poems, can be used in education only with the greatest risk.

The languages, the native language in particular, are a valuable means for educating the mind, and this the more because the study of them will act as a preservative against an unhappy tendency to read indiscriminately all manner of German books; and because only the best foreign books will be read.

Geography and history should be not mere lists of names, but should be shown to be rich in great deeds and great men, the knowledge of whom will elevate the soul, and will prevent from seeking after foolish novelties.

Music, singing, drawing, rightly studied, will excellently occupy many hours; will keep the student at home, and are capable of being brought into a useful harmony with the moral feelings.

Intercourse with intelligent men is a far more certain and effectual means of cultivating the mind, than reading books. The latter is of but little use in cultivating the understanding; and we often find persons of extensive reading, who are quite destitute of comprehensive ideas, and are unable to carry on an intelligent and connected conversation.

That all this may be accomplished—at least among the educated classes—without derogating from the most faithful fulfillment of all the womanly duties, has been so often proved by experience, that it can no longer be pretended that girls must devote all their lives to sewing, washing, cooking and nursing children. All these things should be understood and done; but it is degrading the female sex to set it down as fit for these things only.

NIEMEYER.

EDWARD EVERETT.

FEMALE EDUCATION.

There is a good deal of discussion at the present day on the subject of Women's Rights and her education. No one would be willing to allow that he wished to deprive them of their rights, and the only difficulty seems to be to settle what their rights are. The citizens of Boston, acting by their municipal representatives, have long since undertaken to answer this question in a practical way, as far as a city government can do it, by admitting the right of the girls to have, at the public expense, as good an education as the boys. It is not in the power of the city to amend our constitutions, so as to extend political privileges to the gentler sex, nor to alter the legislation which regulates the rights of property. But it was in the power of the city to withhold or to grant equal privileges of education; and it has decided that the free grammar schools of Boston should be open alike to boys and girls. This seems to me not only a recognition at the outset of the most important of Women's Rights, viz., equal participation in these institutions, but the best guaranty that if in any thing else the sex is unjustly or unfairly dealt with, the remedy will come in due time. With the acknowledged equality of woman in general intellectual endowments, though tending in either sex to an appropriate development, with her admitted superiority to man in tact, sensibility, physical and moral endurance, quickness of perception, and power of accommodation to circumstances, give her for two or three generations equal advantages of mental culture, and the lords of creation will have to carry more guns than they do at present, to keep her out of the enjoyment of any thing which sound reasoning and fair experiment shall show to be of her rights.

I have, however, strong doubts whether, tried by this test, the result would be a participation in the performance of the political duties which the experience of the human race, in all ages, has nearly confined to the coarser sex. I do not rest this opinion solely on the fact that these duties do not seem congenial with the superior delicacy of woman, or compatible with the occupations which nature assigns to her in the domestic sphere. I think it would be found, on trial, that nothing would be gained—nothing changed for the better—by putting the sexes on the same footing, with respect, for instance, to the right of suffrage. Whether the wives and sisters agreed with the husbands and brothers, or differed from them—as this agreement or difference would, in the long run, exist equally in all parties—the result would be the same as at present. So, too, whether the wife or the husband had the stronger will, and so dictated the other's vote, as this, also, would be the same on all sides, the result would not be affected. So that it would be likely to turn out that the present arrangement, by which the men do the electioneering and the voting for both sexes, is a species of representation which promotes the convenience of all and does injustice to none.

Meantime for all the great desirable objects of life, the possession of equal advantages for the improvement of the mind, is of vastly greater importance than the participation of political power. There are three great objects of pursuit on earth—well-being, or happiness for ourselves and families; influence and control over others; and a good name with our fellow-men, while we live and when we are gone. Who needs be told, that, in the present state of the world, a good education is not indeed a sure, but by far the most likely means of obtaining all the ends which constitute material prosperity, competence, position, establishment in life; and that it also opens the purest sources of enjoyment. The happiest condition of human existence is unquestionably to be found in the domestic circle of what may be called the middle condition of society, in a family harmoniously united in the cultivation and enjoyment of the innocent and rational pleasures of literature, art and refined intercourse, equally removed from the grandeurs and the straits of society. These innocent and rational pleasures, and this solid happiness, are made equally accessible to both sexes by our admirable school system.

Then for influence over others, as it depends much more on personal qualities than on official prerogative, equality of education furnishes the amplest means of equal ascendency. It is the mental and moral forces, not political power, which mainly govern the world. It is but a few years since the three greatest powers in Europe, two on one side and one on the other, engaged in a deadly

struggle with each other to decide the fate of the Turkish empire; three Christian powers straining every nerve, the one to overthrow, the two others to uphold the once great and formidable, but now decaying and effete Mohammedan despotism of Western Asia. Not less than half a million of men were concentrated in the Crimea, and all the military talent of the age was called forth in the contest? And who bore off the acknowledged palm of energy, usefulness and real power in that tremendous contest. Not emperors and kings, not generals, admirals or engineers, launching from impregnable fortresses and blazing intrenchments, the three-bolted thunders of war. No, but an English girl, bred up in the privacy of domestic life, and appearing on that dread stage of human action and suffering, in no higher character than that of a nurse.

And then for fame, to which, by a natural instinct, the ingenuous soul aspires:

> "—— The spur which the clear spirit doth raise,
> (The last infirmity of noble mind,)
> To scorn delights and live laborious days"—

need I say, that the surest path to a reputation for the mass of mankind is by intellectual improvement; and that in this respect, therefore, our school system places the sexes on an equality. Consider for a moment the spectacle presented by the reign of Louis XIV., the Augustan age of France, rich in the brightest names of her literature, philosophy, politics and war—Pascal, Descartes, Corneille, Racine, Lafontaine, Moliere, Bossuet, Fenelon, Bourdaloue, Massillon, Colbert, Conde, Turenne, Catinat. Among all these illustrious names there is not one that shines with a brighter or purer ray than Madame de Sevigne; not one whose writings are more extensively read by posterity; not one in whose domestic life and personal character all future ages will probably take a deeper interest. The other distinguished individuals whom I have mentioned, we regard with cold admiration, as personages in the great drama of history. We feel as if Madame de Sevigne belonged to our own families. The familiar letters principally to her daughter, written by this virtuous and accomplished woman, who preserved her purity in a licentious court, who thought with vigor and wrote with simplicity, earnestness, and true wit in a pedantic and affected age, have given her a place among the celebrities of France, which the most distinguished of them might envy.

Apart then, girls, from a preparation for the pursuits, duties, and enjoyments of life, which more especially pertain to your sex, in the present organization of society, you possess in these advantages of education the means of usefulness and (if that be an object) of reputation, which, without these, would be, in a great degree, monopolized by the stronger sex. The keys of knowledge are placed in your hands, from its elemental principles up to the higher branches of useful learning. These, however, are topics too familiar on these occasions to be dwelt upon, and I will conclude by offering you my best wishes, that the reputation already acquired by the Dwight School for girls may be maintained under the new organization; that your improvement may be proportioned to your advantages; that your progress may equal the warmest wishes of your teachers, parents, and friends; and that you may grow up to the enjoyment of the best blessings of this world, and the brightest and highest hopes of the world to come.

COEDUCATION OF THE SEXES.

AN ADDRESS BEFORE A MEETING OF COLLEGE PRESIDENTS AT SPRINGFIELD, ILL.

BY REV. JAMES H. FAIRCHILD, D. D., OF OBERLIN COLLEGE, JULY 10TH, 1867.

MR. PRESIDENT, AND GENTLEMEN OF THE ASSOCIATION:

THE invitation extended to me by your Executive Committee, to share in your deliberations upon this question, was based upon the fact of my connection with a school in which the system of education under discussion has been in operation for many years; and it was intended that I should present the subject in the light of that experience. It seems more fitting to confine myself to arrangements and results at Oberlin, stated descriptively and historically, than to attempt any general discussion of the subject—a work more appropriate to the members of the Association.

That I may speak without restraint upon these matters, it is proper for me to say that I entered the College as a boy at its opening, and served seven years as a pupil before entering upon the responsibilities of a member of its board of instruction. Thus I appear before you as one of the children of the school, and not one of the fathers, and shall not seem to speak of the work of my own hands, as I claim no personal responsibility for the wisdom or folly of the arrangement.

Oberlin College is now in the thirty-fourth year of its life, and from the beginning has embraced among its pupils both young men and young women. The first year it was a high school, with something over a hundred pupils, more than one-third of whom were ladies: not a local school, for the enterprise started in the woods, and one-half of the students at least were from New England and New York. The second year the numbers increased to nearly 300, with theological and college classes in full operation, the ladies being about one-fourth of the whole. In two or three years the numbers reached 500, and maintained that annual average until 1852, when the number was suddenly doubled, and has averaged more than a thousand yearly for the last fifteen years. The proportion of young ladies has not for many years fallen below one-third, nor risen above one-half, except during the war, when the ladies predominated in the ratio of five to four. The last Annual Catalogue gives 655

gentlemen and 490 ladies, and this is about the normal proportion. These are young men and women of such ages as the advanced schools of the land generally present.

The *town* began with the school and has kept pace with it, containing at present from 3,000 to 4,000 inhabitants. At first, almost all the accommodations for the students in room and board were furnished by the College. The dormitory system was adopted for both young men and young women, separate halls or buildings being assigned to each—the ladies' hall being also a boarding-hall, in which seats at table were provided for young men. As the numbers increased and the dwellings in the village were improved and multiplied, the students were to a greater extent provided for among the families, until at present far the greater number are thus furnished with homes. Our present ladies' hall affords rooms for about 100 young ladies, and sittings at table for about 220 boarders. Large boarding-houses are not found; but a majority of families that have room receive a few students. The young ladies find their homes under this arrangement as well as the young men. Some families receive young ladies only; but families are permitted, with suitable arrangements, to receive both classes. The entire female department is under the immediate charge of a lady Principal, and her assistant; and these are occupied, not with teaching, to any considerable extent, but with the care and supervision of the young ladies, their classification and general culture. These principals communicate, as occasion may require, with the matrons of the families where the young ladies board. The special discipline of the young ladies is committed to the lady Principal, assisted by a 'Ladies' Board of Managers,' composed in general of wives of professors in the college. The advice of the College Faculty is sometimes taken, but the young ladies do not come before them for special discipline. The regulations of the school, for both ladies and gentlemen, are intended to be addressed to the good sense and personal responsibility of the pupil. We have no monitors, but each one makes a weekly report of success or failure in the performance of prescribed duties: young ladies boarding in families have their report countersigned by the matron of the house, who is in a degree responsible for the conduct of her charge. The ladies' hall is the headquarters of the female department, where the Principal receives all the ladies for general instruction and for personal advice.

Throughout the literary departments the classes consist of young men and young women, taken indiscriminately, as their studies correspond. The larger numbers of both sexes are found in our Pre-

paratory Department—a department which embraces, besides those preparing for the regular courses, a large number that study for a more limited time. This department is under the charge of a gentleman Principal, whose strength is expended chiefly upon oversight, classification, and discipline, and an associate Professor of Languages, who gives himself to the teaching of the advanced classes in Latin and Greek. The other classes in this department are taught by successful pupils (gentlemen and ladies) from the higher departments. After the Preparatory Department, we have two courses open to young ladies—the 'Ladies' Course,' and the regular 'College Course.' The Ladies' Course is a course of four years, requiring, as conditions of entering, a good elementary English education, and a year's study of Latin. It embraces all the studies of the regular College course, omitting all the Greek and most of the Latin, omitting also the Differential and Integral Calculus, and adding lessons in French and Drawing, and some branches of natural science. Those pursuing this course recite with the college classes in the same studies. Separate classes are organized for the ladies in essay-writing until the commencement of the third year, when they are added to the Junior College class in this exercise. Their training in this department is limited to reading and writing, none of the ladies having any exercise in speaking. The great majority of our young ladies pursue this course, and it was supposed at the organization of the school that nothing farther would be required for them; but in 1837 four young ladies prepared themselves for the Freshman class, and were received upon their own petition. Since that time it has been understood that the College Course is open to young ladies, and we have always had more or less in the classes: sometimes the proportion of ladies to gentlemen in the course has been as high as one to four; at present it is one to ten. We have observed no special tendency to an increase in this proportion; for the last three years there has been a diminution. The ladies in this course are under the same general regulations and discipline as in the other course, and are responsible to the lady Principal. At the termination of their course they receive the regular degree in the Arts. Eighty-four ladies have received this degree, and three hundred and ninety-five have received the diploma of the Ladies' Course.

The Theological Department has never been opened to ladies, as regular members. Two young ladies attended upon all the exercises of the department through a three-years course, and were entered upon the Annual Catalogue as 'resident graduates pursuing the Theological course.' This was nearly twenty years ago, and we

have had no applications since. Doubtless the same privileges would be afforded as formerly.

The association of gentlemen and ladies out of the class-room is regulated as experience seems to require. They sit at the same table in families and in the Ladies' Hall. Young gentlemen call on ladies in a social way at the parlors of the Ladies' Hall and of private families, between the hour for tea and half-past seven in the winter, and eight o'clock in the summer. They walk in groups from one class-room to another, as convenience and their sense of propriety may dictate, with the help of a suggestion, if needed, from thoughtful and observing friends. Now and then the young ladies have permission to attend an evening lecture given under the auspices of the College, and in such case to accept the attendance of young men. No such association is permitted in the case of religious meetings. They do not ride or walk together beyond the limits of the village, except on a holyday, under special arrangements. There is no association of the sexes in literary societies, or other voluntary and independent organizations.

It seemed necessary to give this detail of arrangements, that the conditions upon which the solution of the problem has been conducted with us may be fully understood. In speaking of results, I wish to be understood as giving not merely my own individual judgment, but the unanimous opinion, so far as I understand it, of all who have had responsibility in connection with the school. If there has been any diversity of sentiment on the subject, it has been unknown to me. Others might choose different terms in which to express their opinions, but I shall endeavor to make no statement from which I suppose that any one of those that are or have been associated in this work would dissent.

Among the advantages which seem to be involved in the system, as we have observed its operation, are the following:

1. Economy of means and forces. The teaching force and other apparatus required in all the higher departments of study is made available to a larger number. In most Western Colleges the higher classes might be doubled without any detriment, and often with great advantage. Scarce any one of these schools has had larger classes than our own, and yet only once or twice have we had occasion to make two divisions in any college class, including the ladies pursuing the same study. In the preparatory department, classes must be multiplied on account of numbers; but in the higher departments of instruction, where the chief expense is involved, the expense is no greater on account of the presence of

ladies. If a separate establishment were attempted for ladies, affording the same advantages, the outlay in men and means would have to be duplicated; or, as would often happen, the force would have to be divided, and the advantages as well. Of course, if there were obvious disadvantages in the arrangement, the argument from economy would have essentially no weight. We must have the best system of higher education at any necessary cost.

2. Convenience to the patrons of the school. It has been a matter of interest with us to note the number of cases in which a brother is accompanied or followed by a sister, or a sister by a brother. I can not give exact statements upon this point; but it is an interesting and prominent feature in our operations. This is most convenient and wholesome; each is safer from the presence of the other; and the inducements to attend school, to the one or the other, are increased by the possibility of having each other's company. The want and tendency in this direction are shown in the fact that in the vicinity of every flourishing college, opened for young men only, a ladies' school, equally flourishing, is almost sure to be established, requiring afterward a good degree of vigilance to keep apart those who have thus naturally come together.

3. Another advantage we find in the wholesome incitements to study which the system affords. This is a want in all schools, provided for often by a marking and grading system involving a distribution of honors and prizes. An acknowledged defect in this plan, not to speak of any thing unwholesome in the spirit of rivalry which it induces, is in the fact that it appeals to comparatively few in a class. The honors are few, and the majority soon cease to strive for them. The social influence arising from the constitution of our classes operates continuously and almost equally upon all. Each desires for himself the best standing that he is capable of, and there is never a lack of motive to exertion.

It will be observed, too, that the stimulus is the same in kind as will operate in after life. The young man, going out into the world, does not leave behind him the forces that have helped him on. They are the ordinary forces of society, and require no new habits of thought or action in order to their effective operation. We have introduced a marking system into the recitation-room, pertaining solely to the performance there, and used for the information of teachers and guardians, and the pupil himself: not for the assignment of grade or distribution of honors, or for any publication whatsoever. We rely upon the natural love of a fair standing with teachers and associates as the supplement to the higher motives for exertion, and have not found it a vain reliance.

4. Again, the social culture which is incidental to the system is a matter of no small importance. To secure this the student does not need to make any expenditure of time, going out of his way, or leaving his proper work for the pleasure or improvement resulting from society. He finds himself naturally in the midst of it, and he adjusts himself to it instinctively. It influences his manners, his feeling, and his thought. He may be as little conscious of the sources of the influence as of the sunlight or the atmosphere; it will envelope him all the same, saving him from the excessive introversion, the morbid fancies, the moroseness, which sometimes arise in secluded study, giving him elasticity of spirits, and ease of movement, and refinement of character, not readily attained out of society. It seems desirable that our young men especially should enjoy these advantages during the period of their course of study, while the forces that form character work most efficiently.

5. Closely connected with this influence is the tendency to good order which we find in the system. The ease with which the discipline of so large a school is conducted has not ceased to be a matter of wonder to ourselves. One thousand students are gathered from every state in the Union, from every class in society, of every grade of culture—the great mass of them, indeed, bent on improvement, but numbers sent by anxious friends with the hope that they may be saved or recovered from wayward tendencies. Yet the disorders incident to such gatherings are essentially unknown among us. Our streets are as quiet by day and by night as in any other country town. There are individual cases of misdemeanor, especially among the new comers, and now and then one is informed that his probation has been unsatisfactory; but in the regularly organized classes of the College and Ladies' Departments, numbering from two to four hundred in constant attendance, the exclusions have not on the average exceeded one in five years, and in one instance a period of more than ten years elapsed without a single exclusion from these classes. This result we attribute greatly to the wholesome influence of the system of joint education. The student feels that his standing and character are of grave consequence to him, and he is predisposed to take a manly attitude in reference to the government and regulations of the school. An admonition in the presence of the students assembled in the chapel has always been more dreaded by an offender than a private dismission. Offenses against propriety, that in a body of young men forming a separate community would seem to be trivial, change their aspect when the female element is added to the community; and

that better view adds greatly to the force of wholesome regulations. From the beginning, the use of tobacco has been prohibited to our students. In the presence of ladies the regulation has a force and significance that could not be otherwise secured, and has been maintained with a good degree of success. College tricks lose their wit and attractiveness in a community thus constituted. They are essentially unknown among us. There are no secret societies, and, so far as I know, there has been no tendency toward them. The relations of the classes to each other are comfortable and desirable. With a sufficient degree of class feeling to give unity and collective force, there is an entire absence of the antagonisms which sometimes appear in college life. It may be a mistake to attribute this fact in any degree to the social constitution of the school, but it seems to me to be a natural result. The general force of the society controls and limits the clannish tendency. We have had no difficulty in reference to conduct and manners in the college dining-hall. There has been an entire absence of the irregularities and roughnesses so often complained of in college commons.

6. Nor can it be reasonably doubted that the arrangement tends to good order and morality in the town outside of the school. Evils that might be tolerated, in the shape of drinking-saloons and other places of dissipation, if young men only were present, seem intolerable where ladies are gathered with them. The public sentiment requires their suppression. Of course, this influence alone would not be sufficient; but it increases and intensifies the moral forces of the place which withstand their introduction.

7. Another manifest advantage is in the relations of the school to the community—a cordial feeling of good will, and the absence of that antagonism between town and college which in general belongs to the history of universities and colleges. The absence of disorder in the school is the prime condition of this good feeling; but beyond this, the constitution of the school is so similar to that of the community that any conflict is unnatural: the usual occasion seems to be wanting.

8. It can hardly be doubted that young people educated under such conditions are kept in harmony with society at large, and are prepared to appreciate the responsibilities of life, and to enter upon its work. They will not lack sympathy with the popular feeling, or an apprehension of the common interests. They are naturally educated in relation with the work of life, and will not require a reäd-justment. This seems a matter of grave importance, and we can scarcely be mistaken as to the happy results attained. If we are

not utterly deceived by our position, our students naturally and readily find their work in the world, because they have been trained in sympathy with the world.

These are among the advantages of the system which have forced themselves upon our attention. The list might be extended and expanded; but you will wish especially to know whether we have not encountered disadvantages and difficulties which more than counterbalance these advantages, and you will properly require me to speak with all frankness upon those difficulties which are commonly apprehended.

1. Have young ladies the ability in mental vigor and bodily health to maintain a fair standing in a class with young men? Do they not operate as a check upon the progress of the class, and degrade the standard of scholarship? and do they not break down in health under a pressure which young men can sustain?

To this inquiry I answer, where there has been the same preparatory training, we find no difference in ability to maintain themselves in the recitation room. Under the circumstances, I shall be excused for referring to my own individual experience, which has been somewhat varied. The first eight years of my work as a teacher was in the department of the Ancient Languages—Latin, Greek, and Hebrew; the next eleven, in Mathematics, abstract and applied; the last eight, in Philosophical and Ethical studies. In all these studies my classes have included young women as well as young men, and I have never observed any difference between them in performance in the recitation. The strong and the weak scholars are equally distributed between the sexes.

In this statement I do not imply that I see no difference between the normal male and female mind as to taste for particular studies. I have no doubt of the existence of such differences; but they do not appear in the ability as pupils to comprehend and express the truth. A few days since, on a visit to the University of Michigan, I attended a recitation in Thucydides. So far as could be judged from a single exercise, in which there were many excellent performances, the daughter of the Professor of Greek, the only young lady under the wing of the University, led the class. But it did not strike me as an anomaly; I had often seen such things.

Nor is there any manifest inability on the part of young women to endure the required labor. A breaking down in health does not appear to be more frequent than with young men. We have not observed a more frequent interruption of study on this account; nor do our statistics show a greater draft upon the vital forces in

the case of those who have completed the full college course. Out of eighty-four young ladies who have graduated since 1841, seven have died—a proportion of one in twelve. Of three hundred and sixty-eight young men who have graduated since that date, thirty-four are dead, or a little more than one in eleven. Of these thirty-four young men, six fell in the war; and leaving those out, the proportion of deaths still remains one to thirteen. Taking the whole number of gentlemen graduates, omitting the Theological Department, we find the proportion of deaths one to nine and a-half; of ladies, one to twelve: and this in spite of the lower average expectation of life for women, as indicated in life insurance tables. The field is, of course, too narrow for perfectly conclusive results; but there is no occasion for special apprehension of failure of health to ladies from study.

2. But it is held by many that ladies need a course of study adapted to their nature and their prospective work, and that it must be undesirable to bring them under the same training with young men. The theory of our school has never been that men and women are alike in mental constitution, or that they naturally and properly occupy the same position in the work of life. The education furnished is general, not professional, designed to fit men and women for any position or work to which they may properly be called. Even in the full college curriculum it does not appear that there is any study that would not be helpful in the discipline and furniture of an educated lady. But only a small proportion of young ladies seeking an education will naturally require the full college course. It is not difficult to frame a suitable course parallel with the college course, made up substantially of studies selected from it, and diversified by the addition of the accomplishments supposed to be peculiarly adapted to female culture. Almost every Western college has a scientific course, involving these substantial elements. The best schools in the land for the education of ladies alone have the same course. We do not find that any peculiar style of teaching is required to adapt these studies to female culture. The womanly nature will appropriate the material to its own necessities under its own laws. Young men and women sit at the same table and partake of the same food, and we have no apprehension that the vital forces will fail to elaborate from the common material the osseous and fibrous and nervous tissues adapted to each frame and constitution. Except under pressure of great external violence, the female nature asserts itself by virtue of its own inherent laws. No education can make alike those whom God has made as unlike as men and women.

3. Yet apprehension is felt and expressed that character will deteriorate on one side or on the other; that young men will become frivolous or effeminate, and young women coarse and masculine. The more prevalent opinion seems to be that, while the arrangement may be desirable in its effect on young men, it will be damaging to young women. That young men should become trifling or effeminate, lose their manly attributes and character, from proper association with cultivated young women, is antecedently improbable, and false in fact. It is the natural atmosphere for the development of the higher qualities of manhood—magnanimity, generosity, true chivalry, earnestness. The animal man is kept subordinate, in the prevalence of these higher qualities. We have found it the surest way to make men of boys, and gentlemen of rowdies. It must be a very poor specimen of masculine human nature that is not helped by the association, and a very poor specimen of a woman that does not prove a helper. In my judgment, as the result of experience, the chances are better even for the poor specimen.

But, on the other hand, are not womanly delicacy and refinement of character endangered? Will not the young woman, pursuing her studies with young men, take on their manners and aspirations and aims, and be turned aside from the true ideal of womanly life and character? The thing is scarcely conceivable. The natural response of woman to the exhibition of manly traits is in the correlative qualities of gentleness, delicacy, and grace. It might better be questioned whether the finer shadings of female character can be developed without this natural stimulus. If you would transform a woman into an Amazon or virago, take her apart from well-constituted society, and train her in isolation to a disgust for men, and a rough self-reliance. You will probably fail even thus in your endeavor; but it is the only chance of success.

But it is my duty not to reason, but to speak from the limited historical view assigned me. You would know whether the result with us has been a large accession to the numbers of coarse, 'strong-minded' women, in the offensive sense of the word; and I say, without hesitation, that I do not know of a single instance of such a product as the result of our system of education. It is true that in our 'Triennial' are found the names of three somewhat distinguished lady lecturers, who are some times referred to as belonging to this class. They pursued their studies at Oberlin from four to five years in each case. But, whatever their present position and character may be, I have personal knowledge of the fact that they

came to us very mature in thought, with their views of life settled and their own plans and purposes determined and announced. Whatever help in their chosen life they derived from the advantages afforded them, they have never given us any credit for their more advanced views of woman's rights and duties. While avowing a radical dissent from those views, I can not forbear to say that I am happy to number these ladies among my friends, and to express my admiration of much that is noble and womanly in their character, and of their earnest but mistaken philanthropy.

To show that our system of education does not bewilder woman with a vain ambition, or tend to turn her aside from the work which God has impressed upon her entire constitution, I may state that of the eighty-four ladies that have taken the college course, twenty-seven only are unmarried. Of these twenty-seven, *four* died early, and of the remaining twenty-three, twenty are graduates of less than six years' standing. The statistics of the graduates of the Ladies' Course would give essentially the same result. There may be an apparent indelicacy, perhaps, in parading such private, domestic facts; but the importance of the question upon which they bear will vindicate the propriety.

4. But this view does not touch the exact point of the difficulty. It is in general admitted that the association of young men and women, under proper conditions, is elevating instead of degrading, but there is doubt whether bringing them together in a school provides for these proper associations. The wholesome association of the young requires the presence and influence of those who are mature and have experience and a sense of responsibility,—more of the family influence than can be secured in a large school. Is there not danger that young men and young women thus brought together in the critical period of life, when the distinctive social tendencies which draw the sexes toward each other seem to act with greatest intensity, will fail of that necessary regulative force and fall into undesirable and unprofitable relations? Will not such associations result in weak and foolish love affairs, and in such habits of communication and social life as lead to these and grow out of them.

It is not strange that such apprehensions are felt, nor would it be easy to give an *à priori* answer to such difficulties; but, if we may judge from our experience, the difficulties are without foundation. I have no hesitation in expressing the conviction that in the associations of our young people there is as little of this undesirable element as is found in any general society. The danger in this

direction results from excited imagination,—from the glowing exaggerations of youthful fancy; and the best remedy is to displace these fancies by every-day facts and realities. The young man shut out from the society of ladies, with the help of the high-wrought representations of life which poets and novelists afford, with only a distant vision of the reality, is the one who is in danger. The women whom he sees are glorified by his fancy, and are wrought into his day-dreams and night-dreams as beings of supernatural loveliness. It would be different if he met them day by day in the recitation-room, in a common encounter with an algebraic problem, or at the table sharing in the common want of bread and butter. There is still room for the fancy to work, but the materials for the picture are more reliable and enduring. Such association does not take all the romance out of life, but it gives as favorable conditions for sensible views and actions upon these delicate questions as can be afforded to human nature.

There is another danger to which the young man is exposed greater even than this of a too high-colored ideal of female character. It is too low an estimate, springing from his own sensual tendencies, and darkened by a dash of misanthropy which is one of the most common experiences of the young. Such an ideal degrades the one who indulges it, and mars his whole conception of life. No greater misfortune can befall a young man than to admit to his heart such a misconception. It can spring up only in an isolated life, apart from the society of the pure and the good. It is good for a young man to face the facts, and let his dreams go, whether bright or dark. In the presence of these facts, he will conceive and maintain a genuine respect for women as worthy of his confidence and regard, which will save him from amorous follies on the one side, and from a degrading misanthropy on the other. There may be, here and there, displays of these weaknesses of youth; and where are there not? Among hundreds of the young, such weak ones must be found; but if there is any more potent corrective than the public sentiment of such a company of young people of ordinary good sense, I have not been able to find it.

Of course there is room for the wisdom which comes from experience in regulating the associations of such a school. The danger seems to be in both extremes, of too great strictness and restraint and too great laxity, as in all forms of school discipline. Those who have observed the pressure against restrictions, where there is an attempt to prohibit intercourse, sometimes imagine that any letting-up would prove fatal to all order and propriety. They would

probably be surprised to find that the sense of propriety and self-respect of their pupils would prove a surer reliance than any artificial barriers imposed from without. On the other hand, it is important that the intercourse of the young people be regulated by such restrictions as the good sense of the community will justify—not minute and arbitrary, in an attempt to meet all deficiencies of taste and judgment, and forestall every conceivable impropriety, but comprehensive and suggestive, expanded as occasion may require in familiar and practical suggestions from principal or teacher. It is desirable that the intercourse of the school be easy and natural, not fettered at every step by some restriction. The government of our school would be impossible, except as approved and sustained by the great body of the pupils. It would be easy, but extremely unwise, to surrender this stronghold in the endeavor to fortify ourselves by artificial barriers.

The experience of the Friends in this country in the management of their schools is instructive. For many years they have had boarding-schools at the East and the West, to which they sent both their sons and their daughters, but intended to allow no association between them in the schools. They found the undertaking too great. Walls could not be built that would entirely separate them. Within two or three years the policy has been changed and the walls removed, and, as I am informed, with the happiest results. A regulated association becomes easy now which was impossible before.

5. But will not the young people form such acquaintances as will result, during their course of study or after they leave school, in matrimonial engagements? Undoubtedly they will; and if this is a fatal objection, the system must be pronounced a failure. The majority of young people form such acquaintances between the ages of sixteen and twenty-four, and these are the years devoted to a course of study. It would be a most unnatural state of things if such acquaintances should not be made in a school where young men and young women are gathered in large numbers; nor is it to be expected that marriage engagements even will not be formed more or less frequently. Now and then it may occur that parties will seem to have left school for the purpose of consummating such an engagement. The reasonable inquiry in the case is, whether such acquaintances and engagements can be made under circumstances more favorable to a wise and considerate adjustment, or more promising of a happy result. Are the circumstances such as naturally to promote hasty and ill-assorted marriages? If the sys-

tem were to stand or fall by this one test, its friends would have no occasion to apprehend the result.

6. But what security is there that positive immoralities may not at times occur, and startling scandals even, that shall shock the community and produce distrust of the system? Of course, such a thing might be; but it would scarce be logical to condemn the system on the ground of such possibilities or even actualities. The only pertinent inquiry is whether such immoralities are the more natural and frequent product of this than of other systems. Is the moral atmosphere of the best and most approved Eastern colleges perfectly free from every taint of impurity? Is the propriety of the best-ordered and most carefully-guarded female seminary not liable to be broken in upon by a sporadic offense of this character? Such liabilities go everywhere with fallen human nature; and it has not been shown that the monastic institutions of either ancient or modern times have afforded perfect security upon this point. There may have been a time when one such scandal in a school for joint education would have brought reproach upon the system and overwhelmed it with popular disgust. A generation of successful trial, under a sheltering Providence, should have won for it the impartial judgment which is the right of every system.

7. But is this method adapted to schools in general, or is the success attained at Oberlin due to peculiar features of the school and of the place, which can rarely be found or reproduced elsewhere? This idea is not an unnatural one, and is somewhat prevalent. It is true, we have been favored with some special advantages. The place and the school were founded together—a Christian enterprise, with a common aim. From the beginning, the great interest of the place has been the school. The religious earnestness, in which the enterprise had its birth, has been in some good degree maintained, securing a unity of interest and of action very rare in the history of schools and of communities. The habits of the community have in a good degree taken their shape from the necessities of the school, and there is a very general and hearty interest in all that pertains to its welfare. On the other hand, the village has increased until its population numbers nearly 4000—a population gathered from all parts of the country, with a colored element amounting perhaps to one-fifth of the whole, of every grade of culture and of want of culture, not in any proper sense a disturbing element, but precluding that perfect homogencity of thought and life embraced in the popular idea of Oberlin society. Our students, too, have been so numerous as to preclude the possibility of the

close personal supervision attainable in a smaller school; and while we have had occasion to congratulate ourselves on their general character, their earnest endeavors after improvement and usefulness, still they are essentially like the pupils in other schools at the West between the parallels which embrace the New-England emigration, with the addition of the colored element, varying from five to seven per cent. of the whole.

The experiment was commenced, too, by those who had had no experience in such a school, who had to feel their way through the various questions involved in its organization and arrangement. Thus, with the special advantages of our position, there have been some special difficulties.

But the experiment at Oberlin, if the earliest, is by no means the only one. At least a score of schools have sprung up that have adopted essentially the same plan, and I have yet to learn that there has been any other than a uniform result in the convictions of those who have best understood these movements. There are doubtless advantages in enteriug upon the plan at the organization of a school instead of introducing it into a college already in existence. The usual style of college life, the traditional customs and habits of action and of thought, are not suited to a school where ladies are gathered as well, and the changes required might occasion difficulty at the outset, and peril the experiment. On this point I have no experience; but I have such confidence in the inherent vitality and adaptability of the system, that I should be entirely willing to see it subjected to this test.

In concluding this statement, permit me to say that I have no special call as an apostle or propagandist of this system of education. The opinions set forth are such as, with my limited experience, I am compelled to cherish, and when called upon, as now, I cheerfully express them.

NOTE.

OBERLIN COLLEGE, and OBERLIN as a settlement or town, originated in the deep religious convictions of the founders of both, which had been awakened and confirmed in the "revivals" of 1830, and the few years following. The author of the plan of the "Collegiate Institute," on the manual labor system, and the "Covenant," under which a tract of land three miles square, and comprising about eight thousand acres, was purchased in Lorain County, at the low rate of one dollar and fifty cents per acre, was Rev. John J. Shipherd, while he was pastor of the Presbyterian church in Elyria in 1832. Associated with him, in public and private prayer and effort, was Mr. P. P. Stewart, a retired missionary among the Cherokees in Mississippi, then residing in Mr. Shipherd's family. The early colonists and students, deeply imbued with the religious spirit which the preachings of Rev. Charles Finney had awakened, entered on the enterprise with missionary zeal, "lamenting the degeneracy of the Church, and the deplorable condition of the perishing world, and ardently desirous of bringing both under the influence of the blessed gospel of peace" and "of glorifying God in doing good to men to the extent of their ability." Assuming the name of the French pastor and educator of the retired parish of Walbach, in the Ban de la Roche, they have achieved, within the period measured by that pastor's labors, an educational success, and made their principles and practices felt in the political and ethical, as well as the educational questions of the day, to an extent which Oberlin never aspired to.

The land was bought in 1832—the first log cabin on the tract, by no means inviting for settlement, was built in April, 1833, and the first college building was extemporized, out of trees felled from the till then untouched forest; in the following summer, a church on the Congregational basis, but in temporary connection with a Presbytery, was gathered in September, and in December a school was opened in "Oberlin Hall," with thirty pupils, which number before the close of May, 1834, was increased to one hundred. And thus was launched an enterprise which, in little more than thirty years, has grown into a village and township of 3000 inhabitants, and according to the annual catalogue of 1867–68, (of fifty-six closely-printed pages,) and an institution (no longer the "Oberlin Collegiate Institute" on the manual labor system, with one undergraduate student of Western Reserve College as teacher,) known throughout the land as OBERLIN COLLEGE, with an endowment of $160,000, seven buildings, and twenty professors and instructors laboring in a *Theological Department* with 11 students; a *College Department* with 119 students, 9 of whom are ladies in a four years' course; a *Scientific Course* of three years, with 34 students; a *Preparatory Department* with 484 "gentlemen" students; a *Young Ladies' Course* of four years, with 190 students; and a *Ladies' Preparatory Course* with 294 pupils—a grand total of 1134 pupils. Besides these regular courses, there is a "Teachers' Institute" every Fall term, continuing about six weeks, in which special instruction is given to those who propose to teach; a "Winter Vacation School," under the superintendence of the Faculty, in optional studies, commencing at the close of the Autumn term; and a "Conservatory of Music," under a Professor fresh from the Conservatory of Music at Leipzig in Saxony. And in these thirty years, over 15,000 pupils have been instructed to some extent in its various courses. [We shall return to Oberlin.—*Ed.*]

VI. CIRCULAR RESPECTING ACADEMIES

AND OTHER INSTITUTIONS OF SECONDARY EDUCATION.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C.

To the President of the Board of Trustees, or the Principal of Incorporated Academies and other Seminaries of Secondary Education

The undersigned will be happy to receive a copy of any printed document, and such other information as you may find it convenient to communicate respecting your institution in any or all of the particulars specified in the following Schedule.

HENRY BARNARD,
Commissioner of Education.

I. NAME, LOCATION, AND SPECIAL OBJECT.

II. HISTORICAL DEVELOPMENT.

A. 1. When, by whom, and for what avowed objects the Institution was originally established; date of Incorporation, with names and residence of incorporators; first opening—date of, and condition at the time as to .

2. Endowment—productive funds.
3. Grounds—Building, and material Equipment.
4. Instructors.
5. Departments and Studies in each.
6. Students—Male, Female, Total.
   Classical.
   English only.
   Non-Resident.
7. Boarding Arrangements for non-resident Pupils.
8. Religious Instruction.
9. Health and Physical Culture.
10. Discipline—its principles and methods.
11. Societies for Debate, Library. &c.
12. Tuition.
13. Terms—Vacations—Daily Routine—Public Exhibitions—Prizes.

B. In giving the chronological developement of the institution, specify

1. Any change in the original object of the institution, or the constitution or policy of the Board of Trustees.

2. The date and object of every benefaction, with the conditions attached, by the donor, especially to those in aid of indigent students, and any circumstances to show the value and the wise management of the benefaction.

3. The manner in which funds were raised to provide for the extension, repairs, and equipment of the buildings, the enlargement and ornamentation of the grounds, and the supply of apparatus, &c

4. The peculiar qualifications of each Principal, and any peculiar excellence in instruction and discipline, as well as the subsequent career of the several Assistants.

5. The date of the introduction of each new branch, such as Algebra, Geometry, Physiology, Chemistry, and any of the natural sciences, with the text books used, and the facilities of practical illustration and manipulation in the latter. Ascertain the history of Art-studies or ornamental branches, and how paid for and taught.

6. The relations of the departments for males and females, as to instruction and boarding, and the opinions of teachers as to the results of their experience in the co-education of the sexes.

7. The arrangement made for boarding non-resident pupils in commons, clubs, and private families, and the advantages, evils, and expense of each mode; and the extent to which non-resident pupils have resorted to the institution from the County, State, or abroad.

8. The denominational character and policy of the religious teaching.

9. The athletic games and exercises, as well as any systematic forms of manual labor for its healthful or economical results, which have at different times prevailed.

10. Any important change in the principles, methods, and penalties in discipline, and particularly in reference to corporal punishment.

11. Influence of Students' Societies for debate, &c., on the power of using the English Language, and habits of reading. Number of volumes in the Library, and resources for annual increase.

12. Rates of tuition, time of payments, abatements.

III. PRESENT CONDITION under each of the above particulars and general results, such as

1. Whole number of Pupils.

2. Number of College graduates.

3. Number of graduates eminent in political, professional, and industrial life.

4. Influence on other Schools, and education generally.

IV. FUTURE PROSPECTS—if not as favorable as in the past, assign reasons for.

V. APPENDIX.

1. Memoirs of Founders, Benefactors, Instructors, and Alumni.

2. List and, if you can spare, a copy of all printed documents relating to the Institution.

I. NEW ENGLAND ACADEMIES AND CLASSICAL SCHOOLS.

BY REV. CHARLES HAMMOND, A. M.,

Principal of Academy, Monson, Mass.

RECENT events have directed attention to that class of schools known as Academies and suggested the importance of studying their history as related to classical and what is called higher English education. The erection and dedication of a splendid edifice for the use of Phillips Academy at Andover reminds us of the long continued usefulness of that institution as a classical school. Within a few years the biography of the founder of that institution, Judge Phillips, has been written by the Rev. John L. Taylor, a work of the greatest value in the help it gives to those who wish to understand the motives which led to the establishment of the Academies at Andover and Exeter.

The history of Leicester Academy by Ex-Governor Washburn, now Professor of Law in Harvard College, is a most valuable contribution to the history of the classical schools of New England. The address of Prof. Cleveland at the Centennial Celebration of Dummer Academy, recently published, suggests the antiquity of some of the oldest and best of New England Academies, while it is a most worthy tribute to the patrons and teachers of sound learning in former days.

The Academies of this country belong to that grade of schools often called in Europe by the general term, middle schools. On the Continent they are often called gymnasia, or classical drill schools, where boys are prepared for the Universities. In England they are called "the Great Public Schools," as Harrow, Rugby, Eton, and Westminster. Those of less note are called simply grammar schools, which is their most ancient appellation. In Scotland they are called grammar schools and sometimes high schools, of which the High School at Edinburgh is one of the best, having been founded as early at least as 1519; since we have from that year continuous references to the High School in the records of the town council.* Stevens, in his History of the Edinburgh

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* 1519, April 11. The quhilk day, provest baillies and counsall statutis and ordanis, for reason

High School, says that "Scotland had schools in her principal towns so early as the twelfth century."

The "grammar schools" first established in the Massachusetts, Connecticut, and New Haven colonies, were evidently modeled, as near as possible, after the grammar or public schools of England, with which the founders of the colonies were perfectly familiar, inasmuch as they had been educated in them as well as in the English Universities, of which many of them were distinguished graduates.

It is not necessary to dwell very particularly on the "Public or Foundation Schools of England," which served as the model of the first classical schools of this country, since they have already been the subject of articles * in this Journal.

In their attempts to transplant the English system of grammar schools as a part of their earliest institutions, our fathers did not succeed in their efforts to give them the *endowments*, which had been the ground of their inherent vitality in the fatherland, and caused them to be, for ages before America was discovered, what they have been truly called, "the most English institutions of England."

The Puritans were too poor to endow their institutions, even their first college, with other than a most meager foundation. They have left on record their ideals of what they attempted in their great enterprise of founding a new commonwealth, and among them all none is of greater interest than what they themselves called their first *essays* to establish colleges and classical schools.

Unable at first to plant a college, they did the next best thing possible. "A general court held at Boston † advanced a *small sum*, (and it was a day of *small* things,) namely, four hundred pounds, by way of essay towards the building of something to begin a college." In this "something," before it became a college, the notorious Nathaniel Eaton was master, whom Mather berates as "a blade who marvelously deceived the expectations of good men concerning him." Yet "he was a rare scholar himself and made many more such; but their education truly was in the school of Tyrannus."

There is no doubt that the "grammar schools" at Boston, Dorchester, Cambridge, New Haven, Salem, Hartford, and a few other places, were in the first generation good schools. Mather has given us their course of study for boys in training for "ye universitie." "When scholars had so far profited at the grammar schools

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abel causis, that na maner of nychtbouris nor indwellers within this burt, put their bairnis till ony particulare scule within this toun, but to the principale gramer scule. 1531, March 19. Maister Adam Melvil of the hie scule oblist him to mak the bairnys perfyte gramariaris within thrie zeiris. (See Stevens' History of High School of Edinburgh.)

* See Vol. VIII., p. 257; XV., p. 81–117, † Mather's Magnalia, Book, IV., Section 4.

that they could read any classical author into English and readily make and speak true Latin, and write it in verse as well as in prose, and perfectly decline the paradigms of nouns and verbs in the Greek tongue, they were judged capable of admission to Harvard College."* This standard of "admission" speaks well for the early scholarship of the college as well as of its preparatory schools. It may be doubted whether the standard of classical attainments, on the whole, was not higher then at Harvard than it has been in any American college since.

It is certain that good scholars of that day could both make and speak "true Latin," the language which learned men of the time used with the ease and fluency of their own vernacular. The first civilians and ministers of New England, the Winthrops and Winslow, Robinson, Cotton, Ward, Rogers, and Chauncey, were excellent scholars and some of them authors of distinguished repute. Norton, Shephard, Eliot, and Symmes, were graduates of Cambridge, and Davenport of Oxford; and most of them were the contemporaries of John Milton, the great classic scholar of his own century and the great poet of all the centuries. At no period before or since, in the history of English literature, were the ancient classics more eagerly or extensively studied than in the days of the Puritan emigration to America. The great questions of controversy in ecclesiastical and civil affairs were discussed by the master-minds of the time in the Latin tongue, as for instance the conflict of Milton with Salmasius,

> In liberty's defense, a noble task,
> Of which all Europe rang from side to side.

Those great men wrote in Latin, not for a few scholars only but that all the thinking, well educated men of the world might read and understand.

In the great strifes of the first and second English revolution, no class of men in Christendom were more interested than were the early colonists of New England. When we read, then, of their anxious fears, lest the learning, which the first generation of scholars brought with them to these shores, should be buried with them in their own graves, we may better understand what that learning was they prized so much, when we know the uses to which it was applied in their own times, and why they deemed it so essential that that same learning should live after them in all ages of the future.

The dread of the early Puritans as to the decline of learning in the colonies came near to actual realization, notwithstanding their

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* Mather's Magnalia, Vol. 2d, Book IV. 4.

earnest attempts to prevent this calamity. For nearly three generations one college only could be sustained, and this was chiefly through the legacy of the Rev. John Harvard, who died soon after his arrival from England, where he had not long before graduated at Emanuel College in Cambridge. When Yale was founded in 1700 its chief benefactor was Gov. Yale, who was a resident of London and acquired his fortune in India during his administration as Governor of the East India Company. So, too, when Dartmouth was founded near the era of the Revolution its chief patron was an English nobleman. If, then, the colleges of the colonial period of our history were able to live only by benefactions which came chiefly from a foreign land, how could it be expected that the grammar schools could retain the rank they might have had under Master Cheever and other teachers of the first generation?

Perhaps no greater efforts were made to sustain a good "grammar school" or "free" school, in which "Latin, Greek, and Hebrew" were taught so as to fit young men for "ye universitie," than in the colony of New Haven, which, in point of wealth, was equal at least to any other in New England. Rev. John Davenport, minister of New Haven, "the prince of preachers and fit to be a preacher to princes," was unremitting in his labors to establish "a free" school, for the support of which "the town paid twenty pounds a year to Mr. Ezekiel Cheever for two or three years at first, but in August, 1644, it was enlarged to thirty pounds a year and so continueth." Master Cheever was one of the first emigrants to New Haven, where he began his long service as a grammar school teacher in 1638, in which he continued for nearly seventy years, ending his career as the master of the Latin School in Boston, where he died in 1708. He used his own "Latin Accidence" for successive generations, and long after his death it was the only "text-book" for Latin beginners in New England.*

When Master Cheever left New Haven in 1649 to go to Ipswich, the grammar school declined and although every effort was made to retrieve its fortunes, it never regained its earliest renown under its first and most famous teacher.

Not long afterwards Mr. Davenport tried "to settle at New Haven a small colledg such as the day of small things will permitt," but for that measure the fullness of time had not yet come. Having urged in vain the leading towns of the colony to maintain each a grammar school of their own, he then planned "a colony school" for the entire jurisdiction. But this, after two years, was "laid down" and never taken up again.

* Cheever and the Early Free Grammar Schools of New England, I, 297: XVI, 102.

It was at this time of greatest discouragement that the donations of Governor Hopkins were made for the endowment of classical schools in Hartford, New Haven, Hadley, and Cambridge. No benefaction for a good cause was ever more opportunely given. The "true intent" of his legacy was well expressed in the words of his will "to give encouragement in those foreign plantations for the breeding up of hopeful youths, both at the grammar school and college, for the public service of the country in future times." It was well that the avails of the Hopkins' donations accrued chiefly to the benefit of the grammar schools, which received his endowments. It thus became possible for a classic school, formed after the English grammar school, to be planted on American soil and to take deep root, nourished, as the English schools were, with ample endowments, and to bear fruit perennially to the latest generations. Whatever fate might befall the grammar schools of other towns planted by the Puritans, it was a consolation to Davenport and his fellow-trustees of the Hopkins' endowments, that one school, at least, in each of the leading colonies, could be maintained, in which "the three languages, Lattine, Greeke, and Hebrew, might be taught soe far as was necessary to prepare youth for colledge." Though the Hopkins' donations made it possible to establish grammar schools at a few important localities, yet classic culture did not readily thrive, and those precious funds were in danger of perversion even in New Haven, under the trusteeship of Davenport, who was the only man that could have saved them. For the people were so poor even in that colony, which was more wealthy than the others, and the public mind was so distracted by the political questions resulting in the union of New Haven Colony with Connecticut, that but little attention was given to the interests of education for the time. Hence, public sentiment at first tolerated the use of the funds for an English school. Indeed, teachers of the classics were so scarce that no fit master could be found except for an English school and hardly for that. "The fittest that could be found was George Pardee, who was willing to do what he was able, but told the town frankly that he had lost much of what learning he formerly attained." He however "undertook to teach Englishe and to carry on the scholars in Lattine as far as he could; also to learn them to write." It was then that Mr. Davenport performed "one of the last and most useful public services" to the town of New Haven, by protesting, as he was required to do according to the "will of the dead," against the longer misapplication of the avails of the Hopkins' fund contrary to the intent of the

donor, and declared it to be his purpose to transfer the fund to some other town if the use of it was not made for a proper grammar school. This intimidation had the desired effect; and as soon as possible the school was established according to the true intent of its founder. "The advantage of this single effort in favor of liberal education," says Prof. Kingsley,* "can not be easily estimated." One of its results was the great number of young men sent to Harvard College from the single town of New Haven, being one in thirty of all the graduates of that college prior to 1700, and that, too, from a town not having more than five hundred inhabitants at any time during that period.

The endowments at Hartford and Hadley were far less fortunate The people of those towns used those funds for a long period to maintain schools of no higher grade than a common English school. "The Hopkins School at Hartford seems to have been the only public school of any sort for the first century of its existence."† In 1797 the town of Hartford sought a charter of incorporation and surrendered its control of the Hopkins' fund to a self-perpetuative board of trustees, under whose management the funds were greatly increased and a classical school of a high order was maintained on the ancient foundation according to the will of the donor. So, too, the Hadley Grammar School became an Academy after the town had controlled and perverted the use of the Hopkins' fund from 1669 to 1816. Under the new organization a contest soon arose between the town and the Academy, which at last was decided by the Supreme Court of Massachusetts in 1833, when Judge Shaw held that the devise of Gov. Hopkins was made, not for founding a town school for the exclusive benefit of the inhabitants of Hadley only, but for all the persons in that (then) newly settled part of the country who desired to avail themselves of a grammar school adapted to instruct and qualify pupils for the University."‡

If one of our distinguished divines has said that "barbarism is the first danger" of modern civilization in America, it was surely a fearful peril when Hopkins and Davenport tried to withstand it. It was their glory that they laid the foundations of the State aright. They could not be expected to do much more than this, which was their destined work. The day of small things, as they called their own cherished plans and institutions, was really a day of great

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* See Kingsley's Historical Discourse, page 92.

† See Rev. L. W. Bacon's Address at the Two Hundredth Anniversary of the Hopkins Grammar School at New Haven, page 65. [Mr. Bacon is mistaken as to his surmise of there having been no other school at Hartford. H. B.]

‡ See L. W. Bacon's Address, page 65.

events in their relations to the distant future. They earnestly labored to prevent the decline of learning which continued till after the Revolution. But they could not build up vigorous institutions of liberal culture in the wilderness in a single generation, such as Europe possessed as the fruit of centuries of civilization. They had only one learned profession, that of Divinity, and chiefly for the sake of this, Harvard and Yale were founded.

The profession of the teacher was indeed recognized in the first generation as a distinct calling, and had been so regarded time out of mind in the fatherland. But the early graduates of Harvard and Yale, who could have been the successors of Cheever, found "his occupation gone," and thus they were forced to enter the ministry as their only vocation. Fortunately, the duty of teaching the classics was regarded as one of their proper functions, and as the ministers were the only class in the community who had leisure for study and books, there were found a few in every generation who guarded well this precious trust of education, and furnished in this way most of the candidates for admission to college and thus their own profession was preserved. And yet in this profession the standard of classical attainments was lamentably low even so late as the beginning of the present century.* Most abundant evidence of this fact appears in the history of education as published on the pages of this Journal.

Near the middle of the last century there were indications of the coming of a better day. Here and there were persons found, of broad and comprehensive culture, who were in correspondence and close sympathy with the leading minds of the fatherland, and who fully realized the transcendent value of the long-established seats of good learning there. On the other hand, such men as Doddridge and Watts and Bishop Berkley were deeply interested in the intellectual advancement of the American colonies, as is proved by their benefactions to Harvard and Yale.

In 1746, Samuel Moody graduated at Harvard College and commenced his career as a classical teacher in the York Grammar School in the province of Maine. Since the days of Cheever, who had then been dead nearly forty years, no teacher had appeared of equal celebrity. The school he taught was the only public school in town, yet he made it famous as the resort of scholars who afterwards became distinguished. One of the number was Joseph Wil

* See a letter of the late Judge Story, in the memoirs of Dr. Channing, relating to the studies of Harvard College during the times when those eminent men were undergraduates

lard, afterwards President of Harvard College and the best Greek scholar of his day.*

In 1763, the Dummer School at Byfield in Newbury, the oldest of the New England Academies, was founded, and Samuel Moody was its first master. This event marks a new era in the history of classical education in this country. For the first twenty years of its history it was called the "Dummer School," and its teacher was called "Master," a title which, as the accomplished historian of Dummer Academy has well observed, is still thought good enough for the President of a college in Oxford and Cambridge."† Dummer School, under the administration of Master Moody, was the best type of an English grammar school that had existed on American soil since the days of Ezekiel Cheever. It was placed by the founder under the control of the town or parish committee, who were to manage its funds and had the power of appointing but not of removing the teacher, whose tenure of office was for life unless the overseers of Harvard College should judge the incumbent "immoral or incompetent."

For nineteen years Master Moody managed the school according to his discretion, the trustees under the will "doing nothing and having nothing to do." During that period he prepared for college some of the most eminent men of their times, among whom were President Webber, Professors Pierson and Tappan of Harvard, and Prof. John Smith of Dartmouth; also Chief-Justices Parsons and Sewell, Rufus King, William Prescott, Nathaniel Gorham, and Samuel Phillips, the founder of the Academy at Andover. The fact that these and other distinguished men of the last century most gratefully honored the Byfield preceptor so long as they lived, proved the personal excellence and power of their instructor.

There is no doubt that the long and successful career of Master Moody at Byfield led to the establishment, near the close of the Revolution, of the Phillips Academies at Andover and Exeter and of Leicester. Each of these schools originated as foundation schools established by eminent civilians, but differing from the Hopkins and the Dummer Schools in granting no special advantage to the towns in which they were located. This feature was one which distinguished the Academy from the ancient grammar school, which generally seems to have been local so far as to favor specially the town or precinct where it was established, though the children of neigboring towns were admitted generally at a higher rate of tui-

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* See Cleveland's Centennial Address, page 20 † See Cleveland's Address, page 22.

tion. This was the case at Dummer and at the Hopkins Schools, though, as it appears from the decision of Chief-Justice Shaw in the case of Hadley vs. Hopkins Academy already referred to, that the benefactions of Governor Hopkins were not to be restricted to a single locality. He made "New England his heir."

The Phillips foundations were called "free," and in that respect they were like those of the first grammar schools in New England and those of the fatherland. It has been most unwarrantably assumed that a *free* school was one in which the tuition was gratuitous; but in this sense not even the common English rudimental schools of the first generation were free, for though supported in part by public appropriations, yet the parents of the children provided also a part of the tuition in nearly all the schools of every grade.

Not many years ago the claim was set up, that the tuition at Andover Phillips Academy should be gratuitous, on the ground that the school was declared to be "free" in the constitution of the founder. But it was proved that such could not be the meaning of the term "free," since as early as the first year of the history of the school it appeared that tuition was paid by the pupils in accordance with a rule established by the consent of the founder himself.

But if the Academies of New England were not free in the sense of affording gratuitous privileges, as the meaning of the term now is, when applied in such phrases, as "free churches," "free seats," "free libraries," and "free schools," they were most truly free in the sense of being open to all alike, without respect of race, rank, or sect, or residence, and were therefore as broad in their domain of influence and usefulness as the world itself. They were free to all comers from places near and distant, even from foreign lands. They were free in their allowance of equal privileges to all on the same conditions, while the schools and universities of England were nearly all exclusive, a condition of admission being that the candidate must belong to some particular church, or society, or guild. The earliest educational systems of the Puritans were free from all such conditions and limitations.

But they did not consider that school privileges should be conferred on the young as an entire gratuity, and hence, in the earliest school laws, while it was made the duty of towns under penalties to establish common schools, it was left discretionary with the towns as to the special method of supporting the schools, a part of the expense of tuition always being defrayed by the pupil. The endowments of Colleges and Academies were designed to cheapen the tuition so as to render it possible for all to enter by the payment of

moderate tuition fees, inasmuch as a school of a high grade, when wholly supported by tuition, must be beyond the reach of all classes except those of abundant wealth. Hence it is, that all colleges and schools of a high grade in this and other lands are eleemosynary institutions, the rich and the poor meeting together on the same charitable foundations. The prejudice that prevails in some quarters, on the ground, that endowed schools are designed for the rich, and that institutions, supported by public taxation, are for the special benefit of the poor, is wholly groundless, since the history of the endowed schools of every grade in England and in the United States, shows that the policy of providing for the poor, or those of inadequate means of liberal education, was the end or design of this class of schools; while on the other hand, if the schools depended alone on the public for support, the disbursements would be so meager, that the quality of education in all the higher departments of learning would be so low, as to be worthless to the possessor and useless to the State.

But we are inclined to the opinion, that the original designation of the term *free*, as applied to the ancient grammar schools of England and this country, did not have respect either to the cost or to any conditional restriction of the privileges of learning to any class or sect, but to the nature and tendencies of learning in its effects on the mind of the scholar and on the state of society. The classical schools in ancient times were called *free*, for the same reason that the education obtained in them has always been called *liberal*, from the old Latin designation, *libera schola*, the word having reference to the results not to the methods of education as tending to liberalize and refining the human mind, and especially as giving enlargement of views and freedom from the dominion of unreal prejudices and the phantoms of superstition.

It is most certain, that this sense of the word free, accorded perfectly with the ultimate aims of the patrons of liberal learning, who, at the close of the American Revolution, were moved to establish that class of middle schools called Academies, under a constitution or system of government, on the same plan as that of colleges and universities, and yet more directly popular in their influence, serving the same uses for the entire population which were furnished by the grammar schools to a few favored localities.

It is worthy of special consideration that the motives of the founders of Phillips Academy at Andover and Exeter, and at Leicester, had respect to the advantage not of any one location, but of the entire public. Indeed the charters of the first Academies

nearly all contained express provisions to prevent localization, by requiring a majority of the trustees to be non-residents of the place where such institutions were located; while in the charter of Phillips Academy at Andover the liberty of removal to any other town in the State was granted whenever, in the judgment of the trustees, the public good might require a change of location. Colonel Crafts of Sturbridge, the founder of Leicester Academy, at one time contemplated the location of the school in his own town; but finally chose Leicester as the seat of the new seminary in view of considerations wholly irrespective of the special advantages which one town rather than another might receive.

It is worthy of notice also, in this connection, that those Academies in New England, which had their origin in the intent to subserve the good of the public at large have always had a continued and unfailing patronage, while those, which were established to serve the special wants of a particular locality, have failed of constant prosperity by reason of their narrow and restrictive policy.

It is a question of some interest, as related to the special design of Academies, why they were called by that somewhat ambitious appellation. It is certain, that its use as applied to a class of strictly middle schools is peculiar to the United States. In Europe the word Academy, has long been applied to associations of learned men, who are proficients not novices in the arts and sciences; and thus used the term approximates to its classic meaning, as the name of a place of resort for philosophers, not tyros in knowledge, in which the gravest themes in morals and politics were the subjects of discussion.

In England, the word Academy has long been applied to schools under the patronage of the Dissenters. Excluded from the universities and the ancient grammar schools, which were all under the control of the established church, the Dissenters, as soon as they were allowed to do so by the famous "Act of Toleration," built meeting-houses and schools for their exclusive use, especially for the training of ministers. These schools were both classical and professional, and in this respect they were quite similar to the colleges of New England, Harvard and Yale, the great design of which was to train up ministers, the only profession deemed of much consequence during the first three or four generations of the colonial period.

How early the word Academy was used by the English Dissenters we can not now determine, but we find the earliest suggestion of this term as an appellation for a classical school "for boys between

the ages of twelve and one-and-twenty," in John Milton's famous "Tractate on Education," addressed to Samuel Hartlib.*

In this plan of an "Academy" Milton says it should be "big enough to lodge one hundred and fifty persons all under the government of one head-master, who shall be thought of desert sufficient and ability either to do all or wisely to direct and oversee it done. This place should be at once both school and university, not needing a remove to any other house of scholarship except it be to some peculiar college of law or physic where they mean to be practitioners."

In the range of studies for Milton's plan of a school the classics were not ignored, though he was in favor of what is sometimes called practical learning. He would have the sciences taught as the *subject matter* of instruction, but by means of classic authors as far as possible. Indeed, his course of study in the classics is more extensive than has ever prevailed in any American college, and this course he recommended for boys between twelve and one-and-twenty. So, too, his notions about exercise by means of gymnastics and military drills were coincident with what are now deemed novelties, though as old as Greek culture in its best days.

No doubt the views of Milton had an influence with the English Nonconformists when they were allowed to have schools of their own, which, in their several grades, served for them the place of the grammar schools and universities from which, down to our day, they have been utterly excluded.

And some of the Puritan seminaries attained a wide celebrity a century before schools under the same appellation were known in America. There was a noted Academy at Kibworth in Leicestershire, at which Doddridge entered in 1718, and under the tuition of Mr. John Jennings received his classical and theological education.

Another celebrated Academy was at Northampton, over which Doddridge himself long presided. There was an Academy at London under the tutorship of Mr. Thomas Rowe, where Dr. Isaac Watts was educated, whose influence as a theologian with the ministers in New England in the last century was hardly less than it was in England.

We may be sure then that the schools of the English Independents would be regarded with favor in this country, being identical in aim with the leading seminaries of this country, for the colleges, Harvard and Yale, until the beginning of the present century, made it their great aim to provide the churches with what was called a

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* Milton's *Tractate* in Amer. Jour. of Ed., Vol. II 178

learned ministry, though the standard of classical learning in these, then the highest American seminaries, was low enough to exempt them altogether from the imputation of having followed the example of the English Universities in their excessive devotion to classical learning. The history of what little learning has existed in America will show clearly that so long as Puritanism was predominant in the schools of New England, the views which prevailed in England or in Continental Europe as to the methods of education were not blindly followed.

When the system of middle schools was originated by Judge Phillips, near the close of the American Revolution, though he adopted the appellation belonging to the schools of the English Dissenters, he did not imitate them in their plan of study, nor was their policy restricted to a particular system of administration. Milton's plan of a "school and college" blended together was discarded.

The Academy was made strictly subordinate to the college and preparatory thereto in its range of studies, while one of its great objects was to supplement and extend the means of popular instruction. The first founders of Academies were men of the most enlarged and liberal policy, and regarded all grades of schools, in their mutual relations and interdependencies, as alike needful for the public good. The politician had not then been born who had thought of instituting comparisons as to the relative importance of institutions which were alike essential to the glory of the commonwealth.

The impulse of a few minds, like Judge Phillips and Colonel Crafts to establish a new order of middle schools for the benefit of the whole people, was soon responded to by the public sentiment of Massachusetts. In 1789 the most important revision of the school laws was made, with a view to equalize and extend the benefits of common school instruction.

The school-district system then established, had for its object the welfare of every precinct and hamlet in the land. This measure, though energetically denounced by some modern educational functionaries, was approved universally at the time of its adoption. With the new impulse given to the elementary schools, the Academies were found to coöperate. For this reason, doubtless, the State of Massachusetts, in 1797, included the Academies already incorporated into her system of public instruction and provided for their support by liberal endowments. The State patronage was given in grants of land in the province of Maine.

It does not appear that the founders of Phillips Academy or of Leicester expected at first any aid from the State. In asking for charters, they sought only the rights and privileges of legal existence. But so marked was the beneficial influence of these new seminaries, that seven of the fifteen, which had been incorporated prior to 1797, had received donations of Maine land. Of these seven Leicester, Marblehead, and Taunton were in Massachusetts, and Fryeburg, Machias, Hallowell, and Berwick were in the Province.

In 1797 other Academies in Massachusetts petitioned for endowments, and in consequence the Legislature appointed a joint special committee to consider not only the petitions then presented, but to devise a plan of public policy respecting future appropriations in behalf of incorporated Academies.

The joint committee thus appointed, consisted of men of high standing and ability in the State among whom was Nathan Dane of Beverly, who was the reputed author of the report made to the Legislature. This report was deemed of such importance that it was ordered to be printed with the laws of the session of that year. Nathan Dane had become distinguished in Congress as the author of the famous ordinance of 1787 by which slavery was prohibited forever from the North-west Territory. Mr. Webster, in his speech on Foote's resolution, honored Mr. Dane as one of the noblest of Massachusetts statesmen.

Living at Beverly, in the vicinity of Dummer Academy, and knowing, as he must, the influence of that school on all the local schools of Essex county, Mr. Danecould appreciate fully the benefits of Academies every where, and hence he was desirous to extend such benefits to the entire population of Massachusetts and its then dependent province.

In the same way, Leicester had attracted general attention as a radiant light set upon a hill which could not be hid. Indeed, there was not a town in the central and southern sections of Worcester county, which did not derive important advantages from that institution, especially in the strong and abiding influence of such teachers as Ebenezer Adams on the character of great numbers who themselves became teachers in the common schools.

The report of Mr. Dane, recommended a general system of State endowments under certain provisions and restrictions, or conditions, the most important of which were "that no Academy should be encouraged by the Government unless it have a neighborhood to support it of at least thirty to forty thousand inhabitants not already accommodated in any other manner by other Academies, or by any

college or school answering the purpose of an Academy." Another condition of aid was, "that every portion of the commonwealth ought to be equally entitled to grants of State lands in aid of private donations;" and thirdly, "that no grant of State lands should be made except in aid of permanent funds given by towns, or by individuals. Hence, previous to receiving aid from the State, evidence was required to show that adequate funds were already secured to erect and repair buildings, to provide apparatus, and to pay a part of the salary of the preceptors."

In adopting this report as a part of the educational policy of the State not only Massachusetts immediately bestowed her endowments on the Academies already existing, but in accordance with the suggestions of the report of Mr. Dane provision was made for those parts of the State where as yet no Academy was located, in order to induce the people to establish such institutions and thus receive the patronage of the State if they complied with the conditions.

In a report made to the Massachusetts House of Representatives in 1859, the Hon. Chas. W. Upham, chairman of the joint committee of education, said, concerning the report of Mr. Dane, that the following principles were established in 1797 as determining the relations of Academies to the commonwealth, viz.:—"They were to be regarded in many respects and to a considerable extent as public schools, as a part of an organized system of public and universal education, as opening the way for all the people to a higher order of instruction than the common schools can supply; that they were to be distributed as nearly as might be so as to accommodate the different districts or localities of the State according to the measure of the population."

In the same report Mr. Upham also says "that no Academy endowed by a town or a State is a private school. Academies are all to a certain extent public schools established as such upon a legalized basis of public policy."

This fact is important as going to refute the argument against Academies, that as being chartered institutions they are legally private schools and can not claim the sympathy which public schools receive. If Academies and Colleges are private in a strictly legal sense because under the charge of corporators, yet are they public in the sense that they are not chartered for any personal or local ends, but only and altogether for the public service.

As well might a prejudice exist against railroads as less worthy of popular regard than common roads, seeing that the former are

controlled by chartered corporations and are in a legal sense private, while common roads are public because supported by a municipal corporation which is public in a legal sense. But corporations existing solely for public uses, as boards of trust both for Colleges and Academies, are as much entitled to the popular sympathy as those directly supported by a public tax; and those boards having charge of trust funds which are eleemosynary in their character, as all educational endowments are, really deserve greater public sympathy than appropriations made directly from the public treasury.

A seminary of learning, whether of the highest grade as a college, or of the middle class which has a universal domain of patronage, must be under the supervision of overseers who represent not any local constituency but the public at large.

The plan of a large constituency of thirty or forty thousand inhabitants, as the condition of State patronage, shows that in the original design of Academies greater responsibilities were intrusted to its guardians than any local corporation could properly assume. And for that reason the boards of trust for the best Academies have been constituted on the same basis as that of colleges, consisting of two classes of men, one composed of persons of business capacity and knowledge of public affairs and finance, and the other of men of liberal culture who understand the value of sound learning, the utility of all grades of schools and their mutual relations, and the best methods and systems of intellectual training. As members of these boards of trust teachers of the oldest and best Academies have also favored the cause of sound learning with special service. As in all colleges without exception the offices of trustee and president or head-master are not found to be incompatible, so at Andover, Exeter, Leicester, Wilbraham, and Williston the preceptor has always been ex-officio a trustee.*

The plan of a large constituency, as recommended by Mr. Dane and approved as a part of the educational policy of the State of Massachusetts, is especially worthy of consideration as implying the high rank which the endowed Academies were designed to occupy. The special design of the State, in giving what at the time must be deemed a very liberal endowment to the first incorporated Academies, was to extend to all the country towns privileges of education equal to those which the largest cities of the land at that time afforded.

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* The historian of Dummer Academy, Prof. N. Cleveland, has stated the advantages of the connection of the preceptor with the board of trust with great clearness and force. See the Dummer Centennial Discourse, page 86.

The fathers of New England had solemnly imposed the duty of maintaining grammar schools of a high order in all important towns and cities, but this obligation was not met. With few exceptions, and those mostly the endowed schools, we have seen the reluctance of the people of Massachusetts to maintain a school suitable to fit boys for "ye universite." Indeed, it is not certain that any locality in that State save Boston has constantly complied with this provision of the ancient statutes.

But the plan of endowed Academies aimed to establish in each county of the State such a school as might bring within the reach of one day's travel by the ancient modes of conveyance, to all the youth of the State desirous of attending, advantages fully equal to those of the best schools of Boston. The founding of Academies on a basis at once permanent and respectable, furnished settled employment and sure pay in the teacher's calling. Graduates of col lege, who had a natural gift for teaching, now had a field of service. To be sure, one teacher was amply sufficient, at first for each Academy; for if a college like Yale, could be conducted by a faculty of president and three tutors, it might be presumed that the principal of an Academy needed no assistant. But this state of things belonged, as geologists say, to the paleontological era of education. And yet some of these first teachers of Academies, who labored single-handed and alone, were men of deserved repute in their calling. No teachers of our time are likely to secure greater respect from their contemporaries than did Master Moody of Dummer, Benjamin Abbott of Exeter, Eliphalet Pierson and John Adams of Andover, Caleb Butler of Groton, Ebenezer Adams of Liecester, and Simeon Colton of Monson. Than these preceptors in their respective Academies no grammar school of any populous city could furnish better candidates for the university, or better train young men and young ladies also for the useful callings and occupations of life.

In former times, and more especially in our days, there must be great inequality of educational advantages in different localities, for there is, and must be always, a great inequality in the means and conditions of the people in different parts of the State. Wealth concentrates in cities, and brings with it every facility of instruction in all grades of local schools. But mental endowments and the capacity for knowledge are distributed in the town and city without partiality, the country having a larger proportion of those who excel in the schools than is found in the city.

No better proof is needed to show the value of the first established Academies, in their relation to popular uses, than the desire

to multiply schools under that name in nearly all the important towns. This desire was prompted chiefly by the higher English education they furnished; making them, in all the towns where they were located, an important auxiliary to the elemental schools. Prompted by local enterprise, and aiming to secure the advantages which vicinity was supposed to give, schools called Academies sprang up in great numbers, having no endowments, without any other than a mere local policy, and with an irregular and intermittent existence; the patronage depending solely on the local popularity of the teacher.

In process of time some of the older incorporated Academies, as Marblehead, Bristol, and Framingham, became local schools, and lost their former character as schools for the public at large.

As the wealth and population of the country increased, a demand was made for a higher grade of strictly local schools in all the larger towns, and for that reason the unendowed Academies generally and very properly assumed the position and functions belonging now to the modern high school, which ought always to be supplementary to the common school system.

Most unfortunately for the progress of popular education some, who have labored to extend the high school system in view of its transcendent utility, have assumed a position of antagonism to Academies, calling in question their policy, regarding their day of service as past, and advocating the substitution of high schools in their place.

We most cordially sympathize with the expansion of the system of public instruction to the utmost limit of practical improvement. We fully recognize the advancement of popular education to that degree that in many respects the local high schools may be equal in rank to the condition and standing of the Academies in former days. But high schools must, if they fulfill their proper design, be adapted to the wants of their localities, and meet the average standard which the people of each locality may have the ability and the will to reach. We care not how many such schools exist, or how high a rank of real excellence they may attain, for their object is to supplement the elemental schools, and their rank as *high* schools is correlate to the lower grades in the public system of instruction to which they in common belong.

Of course it follows that the term high school is a very indefinite term, when regarded in its proper relation to the public system; since the high schools of Boston and Salem and Cambridge must be at the head of a greater number of grades than in the country,

where only two, or at most three, grades can be introduced. And yet the average capacity of pupils in the cities must be met as well as those in the country, and the range of studies must not be so high as to render the school of no use to those for whose sake it is specially designed. It is the grade of schools every where and not the name that confers on them real rank.

Now it is clearly beyond the proper province, as it is beyond the ability of nearly all the high schools conducted as they are or ought to be in these days, to fit boys for "ye universitie" as the ancient grammar schools might do; since the standard of college education and of the preparatory schools is as much higher now than formerly, as is the rank of the best high schools of our times above the elemental schools half a century ago.

Far better is it for the pupils who wish to prepare for college, and far more economical is it for the community, that the Academies should continue to do that work well, than that the high schools should assume to do so great a work for so few in number, while the welfare of the great majority of their pupils is neglected.

In Boston and New York and large cities and towns, where wealth is abundant and the gradation of the public schools is perfect, the highest in the series may be a school preparatory for the university; for such places can well afford the expense, although the proportion of city boys who prepare for college is not one-half as great as it is in the country, and in the country not more than one in a thousand of the boys belonging to the public schools ever go to college.

The Boston Latin School, the oldest grammar school in the land, has always sustained the very first rank as a classical seminary. It has for a constituency one of the largest and most enlightened of American cities. The wealth of that city is equal to nearly one-third of the entire valuation of the State of Massachusetts. The Latin School is the only classical seminary in that city sustained by public taxation. It has the best teachers which the highest salaries can procure, and all the advantages which the best instruction and the best discipline can give.

According to the report of the Committee on the Latin School of Boston (Dr. N. B. Shurtleff, chairman) to the Boston School Committee, September, 1861, which was published in this Journal, Vol. XII., page 559, it appears that the average number prepared for college, for the ten years previous, at the Boston Latin School, was 16·8 per annum; and of these the average number of those received from the public schools was 7·7, while the number re-

ceived from other schools was 9·1, making the whole number 16·8 as the annual average of this celebrated school, or seventy-seven who entered the school from the public schools of the city, and ninety-one from private schools. As to those who entered from private schools, amounting to more than half of the whole, it may be presumed that this great accession from schools not belonging to the public system must be due to the excellence of the Latin School, and the fact that its tuition is free to all residents of the city.

From the same report it appears "that for the forty-six years previous to 1861, comprising the masterships of Gould, Leverett, Dillaway, Dixwell, and Gardner for ten years, the average number fitted for college was 12·56 per annum."

The report then asks, "Do not these figures show how eminently useful the Latin School has been in its highest vocation—the production of classical scholars? During the last forty-six years nearly six hundred young men from this school have been admitted to honorable standing in the several universities and colleges in New England.

Such is the claim of Dr. Shurtleff, in behalf of the Latin School of Boston, upon the sympathy and support of a city the largest, the most populous, and the wealthiest in New England. She may justly be proud of this, the oldest grammar school of the land, as the richest gem in her crown of honor as the Athens of America, the home of noble scholars and princely merchants. Let her sustain this school, for she can well afford it, as a part of her system of public instruction so often a matter of boast as the best in the United States, although from that system only seven and seven-tenths per annum of the graduating class of college candidates are received from the far-famed public schools of Boston. And yet this result, though put forth to the world by the Boston School Committee as a matter of boasting, will be received with surprise as very small for a city whose population in 1861 was nearly 178,000, whose valuation for 1860 was $312,000,000, in whose public schools there were 28,000 pupils in 1861, of which only one pupil in 3,636 was fitted for "ye universitie" in one year, in conformity with the ancient statutes.

Compare now, with this record, the results of classical training in the number of candidates for college annually sent forth from Phillips Academy at Andover.

We have only the statistics for the last twenty-eight years, the period of Dr. S. H. Taylor's preceptorship. We make no estimate of Dr. Pierson's administration, or of his successors, Mark Newman,

John Adams, Osgood Johnson, and others, who were at the head of the school for the sixty years previous to Dr. Taylor's accession. We refer not to the results of the English school always sustained at Phillips Academy, of which Wm. H. Wells and J. S. Eaton have been masters, nor to the Normal Seminary connected with Phillips Academy for many years, the first established in America. We refer only to the department of the classics from which, in the last ten years, 46·9 per annum have been fitted for college. In the previous eighteen years the average number fitted was 25⅔, and for the entire period of twenty-eight years the average has been 33¼ per annum. This number does not include two hundred who advanced as far in their course of study as through the first or second term (three in a year) of the last year's course of study, more than half of whom were pretty nearly fitted for college and others within two terms of study."

Thus more than one thousand young men have been sent from Andover to the different colleges, in a little more than a quarter of a century, by one eminent instructor. This one fact is enough to show the vitality of this institution as a power in the land. But the endowment on which all the departments of Phillips Academy rest as their basis does not exceed $75,000, while the funds at Exeter do not vary much from $100,000.

But in these days all the colleges and nearly all Academies are no less schools of science than of the classics. All the best colleges have scientific departments, and the Academies having the greatest patronage are furnished with instruction and apparatus for the preparation of young men for the higher scientific institutions. So extensive has the routine of scientific studies become, that they can not be pursued with profit unless in well endowed institutions where a course of study is established and adhered to. Hence, in Williston Seminary the amplest provision is made for this branch of studies as well as the classical department. As these branches can not be well taught without special teachers and expensive cabinets and apparatus of every kind, the best Academies have been furnished with facilities of teaching in these respects as the high schools with few exceptions have not been.

But the public schools have endeavored, not only to provide classical but scientific instruction also, in obedience to a popular demand for a class of studies deemed specially practical; and the consequence has been that in many places the public schools have been overburdened with an excess of branches of study, while the branches essential as the foundation of real mental culture have

been discarded. This course has diminished the real value of the public schools, which have thus been made subservient to the wants of a few, while the essential interests of the many are disregarded.

The attempt has been made to accomplish too *high* things in what are called high schools. Not only is it proposed to fit boys for "ye universitie" without regard to the question whether they wish to be fitted or not, but to teach the outlines of nearly all the branches for each one of which a professorship is deemed a necessity in a decent college. But this is an impossibility, even in the best high schools of our largest cities and towns, without ignoring the grand idea of what ought to be, if it is not, the policy of the local high schools every where, that they are supplementary to the common schools, and are high in relation to them and not in relation to the Universities; and that they should not therefore be considered, except in rare instances, as taking the place which middle schools must occupy as intermediate between the highest local schools and the colleges, which is the proper sphere and function of the academical system.

The progress of popular education, so-called, does not consist (as it is so often falsely assumed to consist) in introducing *high* studies, and a great many of them, into a school having only one or two teachers, and thus make it *high*. For no progress is so sure as this to make a school the lowest of the low, in all the essential uses and qualities of education. The old staples of instruction, reading, writing, and arithmetic and grammar, can not be dispensed with in the popular schools; for their uses are grounded in the absolutely necessary wants of the youthful mind. Any system, then, which substitutes other studies for these, is one whose whole tendency is to deteriorate not to elevate the quality of education. We are not sure but that Latin may take the place of English grammar to some extent in the public schools, but it must be solely as a disciplinary study to teach general grammar, and not with a view to a full classical course in the local schools of any grade of excellence. Indeed, we are not sure but that English grammar had better be discarded entirely, if in the course of common school instruction it must be limited to only one or two terms, and then set aside as *finished*. And yet the text-books in that branch are as

> Thick as autumnal leaves that strew the brooks in Valombrosa;

though they were all unwritten until late in the eighteenth century, when the countless progeny began to be.

How the literature of the Elizabethan age and Queen Anne's time, when Addison and his peers wrote the Spectator, could have existed, when such a branch as English grammar was unknown in any

English or grammar school, is a mystery for some modern common school superintendent to solve. In this country arithmetic was taught in all the common schools without a text-book till after the Revolution, and geography was a study high enough to be a branch of college education; and yet these were the schools in which Washington and Franklin received all their elementary training. They were taught in school-houses not decent enough for an Irish shanty now, and yet Franklin, thus "fitted" for his calling, became such a master in philosophy and civil affairs as that he held the lightnings in his grasp and hurled tyrants from their thrones. How could he do all this, when in no grammar school on earth had the merest elements of the natural sciences even been heard of? And yet he did not underrate the grammar schools of his native city, or decry, as modern sciolists do, the value of classical learning, or establish Franklin medals for some school of practical and naturalistic studies, to the detriment and discouragement of so-called *dead* languages and *dry* and "uninteresting" branches of study.

But the grand argument against the academical system of middle schools and against colleges as well is, that pupils must not be domiciliated away from the supervision of parents and placed under the entire supervision of tutorial governors and teachers. It is assumed that there is "no place like home" for the higher gradations of mental culture as well as the lower. If all homes were places for intellectual development as good as we might conceive them to be, where the parents were themselves qualified in the best manner for the work of instruction and moral discipline, then it were well that home influences should predominate in every stage of intellectual growth. But the homes of the best and most learned men are not found to be thus adapted to the purposes of education. They lack both the power to advise and direct in respect to the best methods, especially in all the higher departments of learning. Even if well-educated parents understand the value of learning, they may yet be ignorant of its processes and best methods even while they enjoy its uses. Hence it is that liberally educated men, more than others, seek the best seats of learning for the education of their own children. They understand, as others do not, how that the local influences of home often tend to neutralize the best benefits which the formative or transformative power of a college or Academy exerts on a young and wayward mind. Nor does the argument hold any better, though often urged, that the public school system is any more in sympathy with the genius of our democratic institutions than the academical system in its middle or higher grades.

We do not deny that the public school tends strongly to modify and remove those social distinctions which it is the direct aim of home training, in many instances, to create and intensify. The boy of Beacon street may recite his lesson in the Boston Latin School on the same seat with the boy of Ann street; but the good influences of the morning session of each day, in obliterating factitious distinctions and creating good fellowship, may not last longer than the dinner-hour, when all the power of home associations resumes its undiminished sway. It is not so in those schools where the pupils come together from localities remote from each other, and from under the influence of social customs and notions most unlike. Here nothing is more common than to see the rich and the poor domiciliate together on grounds of perfect reciprocity, and forming the strongest fellowships in spite of antecedents of birth and position most diverse. If there can be found on earth a realization of that dream of politicians, a republic where there is a perfect equality of rights and privileges, and a perfect reciprocity of sympathy and social fellowship independent absolutely of the distinctions of the outside world, that realization is a community of students in an American Academy or college.

In the home or local system of schools the aim is really private education; and for ends more or less personal, though it be obtained at the public expense. In the academical or collegiate system of schools, the aim is a true public education, though it may be obtained by means legally private, that is, such as furnished by individuals or corporations.

The local system respects the parental will and dignity on the ground, that as parents, in their individual or social capacity, pay for the tuition of their children and appoint the teacher, they have a right to control all the methods and processes and influences of instruction; that is, they may say what shall and what shall not be taught. Such a policy as this, for the period of childhood during the time of rudimental training, is obviously the very best for the vast majority of pupils; since, during the earliest stages of education, the parents, who are the natural protectors of their children, are generally competent to act for them in respect to their intellectual as well as their physical wants. As the great majority of the young can never go much beyond the rudiments of all useful learning, the public school system is most obviously founded in the eternal verities of things. But the period of childhood and the training proper for that period has its natural range and limits, and these limits and the course proper for those limits can not be essentially changed so

as to substitute therefor the studies and the discipline of maturer years. This principle will not fail to be regarded if the idea of adolescence and full majority is admitted, which idea some educators seem to disregard, as do the Chinese and some parents nominally Christian also, since in their system of training the child is never of age till the parent dies, and not even then.

The recognition of the period of adolescence, in a system of education, demands a grade of schools in which the interest of the pupil in his own welfare is a consideration paramount to the parental will or dignity; and hence, although the parent may rightly control the course of the pupil so far as to direct the place of his education, yet, while in that place, the teacher stands in all respects *in loco parentis*, and the parent in all that pertains to the appropriate work of instruction and discipline never stands *in loco docentis*.

It is evident, therefore, that as the period of adolescence draws to its close, the aim of school training must more and more have a direct reference to the welfare of the pupil as the party mainly concerned; and less and less to that of the parent, except indeed so far as that, by sympathy and affection, he may regard the welfare of his child, at all times, as his own. But in the later stages of education, at the higher seminaries, the authority of home can not predominate in opposition to the teacher's labor and influence. The students must be held in subjection by a power stronger than that of any home influence can ordinarily be. Such a power a vigorous seat of learning affords, and it meets the wants of subjective training at the period when its force is most efficient and most needed

To curb the fiery heart of youth.

Such a power was exerted by Arnold at Rugby, and by Dr. Whewell, the master of Trinity at Cambridge, recently deceased. Such a power have many teachers, both among the living and the dead, exercised in the academic schools of our own land—a power which must forever make our Academies and colleges indispensable, since they supply those forces of strength which no family, or hamlet, or town, or city can furnish without their aid.

Every college graduate can understand, as others can not, the peculiar advantages of mental development and of those executive qualities of the manly character, which come as the incidental results of a public education, and which the training of home or of any local school, however excellent it may be in other respects, rarely confers.

Hence the necessity of a public education for places of public service and for all kinds of civil and ecclesiastical duties, which

require men of "large discourse" or liberal and comprehensive culture. Hence the necessity of colleges and universities, and hence, too, the need of having institutions which shall, in all their forces of moral and intellectual power, keep pace with the wants of our advancing American civilization, ultimately to be, in its maturity, the noblest in the world's history. We shall need universities as much better than Oxford and Cambridge, as the destiny of American society is to be better and more powerful than that of England or any of the continental kingdoms and empires.

But as preliminary to their ultimate enlargement, and as a condition of their efficiency even in their present form, we need a system of middle schools having the same great ends of social advancement in view, and tending to the same results, which it is the object of our highest seminaries to accomplish.

The Universities of England and the continent of Europe have for ages received all their annual accessions from the middle schools, in which the foundations of all sound education and training have been laid, the quality and degrees of which have been determined by the wisest of men, who have fully understood its uses as well as its processes and instruments. And the education obtained in the "great public schools" of England has exceeded, in the extent and value of classical training, that which the best American colleges have not furnished until within a recent period.

But the day has come when the colleges of this country must embrace within their curriculum other studies than the elemental studies of a classical or scientific course. Four years are too few to include the multitude of studies which a general course of liberal culture must embrace as the limit of graduation. And a great share of the classical and mathematical studies of the first two years of the college course, as now arranged, could be better attended to in middle schools, under good teachers and with proper endowments and accommodations. The temptations to dissipation would be far less and the standard of attainments far greater in studies, which, though pursued in the college, are really and altogether elemental, when the rank of scholarship in the English and European universities is considered.

So the middle schools are more desirable places than the college to lay the foundations of, not scholarship only, but of the highest qualities of manly character. Dr. Arnold's influence was such as to shield his pupils with a moral panoply of protection against the folly and dissoluteness of university life, the occasion of utter ruin to so many young men in all the high seats of learning.

There is need, then, not only of the continued existence of the best Academies of New England but of their great enlargement and improvement. They are needed to supply that lack of the best culture which the local schools of the rural sections of the country can never supply. They are needed as places of resort for training the best minds of both of the city and country under certain influences, which few purely local schools can have under the best of circumstances. They are needed to prepare for the colleges the best material to make good scholarship, much of which is found among the hill towns of New England, though they may be as rough as Mount Helicon, on whose slopes the muses did not deign the less to dwell, because they were wild and barren.

We need them that the proper work of all the local schools, both of the city and the country, may not be interfered with, in the vain attempt to make them answer for uses and purposes not belonging to their proper design, in educating the whole mass of the popular mind to the highest possible average of attainment at the public expense. The duty of sustaining the local schools, in all their grades, will be met by the American people, and the local schools will have attained their limit of perfection, not when they shall attempt to fit one out of a thousand boys as he ought to be to enter college, but to educate the nine hundred and ninety and nine, who can not and ought not to go to college, in the best possible manner, for not the learned professions but for the not less honorable callings which society demands shall be filled by well-educated and good citizens. It is perhaps enough that the State confine itself to this great work, the education of the people, by improving to their utmost capacity the local schools of every grade.

With respect to colleges and middle schools, it is perhaps all that we can expect, if we demand the kindly regard of the State and such scanty appropriations as can be afforded. For the history of the higher education of society shows that, in all ages of modern civilization at least, universities and classical schools have had to depend on the enlightened liberality of a few noble and generous benefactors. All the colleges and universities of England and the Continent, all the colleges of this country, the oldest and the youngest, all the important Academies and professional schools, are monuments of *private* liberality, supported chiefly by the endowments of those who, blessed by Providence with wealth, have left it as a legacy of perennial good for the successive generations of men, who, as they receive the benefit of their benefactions, revere and bless their memory with "perpetual benedictions."

MASSACHUSETTS POLICY OF INCORPORATED ACADEMIES.

THE earliest schools in Massachusetts, technically known as Free, Grammar, or Town schools, imparted secondary as well as elementary instruction; but the needs of families not residing within towns on which such schools were made obligatory by law, led to the establishment of a class of institutions known as Academies, the public policy of which is set forth in the following document:—

At the General Court of the Commonwealth of Massachusetts, held on the 25th day of January, 1797,

ORDERED, That the secretary be, and he hereby is, directed to cause the report of a committee of both houses on the subject of grants of land to sundry academies within this Commonwealth, to be printed with the resolves which shall pass the general court at the present session.

And be it further ordered, That the grants of land specified in said report shall be made to the trustees of any association within the respective counties mentioned in said report, where there is no academy at present instituted, who shall first make application to the general court for that purpose: *provided*, they produce evidence that the sum required in said report is secured to the use of such institution: and *provided*, that the place contemplated for the situation of the academy be approved of by the legislature.

Report on the subject of Academies at Large. Feb. 27, 1797.

The committee of both Houses, to whom was referred the subject of academies at large, and also sundry petitions for grants of public lands to particular academies, having accordingly considered the subject on general principles, and likewise the several petitions referred to them, submit the following report:

On a general view of this subject, the committee are of opinion that the system hitherto pursued, of endowing academies with State lands ought to be continued—but with several material alterations; first, that no academy, (at least not already erected,) ought to be encouraged by government, unless it have a neighborhood to support it of at least thirty or forty thousand inhabitants, not accommodated in any manner by any other academies, by any college or school answering the purpose of an academy; secondly, that every such portion of the Commonwealth ought to be considered as equally entitled to grants of State lands to these institutions, in aid of private donations; and thirdly, that no State lands ought to be granted to any academy, but in aid of permanent funds; secured by towns and individual donors: and therefore, previous to any such grant of State lands, evidence ought to be produced that such funds are legally secured, at least adequate to erect and repair the necessary buildings, to support the corporation, to procure and preserve such apparatus and books as may be necessary, and to pay a part of the salaries of the preceptors.

In attending to the particular cases, the committee find that fifteen academies have already been incorporated in this Commonwealth; also Derby School, which serves all the general purposes of an academy, but that the academy at Marblehead probably will only serve the purposes of a town school. And the committee are of opinion that the three colleges established and endowed by the State and private donors, will serve many of the purposes of academies in their respective neighborhood, so that if four or five academies more shall be allowed in those parts of the Commonwealth where they may be most wanted, there will be one academy to every 25,000 inhabitants, and probably, therefore, they must struggle with many difficulties until the wealth and population of the State shall be very considerably increased; for however useful colleges and academies may be for many purposes, yet it is very obvious that the great body of the people will and must educate their children in town district schools, where they can be boarded or supported by their parents.

The committee find that of the fifteen academies already incorporated, seven

of them have had grants of State lands, that at Fryeburgh of 15,000 acres, and the other six, at Machias, Hallowell, Berwick, Marblehead, Taunton, and Leicester, one township each. To extend this plan of a township to each academy to those academies already allowed, and to those which from local circumstances may be justly claimed, would require the grants of twelve or thirteen townships more. The committee think this number too large, and therefore propose half a township of six miles square, of the unappropriated lands in the district of Maine, to be granted to each academy having secured to it the private funds of towns and individual donors before described, to be laid out or assigned (with the usual reservations) by the committee for the sale of eastern lands.

Of the eight academies already incorporated and not endowed by the Commonwealth, part appear to have been endowed by towns and individuals; and as to part, no satisfactory evidence is produced of such endowments.

It appears that Dummer's Academy, in Newbury, has legally secured to it a permanent fund for its support, by a private donor, to the amount of $6,000; and that Phillips Academy, in Andover, has a fund something larger, secured in like manner; that each of these academies was established in a proper situation.

It appears that the academies in Groton and Westford are about seven miles apart, both in the county of Middlesex, and with a neighborhood perhaps not so adequate as could be wished to the support of two; that each of them has received the donations of towns and individuals to the amount of about $2,500, and that each of them is now much embarrassed for want of funds, but both of these academies have been incorporated and countenanced by the legislature, and must be considered as fully adequate for the county of Middlesex.

On the whole the committee propose an immediate grant of half a township of the description aforesaid, to each of these four academies. As to the academies at Portland, Westfield and New Salem, and in the county of Plymouth, the committee propose that half a township, of the description aforesaid, be granted to each of them: *provided*, each of them shall, within three years, produce evidence that there is a permanent fund legally secured to each by town or individual donors, to the amount of $3,000, and that the Act establishing an Academy in the town of Plymouth be repealed, and an Act be passed establishing an Academy in the county of Plymouth, on the principles of the petition from that county; and that half a township of land be granted to each of the counties of Barnstable, Nantucket, Norfolk, and Dukes County, and Hancock, for the purpose of an Academy; *provided* they shall, within three years, severally furnish evidence that funds are secured by towns or individual donors to the amount of $3,000, for the support of each of the said academies.

The Joint Standing Committee on Education (Hon. Charles W. Upham, *Chairman*,) in a Report dated March 30, 1859—after reciting the above report, as proceeding from a Committee "composed of leading and experienced men, of whom Nathan Dane of Beverly was one,"—"and as published by the General Court, containing most decisive and emphatic annunciation of the policy of the State"—remark:

The following principles appear to have been established, as determining the relations of academies to the Commonwealth. They were to be regarded as in many respects and to a considerable extent, public schools; as a part of an organized system of public and universal education: as opening the way, for all the people, to a higher order of instruction than the common schools can supply, and as a complement to them, towns, as well as the Commonwealth, were to share, with individuals, the character of founders, or legal visitors of them. They were to be distributed, as nearly as might be, so as to accommodate the different districts or localities of the State, according to a measure of population, that is, 25,000 individuals. In this way they were to be placed within the reach of the whole people, and their advantages secured, as equally and effectively as possible, for the common benefit.

ACADEMIES AND SECONDARY EDUCATION.

SECONDARY EDUCATION IN PRUSSIA.

PRELIMINARY REPORT.

THE following pages contain a preliminary paper on the System of Incorporated Academies and Classical Schools of New England, and particularly of Massachusetts; and an elaborate exposition of the System of Secondary Education in Prussia, drawn up by a Director of one of the most distinguished Gymnasiums of that kingdom. In the thorough scholarship obtained in this class of institutions in Prussia, it is possible to find the basis of the real scientific culture given in the Universities of Germany.

PUBLIC INSTRUCTION IN PRUSSIA.

SECONDARY EDUCATION.

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PUBLIC INSTRUCTION IN PRUSSIA.

II. SECONDARY SCHOOLS.

A. HISTORICAL DEVELOPMENT OF SCHOOL ADMINISTRATION.

a. Supreme Administration.

THE various independent constituent parts of Prussia from which the kingdom has its origin, prevented an early central administration of public instruction, which was not established till the present century. The schools generally, according to their origin, were at first closely connected with the Church and its regulations, or dependent on the local authorities. The Elector Joachim II. organized in 1552 a consistory for evangelical church and school affairs in Brandenburg; John George decreed in 1573 a visiting and consistorial regulation, which determined the supervision of the schools, as well as their internal arrangements, the instruction and the relations of the teachers. Clergymen were made inspectors, and at the head was the consistory, composed of four or five members, whose assessor was usually the general superintendent. This council undertook the traveling inspection in the provinces, which was fixed at every ten years for each province; during which period the clergymen were exempt from school and church visiting duties. The regulation specified as visitors: "Our general *Superintendents* and one of our Consistory members, or from some other council, together with the *Notarius*" (clerk.) The visitors appointed as inspectors for the surrounding towns and villages, the pastors of the principal cities of each place. In regard to the instruction of teachers and pupils of the city-schools, which developed afterwards into high-schools, very special regulations were made. At the time of the institution of a privy counselorship, under the Elector Joachim Frederic, as the highest established administrative council, there originated with it, for the consistory, an additional clerical department. The Thirty Years' War, from whose devastating consequences the Brandenburgian countries suffered particularly, prevented for a long time any further progress in School administration. As a proof of this, we have the decree of Elector Frederick William concerning the affairs of the Protestant Church, in 1662, which contains also the beginning of a School regulation, namely, "that churches and communities should unite their efforts in organizing here and there, in villages, towns and cities, well-administered schools." The Lutheran Church regulations for the Duchy of Cleves and the earldom of Mark, in 1687, recommend the same, although with more detailed specifications.

The union of the Duchy of Prussia with the Brandenburgian provinces, the erection of Prussia into a kingdom under Frederic III., rendered centralization in the administration possible, and thus in fact developed the general legislation of the Prussian State since the eighteenth century. Entering deeper into the question, and aiming at a still greater centralization of instruction, was the royal decree of Frederick William I., October 24, 1713, concerning the Prussian evangelical, inspective, presbyterial, parochial regulations for gymnasiums and schools. It gives the supervision of all the schools to the Church: "the gymnasiums and Latin schools of Berlin, Frankfort on the Oder, and Halle, to continue in their present organization and *typis lectionum*, and those of the other cities and provinces to be modeled as much as possible upon the former, so that some uniformity might be obtained." The decidedly Protestant character of this regulation shows itself in the importance it gives to the Heidelberg catechism: "No other catechism for the young to be allowed in schools or churches." The exclusive use of this catechism was again prescribed in 1716. Important for higher instruction was the revised regulation of September 30, 1718, both for students in schools and universities, as also for the *Canditorum ministerei*, in which the moral and scientific requirements of those devoting themselves to university studies, namely, the theologians, are strongly set forth and enforced.

In December 22d, 1722, Frederic William I. issued instructions for the general treasury, war and domain departments, which contained also an article relative to church and school affairs: "In all places," says the article, "where the *jus patronatus* belongs to us, the churches and schools shall be kept in good condition, and the administration shall direct the authorities of the provinces to see to this matter." The mere æsthetic development of the mind found no sympathy with this king: he cared chiefly for the wants of the common people. The administration of this department was given to Printzen, president of the German and French members of the consistory, director of all ecclesiastical affairs, protector of the academy of fine arts, principal trustee of all the royal universities, etc., who held it from 1722 to 1725. He was succeeded by the Baron of In-and-Knyphausen, to whom, in consequence of an accumulation of work in the consistorial affairs, (1730) was associated as vice-president, Von Reichenbach. In the four provincial departments, the church and school affairs were administered by members of the consistory and the legislature.

It is natural that under a monarch like Frederick II., the school administration should be more intelligently conceived than under his predecessor, so far his inferior in real culture. As soon as the storms of war were over, he issued a decree, (1750,) for the Lutheran high consistory of Berlin, to whom was intrusted the supervision of the consistories of the provinces, with the exception of those of Schleswig. Its first president was the chief of the ecclesiastical department, the privy State and law minister, Baron of Danckelmann · in 1764, the church and school

affairs of the Protestants were intrusted to a special chief. But it was only after the close of the Seven Years' War that the great king could give his special attention and care to what he considered the hobby of his old age, schools and public instruction. For the carrying out of his views of education and mental culture, he chose Baron von Zedlitz-Leipe, who, as minister of the State and Law department, was made ex-officio chief of the ecclesiastical department for the Protestant church and school affairs, (January 18, 1771.) The king's letter of 1769 *sur l' éducation*, (Œuvres ix., p. 118,) contains the principles by which public instruction was to be guided, and has been guided since. He regretted that in the gymnasiums the pupils were not accustomed to think for themselves and did not begin early to exercise their own judgment. In the public offices, birth had no advantage over merit. "I am persuaded," he says, "that man can be made what you wish him to be. All that enlightens the mind, all that widens the circle of knowledge, elevates the soul, and never lowers it." The exercise of one's judgment, the cultivation of the understanding, thinking for one's self, were considered the soul of instruction, and Zedlitz was the man to make these principles the fundamental springs of his activity, in opposition to the blind memorizing of matters never understood, to the reciting of mere words, and to the mental inactivity of both pupils and teachers. He succeeded in carrying out his purposes, to find the right sort of men in Meierotto, Niemeyer, Gedike; he called the philologist Fr. Aug. Wolf to Halle, and the development of the Prussian high-school system is still linked with the activity of these men. It was at the time when Zedlitz was at the head of the Educational administration, that that great movement of the Pedagogy took place, a revolution which originated with Basedow, who harmonized thoroughly with the fundamental ideas underlying Zedlitz's views. It was also to carry these out that Trapp was called from his Philanthropinum in Dessau, to take the chair of Professor of Pedagogics at Halle. But Zedlitz recognized soon the emptiness of this scheme of mere pedagogics, and in announcing to the king (1782) the return of Trapp to Holstein, declared the vacant chair to be "no very great loss."

Considering the self-dependent development of the school-system, Zedlitz conceived the plan of organizing a supreme school-board, independent of the superior councils, which, beside the consistory, should have the supervision of the whole school administration in all the royal domains. This plan was carried out by Frederick William II. in 1787. The board was to depend immediately on the king, and have charge of all the affairs which had till then been conducted by the chief trustees of the universities. It became the duty of all State collegiums, magistrates and public officers, to execute the orders of the chief school-board as rapidly as possible. At the head of this new board stood Von Zedlitz, and Wöllner, presidents of the privy council of the department of finances; and as members, the chaplain of the University of Halle, Von Hofmann, the consistorial counselor, Professor Steinbart, of Frankfort on the Oder, and

the gymnasium directors, Gedike and Meierotto, of Berlin, who were also commissioned to make the inspection visits through the provinces. The most important decree of this council, and the most fruitful in results, was the plan of instruction conceived by Gedike, under the coöperation of Meierotto, given December 23, 1788, and stating among other regulations that the final university examination of the school was to take place before the dismissal of the scholars.

A short time previous to this, however, a counter-movement had taken place in school and church affairs, by the withdrawal of the minister Zedlitz, and the subsequent election of the privy counselor, Wöllner, to the actual privy State and Law ministry, and as chief of the ecclesiastical department, (July 8, 1788,) which election found forthwith an expression in the religious edict of July 9, 1788. This edict was decidedly opposed to the so-called "rage of improvement, by which the respect for the Bible, as the revealed word of God, was calculated to grow weak, which falsified, distorted, and even rejected the divine records, concerning the welfare of the human race. A general rule of conduct was necessarily maintained, by which the masses could be led faithfully and honestly by their teachers in matters of faith, and this line of conduct had thus far been the Christian religion, as set forth by its three principal confessions." The edict of December 19, 1788, brought back into full force the censure on philosophical and theological writings, which in the last years of Frederic had lain dead, and men of a rationalistic cast of mind like Gedike lost their influence.

Niemeyer was threatened with suspension, and a circular addressed to all the inspectors of Kurmark stated, that to help towards the increase of neology, all newly-appointed teachers in the gymnasiums and city-schools should be made to sign a reciprocal agreement printed for that purpose, (1794.) On the 5th of February of the same year was published the general common law for the Prussian States, which, in part ii., tit. 12, declares schools and universities to be State institutions, and sets up a system of laws embracing the whole plan of instruction, of which the principal points are still in force.

Frederic William III., on his accession to the throne, November 16, 1797, sent on the 23d of the same month a cabinet order to the various departments, houses, and public authorities, cautioning them against the many unworthy subjects that had found means to get into office. Prompted by this message, Wöllner dispatched, December 5, 1797, a special order to the consistories, to remind all lower councils of their duties, and urge upon them a renewed vigilance in respect to the pastors and teachers under their special supervision, that these may not only teach religion in its purity and according to the prescription of the religious edict, but that they may also prove efficient and industrious in the discharge of their school and pastoral offices. Meanwhile, the counselor of the legation, Menken, who opposed the policy of Wöllner, had been appointed privy cabinet counselor to the king. The influence of this

gentleman upon the king determined Wöllner to issue, January 13, 1798, a circular in which he proposed to devise better means to advance the spirit of true religion and morality. But in spite of the readiness he showed to destroy his own work, he received a message disapproving his course, wherein the leading principle of government which actuated Frederic William III. is freely set forth: "I honor religion myself, and follow gladly its blissful precepts, and would not rule over a people that disregarded it. But I know also that it must come from the heart, from the feelings, from inner conviction; if degraded to a methodical restraint, if made a senseless babble, it will never promote virtue and honesty. Reason and philosophy must be its inseparable companions; only then will it exist of itself, and be able to maintain itself without the authority of those who would impose their dogmas upon future times, and prescribe to generations to come, how they should think and feel at all times and in all circumstances, on subjects that have the most important influence on their welfare." In spite of this reprimand, Wöllner continued in his own way of administration, and received in the early part of March his dismissal, as did the counselors of the chief consistory and the members of the chief school-college committee, who sympathized with him. There remained in the chief consistory, Andrew Jacob Hecker, who, like all those appointed after 1800—Zöllner, Nolte, Niemeyer, Sack, Ribbeck, Hanstein—were the right sort of men to carry out the cabinet order of January 11, 1798. Wöllner's place was filled by Von Massow, who was elected chief of the Lutheran and all ecclesiastical affairs, and the school department in general. The church affairs of the Roman Catholics were connected with the former, but the school affairs of the German Reformed Church came under a special department, of which Thulemeyer was chief. Both ministers were designated as ministers of State of the Judicial Department. The chief of the Lutheran party was also president of the chief consistory and chief school-board, of the directory of the poor in Berlin and Potsdam, of the privy high court, and of the court of credit system of the rural districts of East Prussia and Pomerania. The Lutheran school affairs of Silesia, conducted by the chief president of the Breslau bailiff administration, and the Roman Catholic, ecclesiastical and school affairs in Silesia, South Prussia, New East Prussia, and in the Frankish Principalities, that come within the administration of the province ministers, were outside his jurisdiction. In the latter, the Erlangen University came under the supervision of the minister Hardenberg. This dismemberment did not allow of constructing and pursuing a consistent plan for a satisfactory development of the mental and moral faculties of the people: the Prussian nation was composed of too many elements.

Soon followed a period of the severest trial and of the most spirited advancement. The words of the king, (August 10, 1807:) "The State must regain in mental force what it has lost in physical force," became henceforth the guiding star of the Prussian government. By the new

organization of the State councils, in 1808, the chief school-college was dissolved, and the administration of public instruction was attached to the Ministry of the Interior, under the name of "*Third Section, for Worship and Public Instruction,*" and placed under the immediate direction of a privy State counselor and section chief. The king appointed as minister the count of Dohna, and as chief of the third section, William von Humboldt, who united in the rarest manner all the qualities of a statesman and a scholar, and who, free from all selfish motives, was best calculated to fulfill the high charge intrusted to him, viz., the regeneration of Prussia. An educational system was the regeneration the Prussian monarchy aimed at, but the limited financial means of the State set obstacles to the plans the great Humboldt had conceived, and the latter, discouraged by continual pecuniary impediments, resigned, June 23, 1810, the position he had entered upon December 17, 1808.

Nicolovius and Suvern had been elected with him as technical counselors, to take charge of the section of instruction. Nicolovius had previously been secular consistorial counselor, and member of the East Prussian consistories, then representative counselor in the university affairs at Königsberg, and finally member of the department of ecclesiastical affairs and those concerning the schools and the poor, and had in the latter time been in constant intercourse with the most distinguished men of the State. His fine and gentle appearance, the close intimacy in which he had stood for a long time with Goethe, Jacobi, and other superior and congenial minds, his firm faith in the progressive and magnificent development of our time, rendered him a worthy co-laborer of Humboldt. He remained through many changes in the clerical ministry until May 22, 1839. Suvern brought into his new position, beside his vast scientific acquirements, a great experience in the profession of teaching, which he had obtained in the discharge of the duties of two directorships, at Thorn and Elbing, and during his academical career at Königsberg. He drafted the most important regulations and instructions, which the reorganization of the higher school-system required; for example, the subject of the examination of the candidates for the higher school office, of July 12, 1810, the examination of abiturientes, of June 25, 1812, and an essay on general instruction, in 1816, of which all was not published, but whose leading principles dictated the regulations of the administration. He submitted to the consideration of the State's ministry, a general plan for the form of government of the school system in Prussia, according to the cabinet order of November 3, 1817, in which it was said, "that the success of all that the State aimed at by its constitution, legislation and administration, depended on the foundations laid in the minds of the young," but the diverging and conflicting opinions, on the time and mode of putting portions of the plan into effect, prevented its execution. Subsequent to 1818, he confined himself almost entirely to the reports of the Academy of Sciences and to the sphere of activity of the co-directors in the department of instruction; he died October 2, 1829.

Humbold's place, at the head of the third section of public worship, was filled by the privy State counselor Von Schuckmann; and Nicolovius was appointed director for the specialities of the same; even when Schuckmann was elected Minister of the Interior, in 1814, the administration of public culture and instruction remained for some time within his jurisdiction. On the 3d of November, 1817, a cabinet order declared that "the Minister of the Interior should resign the office of culture and public instruction, as well as that of the department of medicine, connected with it," inasmuch as "the dignity and importance of the ecclesiastical and educational affairs demand a special minister," and Baron von Altenstein was selected for that office.

The energetic and effectual activity which, since 1814, the government displayed in the transformation and reconstruction of the higher institutions of learning, gained an intelligent and well-informed guide in Altenstein, and after him in Dr. Johannes Schulze, (1st August, 1818,) a new life-giving power, that made itself felt throughout the whole field of the sciences. About the same time, Hegel was appointed professor of philosophy in the University of Berlin, where, particularly favored by the educational system, he exercised a mighty influence upon the mental development of his cotemporaries, opening on all sides new avenues to science, and working out through a well-sustained method the taming curb that was to lead thought to the recognition of truth.

A glowing testimony of the organizing, regulating, and all-pervading spirit of the administration, is the large number of special and general amendments that appear in the higher school-system, which, during the Altenstein administration, (from 1817 till the death of the minister, May 14, 1840,) amounted, including those of the University concerning the last examination, June 4, 1834, to 738, all of which, special as well as general, contain much that is awakening and fertilizing to the mind, and in many instances, far outreach their immediate circle of action. That regulation formed an important clause in the reorganization system of the higher court. It was the result of years of experience, and of the mature consideration of circumstances. There would necessarily follow from it a better and greater unanimity in systems of instruction, and in the classifications of the various gymnasiums. In subsequent times, and till Altenstein's death, there were 438 more amendments made, among which the ministerial regulation of Oct. 24, 1837, is accounted the most important for its laying down the fundamental conditions by which gymnasial instruction was to be governed. It was the first time that a general Normal School system was devised for all gymnasiums. Its principles were adopted and followed until 1856.

The political changes, whose causes and reasons are sufficiently known, made in 1819 a painful break in the promising condition of the higher school instruction, and called forth the circular of the minister of Altenstein, which, addressed to the various presidents of educational institutions, ran as follows, in its introductory pages: "Recent events, and

especially the late reports in the 85th session of the German League, in Frankfort on the Main, concerning the abuses and the degeneracy which have been discovered in the German school and university affairs, oblige me to make an earnest appeal to all principals of schools and heads of gymnasiums and universities, to give particular and renewed attention to the abuses and errors which have been found in the school administration, and to exert all their power to oppose their influence, and prevent their further development." The object of the new measures was to inspire the young with an active love for their king and their country, and to enforce a severe discipline which, whilst its ruling motive was to treat the young with mildness and kindness, would also command obedience, industry and good morals, and make the strict observance of the existing laws their most sacred duty." A few years previous, the whole Prussian nation, and particularly the higher schools, had given to the world a glowing testimony of their love of king and country. The extraordinary events of that time, the great deeds, in which partly teachers and pupils participated, or which they encouraged by the vivid interest and the self-sacrificing spirit they manifested, could not help exercising a wonderful influence, and kindling a noble enthusiasm, that tended naturally to raise the intellect and sentiments of the younger generation, and leave, even in the subsequent years of peace, a lasting impression on their minds. We can not deny that war engendered among the school-going population a certain roughness, sturdiness and stubbornness, but the noble virtues of which they gave such ample proofs, and which filled their cotemporaries and posterity with admiration, should have protected them from suspicion, and from the severe measures that originated with the above-mentioned mandate. One of its most painful regulations was that which put the higher school direction under the supervision of the police, by limiting, on May 21, 1824, and without the knowledge of the ministry of Altenstein, the kind and benevolent Nicolovius to his clerical department, and appointing the director of the police ministry, Von Kamptz, in connection with his official duties, director of the educational department. In 1825, Von Kamptz was released from his duties in the Ministry of the Interior and Police administration, and appointed director of the Law department, but he preserved his position in the educational department until February 9, 1832. A cabinet order of the 4th of March of the same year, reinvested Nicolovius, to the great joy of Altenstein, with the direction of the educational department, which position he was still filling in the last weeks of the year 1830.

Although Von Kamptz had, by his friendly and polite manners, considerably tempered the feeling of fear and humility which had come over the educational world at his appointment as their chief, yet nothing could obliterate the painful impression which the mandate of the Ministry of the Interior and of the Police, addressed to the various administrations, made on the school-people, May 25, 1824, and which commences as follows:—"The irrefutable proofs we have that the rules and measures

recommended and prescribed till now, have not been able to suppress the injurious and erroneous sentiments, and false opinions still existing here and there amidst the higher and lower educational establishments, have determined his Majesty to issue still more positive commands on this subject." These commands concerned particularly the universities; and from that time the teacher became also subject to the strictest watchfulness of the government, the royal administrations being particularly requested to see that the younger public officers, whether in the service of the administration proper, or in that of any other public office, did not carry into their profession the injurious principles of the student life and its associations. During the following years there appeared, first, the cabinet order of August 16, 1826, in regard to the proceedings against faulty service and moral trespasses, in the question of pensions; second, that of September 24, 1827, in regard to the propriety of an inquest, in an administrative sense, into the case of civil officers who had come under judicial examination, but had not been dismissed from service; third, that of March 27, 1831, in regard to the application of the two preceding resolutions to teachers of high-schools and universities; fourth, that of June 20, 1833, in the form of a royal circular to all the school-boards of the provinces, concerning the political opinions of teachers and pupils, wherein the various administrations were again admonished to have an eye upon the teachers in this respect, and on the responsibility of the boards and their several members to report to the ministry all traces of antagonistic feelings and opinions.

The real consequences of such measures, called forth, in other countries, by ever recurring attempts at revolution, were not by any means as great as the anxiety that had dictated them. There was no occasion to apply them, and the administration of the educational bureau was too generous to spy out delinquencies of that kind. There existed also among the teachers of Prussian high-schools, the good, old Prussian principle, not to separate the love of country from the obedience due to the king, and the men who had actively lived through the troubles and the rise of Prussia, or had grown up under the burden of its misfortunes and had finally shared in its glory, offered to the educational administration, by their noble self-sacrifice, and their higher ideal of the profession of teacher, material for the culture of the people, such as few administrations had yet had at their command.

One of the most important changes in the administration was that decreed by the royal cabinet order, December 31, 1825, by which the school council (collegium) of the provinces were separated from the consistories; the first were clothed with their own independent supervision over the higher school-establishments; the second retained the right and duty to take part in the inspection of religious instruction. The higher private-schools came generally under the control of the government. Amongst the most important measures which originated principally under the influence of John Schulze, may be named that which laid aside the

parallel and section system, and introduced, in 1820, the general class system, appointing a regular professor for every class. Further are to be mentioned among the number of resolutions, the instruction for gymnasium directors, who, with the exception of those of the Rhine countries, (1839,) belong to the years 1823 to 1828; the ministerial resolution of September 24, 1826, respecting the pedagogic proof-year of the candidates for teaching, the regulation of April 20, 1831, for the examination of the candidates for higher teaching, wherein also the general school affairs are duly considered.

The harmony in which the regulations and promoting measures of the school-administration stood with the all-pervading enthusiasm of those who had made it their duty to carry them out, brought the school affairs, under the Altenstein administration, to such a flourishing condition, that their renown spread not only over the whole of Europe, but reached the furthermost shores of the oceans, and attracted from all sides zealous disciples of the profession of teaching, and ambassadors from foreign governments, who came to examine for themselves in Prussia, what could and should be done for schools. The best testimony of this is *Cousin's* own words, in his Report entitled, "*Etat de l'instruction secondaire dans le royaume de Prusse pendant* 1831," (Paris, 1834,) wherein, for a complete organization of public instruction, he states the four following points: 1, that boys and girls without exception should attend the elementary schools; 2, the middle class of the city population to have its schools; 3, a sufficient number of young men of the middle and higher ranks should attend the lower classes of the gymnasiums together; 4, a good number of these, according to their industry and capacity, should attend the higher classes, and thence proceed to the university; adding, "*Cet idéal est à peu près réalisé en Prusse.*" Friedrich Thiersch expressed himself in the same way in his Report on the reorganization of secondary schools in Bavaria, on "*The Present Condition of Public Instruction in the Western States of Germany*: Stuttgart and Tübingen, 1838.) "I found myself there," he says, "(Coblenz, September, 1834,) in a land which, for an observer in public instruction, is of much importance, and which, by its institutions of learning, its spirit of order, its administration, and the results obtained, had attracted the attention, yea even the admiration of foreign countries."

After the death of Altenstein, King Frederic William IV. appointed Dr. Eichhorn as minister of ecclesiastical affairs. He had been one of the most active supporters of the aggrandizement of Prussia against French supremacy. In 1817 he was called by the special confidence of the king, into the newly organized State councils, and since 1831, he filled, amidst general appreciation and esteem, the position of director in the Ministry of Foreign Affairs. His continued and lively intercourse with the most distinguished scholars of Berlin, his friendly intimacy with Schleiermacher and many other men of distinction in science and theology, his whole past life, devoted to the interest of Prussia and in support of its noble

efforts, caused his appointment to be hailed on all sides as a most fortunate one. And yet, through the very power of circumstances, was he carried away into such an opposition to all the ruling efforts of the time, that perhaps there never was another administration whose beginning and end gave rise to such differences of opinion. The attitude which Eichhorn took towards the Hegelian philosophy, till then almost exclusively in favor, and which he considered to produce nothing but dialectical sleights of hand, and as tending to undermine the Christian principle of life, his faith drawing ever closer to orthodoxy, had to be adjusted in the higher school-administration by different views and principles. He had certainly only undertaken the Ministry when he saw that his private conviction was in perfect harmony with the opinion of the king, and he was persuaded that when the views and ideas of the king were properly understood, treated as a unity, and carried out, there would be more cause than ever before to hope for the regeneration of Prussia and Germany—a regeneration which would give entire satisfaction to all free-thinking and reasonable wishes, and to all just demands.

The condition of public instruction was a cardinal object of the king's solicitude. It can not be denied that in the last twenty years the gymnasiums had to contend with much that was unfavorable. The new impulse given to industrial pursuits cast a certain reproach upon gymnasial studies, and made them appear superfluous; and seemed to require another species of high-schools, in which the realistic and practical should be recognized and provided for. The teacher could see in the younger generation a kind of pantheistical turn of mind which appeared unfavorable to Christianity. An ever greater disproportion in the outward circumstances of the teacher, with the increasing wealth that seemed to reach every one but him, became sensibly apparent; finally the unusual zeal with which everywhere higher culture was encouraged, had formed for the State, the Church, and the profession of teaching a greater number of individuals than could be well employed, and these had not yet found, after going through college, their adequate circle of activity in other spheres of life. Many of those also who had been educated in the so-called practical schools, had not yet learned to apply their acquired knowledge to their several trades, and to raise them in value. Eichhorn wished to remedy all these evils, and to satisfy all just demands. He aimed to give to the higher school-administration such an organization as would enable its members to take a more life-inspiring view of the actual condition of the schools, and a more active coöperation in their welfare. He was resolved to organize, under the name of supreme school-council, a higher, technical school-committee or section, which, for the administration of the inner life of the public establishments of learning, should enter into all the questions touching the qualifications of the teacher, the object, methods, and necessary means of teaching, and provide for this work a sufficient number of theoretical and practical men already eminent in the profession. The events of March 18, 1848, de-

prived him of his position and frustrated the realization of his plans.* The only lasting change that was made during his administration, was the re-introduction of gymnastics, by a cabinet order, June 6, 1842; and according to the king's own wish, this branch of instruction was made an integral part in the education of the people.

A few weeks after Eichhorn, Dr. Eiler also left the ministry, (Dec. 30, 1848.) He had been previously gymnasium director at Kreuznach, then school-counselor at Coblenz, and since December 1, 1840, co-laborer in the Ministry, where, October 30, 1843, he was elected speaker of the council-chamber. He enjoyed the particular confidence of his minister, and coöperated in the department of education for the high-schools, when it came to a question of morals, or to fill the vacancies of directors and teachers.

As Eichhorn could not expect of his counselors to be active, where he himself could not act according to his inner conviction, he had instrusted the conduct of the evangelical gymnasium affairs to Kortüm, privy counselor of the supreme court, who till then had had charge of the public instruction. Having previously been director of a gymnasium and schoolmaster of Dusseldorf, the latter was perfectly competent to undertake the gymnasium affairs. Prudent and considerate, he avoided making any unnecessary changes. John Schulze retained his position as reporter of universities, in which, after fifty years of service, he died, privy supreme counselor, regretted by all who had appreciated his high merits and the eminent services he had rendered to public education. Amidst the confusion and conflicting opinions of 1848 and the years following, when Count of Schwerin till June 25, Rodbertus till July 3, and Von Ladenberg as commissioner till December 19, 1850, conducted the ministerial affairs, Kortüm acted as mediator in the administration, and endeavored to soothe and harmonize if possible the antagonistic elements of that time. After a repeated and violent call for a closer connection between the higher private schools and the so-called real schools, he inclined towards the idea of fusing into one the three lower classes of the two institutions, but the transactions of the country school-conference, of which he was president from April 16 till May 11, 1849, and still more the discussion on the education laws in the ministry itself, brought him back to the opinion that the principle upon which the gymnasiums and real schools were based, should be considered as an independent one. He retired from public life, June 7, 1852. His place was filled by Dr. L. Wiese, then professor in the Joachim gymnasium, previously privy state counselor and inspector of the higher academies.

From 1850 to November 8, 1858, the ministerial affairs were conducted by Von Raumer. The latter found no occasion to make any radical changes in the high-school administration, and made it his chief duty to direct well and improve what had already been done. In this, however,

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* See *Eichhorn Ministry*, by a Colleague. Berlin: 1849. *My Pilgrimage through Life*, by Dr. Gerd. Eilers; vol. iv. Leipzig: 1858.

he found various opportunities for improvements; among these may be named the changes made in 1856, in the recitation system and the regulations for the examinations, both of which tended towards a simplification and greater concentration in instruction. He made it his chief object to see personally after the inner and outer welfare of all the institutions of learning, having the most distant ones visited by departmental counselors of the ministry, and attending to those of the capital himself. The better to train young teachers for the profession, it was thought worth while to induce distinguished schoolmen to adopt as disciples young philologists and mathematicians, that they might learn the art of teaching. Under his administration, fourteen gymnasiums were founded, and the position of the gymnasium teachers improved by an increase of salary of 13 per cent.

Von Raumer's resignation gave the conduct of ministerial affairs to Von Bethmann-Hollweg, whose independent and dignified manners, and political talents, as well as his high intellectual and scientific merits, raised many expectations and ardent hopes. But his short administration, which lasted only till March 10, 1862, interrupted as it was by political party troubles, allowed him only to carry out what was already begun. It proved, however, an important one for the real schools and the higher private schools, which, by the instruction and regulation of October 6, 1859, received an independent organization. As reference to his administration, he published in 1860 a report, under the name "Central Journal of all Educational affairs."

He was succeeded by Von Mühler, who till then had occupied the position of president of the supreme church-council, and since 1840 had been co-laborer and speaker in the ministry. His career was marked by a great activity for improvements, by various foundations of higher institutions and generous endowments, and by the care he took and the judgment he showed in promoting the development and formation of the higher instruction.

The affairs of the Catholic schools were, since 1839, conducted in the ministry by Brüggemann, who displayed in the discharge of his duties much zeal and circumspection. He was born, March 31, 1796. In 1823 he was second director of the gymnasium of Düsseldorf, and stood next to Kortüm, at the same time consistory-counselor. In 1831 he was made State and school-counselor at Coblenz, and in 1837 was called to the ministry of Berlin, and sent to Rome as mediator during the ecclesiastical disputes of that time. In 1839 he became co-laborer in the ministry; in 1841, privy State counselor; in 1861, privy supreme State counselor. He died March 31, 1866, shortly after having tendered the resignation of his office, which he had held to the satisfaction of all parties. The province school-counselor of Breslau, Dr. Stieve, succeeded him as privy State counselor.

B. SINGLE PROVINCES.

During the gradual development of a central administration in the Prussian States, it was a necessary condition of things, that the various

peculiarities of the single territories in their school-administration should be retained. The General Directory instituted by Frederic William I. embraced four Departments, as follows:—1, Prussia, Pomerania, Newmark; 2, Minden, Ravensberg, Tecklenburg, Linzen; 3, Kurmark, Magdeburg, Halberstadt; 4, Geldern, Cleves, Mörs, Neufchatel. After 1750, the supervision of public instruction in the whole kingdom was conducted by the consistories of the provinces, together with distinguished doctors and professors of theology, the whole under the general inspection of the higher consistories of Berlin. Silesia had its own high consistories at Breslau, Brieg, and Glogau.

When, in 1808, the supreme administration of matters of instruction was given over to the Department of the Interior, the councils of the provinces received the name of governments; in each of these a Deputation for Public Worship and Instruction was established as a special council, to be under the immediate dependence of the section of the department belonging to the place. The regulation of October 27, 1810, ordered besides, three scientific deputations for public instruction in Berlin, Königsberg, and Breslau. Their office consisted in the examination of the candidates for the higher school profession, in plans of teaching, methods, and text-books, as well as all that related to the final examinations at the gymnasiums, (maturity examination, *Abiturienten Prufungen.*) They were further to give their opinion on all that concerned the practical management of schools, and to maintain in use those principles of science from which the single maxims of administration are derived. They were also at liberty to send to the higher council any propositions or requests on the subject of education. The deputation in Berlin, to which, beside Nicolovius and Süvern, also Ancillon, Schleiermacher and Fr. A. Wolf belonged, was to take the place of the supreme school-board (*Oberschul-collegium,*) which had been abolished in 1808.

After the new division of the State, which comprised at first ten, then eight provinces, the direction of the affairs of public instruction was given to the chief president (*Oberpresident,*) of the several provinces. He presided over the consistory instituted in the principal city of the province. By the regulation of October 23, 1817, the consistories were to take charge of the internal affairs of the church and school, and the governments of their external affairs, especially of the administration of the church and school property. The scientific deputations were replaced by the literary commissions for examination. The consistories had also the right of inspection over the affairs of Roman Catholic schools and education, but the Catholic bishops retained their legal control over their form of government and religious instruction, and had the nomination of their special religious teachers. For the affairs of secondary schools of the province school-collegiums, (*Provincial schul-collegien,*) were instituted, in 1826, separated from the consistorium entirely in 1845, and the separation of funds followed in 1848. The whole of the administration of the property of the institutions belonging to the school-colle-

giums passed with few exceptions over to these. The seats of school-collegiums are established in Königsberg, Posen, Breslau, Stettin, Magdeburg, Munster, Coblenz, Berlin.

The instructions of May 14, 1829, imposed on the general superintendents the duty of directing their special attention towards the religious and clerical tendency of the higher academies and private schools; they could be represented in their school-inspection by members of the royal consistories and by consistorial representative school-counselors of the royal governments. For the appointment of religious teachers, a unanimous vote of the church and school-councils is necessary. Religious instruction can only be intrusted to those teachers or clergymen, against whom the respective church-councils make no objection. New religious text-books can only be introduced with the approbation of the church-councils. Where there is a board of trustees, it is the custom to appoint the first clergymen of the place as one of them.

I. *Prussia.* It was among the great masters of the religious orders of the country, and particularly through Winrich von Kniprode (1351–1382,) that the first efforts were made for the establishment of schools. "It is absolutely necessary," said he, "that, not only a few, but many schools be established in Prussia." Notwithstanding this earnest advice, however, it was only after Albert of Brandenburg (1510–1568) that Latin schools were established, and that, in the principal cities only. These, however, increased and improved considerably after the introduction of the Reformation. After the conquest of Western Prussia in 1772, the valid school-laws of Eastern Prussia were established in the new countries also, and the schools of the Jesuits partly organized into royal Catholic gymnasiums. At the second division of Poland, in 1793, by which, under the name of South Prussia, with the exception of Posen, the cities of Danzig and Thorn with their old schools were incorporated, the ratification patent recommended, concerning the institution of religious and civil judicature in the new province, that, to secure peace and happiness for the annexed country, it was necessary to give special care and attention to education, and called upon the churches and schools to further this object. That portion of Poland which became Prussia's share in the third division, in 1795, was lost again by the peace of Tilsit (1807,) and finally annexed to Russia in 1815. Many and various obstacles still prevent the successful development of the higher schools in this province. The scholars, particularly in the smaller towns, belong mostly to the lower ranks—enter the higher schools only when already advanced in years, and suffer especially from the pressure of domestic circumstances.

II. *Posen.* That portion of South Prussia which, falling back to the kingdom, was constituted into a separate province, under the name of the Grand Duchy of Posen, received no special laws for its school-administration, but became subject to the general rules. It contained in 1815 only two higher academies: the gymnasium (*Symultan-gymnasium*) for both confessions at Posen, and the school at Lissa. Since then, the royal

government, and following the latter's example, the cities also, have made it an object to promote higher education, and succeeded in establishing nine gymnasiums, one progymnasium, five independent real-schools of the first class, among which are four gymnasiums, one royal real-school, four gymnasiums, three real-schools, a municipal progymnasium, one real-school of mixed patronage; as Catholic institutions, two gymnasiums, three simultaneous gymnasiums, a progynasium, and two real-schools.

The gymnasium at Trzemeszno was abolished for political reasons in 1863. Particular arrangements had to be made for this province on account of the mixed character of its population. The clerical supervision council for the evangelical institutions and the evangelical religious instruction, is the royal consistory and the general superintendent at Posen, and for the Roman Catholic department, the archbishop of Gnesen and Posen. The great number of Jewish pupils necessitated municipal patronage for Jewish religious instruction. In regard to the German and Polish languages, the instructions of May 24, 1842, provided, without however establishing by it an invariable regulation, that in the Marien-gymnasium at Posen and the lately abolished one at Trzemeszno, as well as in those established in the Southern portion, such teachers should if possible be appointed for the four lower classes, as were sufficiently conversant with both languages, so that every pupil could receive religious instruction in his mother tongue. In all other branches of education, the teacher was to impart instruction in the Polish tongue, using the German somewhat, but taking special care that the pupils receive a clear and distinct idea of the subject in hand. The pupils obtained thus before leaving the third class (*Tertia*) an easy and correct understanding of the German language. In the second class (*Secunda*) the German became the principal medium of instruction, together with the study of the Latin and Greek authors, alternately translated either into Polish or German, according to the special capacity of the teacher in either language. For the Polish tongue and literature the Polish was to be exclusively used, also for mathematics, physiology, and the study of French. The same course was to be pursued in the higher classes. At present, the German is, commencing in *Tertia*, the principal medium for instruction, embracing two-thirds of the whole course. The religious instruction for the Roman Catholics is given in Polish. The German pupils of this persuasion must necessarily suffer in this case, as the teacher can give them, after recitation, but a short and rapid review of the subject treated.

It has been impossible as yet to fuse and unify the various elements of the Prussian population, as the Poles, especially in their higher strata, preserve an inflexible nationality. The Polish youth of the higher schools took so lively a part in all political movements of their nation, that it became necessary for the Prussian government to use strong repressive measures. Many students, who had taken an active part in the revolution in 1830 and 1831, were, at their return, in spite of the general decree

of amnesty, shut out from the public institutions of learning, "in order to prevent the propagation of injurious opinions amongst a class of youth easily impressed either by good or bad principles." All subsequent political troubles that arose in the Grand Duchy, as well as in the kingdom, carried off with them a great number of young students. A similar movement also occasioned, in 1862, the closing of the gymnasium at Trzemeszno.

III. *Silesia.* The province of Silesia, since 1815, has been composed of the Silesian Grand Duchies, formerly governed by the Piast princes, and of a portion of the original Higher Saxony. Owing to the sovereign jurisdiction of the kings of Bohemia over the Silesian dukes, many relations were formed between the church and the school which in some degree are still valid. After the erection of Breslau into a bishopric, many parochial and convent-schools arose, which were gradually turned into Latin schools. But the establishment of new schools received very great encouragement, especially in Lower Silesia, by the spreading of the Reformation, as dukes, knights and cities rivaled each other in establishing new schools, and in perfecting and improving the already existing ones. The high-school at Goldberg, destroyed by the Thirty Years' War, in 1621, enjoyed under Valentin Trotzendorf, about the middle of the sixteenth century, a very high reputation. Amongst the still existing gymnasiums, the school at Beuthen flourished for a short time; it had been extended in the beginning of the seventeenth century, by the Baron Georg von Schönaich at Carolath, into a pedagogium, and connected with an academic gymnasium. Amongst its students was Martin Opitz. But this school also was destroyed by the first storms of the Thirty Years' War. This war opened the province to the Jesuits, who, before its close, had established colleges in all important towns, and exercised a great influence on education until their institutions passed again into other hands. The intervention of Charles XII. of Sweden, and the conquests of Frederic the Great, soon reinstated the Evangelical portion of the population into the full enjoyment of the rights and liberties which the peace of Westphalia had secured to them. After the abolition of the order of the Jesuits in 1773, Frederic II. converted their schools into royal gymnasiums, under the direction of their former Jesuits, with the name of priests of the royal school-institutes, and the proceeds from the sale of the Jesuits' lands were appropriated for the support of all Catholic gymnasiums of the province. The reorganizing of the plan of instruction was intrusted to the professor of mathematics, Zeplichal. According to the new school-regulation of December 11, 1774, the University of Breslau was to retain its four literary classes—grammar, æsthetics, philosophy and theology; the Catholic gymnasiums of Glatz, Neisze, Oppeln, Sagan, Liegnitz, only grammar and æsthetics; those of Glogau and Schweidnitz, grammar alone. As this school-organization did not prove beneficial, the preparation of a new plan of organization for Catholic schools was given to the professor of the Catholic gymnasium at Glogau, Sckeyde. The

plan which the latter laid out, and which from the character of the time had to meet if possible a universal purpose, comprised, along with the already very detailed prescriptions which formed the basis of the system, a great variety of subjects; such as declamation and the cultivation of taste, the philosophy of experience and logic, general and especially anthropological science, æsthetics, mythology, Roman antiquities, ancient geography, universal history, experimental physiology, the circle of the sciences, to all of which branches about an hour a week was devoted. This plan, drawn up for the Catholic gymnasiums, was published August 1, 1801. As the royal government of Breslau had instituted (October 27, 1810,) a clerical school-deputation, so was the new organization of secondary-school affairs also extended over the Catholic institutions, and, by the reunion of the university at Frankfort on the Oder with the Leopoldina at Breslau, August 3, 1811, the former connection of the Catholic gymnasiums with the university was entirely dissolved. The reduction of those higher schools that could easily be dispensed with, and which, besides, could afford but a bare existence, had, in a measure, already been accomplished by the cabinet order of July 8, 1798; such were those of Jauer, Freistadt, Bunglau, Löwenberg, and those founded at Rauden and Grüssau by the Order of the Cisterciensen: they were gradually closed. On the other hand, the State took charge, from that time, of some of the new high-schools; others were founded or renewed by cities, and many of them, especially within the last twenty years, received considerable contributions from public funds.

Amongst the present gymnasiums, there are fifteen of them Evangelical, and eight Roman Catholic; the progymnasium is Evangelical, four Evangelical real schools, two united, the higher private-school Evangelical. The clerical supervision of the Catholic institutions belongs to the prince-bishop of Breslau, but the gymnasium of Leobschütz, by right of former custom, comes under that of the ducal-archbishop of Olmutz, and the gymnasium of Glatz under that of the ducal-archbishop of Prague. The active spirit of progress which distinguishes the Silesians has called forth considerable appropriations for public institutions, especially for scholars; for utraquists, for example, of the Catholic religion, (scholars who speak the German and Polish languages,) there are scholarships of the State and ducal-bishoprics.

IV. *Pomerania.* The original Slavonian population, with the exception of the Northeastern little province of Kassuben, became, after the introduction of Christianity, completely germanized. In 1456, Wratislaw IX. founded the University of Greifswald, as a scientific centre for the duchy; but, before the Reformation, there were but very small beginnings of schools. The Reformation accomplished by Bugenhagen and Knipstro, and zealously favored by the princes, gave rise to the establishment of a great number of private Latin schools. There appeared, especially after Bugenhagen's church and school regulations (1535 and 1563,) under princely protection or through the princes' means, and the wealth

of the Hanseatic towns, a number of gymnasiums and academies for the nobility; amongst these, the academic colleges of Stettin and Stargard held for a long time the first rank. When in 1804 a reorganization for the higher schools was contemplated, the originally Prussian parts of the province seemed to be sufficiently provided for in the gymnasiums of Stettin, Cöslin, and New Stettin, and in the four real-schools at Stargard, Anclam, Colberg and Stolpe, and in fact they met all the demands until lately, when the question of new gymnasiums and a change in the existing polytechnical schools came up, and was zealously discussed, especially by the wealthier communities of the towns; so that the province possesses now thirteen gymnasiums, one progymnasium, two polytechnical schools of the first class, two polytechnical schools connected with gymnasiums, the one of the first, the other of the second class; one independent grammar school, one higher grammar school connected with a gymnasium—all Evangelical, and of which a part is richly endowed with benefices for scholars and students. As a peculiarity of the new gymnasiums at Greiffenberg, Treptow on the Rhine, Stolpe, Colberg, and Pyritz, we may state the fact, that every teacher must bind himself by written agreement "to teach nothing contrary to the Word of God as contained in the religious works of the Evangelical community of the place, and expounded in the Lutheran catechism." These institutions, although subject, like the rest, to the consistory and general superintendence of church affairs, differ in this respect from the others who consider themselves as belonging to the united Evangelical Church of the State.

V. *Saxony.* This province consists, 1st, of the original Hohenzollern possessions, the Altmark: 2d, of the provinces annexed by the peace of Westphalia, in 1648, the Duchy of Halberstadt, the Duchy of Magdeburg and the Circle of Saal; 3d, of the lands acquired during the present century, the bishopric of Quedlinburg, the empire towns of Mühlhausen and Nordhausen, the electorate composed of the lands belonging to the Mayence circle, Erfurt and Eichsfeld, the archbishoprics of Merseburg and Naumburg-Zeitz, and the Circles of Wittemberg and Thuringen, formerly belonging to the kingdom of Saxony. The foundation of schools extends here as far back as the Carlovingian times and the Saxon emperors. In the fifteenth century these early schools were however already on the wane, and needed the new and invigorating life of the Reformation. Luther and Melancthon, as well as the Saxon princes, became the most zealous protectors of the schools, and the Saxon school regulation of 1528 became the new foundation for the administration of schools. From among the foundations of Duke Moritz of Saxony, the State-school of Pforta was made over to Prussia in 1815, and already before that time, from those of the counts and nobles, the schools of Eisleben, and the convent-schools of Roszleben and Donndorff. Among the Latin schools that were closed in the course of time, the pedagogium at Kloster Berge before Magdeburg was distinguished; it flourished particularly under the abbot Steinmetz (1732–62;) but it was abolished by a decree of the

Westphalian government in 1809, and its buildings destroyed in 1814, during the French siege. Among its present higher institutions for learning are one Roman Catholic gymnasium, one gymnasium and one polytechnic school as simultaneous institutions; they are under Roman Catholic supervision, the bishop of Paderborn being inspector. No province possesses as many alumni connected with the higher institutions, and as many beneficently endowed schools. No province moreover has as many schools of old and well tried reputation, such as Schulpforta, and above all the Frankish foundations at Halle.

VI. *Westphalia.* The oldest possessions of Hohenzollern date from the seventeenth century, whilst the counties of Mark and Ravensberg fell to Brandenburg by heir loom, (1614,) and the secularized foundation of Minden, by the peace of Westphalia. The lands conquered by the peace of Luneville were mostly made over to the kingdom of Westphalia, but returned to Prussia in 1815, together with the whole of the Episcopal foundation of Münster, the Duchy of Westphalia, (Arnsberg,) the Principality of Lugen, etc.

For the establishment of schools in these countries, different religious orders—especially the Franciscan monks and later the Jesuits—had been already active at a very early date; an Evangelical gymnasium was founded at Hamm in 1657, by the prince-elector; the landowners and cities showed themselves also very active after the Reformation, in the establishment of Evangelical schools, so that Prussia gained by the annexation of this province, six Evangelical and three Catholic gymnasiums. Besides, several convent-schools, preparatory to the university, are now either transformed into gymnasiums or progymnasiums, or have entirely ceased to belong to the higher schools. Among the thirty of this kind existing at present, there are eight gymnasiums, five progymnasiums, one Catholic polytechnic school of the first class, the others Evangelical. The diocesan council for the Catholic schools in the governmental district of Münster are the bishop of Münster, and for the other parts, the bishop of Paderborn. Most institutions have benevolent endowments both for pupils and students; for the Catholics born in the province there are in Cologne and Mayence old and largely endowed foundations. One of the peculiar institutions in this province is the Evangelical gymnasium, founded at Gütersloh, during the stormy period of 1848. In the fear of the State becoming atheistical, and that the existing schools under its supervision might fall off from the established Church, the plan was conceived to create new gymnasiums, independent of the State, and of a decided Christian evangelical character. This plan however was only carried out at Gütersloh, after a voluntary contribution of 20,000 florins had been collected. The institution was opened as a "higher private academy," June 15, 1851. It is governed by a board of trustees consisting of twelve persons, most of whom are clergymen, elected among themselves by mutual consent. The king, Frederic William IV., was so interested in this institution, that he himself laid, March 26, 1852, the corner-

stone of the new school-building. In 1854 the institution was recognized as a gymnasium. Its first closing examination (graduate) (*Abiturienten Prufung*) had already taken place at Easter, 1853; and at Christmas, 1868, one hundred and forty-one graduates (*Abiturienten*) were examined, which, from an average number of two hundred pupils, is the largest number of graduates any institution has yet had to show. Half of these graduates passed over to the study of theology.

At the recovery of the province, the consistorial school-counselor, Frederic Kohlrausch (1818–1830,) under the first president, Von Vincke, took the most active part in the direction of school affairs, and by his personal influence upon the directors and teachers, as well as by his excellent measures of administration and the zeal with which he endeavored to spread a freer literary culture among the better classes, won for himself a lasting reputation.

VII. *Province of the Rhine, and districts of Hohenzollern.* This large province, comprising six governmental districts and one hundred and thirty-nine cities, with over three millions of inhabitants, belongs (1815) to the former possessions of Prussia: the duchy of Cleves (1614,) the ducal county of Mörs (1702,) a portion of the duchy of Gueldre (1718,) and the lands conquered by the peace of Vienna, eighty states originally belonging to the Empire; the largest part belonged to the Palatinate, and to the Electorate-ducal archbishoprics, Treves and Cologne, secularized in 1803.

The foundation of schools in these countries extends as far back as Charlemagne; religious orders developed them, especially that of the Jesuits, whose schools, richly endowed and with wholly gratuitous instruction, attracted many pupils, even after the Reformation, which had also gained much ground in the Rhine countries. Evangelical schools arose principally as institutions of cities and church communities. The French occupation (1794–1814,) transforming every thing regardless of all territorial relations, brought about also a complete change in school affairs, remodeling these according to French principles, which required again a thorough retransformation as soon as the foreign sway was annulled. The central administration of the allies organized, in 1814, the general governments of Berg, Middle-Rhine, and Low-Rhine, which, united in 1815, came under the direction of the Prussian Privy State counselor Sack, who till then had been general governor of the Low-Rhine, and as early as March, 1814, had directed his particular attention to the schools. There were about this time in the whole province, six high-schools, which might, in a certain degree, be considered as gymnasiums; in all the general governments of the Lower and Middle Rhine, only three gymnasiums: those of Cleves, Mörs and Kreuznach, of which the two first died entirely out under the French dominion, and the last was already in its death-struggle. A number of decrees, it is true, drove from the convent-schools the monkish spirit, but put in its stead French Napoleonism, which made every thing conform to military power

and to the universal dominion of the great Empire. The majority of teachers slavishly bent the knee before the despotism of French school-inspectors. The French language was to be the only medium of instruction; teachers that were not masters of it were dismissed. To study the Greek and Roman classics was, in the eyes of the Grand Master of the French University, altogether superfluous, since the French literature presented far greater models, and in every species of style. Why direct the public mind upon the heroes of antiquity, when the mind of the French people contained and united, all that ever any nation developed in greatness, power and heroism, and when the hero of the French nation, obscured the glory of all former heroes? A third of the time was devoted to French grammar and reading, another third to Latin rhetoric, and the last third to all sorts of curiosities, with no other aim than that of amusement. As accessories served the so-called *Silentien* (study-hours,) a sort of review of the lessons, under the eye and constant direction of the teacher. The French university system recognized only two sorts of high-schools: 1, the lyceums of the State, and 2, the colleges and secondary-schools supported by the communities. The colleges of the first degree resembled the lyceums in a great measure, differing more in form than in substance, the form being wholly military.

The Lyceum system found a readier acceptance on the left shore of the Rhine than on the right; the Lyceum of Bonn and the College of Cologne working itself zealously up into a lyceum, gave but feeble promises. Amongst the colleges of the second degree, there were a few private institutions over which presided a principal, with a faculty of his own choice. These establishments were under strict control, but even those were not organized in the spirit of the administration, and were left without sufficient support; even the money they did receive was of no great use either to the teachers or to the pupils.

Those colleges that refused to accommodate themselves to the domineering spirit of the foreign power, lost generally all they possessed. Their endowments, the income of which served to pay the teachers' salary, was confiscated as public property, and such as in some special cases was left them, was very carelessly managed. From the confiscated lands, a miserable pension was allowed to the teachers, and gradually all courage and enthusiasm for the profession, as well as the confidence of the public, were destroyed. The number of teachers and pupils grew less and less; no one wished to engage in a profession that presented neither a comfortable nor an honorable living. What thus remained of the colleges was generally confined to a few members of the religious orders, who served both in church and school, and enjoyed benefices; men that had no other object in school-teaching than to fulfill the duty imposed upon them by the Church or the rules of their Order. Among the larger schools for the training of teachers, in which a few lucrative chairs were left, all the higher and better positions were filled by Frenchmen, either natives or that had become French; the middle ranks were

provided by some of the former teachers, and the lower by young routinists (routiniers) who had never enjoyed a high literary culture, and who, by continuous experimenting, hoped to acquire a certain practice of teaching. These positions, of so-called *maîtres supplémentaires, et d'étude*, served, in the absence of regular seminaries, as institutions for the preparation of the future teachers of the higher schools. Among the twenty schools for the training of teachers, five only had a sufficient number of professors, as many had only three professors, and three of them but one. Of the 92 Catholic gymnasium professors, none had visited a German University abroad; most had received their education in religious seminaries or in the decaying University of Cologne; a third of them finally had stepped right from the school-room into the professor's chair.

In order to improve the condition of the schools for the training of teachers, the collection of the arrears which several communities had to pay to their schools, according to budget duty, was zealously carried on, and a number of schools received considerable help and contributions from the treasury of the State. For the improvement of their internal condition, the Director of Public Instruction of the Lower-Rhine, Grasshof, afterwards consistorial school-counselor (1841,) issued a preliminary instruction to the effect, that an effort should be made to harmonize, if possible, the monachal system of instruction which, strangely mixed as it was with the Parisian University maxims, seemed to prevail still almost everywhere, and the ruling principles of the gymnasiums of the North of Germany; combining, as it were, the two. For that purpose, school and academic instruction should be kept apart; the Greek language and history should resume their respective places, and the usurpating foreign language be again replaced by the mother tongue. This was a hard task for the teachers; but it was only after such a beginning that the Department of Education could in future prepare and issue with any effect, general school regulations. The new spirit of reform had to proceed from single enlightened points, and the city of Cologne, before all other cities of the four Rhenish departments, was best calculated for such an attempt. Its antique dignity, its importance during the middle ages, its spiritual sway over all the Catholic countries around, and its literary taste, rendered it worthy to become the central point of high culture. This state of feeling was specially strengthened by two important facts, viz., its relatively larger number of suitable teachers, and the ever growing desire of the inhabitants to do away with French forms in its colleges. When the finances so badly administered by the existing school-commission were at last regulated, a beginning was made in 1815 to bring about the organization of the new Gymnasium, which was to take the place of both the colleges of the first and second degree. The applicants for professorships had to pass a severe examination, but all attempts to fill the higher chairs with capable men of the Catholic persuasion remained fruitless; the demands made upon the professors had come

considerably down, in order to enable the authorities to fill the gaps. This reform, by which true merit recovered its due rights, called back among the better teachers their enthusiasm for their profession, and the unity of purpose brought back again the unity of spirit, which had become lost among the teachers of the former institution. The schools for teachers of the Middle Rhine needed the same reform, but none of them possessed with the same receptibility for improvement, the necessary means to bring about the required change; it was even difficult to keep the colleges of Bonn and Coblentz from falling below their former condition.

As little as could be done in the latter part of 1815 for the teachers' schools, by way of donations to further the means of improvement; as little as the administration seemed disposed to take decided steps in the matter, helping only in extraordinary cases, nevertheless, and just at that time was the foundation laid for the internal improvement of these institutions, and that so much the deeper, as the sense of an earnest and thorough study of the classics had grown more vivid. The mathematics and history were gradually reinstated into their former rights; the study of the mother tongue, of its origin and progress, drove away the foreign language, and the old uniformity and superficial mode of study retired evermore into the background. Although this could only be said of a few enlightened points, and although in the smaller colleges and amidst the old teachers the old track of study was still in force, yet might it be considered as quite a gain, that such enlightened points, however few, existed in the province.

The gymnasium of Treves had lately been brought under Prussian administration, but was neither sufficiently endowed to defray expenses, nor possessed a sufficient corps of teachers. When through the Peace of Vienna, Prussia lost Lüttich, Aix-la-Chapelle claimed for the Northwestern part of its school-governments a greater attention from the administration; the gymnasium of that place was the only one from which a better spirit could emanate, and influence the smaller institutions of the same kind. The new gymnasium of Cologne, which by the accession of Director Franz Jos. Seber, 1815–19, (formerly professor at Aschaffenburg, afterwards professor of theology in the University of Bonn,) became at that time fully consolidated, verified the firmness of the ground upon which it had been erected. The new system of recitation carried out conscientiously in all its parts, according to the given regulations, the ardor and zeal equally obvious in both teachers and pupils, to enter not only into the outer form of these regulations but into their spirit also, the results of the last quarterly examination, the admirable discipline and order, the esteem and love the new Director had inspired in his colleagues and pupils, and the universal confidence he and his institution enjoyed amongst the public—all this gave sufficient proof of the excellence of the school, and secured its influence for laying the foundation of a still higher culture through the whole province.

The wisdom which presided over the reorganization of this and the other high-schools, namely, to reach gradually and not all at once, a higher degree of perfection, and to lay greater stress upon the capacity of individuals than upon mere rules, secured so much surer a passage from the old to the new, as by it the sunken rocks upon which they might have been wrecked were thus carefully avoided.

The sooner there was an inclination to favor a serious and thorough study of the ancients, the more the necessity for a firm foundation in this branch was accepted and recognized by the gymnasium, the more the conviction spread that in the vast domain of the mathematics, and in the inexhaustible depths of history, lay the rich stores for the mind and sensibilities of men, the more ardent became the desire for a University in the German sense of the word, a University from which alone teachers could be expected, that would carry out its views and would be imbued with its spirit. A petition to that effect was laid before the ministry, to urge upon the king the foundation of a University on a large scale in the city of Bonn, which petition was also granted on the 18th of October, after the closing of the older universities in 1818.

The words of the proclamation of Frederic William III., April 5, 1815, addressed to the Prussian Rhine countries:—"I will reopen for your children the institutions for public instruction which have been so neglected under the pressure of the last administration," were faithfully kept. The province possesses now twenty-four gymnasiums, fourteen progymnasiums, ten real schools of the first order, two real schools of the second order, ten higher burgher schools, of which fourteen gymnasiums, eight progymnasiums, two higher burgher schools, are Catholic; one gymnasium, one progymnasium, one real school of the second order are united, and two progymnasiums, five real and two higher citizen schools whose religious denomination has not yet been determined. In all the institutions there are pupils of various denominations; only the academy for young noblemen at Bedburg, opened in 1842 for the nobility of the Rhine, has preserved throughout its genuine Catholic character. The ecclesiastical inspection for the Catholic schools in the Rhenish provinces consists of the archbishop of Cologne and the bishops of Munster and Treves, and for the Hohenzollern population, the archbishop of Freiburg. The remarkable industrial activity of the people has particularly favored the foundation of real schools and higher burgher schools. The first Rhenish provincial diet made the furtherance of these institutions the object of a special petition, and received from the government a favorable answer; but the petition of the 27th of October, 1856, asking for a wider range in the establishment of real-schools, remained unheeded. The proposed union of the higher burgher schools with classes of the progymnasiums, shows that humane culture stood in great favor.

VIII. *Brandenburg.*—This province, the central point of the monarchy, consists now of Kurmark, Neumark, and the portions of the Lower Electorate, in the kingdom of Saxony, which were added to these in 1815;

Altmark belongs to the province of Saxony. The University of Frankfort on the Oder, (1505,) was the beginning of the literary life that was to shed later from this province, light and culture over all parts, and proclaim, especially through its schools, the glory of Prussia to the most distant countries. After the introduction of the Reformation, there were founded, in 1574, under John George, and by the magistrate of Berlin, the gymnasium of the Gray Convent, and in 1607, by Joachim Frederic, a pedagogium at Joachimsthal. The latter, which, after its school-buildings had been destroyed by Cursaxon soldiers, (1636,) was transported to Berlin, is still flourishing, richly endowed, and known under the name of the gymnasium of Joachimsthal. As Berlin is the constant seat of the central administration, all its general school laws and regulations became special ones for the province, which, through the foundation of the Frederic William University of Berlin (1810,) grew ever stronger under the unceasing influence of its life and light. It possesses forty-five higher institutions, all evangelical, of which only four gymnasiums and one real school, the first opened in 1747 by Joh. Jal. Hecker, are under royal patronage. The common councils of the cities, especially of Berlin, have, since they recovered from the heavy war burdens, under which this province suffered particularly, raised considerable means for establishing new schools of all sorts, and the capital shows at this moment a most praiseworthy zeal to set an example to the other towns of the country in the care and attention given to schools.

C. LOCAL ADMINISTRATION.

In the local administration, the institutions of royal foundation are under the immediate patronage of the crown; there is no immediate jurisdiction between them and the school-colleges. In the higher institutions of towns, the magistrate of the place exercises generally the immediate right of patronage. The regulation of the minister Von Schuckmann, July 26, 1811, provided in every city, for all that related to school affairs, one council only under the name of school-deputation, which, according to the size of the place, and the importance of its schools, was to consist of from one to three members of the magistrature, of the city college, and of an equal number of special citizen deputies, to whom, in the larger town, was also adjoined a superintendent. Such schools as were not under the city patronage of the school-deputation, as, for example, the Jewish schools, had to send a representative. As, however, in the course of time a special administration was provided for the higher schools, the former became subordinate to the latter, or existed only, as in the province of Prussia, for the purpose of taking cognition of systems of instruction, or, as in Berlin, of keeping statistical accounts, especially in regard to regular school attendance.

In most cities, the right of patronage is exercised by the magistrate, who in later times has adjoined to himself, as technical colleague, a city school-counselor; in Berlin, two, and in the cities of Stettin, Magdeburg,

Breslau, Danzig, one; the city commissaries are so far concerned in these matters, as they command the city finances, which of course gives them a very considerable influence.

In many cities, as particularly in Westphalia and the province of the Rhine, the administration consists of a special curatorium or school-commission, and in what regards its outside affairs, of attorneys, treasurers and directors. Within the province of the patronage council belongs all that concerns the outward prosperity of the institutions, the regulation of accounts, the preservation and increase of the buildings and utensils, the survey of inventories, and mostly of foundations, grants of benefices, especially to the free-school.

For this purpose it is in constant communication with the leaders of the school, receives from them reports and the respective accounts of all the details of school affairs, and is kept acquainted with the condition of school attendance, systems of instruction and public and final examinations, in which latter the members of the magistracy (*Gymnasiarchen*) or of the curatories are requested to be present. One of the most important duties devolving upon the so long established patronage-right, is the choice of directors and teachers; the welfare of the schools lies then entirely in the hands of the magistracy, and the correct exercise of this duty is more important than all regulations and school-laws, since everything depends on the capability of the teacher. As in later times the city councils were able to command better financial means than the crown, and the city commissaries showed themselves in readiness, by important grants, to further the prosperity of the higher schools, the latter of city patronage, received a powerful push, and begin even to take rank above those of the crown, of more ancient date, and better endowed. The choice of directors since 1810 is subject to royal confirmation, and that of teachers since 1817, to one from the State-council, but these would never be denied, except perhaps in times of political troubles or in cases of formal or moral irregularity. The regulation issued by the cabinet's order of November 10, 1862, in regard to the confirmation of directors and teachers, states that the provincial school-colleges should have to secure the approbation of the Minister of Instruction only for the appointment of higher teachers in gymnasiums, authorized progymnasiums and real-schools, and for the rectors of all institutions recognized in 1859 as higher citizen-schools; the appointment, installation and confirmation of all other teachers in the above named schools was left to the provincial councils. The directors of gymnasiums and real-schools of royal patronage were to be appointed as before by the king, and those of schools of city patronage needed his confirmation. In some schools, the parishes have a share in the patronage, and are represented by their pastors and church-members.

A royal *compatronat* is obtained on the ground of a city institution supported by contributions from the State. This circumstance was determined by a royal cabinet order of June 10, 1817, and is put into effect

in some institutions by royal compatronat commissaries; but it only relates to outside affairs, and in such a measure only as not to annul or diminish the rights of the patron, thus taking only into consideration cognizance of facts and counter-remarks, whereiu necessarily the school-colleges have the determining voice.

D. MISCELLANEOUS.

A complete school-constitution is as yet wanting in Prussia. Until 1750 the patronages in all school-organizations were but little limited by the regulations of the State-councils. Frederic William I. was the first to lay claim upon the right of the State to issue binding regulations concerning school affairs, and to control the execution of the same in a more extended manner. The General Common Law (*Allgemeine Landrecht*,) prepared by orders of Frederic II., and published in 1794, declared the public schools state institutions, and contained among others the following legitimate regulations:—1, All public schools and institutions of learning are under the supervision of the State. 2, To no one shall admission into a public school be refused on account of difference in religion. 3, Children of different persuasion can not be obliged to be present during the hours of religious instruction. 4, Schools and gymnasiums, in which the young are to be prepared for the higher sciences or arts, shall enjoy the rights of corporations. 5, These schools stand under the more immediate direction of the school-councils established by the State. 6, Where the appointment of teachers does not belong to certain persons or corporations, it is made by the State. 7, Without the knowledge and approbation of the councils appointed over the school-affairs of the province, no new teachers can be appointed nor any essential changes be made in the organization of the school-affairs and in the manner of instruction. 8, As inspectors, must be chosen persons of sufficient capacity, of good morals and sound judgment. 9, No native can leave school without a certificate signed by the teachers and school-inspectors. 10, The teachers in gymnasiums and other high-schools are considered as State officers. 11, The manner in which a child is to be educated is to be decided by the father; the latter must see that the child receive the necessary instruction in religion and such branches of education as his circumstances and position in society require. The transactions of the general school-conference (1849,) for the regulation of general forms regarding education, in which were assembled under the minister Von Ladenberg, and at the request of the professors of colleges, various directors and teachers of the gymnasiums and real-schools of Berlin, were published and presented much that was praiseworthy, together with useful hints, but they had no immediate practical result. The report of January 31, 1850, contains the following resolutions:—Art. 14, The Christian religion, in such organizations of the State as are in harmony with its religious practice, shall be made unalterably the basis of the religious liberty granted by Art. 12. Art. 15, The Evangelical or Roman Catholic Church, as well as every other religious community, shall regulate

and administer its own affairs independently, and shall remain in possession of the institutions, foundations and funds set apart for its religious worship, its educational affairs and charitable works. Art. 21, A sufficient number of public schools for the education of the young shall be provided for. Art. 22, To give instruction, or to found and direct institutions of learning, is open to every one, provided he can give to the proper authorities of the State sufficient proofs of good morals, scholarship and technical capacity. Art. 23, All public and private institutions of learning are under the supervision of councils organized by the State. Art. 26, A special law regulates all educational affairs. Art. 112, Until the law provided by Art. 26 takes effect, school and all educational affairs shall be governed by the existing legal regulations.

The execution of Art. 26, has thus far been deferred by the political uncertainties to which, in consequence of its new Constitution, the State has been subject to, and yet a complete instruction law, already prepared under the ministry of Bethmann-Hollweg, had been presented to the consideration of the Chamber of Deputies. A real practical want in school-affairs, or the absolute necessity of that law, had as yet not been sufficiently felt to urge its adoption, although in many respects, especially in the relations between the provincial school-counselors and the directors, more definite regulations had become necessary, especially to prevent that by too great a centralization and bureaucratic interference with the local administration of schools, obstacles might be set to the free and cheerful government of the directors, in the selection of whom such great care is taken.

II. TEACHERS.

The Magdeburg "order of visitation" (1563) required that "the magistrate, with the pastor and superintendent, should appoint the schoolmaster." This collateral right of city patronage has at all times been exercised in Prussia; it was only for the position of director in gymnasiums that the royal approbation was introduced in 1810. The service-instruction for the provincial consistories, Oct. 23, 1817, granted to these councils the right of appointment, advancement or confirmation of teachers in secondary-schools; for the directors and professors, the sanction of the Department had to be obtained. In consequence of the inquests made into the demagogic revolutionary movements of 1819, the filling and confirmations of the above named positions was forthwith transferred to the Department, and the election of directors (1836) became again subject to royal confirmation. The royal regulation of Dec. 9, 1842, determined then that the appointment, advancement and confirmation of teachers for gymnasiums, real-schools and higher burgher schools, be incumbent on the provincial school-board, but subject to the acceptance of the Minister of Public Instruction. The directors were to be elected by the king and respectively confirmed; as a general thing, the minister awaits, in regard to positions of royal patronage, the propositions of the school-collegium. The cabinet order of Nov. 10, 1862, established the following regulation,

at present in force:—"The acceptance of the minister is only to be secured by the provincial school-colleges in cases of superior teachers for gymnasiums, real-schools of the first order, and the authorized progymnasiums, as well as for the rectors of the latter; and, from the royal government, only for the superior teachers and rectors of the real-schools of the second order, and the institutions recognized as higher burgher-schools. In regard to the position of director, it remains the same as prescribed in the royal regulation of Dec. 9, 1842. The installation of the director takes place through a member of the royal supervision-council, and eventually through a royal compatronal commissary; the city patronage is, on this occasion, represented by deputies."

After the establishment of the literary commission for examination, a great stress was laid, in the appointment of teachers, in addition to their proper qualifications, upon their moral capacity and political integrity. The instruction of May 25, 1824, (by Altenstein,) stated that "in the appointment of teachers the invariable principle should be laid down, that public institutions do not reach their object by the mere literary culture of their pupils, or the prevention of corrupt and injurious sentiments or habits, but that whilst giving all proper attention to scientific culture, it was necessary also to inspire and awaken in the pupils sentiments of affection, fidelity and obedience towards the sovereign and the State, and that, for that reason, the situations of teachers should be particularly given to those that, in this last respect, deserve full confidence."

The matter of moral requirements of teachers is still further treated in the circular of Feb. 6, 1847, (Eichhorn,) and in that of Dec. 20, 1848, (Von Ladenberg.) The latter says: "The teacher of a public school must, besides his literary attainments, possess also a moral culture, which may enable him to serve in every circumstance as an example to his pupils. His highest aim should be to remain faithful to his self-chosen vocation, to avoid in his instruction and in his intercourse with his pupils, all that would be calculated in any way to prevent their sound development, all that could not be conceived or properly appreciated by them, or any thing that could exercise a bad influence upon their religious sentiments, of whatever persuasion they might be, or on their ideas of what is noble and good." The circulars of Jan. 22 and June 12, 1851, (Von Raumer,) and of Jan. 2, 1863, required of the school-collegiums, in appointments and advancements, to examine into the private and professional career of the applicants, and to see especially that no blame be attached to their domestic and public life.

Among the formal requirements for an appointment are the release of military service, or the certificate of being acquitted from the same. Dissenters and Jews are excluded from public teacherships.

The regulation of Feb. 6, 1847, lays a special stress upon the election of the directors:—"The importance of the pedagogic power of a man," it says, "shows its full significance when the question comes to intrust the direction of a gymnasium to the right man. The necessary literary

culture in this case is easily found out, but it is much more difficult to obtain the proof that the future director possess not only a just estimate of the relations in life, but be also endowed with the proper sentiments and firmness of character, and such a personal appearance as will inspire respect and confidence, so as to command the general esteem of the corps of teachers, and by this and a consistent and steady government, may be enabled to train the young in all the sentiments of religion, in love of country, and a conscientious fidelity under all circumstances in life."

The formally-appointed teachers, immediately after receiving their appointment, take the oath; to those of institutions of royal patronage, it is administered by the Director, to those of city patronage, by the magistrate. The oath-formula of Feb. 12, 1850, was: "I —— swear, by the almighty and all-knowing God, that, having been appointed to ——— by his royal majesty of Prussia, my most gracious sovereign, I, his subject, will in all things be faithful and obedient, and fulfill the duties of my office according to my conscience, and the best of my knowledge, as well as carefully observe the Constitution. So help me God." Every one is free to add to this oath any confirmatory formula which his religious sentiments may dictate. The technical and provisionally-accepted teachers are pledged by shaking of hands. The time of service, in regard to pension, dates generally from the day of taking the oath.

When the designation for a certain directorship has taken place, the *Colloquium pro rectorata* is held before the regular commission for examination, to inquire into the qualifications of the person designated, and see whether the candidate possess the degree of philosophical, pedagogic and literary culture necessary for the judicious supervision and direction of the whole establishment of a higher institution. The directors of the royal gymnasiums and real-schools are salaried by the king, those of city patronage receive in addition to their regular salary a gratification, through the Minister of Public Instruction. The appointment document reads as follows:—"We, ——, by God's grace, king of Prussia, declare and announce hereby, that we have been pleased to appoint——as director ——. This appointment is made in the confidence that he will remain invariably true to ourselves and our royal house, and will discharge the duties of the office intrusted to him in all its details, with zeal and regularity; the same will thereby enjoy all the rights connected with his present situation, as well as our highest protection." The appointing documents for institutions which do not come under royal patronage, contain in some parts of the country statements of a more special and detailed character concerning the duties and rights of the office; as, for example, in Königsberg (Prussia,) that the director can not engage in giving private lessons; at Stolpe, in Pomerania, that the director should make it the object of his usefulness to see to the Christian education and instruction of the pupils intrusted to him, basing the same upon the Word of God, such as it is defined in the Lutheran Catechism; at Nordhausen, that the director should give particular attention to the religious

education of the young, and see that the Word of God as contained in the Scriptures and repeated in the catechisms of the Evangelical Church, be duly presented to them. The obligatory duties and rights of the directors are contained in the documents of 1823 to 1856, given to the single provinces under the name of twelve *service instructions*, the purport of which agrees in general with all the rest. Since these instructions give the best representation of the importance which the State council attached to all educational affairs and their respective departments, the chief points of the general instructions concerning the object and import of the office and official position of the directors, will be here indicated, such as they are contained in the Pomeranian Instruction of May 1, 1829.

§ 2. "In order that the director or rector may enjoy free action in the discharge of his duties, and that the necessary unity may be obtained in his administration and supervision, it is declared that the whole school, with its several classes, its respective officers and pupils, come under his immediate authority." To that effect "he shall (*a*) enjoy in all his public relations as president and representative of a higher institution, all the respect and proper distinction which is due to the position. He is the mediator between the school and the parents and councils, and reports and directs all the transactions of the institution. Upon him devolves the responsibility to watch the spirit and tendency of the institution, and the obligation to give at all times full information of its condition, on all general and particular points." (*b*) "His relation towards the faculty is that of a superior and of a co-laborer in a common work." "He has to indicate to every teacher the sphere of his activity according to the general plan, and to observe his professional and moral life." "No teachers are allowed to refuse accepting or fulfilling any official duties he may see fit to lay upon them; yet, should they be overburdened, they can refer the case to the provincial school-collegium." "In the meetings of the board of teachers, which the director can call together as he thinks proper, the transactions are conducted by him, as president, and in cases of disagreement, his vote decides the majority. If from a certain decision the director should have cause to fear the institution would suffer, he must refer the case to the council; according to the Brandenburgian Instruction, his opinion still decides the case; the question at issue and the causes of disagreement being stated in his report." (*c.*) "All pupils are subject to his supervision and discipline. To him are referred all cases provided for by the school laws, or whenever just objections are made against the course pursued by a teacher." "The lower officers and servants of the institution are under his special supervision and control." (*d.*) "He has the direction of all classes, and departments connected with the establishment."

§ 5. "The director shall, as often as the opportunity presents itself, confer with the parents or guardians about the progress of the pupils, to which the regular reports will give sufficient occasion. In regard to any

serious misdemeanor on the part of the pupils, he must inform those in charge of them."

§ 7. "He is bound on his own accord to acquaint the royal school-council of all that concerns the internal and outward condition of the school, and in all important circumstances, whether relating to the duties or rights of the faculty, to the order of instruction or discipline, or to any particular branch of the institution, he must consult the same."

The following is contained in the Brandenburgian Instruction :—

§ 9. "In the selection of regular class-professors, the director must exercise all possible care and judgment. According to the cabinet order of Oct. 24, 1837, the class-professors are designated by the school-collegiums, which regulation however rests practically upon their approbation of any candidate proposed by the director."

§ 10. "The censorship meetings must be held by the directors three or four times a year, at a fixed period and with due solemnity, and in the presence of all the professors of the institution."

§ 14. "In regard to the plan of instruction, it belongs still to the province of the director to design the plan of lessons for the scholastic year, and to assure himself regarding the carrying out of the same throughout all the classes, and to arrange the public and private examinations.

§ 15. "In the drawing up of the plan of instruction, the opinion of the several professors shall be taken into consideration, and their wishes, if reasonable, be duly regarded. If any one teacher has too great an amount of written exercises to correct in his department, this labor must be equalized in another direction by less laborious lessons. The plan of lessons must be laid before the provincial school-collegium in the first days of March and September, and no teacher is allowed to depart from it of his own accord or to introduce any other text-book than the one already adopted."

§ 16. "The director is bound to visit frequently the several classes of the institution in order to convince himself that the order of instruction is carried out, as well as to inspect the disciplinary condition of the same. It is also important that during the course he examine in turn the compositions of the pupils in their various classes."

§ 17. "Every transference of pupils from a lower to a higher class has to be preceded by an examination ; the director himself decides upon his own responsibility, whether a scholar is ready to be transferred or not."

§ 18. "In regard to the public examinations, the director must see that in a certain space of years the teachers and classes take their turn." (The latter however is never practically carried out.)

§ 23. The director must so inquire into the morals, industry and progress of each pupil, as to be able at all times to give their parents and guardians due information of the same ; he must also in the conferences of the meetings of the board of teachers, be so informed of every thing pertaining to the institution, as to give his advice and decide any case relating to school instruction and discipline. In the distribution of pre-

miums, he selects, together with the teachers, the most deserving from among the scholars, and decides all differences of opinion on that occasion."

§ 24. "The director has in general the introduction into office of any newly appointed teacher, and makes the announcement of the departure or death of any of the professors; if acquainted with a suitable person to succeed to the vacant position, he must call the attention of the patron to the same." (Practically the patron accedes always to the director's proposition.)

§ 27. "When temporary substitutes are needed, the director appoints from the other members of the board of teachers, and only in extraordinary cases, consolidates classes. Where a department needs a substitute for any length of time, an assistant teacher must be engaged.

In regard to rank, the directors, or as in some of the older gymnasiums they are still called, rectors of the gymnasiums or the real-schools of the first order, stand equal to the regular professors of universities, to the counselors of government and of courts of appeal; they belong officially to the fourth class in rank. Socially their position is much respected; those of age, part of whom have been the teachers of the highest officers of State, from the high consideration given in Prussia to school education, and by their former pupils generally, are treated with great esteem and filial regard.

The official labor of the director is to be mainly educational. It therefore requires his presence in school from the commencement of the first lesson in the morning to the close of the last in the afternoon. During the whole time of school he must employ himself with the teachers and scholars only; all his studies and official correspondence must be done outside of this time; it would be necessary that for this reason, the latter should be simplified as much as possible. However the speciality and exactness of Prussian administration overburdens in this particular beyond power the office of directors, particularly in the more frequented institutions of large cities. Correspondence to be held with local and provincial officers, periodical reports, tabulary reviews, statistical information, to which frequently is added the administration of educational funds, take up so much of their time out of school hours, that the most talented can not have the desired leisure for necessary progress in science. Beyond formularies and reports, more or less increased according to the option of the heads of the departments, in place of the yearly report of administration, into which the director received what appeared most noteworthy, and in which he was often required to explain a detailed subject more particularly, a triennial report has been substituted since 1859, in which, according to the Act of Aug. 6, 1863, besides the most detailed statistical information on the board of teachers, discipline, methods and means of instruction, many other things are required to be enlarged on.

In some of the provinces, general conferences take place of the directors of gymnasiums and real-schools of the first order, presided over by a

counselor of Instruction of the province. The first of these was in Westphalia in 1823; repeated at first every year, then every three years; the last, in 1863, was the fifteenth. In Pomerania, in 1861 and 1864, two such conferences met; in Prussia (province,) in 1831 a trial was made, and renewed with increasing success in 1835, 1841 and 1865. The several directors propose subjects for deliberation, from which the provincial school-board selects those for discussion, and appoints a disputant for each side. In this manner many didactic and pedagodic subjects have been thoroughly discussed, and by publishing the deliberations, the results of these conferences have become common property.

B. Class-professors and other teachers.—In order to effect greater uniformity in instruction, and to increase the moral influence of the older and more gifted teachers, who, by the kind and number of lessons they give in their respective classes, exercise much more influence on the young, class-professors were introduced in 1820, at the same time with the class system. The instruction by the royal consistory of the province of Brandenburg, Aug. 10th, 1820, contains the following principal regulations: "2, They superintend the scholars assigned to them and keep complete lists of their personal conduct. 3, The class-professor has to consider himself as requested by the parents or relatives of the scholar, to look after the general welfare of the young man in school. 4, He should never accept complaints about other teachers. 5, He should advise his new scholars in the purchase of the necessary books of instruction, and see that they prepare the requisite number of copy-books for writing and drawing, as well as blank-books for other lessons. 6, He should require that all copy-books be laid before him at least once a month, that he may also judge whether the student is not overloaded by the competition of too many tasks from different lessons given at one time. 7, He should privately take friendly advice with his colleagues as to the industry of his scholars, and heed their suggestions. 8, The same with regard to moral conduct. Here he should show himself a fatherly friend, but like a sensible parent not interfere with the disciplinary measures of another teacher. 9, He will be able better to effect all this by placing himself in accord with the parents or relatives of the scholar. 10, It is particularly expected from their devotion to the good cause, that from time to time they will visit at their residences those scholars whose parents do not reside in the place. 13, It is left for each director to add other regulations if circumstances demand."

The circular of the royal consistorium at Cologne of the 26th of February, 1824, has appended a few other regulations, of which the principal are: "11, Where monthly compositions have been introduced, the class-professor, from the lists submitted to him by the other teachers, shall prepare the principal class-report, and present the same, with the exercises, to the director. 13, It is specially recommended that he supervise the religious conduct and church-attendance of his pupils. 15, Where a disciplinary punishment is decreed either by a teacher who does not

instruct in the class, or by one of the class-teachers, which affects the whole or a greater part of the class, the matter should be laid before the class professor, who decides as far as the order of discipline gives him power, or refers it to the director.

The great influence of class-professorships has been amply verified since their introduction; the order of the cabinet for reorganization, of Oct. 24th, 1837, ascribes the success of all arrangements to this: "The more and the longer we succeed in finding for the difficult but influential position of class-professors, capable teachers, of a general scientific education, of true love and devotion for their profession, and of mature experience, who thoroughly have penetrated and mastered the subjects confided to them, and who understand how to select, with a clear and quick discernment, from their connection with other objects of study and with the general plan of instruction of a gymnasium in all branches, the means best adapted to the general development and efficient education of their pupils; who know how to distinguish between essentials and non-essentials, and who, finally, by the purity and dignity of their character, and their gentle yet decided deportment, are able to awaken in the classes confided to their care and training a lasting impression of the moral power which rules the destiny of man."

It was also in accordance with this ideal conception, that the instruction in religion of his class should, as much as possible, be confided to the class-professor.

The teachers of gymnasiums had, and in part still have, after the old custom, the titles of prorector, conrector, subrector, subconrector, baccalaureus, collaborator, coöperator collega, and in the inferior positions in many places, that of cantor and auditor, and in the ministerial order of March 17, 1840, the preservation of these titles for the three highest teachers was recommended. The title of *Oberlehrer* (higher or superior teacher,) after the introduction of the "order of examination of 1812," was usually adopted by all teachers who from their examination had obtained the qualification for the higher classes, but officially it was ascribed to those only who obtained it by express decree. The circular of Oct. 24th, 1837, published the resolution to ascribe the title of "*Oberlehrer*" as an encouragement to class-professors exclusively, and to revoke the existing distinction between "superior" and "inferior" teacher, in order to oppose the erroneous conception that the ability to instruct in the upper classes in itself bestows a higher dignity. By the decree of March 27th, 1845, a proportionate number of positions for "*Oberlehrer*" was established for each school, to which such teachers only should be appointed who by an *examen pro fac docendi* had proven their ability for instruction in the two higher classes. This decree, at first, could not be strictly carried out without severity against existing older teachers, well tried in practice; but by another circular, of Jan. 2d, 1863, it has been again established that for the vacant positions of "*Oberlehrer*" only such teachers should be proposed as have acquired the qualification to

give instructions in one of the main studies in the first class. Teachers who from their general mental capacity are fit for instructing in the upper classes, (but do not yet possess the formal qualification,) are urged to submit in time to a special examination. For the award of the title of "*Oberlehrer*" as a personal distinction, such teachers only shall be proposed, who by long management as class-professors have proved themselves able teachers and eminent instructors, and who have acquired considerable merit in matters of education. All other teachers are to be named "ordinary teachers."

A general instruction for the office of teachers does not exist.

The title of "professor" was formerly bestowed by the king; by cabinet order of Dec. 23d, 1842, the power to grant it was given to the Department of Instruction. It is to remain, however, a distinction rarely granted to those who possess the qualification for one of the main branches in a first class, and have not only proved themselves excellent teachers, but have made themselves favorably known in a scientific aspect. At some gymnasiums the title of professor is connected with a certain number of teacherships. According to rank, the professors of gymnasiums and of real-schools belong to the fifth class, equally with the extraordinary professors at universities. Sometimes the title of professor is bestowed on teachers of drawing and singing, when they have distinguished themselves by works of art.

To the desire to introduce an order of rank for the other teachers of higher schools, secretary Eichhorn (order of Nov. 7, 1846,) replied by declaring that it appears proper to withhold similar distinctions from the profession of teachers, and to allow the weight of scientific education and the labor towards the development of mental powers in youth, in connection with the personality of each one, alone to decide the dignity of the position. Herein lies the correct appreciation of the position of teachers in Prussia, that each one of them knows how to assume that honorable standing in society which is due him, according to his knowledge and personal dignity, in which he is willingly supported by the gratitude of a public greatly interested in the education of their children.

The number of hours of instruction is fixed for each teacher during the vacations; generally the director gives from twelve to sixteen, an *Oberlehrer* from twenty to twenty two, an ordinary teacher twenty-two to twenty-four lessons; at the schools of the city of Berlin each teacher gives twenty lessons per week. If primary teachers instruct at higher schools, twenty-six to twenty-eight hours are permitted. The highest of these numbers shall be required of a teacher only, when the class is not largely frequented and no corrections of written lessons are connected with it.

Every teacher is obliged, without remuneration, to teach additional hours during a vacancy, except when the position is not again filled for a long time. He can not accept any other office to which pay is attached, nor an office in the civil administration of the city, without the consent

of the Department of Instruction. Teachers of the institutions under the patronage of the city can not be elected aldermen; they are required to accept a guardianship only of children of relatives or fellow teachers, and to this a consent is necessary. Before concluding marriage, they have to petition the governors of the respective province for his consent, and oblige themselves to contribute to the general fund for the support of widows. There is no limit prescribed to their giving private lessons; but the establishment of private institutions requires the consent of the local officers and of the Department.

The secret lists of conduct, which had been introduced early after the reorganization of the State, to be made out annually by the directors according to prescribed schedule, and returned by them to the provincial school department, and by the latter, after having been perfected, to the Department of Instruction, have been abolished by decree of July 31, 1848. These lists contained four divisions to mark personalities and official employment; three divisions to mark official conduct, moral behavior and private studies of the teachers. They have been undeservedly decried; for they gave to the director much more opportunity to recommend in an official way teachers of merit to the Department for distinction, than to take away from their merits. Since then a periodical report of administration gives the directors occasion to express their opinion on the qualification of a teacher; if it contains a censure, they have to apprise the teacher of it, and afford him an opportunity for justification. The royal decree of July 11, 1849, with regard to misdemeanors in office by officers other than judicial, was also applied to public teachers. Minister Von Ladenberg declared in a circular dated July 26th, 1849: "The productive working of the office of a teacher, rests essentially upon the whole spiritual and moral bearing of the individual and upon the respect it inspires in his scholars, as well as in their parents and guardians. The more important the educating element appears in the character of youth, the more the superintending authority should look upon this circumstance, and should not hesitate to consider, if needs there be, conduct outside of the school a misdemeanor in office." However, this decree made it a duty to protect a teacher against unjust and inimical accusations, as well as to give due consideration to the just complaints of those who confide to the teacher their holiest goods, the spiritual and moral welfare of their children. The code of discipline for all officers of the government, of July 21st, 1852, is considered to apply equally to all public teachers.

Leave of absence for a journey during the course of instruction can be granted by the directors for one week; the school department of the province can extend it to four weeks for a journey into foreign countries, and to six weeks within the State; the Ober president can grant six weeks' leave out of the State, and eight weeks within its boundaries; for any longer period the consent of the Minister of Instruction or of the king is required. During a leave of absence beyond four weeks, accord-

ing to order dated March 28th, 1808, officers shall draw only half salary, which however is but seldom practiced. In accordance with the cabinet order of June 15th, 1863, during a leave of absence, salary is paid in full for the first six weeks; half pay for four and a half months' longer, and no salary afterwards. In case of sickness no deduction is made. During a journey for purposes of science, the expenses for a deputy are deducted.

The same authority which commissions for a position is to receive also application for discharge, which shall only be refused when the general interests would suffer by acceptance. The teacher is not allowed to leave his post until arrangements have been made for a successor or for temporary occupation. The regular period for giving notice of discontinuance in office is generally six months, and to begin April 1st, or October 1st.

The salary of teachers, at the beginning of this century, was everywhere mostly very small and very rarely fixed in amount. The greater part of the receipts was derived from various fees and perquisites, some of them even degrading, of which the history of some schools furnishes ample evidence. Only since the reorganization of the State the government has continually labored to procure a fixed living salary for teachers, and particularly to abolish their dependence on the fees paid for instruction. For if by these a just equalization between labor and wages was effected, they very readily led to overcrowding of classes and other inconveniences, from which a school should be kept free. Pro-temporary officials receive a remuneration which can only exceptionally amount to the regular salary. The principal and most important emolument, a free residence, has been retained whenever it is derived from donative funds or local appropriations. As a matter of course the director has a suitable dwelling in the institution, and where this is not the case, it is looked upon as an evil which should be remedied as soon as possible.

During a mobilization of the army, for those who are called into active service and who have their household with wife and child, a decrease in salary takes place, from the beginning of the month in which they are obliged to leave their homes, but only so far as their salary and military pay together passes beyond the amount of 800 *th.* per year. Salaries are paid every quarter of a year in advance; for accidental duties at the institution, remuneration is generally granted. During a journey in the interest of the service, and when a removal to another position takes place, mileage is paid proportionate to the office. Teachers who, without fault of theirs, find themselves in reduced circumstances, may have extraordinary assistance from the funds of the State, if their yearly income is not above 1000 *th.*, (thaler, 72 cents.)

The janitors of the school, who in accordance with a resolution of the Department of Oct. 12th, 1887, shall be selected from the military invalids entitled to maintenance in civil life, receive above their salary a dwelling-place in the institution, and materials for fuel and light. The collections taken up formerly among the students as a Christmas present, have been discontinued, and they receive instead a remuneration from the funds of the school.

The granting of pensions, up to the third decade of this century, was an act of royal favor; communities and corporations also exercised such acts of grace towards teachers no longer capable for duty, and often to a considerable amount. A law for the pensioning of teachers, after much deliberation and conferring with the provincial authorities, was enacted, May 28th, 1846, and received the royal approbation. According to it all teachers and officers of superior schools become entitled to a pension during life, if after a certain period in service they become incapable for duty not by their own fault, and if they were duly commissioned. If at an advanced age they are not absolutely incapable for duty, but unable to satisfy the requirements of their office, they are obliged, if the Department thinks proper, to pay an assistant appointed to aid them; however, there must be left for them a salary at least equal to the pension. The amount of pension is fixed by a scale; after fifteen years of service, four-sixteenths, after fifty years, twelve-sixteenths of their salary. The time of service is computed from the date of their taking the oath of office, and if they did not take such, from the day of their first entry into service. The trial year is not included, but the time passed in active military service is, and time of service before the enemy counts double. The fund for pensions is derived from yearly contributions of the salary, as introduced since January 1st, 1847; to the amount of one per cent. of 400 *th.*; one and one-fourth per cent. of 1000 *th.*; two per cent. of 2000 *th.*, and three per cent. of 3000 *th.*; moreover, one-twelfth of the whole salary must be paid in one installment.

The families of teachers who die in office, receive at the end of the month in which the death occurred, one quarter's salary; those of pensioned teachers that of one month. Every teacher commissioned for one of the higher schools is entitled and required to enter the "Institute for the support of widows," at Berlin, unless his age is too far advanced or ill health oppose his becoming a member. The amount insured must be at least one-fifth of the salary, and is not allowed to be above 500 *th.* In extraordinary cases, voluntary pensions are given to widows, generally only from 50 to 100 *th.*, and means for education in schools are granted for orphaned boys to their seventeenth year, and for girls to their fifteenth year, in monthly rates from one-half to two thalers. Many of these institutes possess considerable donations for widows and orphans.

III. REGULATIONS OF EXAMINATION OF TEACHERS.

The "Magdeburg Order of Visitation," (1563,) required the magistrate, with the consent of the resident pastor and superintendent, to appoint the public school-teacher. More minute regulations on an "examination" of teachers at the Latin and German schools were contained in the royal order of Sept. 30th, 1718, according to which they should be examined by the consistory or the general superintendent before being commissioned, and to those who gave satisfaction a testimonial should be given, and no one could be commissioned without it. Repeated instructions of 1750 and 1764 declared that no teacher should be engaged or promoted

without the approbation of the superior consistory, and the instruction for the superior school-collegium of Feb. 22d, 1787, ordered that a teacher should be appointed only on the ground of a testimonial from this authority. The candidate proposed for a vacant teachership was presented to the consistory or school-collegium of the province, which referred him to one of their members, generally to an experienced teacher. In this much depended on the character and learning of the latter, and these examinations lacked uniformity. Gedike, who, as a member of the superior school-collegium, was often charged with like examinations, gives a detailed sketch thereof in the programme of the gymnasiums of Fredericks werder of 1789 (collected writings on schools, II. pp. 90.) By the patrons of city schools, as long as teachers were mostly theologians, the evidence of their education for the ministerial office was generally deemed sufficient; likewise the recommendation of a distinguished scholar, or trial lessons, or the degree of Bachelor or Master of Arts given by a university, or the testimonials of their attendance at seminaries for theology, philology or pedagogy. But this custom proved more and more insufficient for the higher schools, since newly revived humanitarianism penetrated more deeply into them, and they no longer selected their teachers from among the candidates of theology, but from candidates who had been specially trained for higher teachership and proved more suitable. Thus, when the centralizing organization of the State extended also to the field of education, an examination of candidates for higher teachership, legal throughout the State, was ordered by the edict of July 12th, 1810, which at first was made by deputations of the Department of Public Instruction, and latterly by a special commission of examinations.

The regulations for examination had been drawn up by W. von Humboldt, Schleiermacher and Süvern. Of the motives, Humboldt had stated that such examinations are the only barrier that could be opposed to the abuse of the rights of patronage. It would honor the profession of teachers in the State, if every one who enters it had first to give evidence of his qualification. Fr. A. Wolf also declared himself in favor of not admitting any to teach at the secondary schools, though they had graduated at universities, unless they had been examined and authorized by the commission of examinations. The examination should consist in written theses, oral questioning and trial lessons. The commission could dispense with one of these. Those who, after presenting a dissertation in Latin and passing the regular oral examination at one of the faculties for philosophy of one of the State universities, had obtained the degree of Master of Arts, were not subject to further examination, only to a trial lesson. With members of seminaries for classic schools, the examination taken at their entrance by the director of the same, was sufficient. Distinguished foreigners called to professorships by the Prussian Department of Instruction were not subjected to any examination. The certificate given pointed out distinctly in what branches the candidate was well posted or weak, what proportion his skill in teaching held

to his knowledge, and the degree of his general qualification was indicated in the authority to teach in secondary-schools. The examination was called "*examen pro facultate docendi.*" Those proposed for a permanent professorship, had to pass an *examen pro loco*, in which regard should be had only to the necessary knowledge and skill for the particular position. To dispense from examinations was the privilege of the Department for Public Instruction. These regulations took effect, Jan. 1st, 1813. The requirements made of candidates at first were trifling, and the taking effect of the regulations fell in a time when Mars was worshiped more than Minerva; but when, after 1815, studies could again be pursued undisturbedly, a continually increasing zeal for the study of philology and philosophy manifested itself, and gradually a class of teachers, scientifically educated, formed itself, the like of which could not be found easily at any other time, and towards which chief counselor Johannes Schulze largely contributed by encouraging learned publications and attaching promotion to the same; particularly in the selection of directors great weight was given to successful labor as an author. A regulation of the department of Aug. 21, 1824, called to the attention of the consistories the one-sidedness of philologic preparation, and demanded that examinations should be extended principally on logic and metaphysics, psychology and history of philosophy, history and theology; but that very one-sidedness had trained the best powers of teaching, and if the examination in philosophy had remained in the background, there was among the students of that time such great zeal for education in philosophy, that without special requirements at the examination, all studies were enlivened thereby, even in a more extensive and more liberal manner than is possible by the anxiety to pass an examination. The afore-mentioned circular, in calling upon the commission for examination, to pay strict regard to "thoroughness and quality of philosophy and the study thereof, to the end that the shallow and superficial philosophisms which in modern times compose wholly the science of philosophy, may give way to fundamental studies, and that philosophy may obtain again her honorable and useful position among the sciences, and that academic youth, instead of being bewildered and darkened by after-philosophy, may be conducted by thorough instruction in a genuine philosophical spirit, to a clear, correct and complete application of the powers of the mind," was particularly meant for the study of the philosophy of Hegel, and the early appointment of Hegel into the commission for examination coincided with it. The objections raised, by the commission of Berlin only, against the practicability of the order of the department in reference to philosophy, were replied to on Aug. 13th, 1865, that "the different branches of philosophy in which examination should be had, give to the examining person forthwith a distinct and concrete subject, by which to discover whether the candidate has mentally appropriated what he heard in the lectures on philosophy at the university." The observation of the commission, that no law did exist, and could not very well exist,

according to which one system of philosophy only should be studied by the young at the academy, was refused as trivial and not called for by the circular of the department.

The circular of Aug. 21st, 1824, directed further that each candidate for teachership, who had been examined, should pass another trial before a member of the consistory, in regard to his knowledge in theology. Of those who did not want to be qualified for instructing religion, they should particularly inquire whether they possess the knowledge of the Christian doctrines of faith and morality requisite for teachers at a gymnasium, while of those intending to become qualified for teaching religion, they should require sufficient knowledge in the exegesis of the Old and New Testaments, and in church history. In proposing for the office of professor or director, those who had a thorough education in theology should be principally favored.

In a corresponding manner it was ordered, under date of Sept. 2, 1826, that a Catholic clergyman, well schooled and of distinguished reputation, should be invited, with the approbation of the archiepiscopal see of Cologne, to examine Catholic candidates for teachership in their knowledge of religion, and to do this if possible at the place where the commission of education held their session.

Candidates for teachership, who desired to be engaged at the higher burgher schools only, should be admitted to the examination *pro facultate docendi*, though they had not passed the *triennium academicum*, or not frequented a university at all. But with regard to regular teachers of science at the higher burgher-schools, or schools of commerce, and technical or real-schools in larger cities, in which an education was obtained for the higher mechanics or for the commercial profession, principally in mathematics, the natural sciences, history and geography, German literature, technology and modern languages, it was ordained by instruction of March 29th, 1827, that their commission should depend on a previous well-passed examination in these branches.

The requirements for teachers of higher schools, changed and enlarged in the course of time, made necessary the preparation of new rules for examination, which are still extant, and which were composed by Joh. Schulze on the basis of opinions presented by the different commissions for examination. In these are distinguished the examination: 1, *pro facultate docendi;* 2, *pro loco;* 3, *pro ascensione;* 4, the *colloquium pro rectorata.* Subjects in examination are: 1, the German, Latin, Greek, French, and Hebrew languages; 2, mathematics, natural philosophy, history and geography, philosophy and pedagogy, theology. However, it should not be forbidden to any candidate to be examined in other languages and sciences, to which he had devoted himself, and which stood in connection with objects of instruction at secondary-schools. A main condition for admission was the complete academic triennium, and in 1841 a rule was added, that every one who desired to enter the service of the Prussian government must have studied at a Prussian university

during three semesters. Foreigners, in order to be admitted to the examinations, are required to present a special permit from the Department of Education; but from this, candidates from the Grand Duchy of Saxe-Coburg-Gotha are excepted since 1864.

According as the "*curriculum vitæ*" delivered by the candidate is found to be more or less favorable, two or three subjects for a treatise in writing are given him, with directions to finish the same after a certain fixed time (usually six months,) and to report the sources from which information was drawn for the composition. As a rule, one of these compositions must be in the Latin language; to candidates who intend to devote themselves exclusively to teaching mathematics and natural science at one of the higher burgher or real-schools, it is permitted to use the French language in place of the Latin. By circular of May 19, 1833, it was also permitted to give to candidates upon their application, lessons more difficult or more easy than were first required in the examination. Exempt from compositions in writing should be: (1,) doctors and masters of philosophy promoted at one of the inland universities, after a public defense in Latin of their naugural dissertation, published in printed form; (2,) candidates of theology, who can produce a certificate from the theological commission of examination of having favorably passed the first examen for theologians. From the oral examination, doctors of philosophy were not exempt; on the contrary they had to be examined in all the principal branches of instruction, and particularly in those which are not included in the examination for doctor of philosophy.

According to the value of the written compositions, the subject for a trial-lesson, and the class in which it is to take place, are selected, and "the director and those members of the commission to whom the branches selected principally belong, are required to be present." In practice, however, it has been found that the director can not assist at all times, and consequently he is not always present.

By the oral examination is to be ascertained what knowledge the candidate possesses in philology, mathematics, history, natural sciences, theology and philosophy, and if sufficient for the purposes of teaching at secondary-schools; and he shall be examined so far in them as is necessary to judge correctly the extent of his knowledge. That part of the examination which refers to ancient (classical) philology, must be made in Latin. If the trial-lesson and oral examination should give a result different from that which the written compositions gave a right to expect, the candidate may be required to prepare another, under special surveillance and without any means of assistance. More than three candidates shall not be examined at the same time, and then only such as desire to become qualified for the same grade of schools. "The importance of the examination makes necessary the permanent presence of the director of the commission, and another member beside the one who examines the candidate."

In giving the "*facultas docendi*," three degrees are distinguished:

(1,) the unconditional, when the candidate, besides a sufficient, even if not perfectly developed capacity for teaching, is so far master of the subjects as to be able, after due preparation, to teach, (*a*) Latin and Greek and the German language, (*b*) mathematics and natural sciences, (*c*) history and geography, or (*d*) as according to later instructions of the Department, theology, and the Hebrew language, in one of the upper classes of a gymnasium successfully, and is so far acquainted with all other subjects as to be able to appreciate their relative importance to other branches of instruction and to influence beneficially the total education of the students." In a declaration of Aug. 9th, 1831, the Department pointed out "that the purpose of this regulation was to prevent for the future the total ignorance of candidates for teachership in any of the three essential branches of instruction in secondary-schools, as had hitherto not seldom been shown." Since the issue of the regulations of 1834 for the maturity examination* in leaving the gymnasium, such total ignorance is prevented, and the general examination of candidates appears no more necessary; however, the fear of it often divides the powers of students, who rather strive after the eminent in one branch, which is the more important, than after an *æqualis mediocritas.*

As qualification for instructing philology in the two upper classes, besides a perfect knowledge of Greek and Latin grammar, an extensive study of the classics of these two languages, in particular of those usually read in upper classes, and a familiarity with the actual value of philology and the most important means for its study, as well as correctness and fluency in lecturing Latin, are required. In the branches of philosophy a complete knowledge of details and minute penetration can not be expected; yet the examination must lead to the conviction that the candidate has studied these sciences.

The examination in German extends to grammar, the peculiar character and laws of the language, the historic development of the same, and the history of its literature. "Those who do not possess knowledge of the German language and literature, and general scientific knowledge enough to teach the German successfully in each class, even in the highest, can not receive the "unconditional *facultas docendi* for philology." The Department declared in rescript of Nov. 12th, 1831, that those who contended for that degree should combine the knowledge of antiquity with the study of the history of modern science.

In history and geography, beside a general knowledge thereof, the "study of the principal authors for any period of ancient, middle or modern history" was required. Moreover the candidate should "possess enough of philology, not only to make use of the Greek and Roman classics for his lectures, but also by the latter to contribute to the interpretation of the former; and he should have that command of expression in Latin, that he can deliver his lectures on ancient history in that lang-

* *Note.*—The final examination on leaving the gymnasium, which, if successfully passed, declares the student matured for the university, and entitles him to admittance.

uage." Qualification as teacher for the upper classes of real-schools may be obtained without a knowledge of the ancient languages, according to the order of April 6th, 1859. The ability of teachers and examiners to deliver a well connected lecture on history in Latin now disappearing almost altogether, this requirement has been overlooked at examinations. Also, geography is treated on generally by questions connected with the examination in history, so that an actual *facultas docendi* in this branch can rarely be said to have been established.

In mathematics, the candidate must prove that he has penetrated the higher parts of geometry, spherical analysis and higher mathematics, so far as to be able to make successful applications of these to astronomy and natural philosophy. A special decree of December 14, 1839, ordains that beside a general review of this science and its application to every-day phenomena, a more comprehensive and thorough knowledge of all its parts, including modern discoveries and late publications, as well as of the more important problems of chemistry and the ability to explain suitable problems in a mathematical way, should be required. This order also fitly demands, "that in order not to limit the thorough study of mathematics and the natural sciences by too great requirements, the conditional *facultas docendi* shall be given to candidates who can teach mathematics and the mathematical parts of natural philosophy in all classes, and to those who can instruct in the natural sciences in all classes, and mathematics in the lower and middle classes only.

In philosophy and pedagogy, beside an exact knowledge of these sciences and a critical appreciation of the different systems of instruction and education, it should be required that the candidates are able to explain, in a scientific manner, the principles of logic, metaphysics and psychology; and with a general knowledge of the history of philosophy and of its different systems according to their characteristic peculiarities, they should combine a familiar knowledge of the changes philosophy has experienced by Kant, and since his time.

2. The *conditional facultas docendi* can be obtained by (*a*) those who, though they have sufficient knowledge to teach in the two upper classes, yet in one or more branches do not satisfy the requirements which must be exacted of every teacher, obtain this degree under the condition that they supply those deficiences, and they should not be admitted to the examination *pro loco* until there is reason to expect that their studies in the deficient branches have been perfected; (*b*) those who, in one or more of the chief subjects of instruction, possess only the knowledge required for middle or lower classes.

The second degree of teachership obtained great latitude by those regulations, and embraced candidates of the greatest learning and the most able capacities, as must frequently be found in limiting examination to certain branches of science, as well as those of great mediocrity who had not passed far beyond the maturity-examination. For this reason the instructions of Aug. 9th, 1831, made a discrimination between can-

didates who had been examined for teaching in the upper classes, and such as had been qualified for the lower classes only. To the first ones the regulations on examination *pro loco* are applied, but they are not to pass a second examination *pro facultate docendi*, since the trial-year will give the authorities ample opportunity to convince themselves how far the candidate has endeavored to supply the deficiencies appearing at the examination. Even after the trial-year, the authorities, by bestowing the necessary attention on the candidates in their district, could not fail of opportunities to obtain all information on that point. These instructions proved important and wholesome by freeing the most capable candidates from the obligation of a second examination in such branches of knowledge, the study of which could be superficial with them only, while it would draw them away from their proper field of excellence. The school-collegiums, it is true, had a task they could only perform to some extent through the organ of the respective directors, as under the office-like way of conducting the business of the collegium, there rarely was left time and opportunity for any of the members to make personal observations. The experience of the next years following the issue of these regulations showed in many cases unsatisfactory results of the examinations and many deficiencies, which partly had their cause in the regulations themselves, partly in their application by the examiners, in particular by some professors of universities, who made too high requirements on the younger teachers of gymnasiums, and partly, too, in the spirit of the times, which was more bent on realities and unfavorable to the study of philology. In the circular of Feb. 3d, 1838, to the Royal Commission for Examinations, the "superficial mediocrity which satisfies so many candidates for higher teachership in their vocation," has been opposed by increased demands, principally by allowing the qualification for *conditional facultas docendi* only to the candidates heretofore described under (*a*); but it was left to the discretion of the commission for examination to bestow the "*conditional facultas docendi* on such candidates who in one or more of the principal branches of instruction possess only the knowledge required for the middle or lower classes, this permission to be limited to the lower classes exceptionally, when the candidates, with a security and clearness in fundamental knowledge, combined distinguished talent of explanation, an excellent skill in the treatment of the young, and a prepossessing appearance." A the same time the Department expressed a confident expectation that the commissions for examination would never lose sight of the fact, that the short course of three years at the university could only serve to collect a sufficient material; and therefore a complete, thorough, and in all parts finished knowledge, and a solid penetration into science, could not be required; much more they should see, if the candidates, besides a general knowledge, had actually laid the foundation in one of the principal branches, on which farther to build, and had an intelligent comprehension and spirited digest of the sciences chiefly cultivated by them at the

university. For able candidates of this class the Department in 1857 created a higher degree: conditional *facultas* for the middle classes.

On February 4th, 1838, a second circular to the school-collegiums was issued, in which the directors of gymnasiums were designated as suitable persons to advise young men in the upper classes, if not thought qualified for the profession, to desist from pursuing studies requisite for teachership, and to represent to abler ones the extent and difficulties of the object. But directors have seldom been in a situation to execute this charge. During the first ten years the proportion of candidates to vacant positions was unfavorable to the former, but soon after 1848 it changed, so that the want of teachers becoming more sensible, the Department of Instruction, under order of Oct. 16th, 1858, promised to assist students in the upper classes, in cases of poverty, if they felt a desire to devote themselves to the profession and were willing to pursue the necessary studies, beginning even at the time of their attendance at the gymnasium, and the directors were instructed to make proper application to the Department. It is not known whether recourse has ever been had to this measure. The general examination in religion and philosophy, as ordered by the cabinet order of Aug. 21st, 1824, was amended by rescript of March 3d, 1848, by requiring that the testimonials of candidates who had not passed this examination satisfactorily, should contain a provision that the candidate, before being definitely engaged, must prove in a second examination that he has acquired the requisite knowledge in the above sciences. It was chiefly intended thus to enlarge the knowledge of religion of future teachers, and to form teachers of religion not from theologians only. The same object was aimed at by a circular of the ministry of Von Raumer of Dec. 9, 1853, directed to the faculties of theology, requiring of them to introduce suitable lectures, which was done by some distinguished professors, but in spite of the desire repeatedly expressed under date of May 10th, 1865, they were never generally introduced by the faculties. The commission for examination, however, was instructed, from the year 1857, invariably to exact a report from the candidates for higher teachership, in how far and in what manner, during their academical studies, they had endeavored to increase and improve a scientific knowledge of religion.

By the above-named circular of Feb. 3d, 1838, theology and the Hebrew had been made the fourth principal part of examination; but by another cabinet order of Dec. 21st, 1841, candidates of theology, when they had obtained an excellent testimonial from the commission for examination in theology, should be considered qualified for teaching religion and the Hebrew language; and should be further examined only as to their ability and method of teaching; but in all other respects they should be subject to the same requirements as candidates for teachership. However, since it appeared desirable to gain men of sound education in theology as teachers of religion at secondary-schools, it was decreed by order of the Department, Aug. 10th, 1853, that candidates of theology,

who could produce the certificate of a well passed examination before the commission for theology, should be admitted to the examination *pro facultate docendi.* If they desire to acquire the qualification of "*unconditional fac. doc.*," they must satisfy all general conditions; the qualification for *conditional fac. doc.* may be imparted to them: 1, if by a trial lesson and oral examination, which is limited to didactic ability and the peculiar requirements of teaching in higher classes, they prove their ability to teach religion and the Hebrew in the first class of a gymnasium; and 2, if they prove their ability to teach (*a*) Latin, Greek and German, or (*b*) mathematics and natural science, in the third class of a gymnasium, or (*c*) either one of these subjects in the first class.

Catholic clergymen, according to rescript of March 26th, 1863, when they have been promoted by an inland university or by academic rule to the degree of doctor or licentiate of theology, are not subjected to an examination in theology in order to become qualified as teachers of religion, but their ability of teaching religion or the Hebrew in the different classes remains subject to trial by the commission of examination.

By ministerial rescript of Aug. 11th, 1854, members for the examination in French and English are added to the commissions. Candidates who wish to become qualified for teaching French or English, besides a thorough and fundamental knowledge of these languages and their literature, must respond to the requirements of general education demanded from all candidates. However, the rescript of the Department of May 23d, 1865, directs that the admission of teachers of elementary schools who have obtained the *fac. doc.* for those modern languages, as teachers of science at gymnasiums and real-schools, is generally not desirable.

For teachers of drawing at higher schools, to which heretofore teachers had been admitted without special selection, it was directed, April 2d, 1827, that only those should be proposed who were furnished with an attest of qualification by the Royal Academy of Arts, and that such should have preference among applicants. A circular of January 16th, 1828, directed the consistories and school-collegiums of the provinces to give to the Department an exact report on the qualification of each teacher of drawing at the gymnasiums in their province, on the manner and success of their instructions, and on their social position and relation. Since 1863 these candidates are required to submit to an examination by one of the royal academics of Art at Berlin, Königsberg or Dusseldorf.

As teacher of singing, no one can be engaged, since the year 1830, who has not given evidence of his ability to teach singing.

An examination for teachers of gymnastic exercises has been instituted by departmental rescript of March 29th, 1866, for which a commission, including a professor of anatomy, has been formed in Berlin. It takes place at the central institute for gymnastics (erected in 1851, and which proceeded from the central institute for the education of teachers of gymnastics by rescript of Feb. 6th;) under superintendence of the instructors. It was considered desirable that the instructions in gymnastic ex-

ercises should be confided to regular teachers of the schools only, and in order to educate such teachers, a course of six months, for eighteen pupils, was arranged in this institution, in which young teachers could take part without charge, and in particular cases were supplied with funds for their support during this time.

The incompleteness of the regulations for examinations of 1831, notwithstanding the many corrections and explanations, made a revision of the whole necessary, which was executed with the care peculiar to Prussian officials—the plan of a new order of regulations having been submitted to the provincial school-boards, to commissions of examination, and to experienced teachers, for their approbation.

Following the requirements of the law, a commission for examination was not easily constituted. In earlier times it was mostly composed of teachers, more recently counselors of instruction and professors of universities predominated. The first named undoubtedly understand best the necessary qualifications for the school, and require merits of a young teacher; but the limitations of their vocation renders it impossible for them to advance with the development of science, so as to be able to ascertain whether the period of study at the university has been profitably and practicably employed. The others, no longer familiar with schools, can not properly weigh their demands, and are apt to pass beyond the object of pedagogic preparation, or are led in preponderance by their own special scientific researches. The most suitable examiners are those who from the school teacher's chair have passed to that of the university.

IV. PREPARATION OF TEACHERS FOR SUPERIOR SCHOOLS.

Prior to this century, there were no special arrangements at universities for the education of teachers for secondary-schools, the first being the philological seminaries, the oldest of which is at the University of Halle. By order of the Elector in 1695 and 1697, a part of the revenues of the convent Hillersleben was used for the benefit of some students of other faculties than that of theology, who would devote themselves to the study of "*humanoria et elegantiorem literaturam*," and for those who intended to prepare themselves for teachership at secondary-schools, under the special supervision of Prof. Cellarius, who read every day a free lecture for them, until he died in 1707, when this arrangement ended.

A purely philological seminary was founded in 1787, by the influence of Fr. A. Wolf, which was the first to educate for the profession of teacher separate from theology, and in so far created an epoch in pedagogy. This seminary had twelve regular members, who had already attended a university one year, and were permitted to remain in the seminary for two years only. The exercises of the seminarists, in which a great many of the students of other faculties took part, consisted in interpretation of ancient authors, discussions partly on theses, partly on

compositions of the seminarists, and, for a time also, in the practice of teaching in the upper class of the Latin school of the orphan house at Halle. When this university was closed in 1806, Wolf went to Berlin; and on its reopening in 1808, Chr. Gottfr. Schuck obtained the directorship of the seminary, and in 1816 was associated with Seidler. After the new regulations of 1817, the object of "training skillful teachers for gymnasiums" was consistently followed up in all later regulations, and by the directors following, Mor. H. Ed. Meier and Bernardy, and exercises for acquiring a genuine style in Latin were particularly fostered. The separation into two divisions, which had been made in 1846 from personal motives, was annulled in 1857, when Bergh entered, after Meier's death.

The second seminary was founded by Professor Erfurt in Königsberg (1810.) The Department of Public Instruction agreed to his proposition for an association, under the name of a seminary, of young men who should, however, on account of want of sufficient preparation, be considered as first students only, from whom afterwards the regular members of the seminary might be selected. Schleiermacher, in voting on the instructions for this seminary, said very justly and well adapted for all times: "The first object is only to excite a love for the study of philology, and after this is awakened and formed, when an individual inclination is developed, free play must be given to it without any hesitation; but in every way we must prevent young men from limiting themselves to a narrower sphere and from finding their especial vocation therein." The department recommended exercises in writing and speaking of Latin and Greek; the latter M. Erfurdt desired to postpone at the beginning, but with the annual report of 1812, a "*disputatio de criticæ artis difficultatibus*" in the Greek language could be presented, which the authorities in Berlin censured only for accents omitted, After M. Erfurdt, the directors of this seminary were Wald, Gotthold, Lobeck, Lehrs.

In 1812, Bockh became founder and director of a similar institute in Berlin, who, with Buttmann, Lachmann, Martin Hertz, and Haupt, have presided over it till now.

The philological seminary at Greifswald, from a philological association, became (1822) a public institution, at first conducted by Henry Meier alone, assisted by Schomann, who subsequently became director; assisted successively by Martin Hertz, Urlichs, and Ufener.

The seminary at Breslau was established in 1812; the two first directors were Gottl. Schneider and Heindorf, who were followed by Fr. Passow, Chr. Schneider, Ritschl, Ambrosch, Haase, the latter since 1856 in connection with Rossbach.

The philological seminary at Bonn was founded in 1819. The directors were Nake and Heinrich, under whom the attendance increased so considerably, that in 1826 it counted ten regular members, twenty-seven extraordinary; and forty-five visiting members. Welcker, who, after the death of Heinrich, became co-director, fostered the study of ancient art

in connection with that of ancient literature, but the interest among the students abated so much, that in 1841 there were only eight regular, ten extraordinary, and sixteen visiting members. After Ritschl was called to the position of Nake in 1839, the interest gradually increased again, so that in 1861 the number of members was eighty, and in 1864, eighty-eight. Eighteen years after the resignation of Welcker, in 1861, O. Jahn was appointed second director. From this seminary a great many excellent scholars have proceeded, who had creditably begun their career at universities and gymnasiums, and it was a matter of universal regret that the difficulties in the year 1865, should have induced so distinguished a professor as Ritschl to leave the service of the Prussian State.

In 1824, a philological and pedagogic seminary was connected with the theological and philosophical faculty at Münster, for the purpose of training candidates for efficient teachers at gymnasiums; its directors were Nadermann, Esser, Grauert, and at present, Deycks and Winieroski.

All exercises in these seminaries were arranged after the course at the seminary of Halle; for regular members, subsidies of forty thalers per year generally, with participation in the studies gratis, are allowed.

The first proposition for the establishment of a seminary for history, for the purpose of giving to a number of students a thorough education in history and enable them to take charge of instruction in this department was made in 1824 by Professor Menzel of Breslau; but the institute was not erected till 1843, when premiums of two hundred thalers were granted. Since 1852, Professor Ropell presided over it, assisted from 1863 by Professor Junkerman, a Catholic, so that a division of instruction according to religious confessions was introduced.

In Königsberg, as early as 1832, a like seminary, with a grant of two hundred thalers, had been established, the first director of which, Prof. Dr. Schubert, still presides; and one at Griefswald (1863) by Prof. Dr. A. Schafer, with yearly premiums of fifty thalers. The seminary founded at Bonn in 1863, with premium of three hundred thalers, is divided into two separate branches, independent of each other, according to its two-fold object: 1, to introduce researches in history; 2, to prepare future teachers of history for gymnasiums. The direction, in order to provide for ecclesiastical preferences, has been given to two professors, Von Sybel, Protestant, and Kampfschulte, Catholic.

Beyond these public institutions, the lectures on history of distinguished professors at the universities of Berlin and Halle, though at first instituted for scientific objects only, have aided very much in training eminent teachers of history for higher schools, particularly those by Leopold von Ranke, and more recently by Droysen, by whom a good number of the best teachers in this branch have been educated.

The first seminary for mathematics and natural philosophy, at Königsberg, adopted, in 1834, preliminary statutes, and obtained as directors, Professors Neuman and Jacobi; and in 1839, by royal order, its subsidy was increased from one hundred and fifty to three hundred and fifty tha-

lers. Since 1843, Prof. Richelot took part in its instruction. At Halle, a seminary for mathematics and natural philosophy was begun in 1838, through the energy of Prof. Kæmtz and Prof. Schncke, called thither from Königsberg. Through the influence of Prof. Schweigger, it was, in 1840, extended to all the natural sciences, and consists at present of seven divisions with eight professors. The seminary for mathematics at Berlin was founded in 1861; admittance into it follows upon an oral examination by the directors, and a written trial-composition. The directors are Kummer and Weierstrass; its subsidy, four hundred thalers.

In order to supply teachers of natural history for secondary-schools, and to increase generally the study of the natural sciences, the "seminary for natural sciences" at Bonn was founded in 1825. for fifteen to twenty regular members; its director was Necs. von Esenbeck, and each of the four divisions received a sub-director; afterwards the directorship changed according to election by the members. In 1830, the department directed that a testimonial of qualification should be given to the seminarists upon their leaving, which should relieve them of the examination by the commissions. This regulation was, however, changed in 1845, to giving such a certificate on the basis of an examination. For the furtherance of this institute, the department, in 1831, instructed the provincial collegiums of the eastern provinces to recommend attendance at this seminary to such students, leaving the gymnasiums, who had shown special talents for the study of natural science.

B. Pedagogic Seminaries.—It was of great importance to give to young men who had acquired good knowledge at the universities after they had passed their examination, an opportunity practically to learn the art of teaching. Before the time of Fr. Gedike, the preparation of teachers for secondary-schools was left to chance; but this eminent educator, principally through his own influence, received, Oct. 9th, 1787, the first charge to open a "royal institution of teachers for learned schools," which obtained its constitution under the name of a seminary, Nov. 18, 1788. The first five students received a stipend of one hundred and fifty thalers each, and the seminary was connected with the Frederic Werder gymnasium at Berlin, then under the directorship of Gedike. Its members were considered regular teachers of the gymnasium, and each was charged with ten lessons per week in one of its classes, and moreover they should be ready to take the place of other teachers when the director required them, to make the corrections of written lessons, to prepare testimonials for scholars, and for other practical services. They should be present as visitors during the instructions given by the director or by other teachers, or by some one from among themselves, should associate much with one another in free exchange of observations and opinions, and be under the superintendence of the director and of three teachers. That they might have practice in pedagogic moral treatment of single students, one who needed special treatment was from time to time placed under their care. For their further theoretical education,

they had to prepare a composition on some subject of pedagogy suggested by their own experience, to be submitted to the director, and read and discussed in a pedagogic society established by them. Moreover, the members met once every month in a philological society, over which the director presided. A collection of books, expressly for the members, was procured, for the increase of which, forty thalers per year were set apart. With Gedike, the seminary in 1798 passed over to the gymnasium at the Gray Convent in Berlin, and under Bellermann I. (since 1804,) one member was ceded to the Fred. Werder gymnasium, after most of the seminarists had become in fact assistant teachers. In 1812, the eight members were alternately distributed among the four German gymnasiums, and the directorship, which according to the new instructions of Aug. 26th, 1812, was to be entirely independent of the directors of gymnasiums at Berlin, passed at first over to Solger, professor of the university, who was also a member of the scientific deputation of Berlin, and after his death in 1819, to Prof. Bockh, who was at its head in 1866. Since 1812, the practical pedagogic training of the members has in reality devolved solely on the successive directors of the gymnasiums. The increase in the demand for teachers after 1815 made the execution of the regulations for instruction impracticable; the seminarists, who were permitted to remain four years only at the seminary, if they did not obtain sooner a position as regular teachers, were mostly engaged as assistant teachers at the same or another gymnasium, sometimes at several, and the six lessons per week laid down for them, especially on account of the large demand for teachers after 1848, were often considerably increased; also the rule, to give their instruction in presence of a regular teacher of the gymnasium, and to fill but two lessons in the lower classes, could not be carried out. A decree of the department of Dec. 13th, 1863, made an end to overtasking seminarists with hours of teaching, as contrary to law and to the regular purpose of the seminary; as a maximum, twelve lessons were allowed, for which, however, if not regular lessons of practice for the seminarists, but taken for a time from the regular teachers of the school, they should be properly remunerated. By this, the situation of the seminarists has been improved.

A second pedagogic seminary was established (1804) in Stettin, "for the education of teachers of learned, middle-class, and inferior burgher-schools of the whole of Pomerania," by the aid of the property of the former "St. Mary's Home;" but soon the seminary was limited to eight candidates for higher teachership, who at the same time were assistant teachers of the gymnasium. Professor G. W. Bartholdy was its director up to 1815; since then the directors of the gymnasium have also presided over the seminary, by which, also, in consequence of the instructions made last, July 3d, 1844, the number of members of this institute decreased to four, and a similar arrangement to the orignal one of the Berlin seminary was effected, which is certainly more practical.

The seminary of Breslau, in the main arranged after the same prin-

ciples, was established in 1813, and stands since 1858, every two years alternately, under the directorship of the Protestant and Catholic provincial school-board. Upon request of the director of the seminary, the commission for examination gives the lessons for the seminarists, and has them reviewed by their members.

The pedagogic seminary at Halle has gradually formed itself out of the theological seminary connected with that university; but has only since 1829 become a separate institute, for it was placed under the supervision of the commission of examinations, and received a director of its own, who must be a practical schoolman, and always professor of the faculty for theology or philosophy. Thus the seminary, as a theologic pedagogium, remained a special division of the seminary belonging to the faculty of theology of the University of Halle-Wittenberg, and according to the new regulation of 1835, the direction should be given to a regular or extraordinary professor of theology, which was again confirmed by rescript of Feb. 18th, 1856. There is a considerable distinction between this seminary and others in this, that its twelve members are divided into a first and second class, and principally students are admitted, who have been one and a half years at the university; qualified candidates of teachership, with good testimonials, can also find admittance. The seminarists are obliged regularly to attend the course of pedagogic lectures of the director, and to present one composition of a pedagogic character every semester. Practical exercises consist principally in teaching lessons, in a branch previously selected, to scholars whom the director collects for this purpose in a class-room, before auditors, and after their withdrawal, a criticism on the teaching by the other members and finally by the director, takes place. Further to acquire self-reliance, the seminarists give lessons in one of the classes of the Francké Institute. The period of membership has been fixed for students at two years, for candidates of teachership at one year; the stipends for members (first class, fifty thalers, second class, thirty thalers) are less than at other seminaries. The entire arrangement approaches that of seminaries for public school teachers; yet at the present time the condition of the students has again found more liberal consideration.

The province of Saxony has moreover a very important institute for the education of teachers, in the "Convict," for six candidates of theology, established in 1856 with the Pedagogium of the Convent of U. L. F. at Magdeburg; the candidates admitted in it must have acquired the qualification *pro licentia concionandi*, with the predicate at least of "good," and must intend to devote themselves to teaching at secondary-schools for a number of years or for life. The object of the "Convict" is, by a scientific and practical training to educate teachers of religion for high-schools, who are able to instruct in other branches of science as regular members of the board of teachers.

C. The pedagogic trial-year.—The arrangements for the education of teachers for higher schools soon proved insufficient for the existing de-

mand. This demand for graduated teachers for gymnasiums, towards the middle of the third decade of our century, became so large, that every candidate for higher teachership, immediately after passing the examination, sometimes on the ground of his testimonial only, received a regular appointment in the province, even as class-professors. At this time the superior officers of the Department of Instruction had remarked that one single trial-lesson (as prescribed by the regulations) was not sufficient to enable them to obtain such a knowledge of the practical usefulness and talent for teaching of a candidate, as was desirable and necessary to a just estimation of those who applied for the position of teacher. For this reason, the Department, Sept. 24th, 1826, caused the introduction of a pedagogic trial-year, according to which, all candidates, qualified by attainments, should hereafter, for at least one year, practically engage in teaching at a secondary school, and thus prove their fitness, before they could be regularly commissioned as teachers of science. The choice of the school should be left to the candidate, but in no school more than two at a time should be admitted, and no candidate be charged with more than eight lessons per week, and in extraordinary cases, to fill a temporary vacancy, at the highest with six lessons more; these lessons were generally given without any remuneration. The selection of classes, in which the candidates should give their lessons for six months or for the year, was reserved to the directors, and these, as well as the class professors, should frequently attend the instructions by the candidates, and amicably discuss their manner of teaching with them. In order to acquaint themselves with the organism of the entire school, and to gain a view of the art of teaching of experienced teachers, the candidates were expected, during the first months of their trial-year, to visit the different classes during those hours of the day when they themselves were not engaged with teaching, and that they might practice the art of pedagogic discipline, some rude, idle, or ill behaved scholars of the classes in which they were to teach, should from time to time be placed under their special supervision. In all other respects the candidates should be considered regular teachers, and at the expiration of the trial-year should receive a testimonial on the skill in teaching they had acquired, and on their practical usefulness, signed by the director and the class-professors. Since 1832, the candidates receive a testimonial as to the trial-year only, which, since 1844, is signed by the director alone; a detailed certificate is sent to the Department of Education, and since 1858 to the school-collegium of the province.

This arrangement, which coincided with the period when higher schools were amply provided with teachers, gave a desirable support to qualified candidates, and at the same time the opportunity for practice in their profession, but to directors it gave an additional duty, and to the schools a burden often injurious. The directors, already constantly engaged, with few exceptions did not trouble themselves much about these passing pedagogues, and the class-professors not at all; thus the

trial-year was beneficial only as a process of refining by which talented teachers were separated from incapable ones.

Minister von Eichhorn issued, April 3d, 1842, a new instruction on the trial-year, according to which "the candidate should at first, by visiting classes, conversing with directors, class-professors and other teachers, gain a view of the organization of the school; 2, for a long time visit those classes in which he is to teach, and make himself familiar with the manner of teaching of him whose place he is to take, and with the progress of the pupils; 3, in the selection of subjects for teaching, regard must be had chiefly to his testimonial; 4, he should not be employed all the year in the same class, but an opportunity must be given him to try his ability in other and higher classes, even if only in shorter lessons; 5, the teachers, represented by the candidate, must consider themselves all along as the proper teachers of the subject or the class, and in the commencement be present in all the lessons given by the candidate, and at the end of a lesson make suitable suggestions to him; and as soon as he can be intrusted with the sole care of the class, attend his lessons at least once a week."

Wherever this arrangement was executed with vigilance, it operated most favorably, and while under the previous rules part of the candidates were lost to the profession, by these latter every one, with few exceptions, became a well-experienced schoolman. The scholars were not given over any longer to unsafe experiments of new comers, and the young teacher gradually acquired the necessary authority, under the patronage of his guide, and the confidence and method, so important to independent teaching. A great number of teachers, some of whom are now directors, have thus qualified themselves for the profession. The superabundance of candidates for higher teachership until 1848, rendered the execution of this measure easy, as each candidate estimated it a special favor to be permitted to begin his trial-year directly after the examination, and proved grateful for the permission to teach longer without any remuneration until regularly commissioned. For foreign candidates, it was rendered very difficult to be employed at secondary-schools; the circular of May 28th, 1851, made the examination and trial-year depending upon the consent of the Department of Instruction, and circular of January 27th, 1852, prescribed that after examination and trial-year, none should be engaged at secondary-schools except by permission of the department. But after this time a great change took place in the relations of teachers in Prussia. In many places great zeal was manifested for establishing and extending schools; many teachers resigned on account of age or because they had committed themselves in politics; the favorable prospects for young men in industrial pursuits took away many disciples from the profession of teacher. Thus it happened that the candidates for teachership, not long before in abundance, were in a few years all engaged; so that not only examined candidates were employed as regular teachers, with salary and a full number of lessons, but non-

examined also, under the promise, it is true, to pass their examination within a year, which was however not exacted on account of the want of teachers. This want was in part remedied by facilitating the employment of foreign candidates; and in consequence of the cabinet order of Jan. 27th, 1862, a great many from the North-German States filled vacant positions, so that the employment of non-examined candidates was rarely tolerated, while that of candidates on trial was greatly favored, it being ruled by rescript of Feb. 14th, that they should not teach any longer beyond the lessons for their practice, without receiving compensation, but should have a competent salary, and that all regulations with regard to their exercises in teaching, under supervision and information, should be strictly adhered to.

The trial-year may be held at gymnasiums and real-schools, but only exceptionally at progymnasiums and secondary burgher-schools. The members of seminaries for high-schools are dispensed from it. In fixing the amount for pension, it is not counted as a year of service.

Assistance for travel to foreign countries is only given by the French gymnasium of Berlin, which has two stipends for the education of candidates in the French language.

V. PLAN OF INSTRUCTIONS.

The plan of instructions of Prussian gymnasiums, as elsewhere, has, in the course of time, been subject to many modifications, and we can here only enter nearer upon that by which a uniform order of instruction has gradually been effected.

The requirement for maturity-examination necessarily prepared the way to uniformity in the plan of instructions preparing for it. The Department for Public Instruction concluded, in 1810 at first, to introduce a general plan of instruction, which the Catholic schools should also adopt, and by gradually executing this plan, a ministerial rescript of Nov. 12th, 1812, prescribed that all classical schools which possessed the privilege of qualifying for the university, should adopt the name of gymnasium. Prof. Süvern was intrusted with arranging a general plan of instruction; this plan, submitted to Fr. A. Wolf for his opinion, was modified at different times, then fixed upon to be, in its main points, a guide in the administration of schools, but never published or brought into use generally. The order of instruction of the different gymnasiums, from the individuality of these schools and their directors, maintained great variety for a much longer period, and it was thought a special proof of skill of the directors, in which manner the plan of instruction was laid out by them, wherein they had to give to local circumstances, to the demands of the times, to the need of the institute, to the capacity of the powers for teaching, that consideration which alone, with a just and sensible direction, can be beneficial to schools.

Great credit is due to Bernhardi, the director of the Frederic Werder gymnasium of Berlin, by the publication, in 1812, of the plan of instruc-

tion of the programme for 1812, the second chapter (part one) of which treats on the organization and subjects of instruction. In this he thus speaks of the degrees of instruction in the gymnasium: "Though the gymnasium is a school for classics, and its organization of instruction must tend to this object from the lowest class, yet consideration must be had, in the present condition of school matters, that those also who intend to become tradesmen, mechanics and artists, in the widest sense of these words, should be thoroughly and completely prepared for such vocations. For this purpose, all of the eight classes should be divided into three degrees of education, of which the third and lowest had for its object the practical education for the lower civil vocations; the second more chiefly for the higher civil professions, and the first to impart the required knowledge to future students of the learned professions." On this principle he based the organization of his school, and under the increasing influence he acquired over the whole direction of matters of instruction, his plan became the model for all Prussian gymnasiums.

The same principles pervaded the order of instructions of 1816, (unpublished,) according to which, gymnasiums have the object "not only to assist their pupils in acquiring that measure of classical and scientific education necessary to understand and profit from systematic lectures on the sciences at universities, but also to furnish them with the ideas and sentiments of the highest individual culture. The lower classes give to those also who are not destined for the learned professions, an opportunity to prepare themselves for other vocations which require more knowledge than can be furnished by elementary schools and inferior burgher-schools."

Every gymnasium, after the plan of Bernhardi, was to consist of six classes, with three degrees of instruction; in each of the lower classes, sixth, fifth and fourth, the scholars should spend one year; in the middle classes, third and second, two years; in the first class, three years; that is, at an average, from the ninth to the nineteenth year. The branches of instruction were thus distributed: Latin in the sixth and fifth, each six lessons, in the other classes, eight lessons; Greek in the fourth and third, five lessons each, second and first, seven lessons; German in the sixth and fifth, each six lessons, upper classes, four lessons; mathematics, six lessons; natural science and religion, each two lessons; history and geography, each three lessons; drawing, obligatory to the third, and penmanship, obligatory to the fifth; the total number of lessons to be thirty-two, outside of those for Hebrew, singing and gymnastic exercises. To the French language no place was given, "because the general object of teaching languages in schools was completely attained by the three classical mother languages of Europe, the Greek, Roman, and German." This exclusion was attributable in a great degree to the then existing hatred of the French, through which also parents asked to have their children excused from learning a language which in fact was never struck from the plan of instruction, and remains to this day part of the maturity-examination. The increase of lessons in German is also

connected with the demand of the time; a revived national spirit and the increased study of ancient German literature were infused into gymnasiums. Remarkable is this expression: "The Prussian State is Christian; therefore Christian must be all religious instruction in its public schools, and no room should be given to universal religion."

Instruction in gymnastics, "so important to national education, since the harmonious development of mind and body is eminently necessary for every one, should not be ignored at any school." Notwithstanding this announcement, the reactionary movement of 1819 banished gymnastics for a long period from all public institutions.

Though the plan of instruction mentioned above, afforded but little scope to ancient classical languages, and attributed more importance to modern science, yet not enough had been done to satisfy the constantly increasing utilitarianism, and demand for modern languages, particularly for the English, and wherever burgher or real-schools, beside the gymnasium, did not exist, many concessions had to be made to the pressure of modern ideas by dispensations from the study of the Greek language, or to increased demand in the study of real-science, not rarely requiring the extreme efforts of the pupils. Beyond solitary attacks in periodicals and newspapers against the gymnasiums, the provincial board of Silesia and Prussia petitioned repeatedly for modifications in the plan of instruction of gymnasiums, and in favor of converting some of them into secondary burgher-schools. The Diet of Silesia, Dec. 30th, 1831, in the order of prorogation, received a memorandum of the Department for Instruction, on the studies at gymnasiums of young men who did not intend to enter one of the learned professions. In this the significance of every branch of instruction is pointed out. "It is a proposition void of all foundation," it says in the introduction, "that instructions at gymnasiums should be calculated for a course at universities only, and not in aid of the development of every mental faculty. The subjects taught at gymnasiums, in the order and proportion of progress in the different classes, form a foundation to all superior culture of men, and the experience of centuries, the opinion of experts, speak in favor of the usefulness of all studies, within the sphere of instruction of gymnasiums, for the development and invigoration of the mind and the abilities of youth.

An article written by Lorinser, counselor of the medical faculty, noticed beyond its merits, for exaggerations and superficialities, called forth a great many replies; and each teacher of a gymnasium was requested to give his opinion in writing, and it gave occasion to the circular of Oct. 24th, 1837, prepared by Joh. Schulze. From all reports of the provincial school boards, the department had satisfactory proof that the condition of the health of youth at the gymnasiums was generally entirely satisfactory, and that no reason existed for the accusations of Lorinser. However, the dispute led to the following general plan of instruction:

GENERAL PLAN OF STUDY FOR GYMNASIUMS IN 1837.

SUBJECTS.	Hours per week for each class.					
	VI.	V.	IV.	III.	II.	I.
Latin,	10	10	10	10	10	8
Greek,			6	6	6	6
German,	4	4	2	2	2	2
French,				2	2	2
Religion,	2	2	2	2	2	2
Mathematics,			3	3	4	4
Arithmetic and Plane Geometry,	4	4				
Natural Philosophy,					1	2
Introduction of Philosophy,						2
History and Geography,	3	3	2	3	3	2
Natural History,	2	2	2	2		
Drawing,	2	2	2			
Penmanship,	3	3	1			
Singing,	2	2	2	2		
	32	32	32	32	30	30
Hebrew,					2	2

In accordance with this general table, a yearly plan should be prepared at each gymnasium, based on considerations of the peculiar wants and fluctuating demands of each class, to which should be added an exact description of the limits to be attained by each class in every branch. "If herein, in regard to the plan of instruction of the different gymnasiums, a free motion is permitted within the limits of general regulations, the number of lessons in religion, the languages and antiquities, and in mathematics, should not be diminished, as these are eminently fit, by their vivid connection, to realize the purposes of instruction, and therefore the position they occupy, as chief parts in the organization, must not be removed." It was from a just appreciation of the demands of the time, that a certain degree of freedom in the selection of what they considered necessary was left to the directors. Commencing the study of French in the third class made instructions in this language almost fruitless; for teaching natural history, teachers were wanting; two lessons in history in class I. was not enough, if this important branch was to be treated thoroughly in the highest class; so the school-board concluded to begin the study of French in the fifth class, to add the time for natural history to geography, to increase the hours of instruction in the second and first class to thirty-two, and to make other changes as the directors advised, which from the vigilant supervision of the board did not prove injurious. On the basis of the experience of the last twenty years, and of the changed demands in instruction, a modified plan was devised, by ministerial rescript of January 7th, 1856, which was intended to reduce the hours and concentrate the subjects of instruction:

STUDY PLAN ADOPTED JAN. 7, 1856.

SUBJECTS.	Hours per week for each class.					
	VI.	V.	IV.	III.	II.	I.
Religion,	3	3	2	2	2	2
German,	2	2	2	2	2	3
Latin,	10	10	10	10	10	8
Greek,			6	6	6	6
French,		3	2	2	2	2
History and Geography,	2	2	3	3	3	3
Mathematics and Arithmetic,	4	3	3	3	4	4
Natural Philosophy,					1	2
Natural History,	(2)	(2)		2		
Drawing,	2	2	2			
Penmanship,	3	3				
	28	30	30	30	30	30

Admittance to class VI., according to regulations, takes place after the age of nine years; fluent reading of German, in German and Latin type, a legible handwriting, facility in writing from dictation, without great mistakes, and knowledge of the principles of arithmetic, are required. The length of the course in each class remained as fixed by circular of Oct. 24th, 1857: for the sixth, fifth, fourth, one year each, for the third, second, first, two years each, for the third and second, according to progress, a shorter period.

In the three upper classes of a gymnasium they read: Cæsar, Curtius, Livy, Cicero, Quintilian, Sallust, Tacitus; of poets, Ovid, Virgil and Horace; Cæsar and Curtius are read in full; of the others, selections suitable for scholars, so that in a certain period the same parts must be reviewed; but preference on the part of the teacher, for greater variety in the reading matter, must not withdraw any thing suitable from the scholars. Seldom are two prose writers read in one class, and never two poets. Special editions for schools are not prescribed; the well-meant attempt to prescribe the same edition for all scholars of one class will be defeated by the prejudice of parents. The editions of Weidmann and Täubner are most in use and are recommended.

In the first class, sometimes in the upper part of the second class, free Latin compositions are occasionally required, four to six within six months. Frequent exercises in Latin were required in the beginning of this century, and lectures on ancient history were then delivered in this language, so that on certain days only Latin was spoken at school. Coincident with the demand for the modern studies and for practical interpretation of ancient authors, lectures in Latin gradually diminished; they were even considered an affectation, and no longer practiced by young philologians, so that, notwithstanding an urgent recommendation to students of medicine and jurisprudence, (circular of Jan. 7th, 1826,) they entirely disappeared from many gymnasiums. The regulations for

maturity-examination of 1834 decreed again that the examination in Latin should be held in this language, and opportunity should be given to all to show their fluency and ability of expressing themselves in Latin in a well connected discourse. Circular of Jan. 12th, 1856, extended this regulation also to the examination in the Greek language; but to revive speaking in Latin, it requires well practiced teachers, as well as a natural aptitude for it among those who favor the same; hence the regulation of Dec. 24th, 1861, suggests that in the testimonial of final examination for theologians, the degree of their fluency in speaking Latin should be noted, and the examined should be exhorted not to neglect the practice of it.

Greek.—The reading of Greek authors commences in the upper division of class III., with Xenophon's Anabasis, and is chiefly limited to the writings of Xenophon, Demosthenes, Plato, Thucydides, to which are added Homer in class II. and Sophocles in class I. They proceed on the same principles as with Latin. The prominence given to this study in the first part of the present century, by reading even Pindar, Aristophanes and Æschylus, was limited to a less measure by ministerial rescript of Dec. 11th, 1828, to the task of understanding, without difficulty, authors like Homer and Xenophon, and to the reading of selected tragedies of Sophocles and Euripides, and the easier dialogues of Plato. To read selected parts of Thucydides was permitted to such scholars only who had acquired great efficiency in the interpretation of Xenophon. Exercises in translating from German into Greek are intended only to familiarize with the rules of grammar; and for this purpose one hour per week is devoted to writing or extemporizing in Greek. Written exercises in both languages, dictated by the teacher, are highly prized, and determine the standing of each scholar in his class.

Mathematics.—Instructions in this branch, as long as four lessons per week were set apart, were so divided by the class teacher, with the consent of the director, that in the first course of six months, (semester) geometry was taught, and in the second course, arithmetic; or that two lessons were alternately devoted to each subject. But since 1856, in classes IV. and III., only three lessons per week are devoted to mathematics; either but one subject is taught in each semester, leaving it to the industry of the scholar and to occasional reviews to attain the other, until his promotion to the next class, or in the different grades of instruction, now geometry and now arithmetic are alternately placed in the foreground. Instructions in Hebrew, singing and gymnastics are given after school hours, as also in drawing for the middle and upper classes. Deviation from this plan is permitted only with the consent of the board of instruction, when required by the local or geographical condition or the endowments of the school. Discretion is allowed, 1, to increase the lessons in German in the lower classes, where the teaching of Latin and German is supposed to be under one teacher; 2, to devote the hours fixed for instruction in natural history, when no suitable teacher for this

branch is engaged, in classes VI, and V, to the study of geography and arithmetic, and in class III, to history and French.

Mental philosophy is no longer designated as a part of instruction, but the essential part thereof, the fundamental principles of logic, may be connected with the lessons in German in class I. It is also left to the provincial school-board to charge one of the teachers of mathematics or of philology with the necessary instructions in mental philosophy, and to increase his hours of teaching by one, limiting thereby the number of lessons in German to two. To omit the study of Greek is only permitted when in smaller cities the gymnasium has to accommodate students who do not desire to prepare themselves for such learned professions as require the full education of a gymnasium, but who desire to acquire a general education for civil vocations.

"The execution of the general plan of instruction," says the cabinet order, "can produce the intended effect on the young confided to the gymnasiums, only when the teachers of the school are conscious of their labor being a work common to all, where the activity of the one finds its completion in the activity of the other, and therefore all must work in harmonious connection." Teachers in their lessons and plan of instruction must not disregard the prescribed books of science or tables of history, etc., lest the scholars would not receive the benefit intended, which consists mainly in familiarity with a well defined subject. Increased attention is required by the department to be given to written lessons, the extent of which was limited to a proper measure by circular of May 20th, 1854. Directors must take frequent cognizance of the subjects for composition, and of all written lessons, to prevent any overtaxing or unsuitable selection. In order to give students an opportunity, before they leave the gymnasium, to acquire a thorough knowledge of ancient classical literature, within the limits prescribed for gymnasiums, a circular rescript of April 11th, 1825, recommended private lectures at all gymnasiums, which have been given by the greater part to this day, the director and teachers readily undertaking this additional work. Certain it is, that the revival of free private study outside of regular school lessons, must have a beneficial influence on the independent attendance of lectures at universities.

Religion.—Instruction in religion has attained increasing significance at the secondary-schools since 1815. The regulations for examination of 1812 contained no provisions for special inquiries as to the knowledge in religion required of candidates. The circular of the school-board of the province of Brandenburg, of Aug. 4th, 1826, which was adopted by others for a long time, though finding not a few teachers suitable for teaching religion, for the greater part of them had studied theology, yet found but few qualified by examination, as an examination of candidates with regard to ability in teaching religion, was not ordered until 1824. The quick and sincere religious spirit of that time itself required that instruction in religion should occupy equal rank with the most important branches, and great value was ascribed to it. The plan of teaching religion included

Biblical history in the lower classes, committing to memory the chief parts of the catechism, with references from the Bible, and suitable hymns; in the middle classes, concise lectures on the doctrines of religion, based on the catechism of Luther; in the upper classes, introduction to the books of Holy Scripture and history of the Christian religion, with particular attention to the interpretation of doctrines, and to the reading and expounding of entire parts and books of Holy Writ. The class-professors were designated as suitable teachers of religion in exceptional cases by the "instruction for directors of 1824," and to them instruction in religion was confided, if possible. Important for the leading principles under the administration of Altenstein, is the memorandum added to the address at the prorogation of the fourth Prussian Diet, of May 3, 1832. The Diet had desired the employment as teachers of well known religious theologians, which elicited this reply: "I have always hesitated to introduce this arrangement in the Protestant gymnasiums, or to make it general, because the teachers of the gymnasium would thereby lose influence of a religious and moral character upon their scholars, and might be prevented from having that spiritual communion with them which might prove a blessing to them for life." Under the administration of Eichhorn, a decree of Aug. 17, 1842, required that instructions in religion at gymnasiums should be confided to candidates of decided piety, and if school-boards were in want of suitable persons, they should apply to the Evangelical Pastors' Association in Berlin, which from an ample choice was always able to comply with their requests. But little use was made of this offer, and after 1848, great efforts were made to supply secondary-schools with well qualified teachers of religion who were not of the theological profession. A report on the existing number of such teachers, and on their qualification and right of teaching religion, called for in 1854, caused this right to be withdrawn from many a teacher qualified by testimonial of examination, but not suitable as shown by his practice in teaching, whereas now candidates were engaged who possessed the required knowledge in religion, but were not capable of spiritual sympathy with the young. Lately, (by circular of school-board, July 5th, 1865,) the directors in the province of Brandenburg, at the request of the royal consistory, have been instructed in the report of their plan of lessons to specify the teachers who shall impart instruction in religion, and the extent of their qualification from testimonials, as well as to designate the classes in which they are to teach religion.

The parochial classes of catechumens are attended by the pupils of a gymnasium for one or two years; before 1856, lessons in religion were given at the same time with the instructions of catechumens, so that the latter could not attend their classes. When by the new general plan the number of obligatory lessons has been decreased to thirty, this division ceased.

Divine service in school, and prayer in the morning and evening, take place only at private institutes and alumnates; for other schools it has

been recommended, by circular of Aug. 4th, 1826, to promote, as far as possible, the attendance of scholars at public worship, without however exercising any constraint or painful control. With regard to the commencement and close of vacations, a regulation from the department, of April 2d, 1853, declares that the duty of the Sabbath or of holy days should not be interfered with by obliging scholars to travel on such days, but as it did not attain this object, it has been set aside again. Participation of teachers and scholars at holy communion is not recommended, except at private boarding-schools; in the other schools, whenever it takes place, it is limited to the voluntary attendance of those scholars whose parents do not reside at the place.

Gymnastics.—Instruction in gymnastics has been formally recognized again, by cabinet order of June 6th, 1842, as a necessary and useful part of the education of boys, and as a part of the means of public instruction. Gymnastics should therefore be added to the parts of instruction, and connected with all public institutions, be placed under the superintendence of the directors, and care should be taken that physical exercises be had to a proper extent, with due simplicity of object and manner. The instructions given on the royal central gymnastic institute are in close connection with the system at present introduced into the army for the military training of soldiers, and due value is ascribed to the fact that proper practice in gymnastics at school promotes the military efficiency of the nation. The introduction of gymnastics into the organization of schools met with no difficulty in smaller cities, of small distances and with vacant ground; but in larger cities, particularly in Berlin, it was difficult to introduce this branch, notwithstanding all the enthusiasm manifested in its favor. As the regulation of June 6th, 1842, makes the participation in physical exercises solely dependent upon the free consent of parents or their representatives, gymnastics, notwithstanding the attention given by the teachers, are attended by not one-fourth of the scholars of large schools, the place for exercises being three miles distant and the homes of scholars scattered throughout the whole city.

Stenography.—Instruction in stenography has been introduced during the last twenty years, chiefly after the system of Stolze, and by the influence of its adherents, and has moreover been practiced at higher schools or by single scholars in private courses, and many patrons of city-schools have furnished means for its introduction as a side branch of instruction. Also the House of Representatives, on account of the many (thirty) petitions presented in favor of a faculty for stenography, has (June 27th, 1862,) recommended it to the favorable consideration of the Government. The Department of Instruction has not yet consented to the introduction of this mechanical art into the plan of lessons, it being serviceable for particular purposes only, but have permitted the use of class-rooms for private lectures.

In some schools the same teachers conduct the instruction of scholars through several classes; though this arrangement leads to a more exact

knowledge of the abilities and disposition of scholars, it soon becomes a tiresome monotony for them even under the best teacher.

VI. REAL-SCHOOLS AND HIGHER BURGHER-SCHOOLS.

It is not our province here to speak of the object and aims of real-schools, but of their history and condition in Prussia. The name was first used by Deaconus Chr. Semler of Halle, and in 1738 the royal government and the royal society of sciences established a real-school for mathematics, mechanics and agriculture, which however had but a short existence. More importance was acquired by the school founded by J. Julius Hecker in Berlin, (1747,) after many futile experiments, and even dwindling down into an elementary school for a time, by being at last organized by A. Spillecke, since 1822 director of the Frederic William gymnasium, with this object: "To combine the demands of a finished general education with practical training for civil life." The Prussian gymnasiums had always for their object the fundamentals of a finished education, but the spirit of the age now turned away from old, well tried means of instruction, and looked for the success offered by the so-termed real sciences, at least for pupils not intending a collegiate education. The following chronological review gives further details. The expectations built on these schools by the public among mechanics and tradesmen, were not fulfilled. The real-gymnasium, formed in 1829 out of the old Coeln-School at Berlin by the efforts of the mayor of the city, Von Bae-rensprung, gradually transformed itself in 1849 into a regular gymnasium, with little modifications in the plan of instructions, and real-schools readmitted the study of ancient languages in a more extended form. Moreover, with equal privileges, attached in 1832 to the satisfactory final examinations at these schools, of entering the postal service, that of architecture or the military profession, etc., there existed a great variety in the amount of learning acquired at individual schools, particularly at those of provincial cities. Still greater inconveniences resulted from the final examination being in some branches equal with that at gymnasiums, and the uniform privileges of classes, for it happened that students from real-schools, who had passed the final examination there, entered the upper division of class III, where, with a total want of knowledge of the Greek language, they only satisfied the requirements of that class in other respects. Therefore a reorganization of these schools became necessary, which was effected after calling for the advice of the provincial school-boards, by the order of instruction and examination for real-schools and secondary burgher-schools, of October 6th, 1859. A memorandum on this (published by Wilgaud and Grieben) contains: *a*, for real-schools, 1, the plan of instruction and inner organization; 2, the regulations for final examination; 3, wherein real-schools differ from gymnasiums, and the privileges of the former. (B.) The same for higher burgher-schools. In explanatory notes we find: "The real and higher burgher-schools have the object to prepare, by scientific education, for

these higher vocations of life, for which academic studies are not required. Therefore the practical requirements of the time are not a measure for their organization, but the object to develop the mental faculties of the young intrusted to the care of these schools, to such a degree as to enable them for a free and independent realization of the duties of life afterwards. They are not technical schools, but, like the gymnasium, they work by general means of education and for fundamental knowledge. There is consequently no opposition in principle between gymnasium and real-school, but a relation of mutual completion. Both divide among themselves the task to offer the elements of complete instruction in what pertains to the different professions and vocations of life." A division has become necessary by the progress of science and the development in the relations of public life, and real-schools have herein adopted a coördinate position to the gymnasium.

Real-schools of the first and second order are distinguished mainly by having introduced the study of Latin, according to local demand, with the technical branches; further by limiting the course of classes III, and II, to one year, and reducing the requirements in some branches of examination to a lesser degree, in accordance with which the demands on these schools, their teachers, means of instruction, and endowments, are inferior.

The plan of instruction for real-schools of the first order, is the following:

PLAN OF STUDY FOR REAL-SCHOOLS IN 1859.

SUBJECTS.	Hours per week for each class.					
	VI.	V.	IV.	III.	II.	I.
Religion,	3	3	2	2	2	2
German,	4	4	3	3	3	3
Latin,	8	6	6	5	4	3
French,		5	5	4	4	4
English,				4	3	3
Geography and History,	3	3	4	4	3	3
Natural History,	2	2	2	2	6	6
Mathematics and Arithmetic,	5	4	6	6	5	5
Penmanship,	3	2	2			
Drawing,	2	2	2	2	2	3
	30	31	32	32	32	32

Several real-schools of the second order exclude the Latin, of which the two at Berlin, named "technical schools of the city," are the most prominent; they increase correspondingly the lessons in German, French, mathematics, arithmatic, natural history, and drawing.

Real-schools connected with gymnasiums under one director, must have, in common with the latter, besides a preparatory department, only classes II, and I. Common order of discipline—teachers, school-house, instructions in singing and gymnastics, religious worship and other exercises—has always been of good influence on the real-schools.

The name of "higher burgher-schools" had been adopted by many real-schools previous to 1859; since then, those are included in that denomination which have only five classes, including the second, but beyond that are organized completely after the regulations for real-schools. The testimonial of final examination entitles to admission in class I, of a real-school of the first order, and to the privilege of military service of one year.

VII. GENERAL MATTERS.

The chronological table of Higher Schools, which we furnish hereafter, will show in what periods of time, and with what rapid increase in late years they have been created and developed, and what zeal has been manifested by State, communities, and associations. The increase of population and the growing desire for education augment the attendance at Higher Schools in a degree still entirely out of proportion with their number. Though a number of scholars which director and teachers can not look over at a glance, is certainly an intolerable condition, yet a general law fixing their number in classes and for the entire school, has not been enacted. In general it is a rule for gymnasiums, which is exceptionally applied at some with great inconvenience, that in classes I, and II, not above forty each, and in the other classes not beyond fifty; in the upper classes of real-schools thirty in each, in the middle classes forty, in the lower classes fifty, should be admitted. The lesser number for real-schools has been adopted, because apparatus for demonstrative instruction would become unprofitable to a great many scholars. With a greater number of scholars in permanent attendance, parallel divisions of classes must be arranged. A community can obtain the consent of the department for establishing a higher school, after furnishing satisfactory evidence that the elementary schools of their locality are insufficient, and that ample provision has been made for school-houses and endowments. Many communities have thought it a special honor to erect splendid school-edifices.

The scholastic year commences, varying with different provincial or local custom, at Easter or Michaelmas; with all Catholic institutions, and pretty generally throughout the Western provinces, at Michaelmas; with Protestant schools at Easter. In the former, the admittance of new scholars and removal to higher classes takes place generally but once a year, in the Fall season. Though annual courses of instruction are considered more practical, from a didactic and pedagogic point of view, the administration has as yet not introduced a general uniformity, in consideration of local circumstances. Where the admittance of scholars is not limited to one term in each year, as for instance in larger cities, it takes place at Easter and Michaelmas, from which two removals into higher classes necessarily result.*

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* We here append a note on attendance in classes, taken from that excellent work on secondary-schools in Prussia by Wiese: "A general law on the number of scholars in classes and entire schools does not exist. It is generally accepted that in classes I, and II, not above forty, in the

Vacations.—The vacations depend upon the period of the scholastic year. By ministerial circular of Nov. 6th, 1858, their duration is fixed at ten and a half weeks per year. The longer vacations of four weeks of Protestant schools in the Eastern provinces fall in the month of July, and two weeks at the end of the Summer course; with most Catholic schools, and generally throughout the province of the Rhine, and in part in Westphalia, the vacation of six weeks comes at the end of the annual course.

School-books and means of instruction.—According to instructions for royal consistories, of October 23d, 1817, the examination of school-books in use at the time, as well as the selection of books to be rejected or of new ones to be introduced, and the supervision in the publication of new school-books, was committed to this authority, submitting all decisions to the approval of the Department of Instruction. A general revision of all the school-books introduced was ordered by ministerial rescript of April 24th, 1837; but such liberty reigned in the use of the same, that not only directors, but single teachers selected after their own opinion. This caused the regulation of June 14th, 1843, which instructed directors to obtain the approbation of the provincial school-board for every new book to be introduced. The school-board, unless the book had been approved previously, reported to the Department of Instruction. Attention was called again to this regulation under date of April 28th, 1857, together with an instruction to work for greater simplicity and uniformity in the means of instruction, and with this limitation: "When the introduction of a book for one gymnasium or progymnasium in a province has been approved, other gymnasiums, etc., of the province can introduce the same without further consent; the same with regard to real-schools and secondary burgher-schools; but a book approved for gymnasiums and progymnasiums is not at the same time approved for real-schools and secondary burgher-schools." Special books or other means of instruction are recommended in circulars, without obligation to adopt them; all in use must be mentioned in the annual programme of the school.

School Programmes.—The publication of school-programmes is of old date. In these the director advised the public annually, inclosing an invitation to the public examination of the most important events in his school. A scientific or pedagogic subject of general interest was generally connected with it. Mutual exchange of these programmes among the different gymnasiums occurred rarely before 1822, in which year their exchange by all gymnasiums was ordered. Circular of Aug. 23d,

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other classes not above fifty, should be admitted. With a permanent greater number, parallel divisions of classes must be arranged. The tabular summaries show how difficult it has been in many places to be confined to these limits." The tables are given, p. 466, and demonstrate an overcrowding, dangerous to the result of instruction. If in classes I and II, are fifty-three and seventy-three pupils, as during the summer of 1863 in Lyck, or fifty-two and sixty-four, as in Brieg, in the first class sixty-one, as in Rossenberg, fifty-five, as in Zullichau, fifty-three, as in Glogau and Ratisbon; or in classes IV, V and VI, seventy-five, seventy-three, fifty-nine, as in Konigsberg; sixty-one, fifty-nine, fifty-four at the same; sixty-two, seventy-nine, sixty-three in Elbing; seventy and seventy-five in Tilsit; fifty-four, sixty-two, ninety in Culm; fifty-eight, eighty-four, one hundred and ten in Prenzlau; seventy-two, sixty-eight, seventy-one in Posen; seventy-five, sixty-nine, seventy in Bromberg, etc., then the maximum has been passed to a dangerous extent, and the endeavor of the administration to remedy this evil by a division of classes is but too just.

1824, directed uniformity in form and contents of the programmes. The first part should consist of a treatise on a subject not foreign to school matters, of general interest at least for the educated, instructive for public schools in general or for gymnasiums in particular, the choice of which, within this description, to be left to the author; it is also permitted, in place of such treatise, to publish a suitable discourse delivered in the gymnasium during the year. This scientific treatise had to be composed alternately in the German and Latin languages, and the director and each teacher, one after the other, were to write the same. The second part, in German only, to be furnished by the director, contained information on school matters and plans of teaching. Copies of these programmes were sent to all the universities in the State, and to public libraries, and for exchange with all higher schools were remitted to the provincial school board; this exchange has been extended, through the Department of Instruction, since 1836, to nearly all the German States, the empire of Austria, and for a time to Denmark.

Books of Reference, Cabinets, etc.—Libraries, some of great value, as for instance that of the Joachimthal gymnasium at Berlin, can be found at all higher schools, and considerable funds are provided for their increase. Many institutions, since 1830, possess libraries for scholars which have been made up almost exclusively by contributions from the scholars and their patrons, for the object of putting within reach of students a suitable selection of publications, and to guard them against injurious reading. There are no general regulations in the administration of libraries, but each school has its own rules. The annual school-programme contains a list of all new books procured within the year. Moreover, gymnasiums have cabinets of musical instruments, of apparatus for natural philosophy and chemistry, cabinets of zoölogy, botany, etc., and other collections, generally the result of donations.

Discipline in Schools.—Though a general order of discipline for these schools does not exist, they are conducted in a uniform manner on the basis of instructions for directors and class-professors, and other circulars. A spirit of order, obedience and industry, to call forth which and to preserve, is the earnest endeavor of all and every teacher, together with a mutual esteem and affection between teachers and scholars, which lasts far beyond the years at school, predominates at all the higher schools of Prussia, and furthers and secures the good result of their labors. The principal means of discipline are, a sincere fear of God, the example of teachers in morality and learning, a mutual amicable understanding between school and family, an exciting method of teaching, awakening and rewarding a well regulated industry, constant assistance and discreet approval of progress. Thus most discipline is of a positive kind, as promotion to higher positions or classes, tokens of merit, gradation of testimonials, premiums; but the most effective means for many scholars and in most cases is the approval of the teacher and the consciousness of deserving it. A censure from the teacher, particularly when entered on

the class-book, is already a severe punishment, as the class is revised monthly by the directors. Remaining after school is considered a corrective against idleness or inattention, but can not be inflicted without the presence of a teacher or the consent of the director. Extra lessons as a punishment, a remedy frequently applied in English schools, must be given to a limited extent only, with a view to being exercises for improvement. Incarceration for misdemeanor is decreed by the director only, and proves more effective by its character than by long hours or fear of prison; in many schools they have no carcer, (prison,) and this name given to a school-room has the same effect. According to the order of discipline for the province of Westphalia, this punishment can be extended to several days without the usual comfort or diet. Corporal punishments, which at the commencement of this century still were an ordinary means of discipline, but disappeared almost entirely in the course of time, should be dispensed with as much as possible, (circular of the school-board of the province of Brandenburg, March 9th, 1843,) and when inflicted, it should be on the principle that the moral impression of this punishment is a greater means of correction than bodily pain. Exclusion from school may take place, when the scholar has twice attended the annual course of a class unsuccessfully; or, as an extreme remedy, when other means of discipline have failed, or for acts of malice or immorality. But to those removed in this manner, other schools are still open; only they are placed under special surveillance, and in case of relapse they are immediately turned out again. The most effective means of discipline are certificates, recording conduct, attention, industry and progress, and furnishing an extract from the class-books, which from time to time are sent to the parents of scholars for their information, and by numbers I, II a, II, II b, III, indicate the moral standing and degree of knowledge of the scholar.

The position in classes, or, as it is called, order of rank, is fixed at the commencement of each semi-annual course, according to the number of the certificate; and in the upper classes according to date of entry or to the decision of the teachers' conference. But during the course these positions are frequently changed, often weekly, according to merit in recitations or extempores. In the lower classes, the system of change for every lesson is favored, because, with younger boys, beyond the pedagogic object of exciting attention and assiduity by a proper ambition, it answers also a dietetic purpose of interrupting by regulated exercise the fatigue of sitting continually.

The admission of scholars from abroad is left to the choice of their parents or guardians; but none are admitted who are not placed under suitable domestic control. To ascertain this is the duty of the director, and a change of boarding-place must be immediately brought to his knowledge, and he may demand that a scholar conform to his wishes or leave the institution.

Privileges.—A great number of branches of the administration and of

public institutions, with the increased demands by the progress of time on their own accomplishments, have also increased their demands upon the education of those who desire admittance, and the requirements on the one side have become privileges on the other, for those who fulfilled them. Thus the following privileges are attached to secondary-schools, equally for gymnasiums and real-schools:

1, Passing the third class: admittance into the first division of the royal horticultural institute at Potsdam.

2, Admittance to class II: *a*, entering the postal service; *b*, qualification as technical teacher.

3, Frequenting class II, for six months: *a*, entering apprentice of pharmacy; *b*, privilege of one year's military service; (without knowledge of Greek, a six months' attendance at class I, is required for this latter privilege.)

4, Frequenting class II, for one year, qualifies for assistant postmaster, and some civil offices.

5, Admittance in class II, upper division, entitles to admittance as pupil of the veterinary school.

6, Admittance in class I: *a*, entering as clerk in bureaus of subsistence; *b*, qualifies for civil engineer; *c*, for clerkships in the offices of the civil administration of a province; *d*, for clerkships in the subaltern courts of justice.

7, Frequenting class I, entitles to admittance at royal academies of agriculture.

8, One year's attendance of class II, qualifies for, *a*, clerkships in the bureaus of subsistence, etc., of the army; *b*, of those of the navy; *c*, of those of the revenue service; *d*, entitles to admittance at the final examination of technical schools.

9, Testimonial of maturity: *a*, admittance at universities; *b*, qualification for the position of ensign in the army; *c*, gives admittance to the royal academy of architecture in Berlin; *d*, to the royal academy of mining at Berlin; *e*, to the forester's school at Neustadt Eberswalde (provided that a satisfactory examination in mathematics was passed;) *f*, the postal service; *g*, to the royal polytechnic institute at Berlin.

Corresponding privileges have been granted to the real-schools of the second order and to higher burgher-schools.

Private Schools and Institutions.—According to the enactments of common law, private institutions and individuals, who intend to follow the vocation of instructing the young, are required to prove their capacity before the provincial school-board, and obtain a testimonial of qualification. This law was revoked in 1811 by the "regulation for Trades, etc.," but reënacted in 1834, together with the provision that the above testimonial of qualification should not only have regard to knowledge, but also to morality and loyalty in religion and politics. For foreigners the approval by the Department of Education and of the Bureau of Police was required. This regulation was published Dec. 31st, 1839, and di-

rected also that private schools and institutions should be permitted in such places only, where there was sufficient provision for education in public schools. The consent for establishing a private school may be revoked, and is not transferable to another person; it expires when instructions have been suspended for six months. With regard to supervision, private schools are subject to the same regulations as public schools; generally a clergyman is president of the visiting board. By circular from the department, of June 17, 1862, the provincial authorities have been empowered to give to foreigners permission for the establishment of private schools without resort to the Department of Education.

VIII. CHRONOLOGICAL REVIEW.

The higher schools of Prussia may be classified according to date of their foundation:

A. Century VIII. and IX.—1, Cathedral School at Halberstadt, from the time of Charlemagne, transformed in 1818 into Cathedral Gymnasium; 2, Cathedral School at Paderborn, in 1614 Gymnasium Theodorianum; 3, Convent School at Pruem, in 1814 école sécondaire, in 1852 Progymnasium; 4, Cathedral School at Münster, in 1588 Gymnasium of the Jesuits.

B. Century X. to XIII.—Convent School at Zeitz about 967, Gymnasium since 1820; 2, School at Treptow on the Rega, in 1170, (Bugenhager's Gymnasium since 1857;) 3, Cathedral School at Stendal, 1194, Gymnasium since 1819.

C. Century XIII.—1, School of St. Maria-Magdalene in Breslau, 1266, Gymnasium in 1643; 2, School of St. Peter's at Berlin in 1276, Coeln Real-Gymnasium in 1829; 3, Latin School at Herford in 1265, Gymnasium Fredericianum in 1766; 4, Cathedral School at Naumburg in 1290, became Cathedral Gymnasium in 1822; 5, School of the Church of St. Elizabeth in Breslau in 1293, Gymnasium in 1562; School of the Convent of Barefeet at Sagan in 1294, turned over to the Jesuits by Wallenstein, Gymnasium in 1846; 7, School at Marienwerder, Gymnasium in 1812; 8, School at Königsberg, Gymnasium in 1818; 9, Kneiphoff's Gymnasium at Königsberg.

D. Century XIV.—1, City School at Elbing, (1300,) Gymnasium, (1536;) 2, School at Reuss, (1302,) Electoral Gymnasium, (1773–1802,) école sécondaire (1806,) Gymnasium (1852;) 3, Convent School at Muenchen-Gladbach (1315,) Progymnasium (1846;) 4, Parochial School at Königsberg, about 1335, Gymnasium (1811;) 5, Latin School at Wesel, (1342;) Gymnasium Academicum (1613;) 6, Classical School at Liegnitz, by combination of two parochial schools (1369,) Gymnasium (1814;) 7, Latin School at New Ruppin (1365,) Gymnasium (1812;) 8, Parochial School of St. John in Danzig (1350,) Real-School of first order (1860;) 9, Latin School of Marienburg (1351–1382,) Gymnasium (1860;) 10, Latin Schools of the Knights of St. John (1365,) of the Augustines (1350,) united at Glatz into Jesuits' College (1626,) Catholic Gymnasium

since 1773; 11, Academy at Culm (1386,) Secondary Burgher-School (1862;) 12, from the schools connected with the Norbertine Convent at Wedinghouse, near Arnsberg, was formed in 1643 the Gymnasium Norberti-Laurentianum; 13, two Secondary Schools in the old and new city of Quedlinberg (1540,) Lutheran Classical School in 17th century, and formed into Gymnasium illustre; 14, The old Latin School of the Church of St. Nicholas at Goerlitz, removed to the city in the 14th century, Gymnasium Augustum (1565.)

E. Century XV.—1, Gymnasium Montanum (1420,) Laurentianum (1440,) Cucanum (1450,) at Cologne transformed (1820,) after many changes since 1815 into the Catholic Gymnasium of Marzellen, into Evangelical Frederic Wilhelm Gymnasium (1830,) Catholic Gymnasium of the Apostles (1860;) 2, St. Peter's School at Danzic (1457,) Real-School, first order (1860;) 3, School at Trottau (1480,) Gymnasium (1825,) Real-Sciences introduced (1861;) 4, Latin School at Seehausen, i. A. M. 1482, Progymnasium (1863,) Gymnasium (1865;) 5, Latin School at Aschersleben, Real-School, second order, (1859;) 6, Latin School at Anclam, Gymnasium (1847.)

F. Before the Reformation, in old time, undetermined.—1, Latin School at Linz on the Rhine, called Gymnasium Martianum, Progymnasium since 1855; 2, Latin School of the Catholic Convent Church at Essen, after the Reformation a Lutheran Burgher-School, Gymnasium since 1819; 3, Convent School at Vreden, since 1842 Progymnasium Georgianum; 4, Parochial Schools in the old and new city of Salzwedel, in 1744 united Latin School, in 1819 Gymnasium; 5, Parochial School at Guben, Gymnasium in 1818; 6, Great School at Spandau, Progymnasium since 1053, Gymnasium (1862;) 7, Great City-School at Perleberg, Real-School of first order, (1861;) 8, School at Prenzlau, Gymnasium (1812;) 9, Latin School of the Convent of the Holy Ghost at Breslau; 10, Latin School at Lauban, Gymnasium (1827;) 11, St. Martin's School at Halberstadt, Real-School, first order, (1863;) 12, Latin School at Schleusingen, Gymnasium (1853;) 13, School at Lippstadt, Real-School, first order, (1859;) 14, City-School at Emmerich, Gymnasium (1832;) 16, Parochial School at Luckau, Gymnasium, (1818;) 17, Convent School at Eupen, école sécondaire communale (1794,) Secondary City-School (1814,) Secondary Burgher-School (1863.)

G. Century XVI.—*a.* Beginning of the century: 1, Secondary-School at Attendorn, Progymnasium (1825;) 2, Latin School of the Franciscan monks at Duren, Gymnasium (1826;) 3, School of the Convent of St. Severi at Erfurt, Protestant City Gymnasium, (1561,) Royal Gymnasium, (1820;) 4, Reformed School at Kreuznach, école sécondaire, (1802,) Gymnasium of four classes, (1819,) of six classes, (1821;) 5, Latin School at Lennep, Secondary City-School in 1855; 6, Parochial School of St. Laurentii at Warendorf, Gymnasium Laurentianum (1857;) 7, Old Cathedral School at Colberg, Real-School (1845,) Gymnasium (1858,) at the same time Real-School, second order, (1863,) and Real-School, first order,

(1865;) 8, Latin School at Grunberg, Real-School, first order, (1860;) 9, Evangelical Parochial School at Grossglogau, Evangelical Gymnasium, (1812;) 10, City-School at Stargard, United Royal and Groning Gymnasium, (1812.)

H. Century XVI., b. 1520–1560.—1, Evang. Latin School at Wittenberg, (1522,) Gymnasium (1827;) 2, Evangelical City School at Nordhausen, (1524,) Gymnasium, (1808;) 3, Union of three parochial schools at Stralsund to one classical school, in 1525, Gymnasium since end of 16th century; 4, Latin School at Eisleben, founded by Albert, Count of Mansfeld (1525,) united by Luther with St. Andrew's and St. Nicolas' School to a "chiefly Latin" School (1546,) Gymnasium, (1596;) 5, Protestant Latin School at Königsberg in Pr. (1525,) Real-School, first order, (1860;) 6, Lutheran School at Hirschberg (1526,) Gymnasium (1813;) 7, Union of Cathedral and City Schools at Brieg into City School (1529,) Gymnasium illustre (1569;) 8, Evang. School at Minden, (1530,) Real-School, first order, (1859;) 9, Latin School at Soest (1532,) Archigymnasium (1606; 10, Evang. City School at Bunzlau (1532,) Gymnasium (1861;) 11, School of Sts. Albinus and Ægidius at Cottbus, Latin School since 1537, Gymnasium (1820;) 12, City Lyceum at Francfurt on the Oder (1539,) Real-School, first order, (1861;) 13, Archigymnasium illustre at Dortmund (1543,) Gymnasium, with Real-School of first order, (1862;) 14, Lutheran Lyceum at Muehlhausen (1543,) Gymnasium (1626;) 15, State School at Pforta (1543;) 16, Pedagogium at Stettin (1543,) united with the Parochial School of St. James (14th century) into Royal and City Gymnasium (1805;) 17, Ducal Gymnasium at Dusseldorf (1545;) 18, Ducal Partic. School at Rastenburg (1545,) Gymnasium (1815;) 19, Lyceum at Wernigerode (1550,) Gymnasium (1863;) 20, Institute of the Convent at Rossleben (1554); 21, Evang. School at Wetzlar (1555,) Gymnasium (1743;) 22, School of the Reformed Brothers' Union at Lissa (1555,) Provincial Gymnasium (1624,) Royal Gymnasium (1821;) 23, Ducal School at Oels (1556,) Gymnasium illustre (1594,) recognized as Gymnasium (1812;) 24, Convent School at Bielefeld (1558,) soon after extended to Gymnasium; 25, Evang. Classical School at Danzig (1558,) reopened (1817;) 26, Classical School at Thorn (1557,) Real-School, first order, (1861;) 27, Latin School at Trarbach (1557,) Progymnasium (1855;) 28, Gymnasium at Duisburg (1559,) at the same time Real-School, first order, (1862;) 29, School of Sts. Catharine and Amalberg Church at Brandenburg, after the Reformation, Neustadt City School, first director known (1558,) united Gymnasium (1798.)

I. Century XVI., c. after 1560.—1, Classical Institute Hosianum at Braunsberg (1565,) Gymnasium (1811;) 2, Evang. Free School of Preparation for Secondary-Schools at Donndorf (1561;) 3, Union of the three Primary Schools at Greifswalde to one City School (1561,) Gymnasium (1812,) with Real-School, second order, (1859;) 4, College of the Jesuits at Treves (1563,) Gymnasium (1815;) 5, Evang. City School at New-Stettin (1570,) Gymnasium (1640;) 6, Catholic Latin School at Ander-

nach (1573,) Progymnasium (1815,) perfected in 1863; 7, the old School at Croffen, extended to a Classical School (1573,) secondary Burgher-school (1862;) 8, School of the Jesuits at Posen, (1573,) Vog. sim. Gymnasium (1804,) divided into Catholic Mary's Gymnasium and Protestant Frederic Wilhelm Gymnasium (1834;) 9, Berlin Gymnasium of the Gray Convent (1574;) 10, Cathedral School at Merseburg (1574,) Cathedral Gymnasium (1820;) 11, School of the Jesuits at Heiligenstadt (1575,) reopened as electoral Mayence Gymnasium (1774,) united with the Catholic Progymnasium at Erfurt (1834;) 12, Latin School at Saarbruck (1580,) Gymnasium and Provincial School (1604,) Gymnasium of six classes (1818–23; 13, College of the Jesuits at Coblentz (1586,) electoral Gymnasium (1773,) école sécondaire (1803,) Gymnasium (1814;) 14, Schola illustris at Mörs (1582,) Progymnasium (1824,) completed (1862;) 15, City-school at Tilsit (1586,) Gymnasium (1812;) 16, Provincial school at Lyck (1588,) Gymnasium (1812;) 17, old Latin School, Brandenburg, since 1589 Soldern's School, united with the school in the new city (1797,) Burgher-School (1817–18,) Real-School, first order, (1859;) 18, School in the Convent at Shuttorf, near Bentheim, (1588,) Gymnasium illustre (1591,) removed to Burgsteinfurt, reopened (1853,) with Real-School, second order, from 1861.

K. Century XVI., d. of unknown date.—1, Great School at Coeslin, Royal and City Gymnasium (1821;) 2, City-School at Custrin, Real-School, second order, (1859;) 3, German and Latin School at Elberfeld, Gymnasium (1789;) 4, Lyceum at Landsberg, a W., Gymnasium (1859,) with Real-School, first order, (1862;) 5, Great City-School at Memel, Gymnasium (1860;) 6, Evang. City-School at Pyritz, Gymnasium (1859;) 7, Beginning of an Evang. Classical School at Wehlau, Real-School, second order, (1859;) 8, at Graudenz, *a*, Catholic Classical School in a Jesuit College, Catholic Gymnasium (1781,) Seminary for Catholic primary scholars (1817,) *b*, Evang. Lutheran City-School, Real-School, second order, since 1859; 9, in the second period of the century, Lutheran Parochial School at Insterburg, in 1834 secondary Burgher-School, Real-School, second order, (1859,) Gymnasium with Real-School (1862,) became Real-School, first order, (1862;) 10, Revival of the Classical School at Schweidnitz, suspended during the Thirty Years' War, reopened (1707) as a Lyceum, Gymnasium (1812;) 11, about the end of the century, Gymnasium of the Jesuits at Aix-la-Chapelle, reorganized as Gymnasium (1816;) 12, Secondary-School at Juelich, College of the Jesuits (1664,) Progymnasium (1862;) 13, School of the Franciscan Convent at Wartburg, founded before the 17th century, enlarged to a Gymnasium Marianum (1642,) Progymnasium (1856.)

L. Century XVII.—1, Electoral Institute at Joachimsthal in the Ucker-Mark (1607,) removed to Berlin as Joachimsthal Gymnasium (1650;) 2, Evang. Reformed School at Cleve (1617,) organized after the general plan for Gymnasiums (1782;) 3, School of the Jesuits at Conitz (1620,) Gymnasium (1815;) 4, College of the Jesuits at Neisse (1622,) Catholic Gym-

nasium (1778;) 5, Secondary-School of the Jesuits at Muenstereiffel (1625,) Gymnasium (1774–1810,) remodeled (1821;) 6, Collegium Ferdinandeum of the Jesuits at Grossglogau (1626,) Catholic Gymnasium (1773;) 7, Jesuit Gymnasium at Coesfeld (1627,) complete Gymnasium (1828;) 8, School of the Jesuits at Roessel (1631,) Progymnasium (1833,) Gymnasium (1865;) 9, Institute of the Jésuits at Breslau (1638,) College and Gymnasium (1659;) 10, Convent-School of the Franciscans at Recklinghausen (1642,) secondary City-School (1820,) Progymnasium (1822.) Gymnasium (1828;) 11, Convent-School of the Franciscans at Dorsten, Gymnasium Patrinum (1642,) Progymnasium (1856;) 12, Latin Convent-School at Neustadt, W. P., (1651,) Progymnasium (1857,) Gymnasium (1861;) 13, School of the Franciscus Minorites at Brilon (1652,) Gymnasium Petrinum (1858;) 14, Gymnasium illustre at Hamm (1657,) Gymnasium (1779;) 15, Gymnasium Dionysianum at Rheine, under direction of the Franciscans (1658,) Gymnasium Dionysianum (1861;) 16, Gymnasium Thomæum at Kempen (1664,) reopened (1802,) école sécondaire (1804,) City-School of four classes (1814,) Progymnasium (1833,) Gymnasium (1857;) 17, Burgher-School at Königsberg, P., (1664,) Real-School, School, first order, (1859;) 18, School of the Jesuits at Oppeln (1669,) Catholic Gymnasium (1773;) 19, School of the Jesuits at Deutsch Krone (1672,) Progymnasium (1823,) Gymnasium (1855;) 20, School of the Minorite Convent at Siegburg (1673,) Progymnasium (1855;) 21, Gymnasium of the Jesuits at Bonn (1678,) Prussian Gymnasium (1814;) 22, Latin School at Magdeburg (1674,) Cathedral Gymnasium (1822;) 23, Frederic Werder Gymnasium at Berlin (1681;) 24, College Royale Française at Berlin (1689;) 25, Latin School at Wipperfurth (1690,) Progymnasium (1855;) 26, Frederic School at Francfort, second order, (1694,) Gymnasium (1814;) 27, Franké's Institutes at Halle; Poor School and Pedagogium (1695,) Latin School (1697;) 28, College Française at Königsberg, Private School (1698,) Royal School (1701.)

M. Century XVIII.—1, The Academy of Knights at Brandenburg, (1705;) 2, College of the Augustines at Saarlouis (1707–1789,) Progymnasium (1816,) secondary Burgher-School (1862;) 3, Academy of Knights at Liegnitz (1708;) 4, Evang. School at Landshut (1709,) Real-School, second order, (1859;) 5, Pedagogium of the Convent of our Lady at Magdeburg (1711;) 6, Latin School at Neuweid (1716,) Gymnasium (1819,) partly secondary Burgher-School, partly Gymnasium (1825;) 7, School of the Jesuits at Fraustadt (1722,) dissolved (1773,) reëstablished (1781,) Real-School, first order, (1860;) 8, Orphan Home and Institute at Zullichau (1723,) Royal Pedagogium (1766;) 9, Great School at Gumbinnen soon after 1724, Gymnasium (1812;) 10, Enlargement of the Latin School at Potsdam (1739,) Gymnasium (1812;) 11, Gymnasium Mariano-Seraphico-Nepomucenum at Rietberg (1743,) Progymnasium (1825;) 12, Royal Real-School and Frederic Wilhelm Gymnasium at Berlin (1747,) Gymnasium and Real-School, first order, (1859;) 13, Latin School at Leobschutz (1752,) Catholic Gymnasium (1802;) 14, Orphan

House at Bunzlau (1753,) recognized as pium corpus, with the privilege of qualifying for the University (1760,) Royal Evang. Orphan School (1805,) Burgher-School (1814,) now Progymnasium; 15, first Real-School in Silesia at Breslau (1765,) Schola Fredericiana (1776,) Gymnasium (1812;) 16, School of the Franciscans at Hedingen (1770,) Latin School 1818, Gymnasium with Real School classes (1840,) Prussian Gymnasium (1851;) 17, first Commercial School at Magdeburg (1778–1806,) second (1800–1817,) third Technical and Commercial School (1819,) Real-School, first order, (1861;) 18, Latin School at Mulheim on Rh., to 1785, Progymnasium (1855;) 19, Provincial Institute of Education at Jenkau, near Danzic, (1798,) Classical School (1801–1814,) Teachers' Seminary (1819,) secondary Burgher-School (1843;) 20, Commercial School at Hagen (1799,) Real-School, first order, (1862;) 21, old Convent School at Eupen (1794–1814,) école sécondaire, and secondary City-School, secondary Burgher-School (1868.)

N. Century XIX.—1, Wilberg's Private Institute at Elberfeld (1806,) secondary Burgher-School (1829,) Real-School, first order, (1859;) 2, Real-School classes of the Francké Institute at Halle (1808,) Real-School, first order, (1861;) 3, College of the Carmelites at Cologne, opened as Progymnasium (1808,) secondary City-School (1820,) Gymnasium of the Carmelites (1825,) Frederic Wilhelm Gymnasium (1830;) 4, Catholic Gymnasium at Gleiwitz (1816;) 5, School for Boys at Bromberg (1817,) Real-School, first order, (1860;) 6, Former School of the Jesuits at Bromberg, Gymnasium (1817;) 7, Burgher-School at Breslau (1817,) Real-School, first order, (1859;) 8, old Parochial School at Soran, Gymnasium (1818;) 9, Cauer's Private School opened in Berlin (1818,) removed to Charlottenburg (1826,) Pedagogium (1840,) Progymnasium (1858;) 10, Secondary-School for Boys at Inoraclaw (1819,) Progymnasium (1857,) completed in 1860; 11, the City-School of Crefeld, united with the Scheuten Institute in 1819, Real-School, second order, in 1859; 12, Evang. Gymnasium at Ratibor in 1819; 13, Technical School at Münster in 1822, City Real and Provincial Technical School in 1851, Real-School, first order, 1859; 14, Mathematical Institute at Erfurt in 1822, Real-School in 1834, Real School, first order, in 1859; 15, Secondary City-School at Barmen in 1823, Real School, first order, in 1859; the Progymnasial classes of 1857 became Progymnasium in 1864, Gymnasium in 1865; 16, Lyceum at St. Wendel in 1824, Progymnasium in 1856; 17, City (Fred. Werder's) Technical School at Berlin in 1824, Real School, second order, 1859; 18, Private School at Rheyot in 1827, secondary Burgher-School in 1860; 19, Burgher-School at Erkelenz in 1828, Progymnasium in 1856; 20, secondary Burgher and Real School at Cologne in 1828, Real School, first order, in 1859; 21, Evang. secondary Burgher School at Meseritz in 1833, Real School, first order, in 1859; 22, Royal City Secondary School at Berlin in 1832, Real School, first order, in 1859; 23, Real School at Neisse in 1832, of first order in 1863; 24, Gymnasium at Culm (1832–37;) 25, Stralau secondary City School at Berlin in 1833,

secondary Burgher School in 1860; 26, City School for Boys at Wittstock in 1834, Real School, second order, in 1863; 27, Private School at Dueren recognized as a public one in 1834, secondary Burgher School in 1863; 28, secondary Burgher School at Aix-la-Chapelle in 1835, Real School, first order, in 1861; 29, secondary School for Boys at Muelheim, in 1835, Real School, first order, in 1859; 30, Real School at Nordhausen in 1835, second order in 1859; 31, Real School at Potsdam in 1835, first order in 1859; 32, District School at Krotoschin in 1836, Gymnasium in 1854; 33, Pedagogium at Putbus in 1836; 34, Dorotheenstadt secondary City School at Berlin in 1836, Real School, first order, in 1861; 35, Luisenstadt secondary City School at Berlin in 1836, Real School, first order, in 1859; 36, Real School at Elbing in 1837, first order, in 1859; 37, secondary Burgher School at Goerlitz in 1837, Real School, first order, in 1859; 38, Real School at Dusseldorf in 1838, first order, in 1859; 39, Burgher School at Tilsit in 1839, Real School, first order, in 1860; 40, Frederic Wilhelm School at Stettin in 1840, Real School, first order, in 1859; 41, Rhenish Academy of Knights at Bedburg in 1841; 42, secondary City School at Solingen in 1841; 43, Evang. Private School at Muenchen-Gladbach in 1842, secondary Burgher School in 1860; 44, Gymnasium at Ostrowo in 1845; Private Institute at Hechingen in 1844, pr. secondary Burgher School, 1859; 16, City Real School at Burg in 1844, Real School, second order, in 1859, Gymnasium in 1864; 47, Progymnasium at Hohenstein in 1845, Gymnasium in 1857; 48, secondary Burgher School at Treves in 1846, united secondary Burgher and Provincial secondary School in 1847; 49, Frederic Gymnasium and Real School at Berlin in 1850, the latter to first order in 1859; 50, secondary Private School at Crefeld in 1851, secondary Burgher School in 1863; 51, Private School at Freyenwalde, a. v. in 1851, Progymnasium in 1863; 52, secondary Private Institute at Guetersloh in 1851, Gymnasium in 1854; 53, Real School at Stralsund in 1852, first order in 1862; 54, Real School and Progymnasium at Ruwicz in 1853, Real School, first order, in 1863; 55, old City School at Greifenberg, in Pomerania, since 1852 Frederic William Gymnasium; 56, Rectorate class at Schrimm, changed into a Secondary School in 1853, Progymnasium in 1861, Gymnasium in 1866; 57, Real School at Posen in 1853, first order, 1859; 58, old Evangelical Parochial School at Stolp, Pomerania, Real School since 1854, Gymnasium in 1857 with Real School classes, the latter secondary Burgher School in 1860; 59, Real Institute at Ruhrort in 1857, Real School, first order, in 1862; 60, old Latin School at Demmin, Progymnasium in 1857; 61, secondary School for Boys at Schneidemuehl in 1858, Progymnasium in 1863; 62, Progymnasium at Berlin in 1858, Royal Wilhelm Gymnasium in 1861; 63, old City Lyceum at Luebben, Real School, second order, in 1859; 64, old Royal secondary School for Boys at Kreuzberg, Silesia, secondary Burgher School in 1860; 65, Catholic Gymnasium at the Apostles in Cologne in 1860; 66, old Latin School at Lauenberg, Pomerania, secondary Burgher School in 1860; 67, secondary Burgher

School at Spremberg in 1861; 68, old Evangelical Rectorate School at Luedenscheid, secondary Burgher School in 1862; 69, secondary Burgher School at Neustadt-Eberswalde in 1862; 70, Progymnasium at Gnesen in 1863, Gymnasium in 1865; 71, Real School, second order, at Essen in 1864; 72, Luisenstadt Gymnasium at Berlin in 1864; 73, Sophia Gymnasium at Berlin in 1865; 74, Luisenstadt Technical School, Real School, second order, at Berlin, 1865; 75, secondary Institute at Jauer, Gymnasium in 1865.

IX. SUMMARY OF GYMNASIUMS AND REAL-SCHOOLS ACCORDING TO PROVINCES.

A. GYMNASIUMS.

I. PROVINCE OF PRUSSIA.

a. Government of Königsberg: 1, Königsberg, Frederic College; 2, at the same, old City Gymnasium; 3, at the same, Kneiphoff Gymnasium; 4, Memel; 5, Braunsberg Catholic Gymnasium; 6, Rastenburg; 7, Hohenstein; 8, Roessel, Catholic.

b. Government of Gumbinnen: 9, Gumbinnen; 10, Insterburg; 11, Tilsit; 12, Lyck.

c. Government of Danzig: 13, Danzig; 14, Neustadt, Catholic; 15, Elbing; 16, Marienburg.

d. Government of Marienwerder: 17, Marienwerder; 18, Culm, Catholic; 19, Thorn: 20, Conitz, Catholic; 21, Deutsch-Kroue, Catholic.

II. PROVINCE OF BRANDENBURG.

a. City of Berlin: 1, Gymnasium of the Gray Convent; 2, Joachimsthal Gymnasium; 3, Frederic Wilhelm Gymnasium; 4, French Gymnasium; 5, Frederic Werder Gymnasium; 6, Frederic Gymnasium; 7, Wilhelm Gymnasium; 8, Coeln Real Gymnasium; 9, Louisenstadt Gymnasium; 10, Sophia Gymnasium.

b. Government of Potsdam: 11, Potsdam; 12, Brandenburg Gymnasium; 13, Brandenburg Academy of Knights; 14, Spandau; 15, New Ruppin; 16, Prenzlau.

c. Government of Frankfurt: 17, Frankfurt; 18, Landsberg; 19, Königsberg; 20, Zullichau Pedagogium; 21, Gaben; 22, Sorau; 23, Cottbus; 24, Luckau.

III. PROVINCE OF POMERANIA.

a. Government of Stettin: 1, Stettin; 2, Anclam; 3, Pyritz; 4, Stargard; 5, Greiffenberg; 6, Treptow.

b. Government of Coeslin: 7, Coeslin; 8, Colberg, Cathedral Gymnasium; 9, New Stettin; 10, Stolp.

c. Government of Stralsund: 11, Stralsund; 12, Greifswald; 13, Putbus, Pedagogium.

IV. PROVINCE OF SILESIA.

a. Government of Breslau: 1, Breslau, Elizabeth Gymnasium; 2, Breslau, Magdalen Gymnasium; 3, Breslau, Frederick Gymnasium; 4, Breslau, Matthias Gymnasium; 5, Oels; 6, Brieg; 7, Schweidnitz; 8, Glatz, Catholic.

b. Government of Liegnitz: 9, Liegnitz, Academy of Knights; 10, Liegnitz, Gymnasium; 11, Jauer; 12, Glogau, Evangelical Gymnasium; 13, Glogau, Catholic Gymnasium: 14, Sagan, Catholic; 15, Bunzlau; 16, Goerlitz; 17, Lauban; 18, Hirschberg.

c. Government of Oppeln: 19, Oppeln, Catholic; 20, Neisse, Catholic; 21, Gleiwitz, Catholic; 22, Leobschutz, Catholic; 23, Ratibor.

V. PROVINCE OF POSEN.

a. Government of Posen: 1, Posen, Frederic Wilhelm Gymnasium; 2, Posen, Mary Gymnasium, Catholic; 3, Lissa; 4, Krotoschin: 5, Ostrowo, Cath.

b. Government of Bromberg: 6, Bromberg; 7, Inowraclaw, Cath. and Prot.; 8, Gnesen, C. and P.; 9, Schrimm, C. and P.

VI. PROVINCE OF SAXONY.

a. Government of Magdeburg: 1, Magdeburg, Pedagogium at the Convent of

Our Lady; 2, the same, Cathedral Gymnasium; 3, Snedal; 4, Seehausen; 5, Salzwedel; 6, Halberstadt; 7, Wernigerode; 8, Quedlinburg; 9, Burg.

b. Government of Merseburg: 10, Merseburg, Cathedral Gymnasium; 11, Halle, Pedagogium; 12, Latin School; 13, Wittenberg; 14, Torgau; 15, Eisleben; 16, Naumburg, Cathedral Gymnasium; 17, Pforta; 18, Rossleben, Convent School; 19, Zeits, Convent Gymnasium.

c. Government of Erfurt: 20, Erfurt, C. and P.; 21, Muehlhausen; 22, Heiligenstadt, Catholic; 23, Nordhausen; 24, Schleusingen.

VII. PROVINCE OF WESTPHALIA.

a. Government of Münster: 1, Münster, Catholic; 2, Warendorf, Catholic; 3, Rheine, Catholic; 4, Burgsteinfurt; 5, Coesfeld, Catholic; 6, Recklinghausen, Catholic.

b. Government at Minden: 7, Minden; 8, Herford; 9, Bielefeld; 10, Gütersloh; 11, Paderborn, Catholic.

c. Government of Arnsberg: 12, Arnsberg, Catholic; 13, Brilon, Catholic; 14, Soest; 15, Hamm; 16, Dortmund.

VIII. PROVINCE OF THE RHINE, AND THE HOHENZOLLERN COUNTRY.

a. Government of Cologne: 1, Cologne, Gymnasium at Marzellen, Catholic; 2, Cologne, Gymnasium at the Apostles, Catholic; 3, Cologne, Frederic Wilhelm Gymnasium; 4, Bedburg, Academy of Knights, Catholic; 5, Bonn, Catholic; 6, Muenstereifel, Catholic.

b. Government of Dusseldorf: 7, Dusseldorf, Catholic; 8, Elberfeld; 9, Barmen; 10, Duisburg; 11, Essen, sim.; 12, Wesel; 13, Emmerich, Catholic; 14, Cleve; 15, Kempen, Catholic; 16, Neuss, Catholic.

c. Government of Coblenz: 17, Coblenz, Cathedral; 18, Wetzlar; 19, Kreuznach.

d. Government of Aix-la-Chapelle: 20, Aix-la-Chapelle, Catholic; 21, Dueren, Catholic.

e. Government of Treves: 22, Treves, Cathedral; 23, Saarbruecken.

f. Hohenzollern: 24, Hedingen, Catholic.

B. PROGYMNASIUMS.

I. PROVINCE OF BRANDENBURG.

Government of Potsdam: 1, Charlottenburg, Pedagogium; 2, Freienwalde.

II. PROVINCE OF POMERANIA.

Government of Stettin: Demmin.

III. PROVINCE OF SILESIA.

Government of Liegnitz: Bunzlau, Inst. of Orphan Home.

IV. PROVINCE OF POSEN.

Government of Bromberg: Schneidemuehl, sim., (for both denominations.)

V. PROVINCE OF SAXONY.

Government of Merseburg: Donndorf, Convent School.

VI. PROVINCE OF WESTPHALIA.

Government of Münster: 1, Dorsten, Cath.; 2, Vreden, Cath.

Government of Minden: 3, Warburg, Cath.; 4, Rietberg, Cath.

Government of Arnsberg: 5, Attendorn, Cath.

VII. PROVINCE OF THE RHINE AND HOHENZOLLERN.

Government of Cologne: 1, Mulheim-am-Rhein, C. and P.; 2, Siegburg, Cath.; 3, Wipperfuerth, Cath.; 4, Kerpen, Cath.

Government of Dusseldorf: 5, Moers; 6, M. Gladbach, Cath.

Government of Coblenz: 7, Andernach, Cath.; 8, Linz, Cath.; 9, Trarbach; 10, Neuwied.

Government of Aix-la-Chapelle: 11, Erkelenz, Cath.; 12, Zuelich, Cath.

Government of Treves: 13, Pruem, Cath.; 14, Sanct. Wendel, sim.

C. REAL SCHOOLS OF THE FIRST ORDER.

I. PROVINCE OF PRUSSIA.

Government of Königsberg: 1, Königsberg i. P., City Real-School; 2, the same, Burgher-School.

Government of Gumbinnen: 3, Insterburg, Real-School class of the Gymnasium; 4, Tilsit.

Government of Danzig: 5, Danzig, St. John's School; 6, Danzig, St. Peter's School; 7, Elbing.

Government of Marienwerder: 8, Thorn, Real-School classes of the Gymnasium.

II. PROVINCE OF BRANDENBURG.

City of Berlin: 1, Royal Real-Schoo.; 2, Louisenstadt Real-School; 3, Königstadt Real-School; 4, Dorotheenstadt Real-School; 5, Frederic Real-School.

Government of Potsdam: 6, Potsdam; 7, Brandenburg, Soldern Real-School; 8, Perleberg; 9, Wittstock.

Government of Frankfurt: 10, Frankfurt; 11, Landsberg on the Werta, Real-School classes at Gymnasium.

III. PROVINCE OF POMERANIA.

Government of Stettin: 1, Stettin, Frederic Wilhelm School.

Government of Coeslin: 2, Colberg, Real-School classes at Cathedral Gymnasium.

Government of Stralsund: 3, Stralsund.

IV. PROVINCE OF SILESIA.

Government of Breslau: 1, Brealau, Real-School of h. g.; 2, the same, Real-School of the Zwinger, sim.

Government of Liegnitz: 3, Gruenberg, Frederic Wilhelm School: 4, Goerlitz; 5, Landshut.

Government of Oppeln: 6, Neisse, C. and P.

V. PROVINCE OF POSEN.

Government of Posen: 1, Posen, sim.; 2, Meseritz; 3, Fraustadt; 4, Rawicz.

Government of Bromberg: 5, Bromberg, C. and P.

VI. PROVINCE OF SAXONY.

Government of Magdeburg: 1, Magdeburg, Secondary Technical and Commercial School; 2, Halberstadt; 3, Aschersleben.

Government of Merseburg: 4, Halle.

Government of Erfurt: 5, Erfurt, C. and P.; 6, Nordhausen.

VII. PROVINCE OF WESTPHALIA.

Government of Münster: 1, Münster, Cath.; 2, Burgsteinfurt, Real-School classes at Gymnasium.

Government of Minden: 3, Minden, Real-School classes at Gymnasium.

Government of Arnsberg: 4, Dortmund, Real-School classes at Gymnasium; 5, Lippstadt; 6, Hagen; 7, Siegen.

VIII. PROVINCE OF THE RHINE AND HOHENZOLLERN.

Government of Cologne: 1, Cologne, Real-School, C. and P.; 2, the same, Real-School classes at the Frederic Wilhelm Gymnasium.

Government of Dusseldorf: 3, Dusseldorf, sim.; 4, Duisburg, Real-School classes at Gymnasium; 5, Mühlheim; 6, Ruhrort; 7, Elberfeld; 8, Barmen, Real-School classes at Gymnasium.

Government of Aix-la-Chapelle: 9, Aix-la-Chapelle, C. and P.

Government of Treves: 10, Treves, C. and P.

D. REAL-SCHOOLS OF THE SECOND ORDER.

I. PROVINCE OF PRUSSIA.

Government of Königsberg: 1, Wehlau.

Government of Marienwerder: 2, Graudenz.

II. PROVINCE OF BRANDENBURG.

City of Berlin: 1, Frederic Werder Technical School; 2, Louisenstadt Technical School.

Government of Potsdam: 3, Prenzlau, Real-School classes at Gymnasium.

Government of Frankfurt: 4, Cüstrin; 5, Lübben.

III. PROVINCE OF POMERANIA.

Government of Stralsund: 1, Greifswalde, Real-School classes at Gymnasium.

IV. PROVINCE OF WESTPHALIA.

Government of Minden: 1, Bielefeld, Real-School classes at Gymnasium.

V. PROVINCE OF THE RHINE AND HOHENZOLLERN.

Government of Dusseldorf: 1, Essen, C. and P.; 2, Crefeld.

E. HIGHER BURGHER-SCHOOLS.

I. PROVINCE OF PRUSSIA.

Government of Königsberg: 1, Pillau.

Government of Danzig: 2, Jenkau, Pedagogium.
Government of Marienwerder: 3, Culm, sim.; 4, Marienwerder Frederic School.

II. PROVINCE OF BRANDENBURG.
City of Berlin: 1, Stralau, secondary Burgher-School.
Government of Potsdam: 2, Neustadt-Eberswalde.
Government of Frankfort: 3, Crossen; 4, Spremberg.

III. PROVINCE OF POMERANIA.
Government of Coeslin: 1, Lauenberg; 2, Stolp, Burgher-School joined to Gymnasium.

IV. PROVINCE OF SILESIA.
Government of Oppeln: 1, Kreuzburg; 2, Neustadt in Upper Silesia.

V. PROVINCE OF SAXONY.
Government of Merseburg: 1, Torgau, Real-School classes at Gymnasium; 2, Delitzsch.
Government of Erfurt: 3, Langensalza.

VI. PROVINCE OF WESTPHALIA.
Government of Arnsberg: 1, Luedenscheid.

VII. PROVINCE OF THE RHINE AND HOHENZOLLERN.
Government of Cologne: 1, Mülheim.
Government of Dusseldorf: 2, Crefeld, Cath.; 3, M. Gladbach; 4, Rheidt; 5, Solingen; 6, Lennep.
Government of Coblenz: 7, Neuwie.
Government of Aix-la-Chapelle: 8, Eupen; 9, Duren.
Government of Treves: 10, Saarlouis, C. and P.
Hohenzollern: 11, Hechingen, Cath.

PROGRESSIVE DEVELOPMENT OF SECONDARY SCHOOLS.

In presenting comparative statistics, the basis of three different years will be taken: 1818 as the year in which the reorganization of gymnasiums (begun in 1812) was completed; 1832 as the year in which the instructions for final examinations at real and higher burgher-schools were issued; and 1859 as the year in which the programmes of instruction and examination of the same schools were promulgated.

I.—NUMBER OF SCHOOLS.

A.—*Gymnasiums.*

	Evangelical.	Catholic.	Mixed.	Total.
1818	71	17	3	91
1866	110	39	5	154
Increase	.....	.....	.....	63

The increase in the number of gymnasiums indicates, mostly, an increase by the establishment of new or the division of old institutions; there are but few instances of decrease and change in their confessional relations. Two of the gymnasiums in the province of Saxony became higher burgher-schools, one of which has since been reorganized as a gymnasium; one school in the province of Posen was closed in 1863 for political reasons. The Academy of Knights of Brandenburg was also temporarily closed, (1849–1856.) The mixed (for different religious confessions) gymnasium of the city of Posen was in 1834 divided into two, one for Protestants and the other for Catholics. The Evangelical gymnasium at Erfurt was opened for both confessions in 1819. The mixed gymnasiums at Heiligenstadt and Düsseldorf became Catholic in 1841, respectively, 1854. The Evangelical gymnasium at Wetzlar was conducted for pupils of both confessions from 1843 to 1855. The greatest absolute increase was in the Rhine province, (14.) Of the 15 gymnasiums in the province of Brandenburg in 1818, five belonged to Berlin: and of the 24 gymnasiums it has at present, 10 belong to that city.

The total number of Catholic gymnasiums in the kingdom has in the above period increased from 17 to 39, which is larger than the increase of Protestant gymnasiums in the state.

While the gymnasiums are firmly established, and with very few changes develop slowly but steadily, the progymnasiums are exposed to continual modifications.

B.—*Progymnasiums.*

	Evangelical.	Catholic.	Mixed.	Total.
1832	5	16	1	22
1866	8	14	3	25
Increase	.....	.....	.....	3

Some changed by a combination with a gymnasium, (20;) others are transformed into real-schools (1) or burgher-schools, (4;) one in the Rhine province was dissolved. Throughout the period from 1832 to 1866 were established 29 new progymnasiums, while 26 changed their form as stated above, giving an absolute increase in number of three.

C.—*Real-schools.*—The statistics of real-schools must necessarily be compared for two periods: First, from 1832 to 1859; second, from 1859 to 1866. This class of schools also shows manifold changes.

	Evangelical.	Catholic.	Mixed.	Total.
1832	8	.....	1	9
1859	45	1	10	56
Increase	.....	.....	.....	47

The total number at the end of the year 1832, (9,) compared to that of 1859, (56,) confirms the real-schools as favorite offsprings of the century. But the real-schools of the 2d order, since 1859, show less stability than the gymnasiums. The real-school opened at Warrendorf in 1835, first becomes a middle school in 1845, again a real-school, (1855,) and again a gymnasium in 1856.

Of these, also, like of all other secondary schools, we find only Protestant ones in Brandenburg and Pomerania; in 1832 both had had not yet any of this class. Brandenburg erects 13, (six of which in Berlin,) one of which becomes a gymnasium. Pomerania establishes six real-schools, of which, in 1857–8, three become gymnasiums.

In the provinces of Prussia, Silesia, and Saxony, we find many mixed schools with the Evangelical institutions. In Westphalia some are Catholic, and Catholic and mixed real-schools are in Posen and the Rhine provinces; but the greater number of them are attended also by Protestant pupils. Mixed real-schools have proved capable of life, but no Catholic one existed as early as 1832.

Number in—	Real-schools, 1st order.				Real-schools, 2d order.				Grand total.
	Evang.	Catholic.	Mixed.	Total.	Evang.	Catholic.	Mixed.	Total.	
1859	19	1	6	26	26	.....	4	30	56
1866	46	1	9	56	10	.....	1	11	67

Most of the real-schools of the second order are in the provinces of Prussia and Saxony.

The increase in the total number of Evangelical real-schools is very considerable; nearly 250 per cent. in less than seven years. The one Catholic school at Münster, which existed in 1859, has been preserved, but no new one added to it, nor do we find any Catholic real-schools of the second order. Of mixed real-schools there were 6 in 1859, to which three have been added. Often real-schools are parallel classes to a gymnasium, but since 1859 only in Evangelical schools.

While the real-schools, first order, show a stability equal to that of gymnasiums, and sometimes excelling the latter, the real-schools of the second order show great changes, and some have but a short-lived existence. But the decrease in number is due, in most instances, to their being raised to the first order. Real-schools of the second order are sometimes parallel classes to gymnasiums, but only in Evangelical schools.

D.—*Higher burgher-schools.*—No schools of this class existed in 1859. Since then 26 have been established, of which one was changed into a real-school of the first order, so that their present number is 25.

There are now, in 1866, 56 real-schools of the first order, of which 46 are Evangelical, 1 Catholic, and 9 mixed; 11 of the second order, of which 10 are Evangelical and 1 mixed; 25 burgher-schools of the highest class, of which 21 are Evangelical, 2 Catholic, and 2 mixed. The grand total of real-schools is 92, of which 77 are Evangelical, 3 Catholic, and 12 mixed.

The number of real-schools has increased in all provinces. The greatest increase is in the Rhine province, 14; Brandenburg, 9; Westphalia, 5; Pomerania, 3; Silesia, 2; and the other provinces 1 each.

Of all classes of secondary schools there were July 1, 1866, as follows:

Denominations.	Gymnasiums.	Progymnasiums.	Real-schools, 1st order.	Real-schools, 2d order.	Higher burgher-schools.	Totals.
Evangelical	110	8	46	10	21	195
Catholic	39	14	1	.....	2	56
Mixed	5	3	9	1	2	20
Total	154	25	56	11	25	271

Or, of 271 schools 154 are gymnasiums, 25 progymnasiums, 56 real-schools of the first order, 11 real-schools of the second order, and 25 higher burgher-schools. Among the religious confessions the Evangelical schools outnumber the others by far; but the Catholic and mixed schools have so increased under the Prussian administration that any complaints of governmental neglect are unfounded.

II.—ATTENDANCE.

In reviewing the attendance of pupils at secondary schools, the years 1832, 1853–'54, 1859–'60, and 1863 are compared.

A.—*Gymnasiums.*

Years compared.	Above 400.	Between 300 and 400.	Between 200 and 300.	Less than 200.	Maximum and minimum in one gymnasium.	
					Max.	Min.
1832	6	13	35	56	539	54
1853–'54	22	18	37	44	740	27
1859–'60	22	27	45	41	669	40
1863	27	35	43	39	642	35

B.—*Real-schools.*

1853–'54	7	8	18	19	611	51
1859–'60—1st order	12	5	6	7	709	84
2d order	3	3	11	10	522	35
1863—1st order	19	3	12	13	686	84
2d order	1	.....	7	9	632	39

C.—*Higher burgher-schools.*

1859–'60	.....	.....	1	11	.....	.....
1863	.....	.....	.....	23	.....	.....

D.—*Progymnasiums.*

1859–'60	.....	.....	1	30	217	20
1863	.....	.....	.....	28	.....	.....

The number of graduates of gymnasiums entitled by the maturity examination to admission at universities was, in 1820, 590; in 1863, 1,805.

The total number of pupils in 1863 in 172 gymnasial institutions and 83 real-schools (including higher burgher-schools) was 66,135, under 3,349 teachers.

III.—Teachers.

The number of candidates for teacher at secondary schools, who passed satisfactorily the examination *pro facultate docendi*, during the period from 1839 to 1863 is 2,583. Of these 1,807 were Protestants, 736 Catholics, and 40 Jews. Specially qualified for instruction in religion, 225; ancient languages, 972; modern languages, 213; German literature, 291; history, 320; mathematics, 562. Among them were 224 not natives of Prussia.

At the gymnasiums and progymnasiums were engaged 168 directors, 589 chief teachers, 170 theologians, 868 ordinary teachers, 170 scientific assistant teachers, 287 technical teachers, 136 elementary teachers—total, 2,388 teachers.

At the real-schools and higher burgher-schools, 72 directors, 185 chief teachers, 65 theologians, 384 ordinary teachers, 61 scientific assistant teachers, 120 technical teachers, 100 elementary teachers—total, 987 teachers.

The salaries of teachers at gymnasiums in 1866 amounted to 1,379,473 thaler, those of teachers at real-schools to 523,897 thaler—total salaries of teachers at secondary schools, 1,903,370 thaler.

IV.—Income and Expenditures.

Of the secondary schools, 72 are exclusively royal, 95 exclusively supported by cities, 12 derive their income from private foundations, and the others from various sources. All charge tuition fees.

The expenditure for gymnasiums and progymnasiums in 1864 amounted to 1,937,399 thaler, of which were raised by tuition fees, 817,774 thaler; by private endowments, 61,795 thaler; by the commune, 208,483 thaler; by state endowments, 230,368 thaler; by state treasury, 271,547 thaler.

Real-schools and higher burgher-schools show a total expenditure of 635,785 thaler. Raised by tuition fees, 385,281 thaler; by private endowments, 13,482 thaler; by the commune, 192,563 thaler; by state endowments, 3,436 thaler; by state treasury, 13,871 thaler.

Tuition fees vary from 6 to 33 thaler per year, according to the class attended by pupils.

SCHOOL ARCHITECTURE.

PART II.

PLANS FOR GRADED SCHOOLS.

PRELIMINARY REPORT.

THE following Illustrations of Buildings recently erected for Graded Schools in several of the principal cities of the country, are selected from a much larger number in possession of the Commissioner of Education, for many of which he is indebted to the Superintendents of Public Schools in these cities, who have in this way responded most promptly and liberally to his Circular (No. 9,) on the subject. A particular acknowledgment will be made in his full Report.

SCHOOL ARCHITECTURE.

PRELIMINARY REPORT.

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{ SPECIAL CIRCULAR, No. 2.

CIRCULAR RESPECTING SCHOOL ARCHITECTURE.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., 1867.

THE following Circular is the substance of numerous letters which the Commissioner has already had occasion to write; and correspondents, to whom it may be addressed, will please receive it as specially addressed to them, in the way of answer, or of inquiry, on the points specified.

HENRY BARNARD, *Commissioner.*

A. No document explanatory of the principles of School Architecture, or illustrative of the present advanced practice in different States, has been published by the Department, but the Commissioner has been for years collecting the material for a comprehensive publication on the subject, to which any contribution in the way of suggestion or illustration will be duly acknowledged.

B. Information on any of the topics, and as far as practicable, impressions from any of the illustrations in the accompanying Classified Index, (XVIII,) will be promptly furnished without expense to committees engaged in preparing plans for school edifices.

C. The following Title and Contents will explain the nature of the document above referred to:

SCHOOL-HOUSES; PLANS OF BUILDINGS recently erected for Educational Uses; with an Introduction on the Principles of School Architecture, and its Progressive Development in the United States. [A Document prepared for publication by the National Department of Education.]

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INTRODUCTION.

1. Progressive Improvement and Present Condition of School-houses and their Equipment in the different States, drawn from official documents published from 1830 to 1840, and from 1865 to 1868.
2. General Principles to be observed in the Location, Grounds, Material, Construction, Lighting, Warming, Ventilation, and Furniture of Buildings designed for Educational Purposes.
3. Plans of School-houses recommended by Official Authorities, Educators and Architects in different countries.

PLANS OF BUILDINGS DESIGNED FOR EDUCATIONAL USES RECENTLY ERECTED.

PART I. Unclassified Schools, or Schools with a single apartment, or at most two, in Rural Districts.

PART II. Graded Schools, or Schools with two or more classes, in Villages and large Cities.

PART III. Special Schools, such as Normal Schools, Scientific Schools, &c. &c.

PART IV. Collegiate Institutions, or Buildings in which Residence and Domestic Uses are provided for, as well as Class and Lecture Rooms, Library, Cabinets, Laboratory, Gymnastics, &c. &c.

PART V. Library, Museum, Lecture-hall, Gymnasium, &c.—buildings for a special purpose.

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SCHOOL ARCHITECTURE.

PLANS FOR UNION AND GRADED SCHOOLS.

GRAMMAR SCHOOLS IN BOSTON.

In determining on the size, internal arrangements, and equipment of a School-house, regard must be had not only to the number of children to be accommodated, but to their age, studies, and classification, that is, to the character and aim of the school or schools to be provided for.

By a Union, or Graded School, was originally intended a school in which all the scholars of a given territory—usually a village, or other populous municipality—before accommodated in several small houses, were brought into one large building, and there distributed into different rooms, or grades according to attainments, so as to bring a large number of pupils of nearly the same age, and in a few and the same studies, under teachers having special qualifications for each grade—and especially to bring the young children by themselves under female teachers, and to facilitate the employment of the same class of teachers as assistants in schools designed for the older pupils. In the more populous districts the gradation was and still continues more minute, and by degrees, school-houses are now erected specially for at least three grades—although houses designed mainly for the youngest grade, embrace accommodations for the next highest, and houses designed for the oldest pupils and the highest grade not unfrequently include accommodation for the next lowest.

But in edifices designed for a particular grade, regard must be had in the internal arrangement to the different plan of classifying the school for the purposes of instruction and government—and particularly to this,—whether there shall be on each floor one large room, (or two, capable of being made into one when necessary,) where all the pupils shall be properly seated for study, supervision and general instruction under a principal teacher, with smaller room to which the several classes shall retire for purposes of recitation to assistants selected in reference to their special qualification in instruction; or whether the floor shall be divided into a certain number of rooms, each room to accommodate only as many pupils as can be profitably instructed by one and the same teacher—and each room to constitute a separate school, except that all are to be subject to the supervision, and, to some extent, the occasional visitation and instruction of the Principal teacher of the whole school.

In the Public Schools of Boston, the former plan prevailed generally in all the grammar schools—until the organization of the Quincy school in 1848. Since that date the size of the houses has been determined by the convenience of classifying the pupils into rooms, each capable of providing from fifty to sixty with separate desk and chair, and he school has been organized so as to have a special teacher for each room, all subordinate to the Principal—his room accommodating the same number of pupils, in which he is allowed an assistant, so as admit of his visiting from time to time the other rooms, or classes in the same building. There are many advantages in this arrangement, and under a Principal, disposed and at liberty by having assistants in his own room to make himself felt in government and instruction in each room—the disadvantages of not having all the pupils of the same school under the eye, voice and personal influence of the superior master, are in a measure obviated.

Error here the paging is wrong.

Plans of the Boston Latin School.

Before introducing plans of the more recently erected school-houses in Boston, we will go back to the oldest school in the country, and get a glimpse of one of the earliest structures—the oldest of which we have any visible representation,* erected for school purposes in New England—the modest structure in which Ezekiel Cheever was installed "sole master," on the 22d of December, 1670, in the presence of "the Hon. Governor Richard Billingham, Major General John Leverett, and other Magistrates of the Colony, the Elders of the Churches, and Selectmen of the Town of Boston." Here for thirty-five years he continued to sway "the rod of empire" over governors, judges, ministers, magistrates and merchants yet in their teens, and under his administration the first "free schoole," † the always famous Latin School of Boston, became, according to Prince, "the principal classical school of the British Colonies."



* For this vignette of Mr. Cheever's School-house, we are indebted to the Rev. Edward E. Hale.

"Cheever's school-house occupied land on the North side of School street, nearly opposite the present Horticultural Hall. It was large enough to contain one hundred and fifty pupils. At the present time, the east wall of the Stone Chapel stands on the site of the old building, which was removed, after much controversy, to make room for the building of the Chapel, in 1748. The outline of the old building, and some general sketch of its appearance appear on an old map of Boston, dated 1722, of which, a copy is now in possession of Mr. Pulsifer, of Boston. On this map, every building was represented, on the spot it occupied, with some effort at precision. From this map Cheever's school-house is represented in this sketch. King's Chapel is drawn from a view of more pretensions, representing the whole town, from a point above the harbor, in 1744. In that view, unfortunately, Cheever's school-house does not appear. As King's Chapel was materially enlarged in 1710, it has been represented here as being, in Cheever's time, somewhat shorter than in the authority alluded to. In an early print, described by Dr. Greenwood, a crown was represented below its vane, which has, therefore, been placed there in this sketch."

Mr. Gould introduces into his notice of the controversy which attended the removal of the old school house, to make room for an enlargement of the church, the following impromptu epigram written by Joseph Green, Esqr., and sent to Mr. Lovell in the School, when it was announced that the town had agreed to grant permission to the proprietors of King's Chapel to take down the old house.

A fig for your learning: I tell you the Town,
To make the *church* larger, must pull the *school* down
Unluckily spoken, replied Master Birch—
Then *learning*, I fear, stops the growth of the *Church*.

† For a brief exposition of the early "Free School" of Massachusetts, and of New England generally, and for all that can now be gathered of the personal history of Master Cheever, See American Journal of Education, Vol. XII., p. 339–360.

In 1748, the modest structure which had accommodated the Latin School and the family of Master Cheever, was removed to make room for the enlargement of the Stone Chapel, and a new and larger building erected on the opposite side of the same street, the third floor of which only was used for school purposes until 1816, when the increased number of pupils under Master Gould, called for the use of the second floor, which had been used by the Central Grammar School. For several years prior to Mr. Gould's appointment to the mastership, the Latin School did not keep up with the demands of the wealthy and educated families of the city who had generally got into the way of sending their sons into the country towns, and particularly to the academies at Exeter and Andover, to be prepared for admission to college and their withdrawal thus perhaps contributed largely to keep the school in an unprogressive state—taking from it both the pupils and the parental interest and intelligence, which are the life of every public school. The vigorous administration, personal popularity, and better scholarship of Mr. Gould, with the increasing interest in the improvement of the public schools generally, placed its course of instruction in extent and thoroughness on a level with the best academies of the country towns, and made it the natural head of the public schools of the city. With an improvement in the classical course destined for college, there grew up a demand for a more thorough literary and scientific training for boys who were destined for other pursuits than those of law, theology, and medicine, which found their appropriate preparation in the College—and the English High School was established in 1821, to meet this demand. The establishment of the English High School for boys, very naturally created a desire for similar advantages for the girls, which led to the establishment of the Girls' High School, in 1825, which in its turn gave way to an extension of the studies and a prolonged attendance of the girls in all the Grammar Schools in 1829. The discussion and final recognition of the necessity of special preparation for the art of teaching in connection with the employment of a large number of females as teachers in the Primary and Grammar Schools of the city, led to the establishment of a Normal School for girls, in 1852, which, in a few years, became also a High School for the same class of pupils, and thus the System of Public Schools in Boston, rises from the broad basis of Primary Schools, through its natural expansion of Intermediate and Grammar Schools into the Latin, English, and Girls' High Schools, and a Normal Course in the latter for at least the largest number of teachers—the female teachers of the city.



LATIN AND ENGLISH HIGH SCHOOL-HOUSE, BOSTON Erected, 1844

In the School-house on Bedford Street, erected in 1843–4, for the Latin and English High Schools, the former is accommodated in the Hall H, and Class-rooms, C, C, C, C, on the left side, and the latter in the Hall and Class-rooms on the other side.

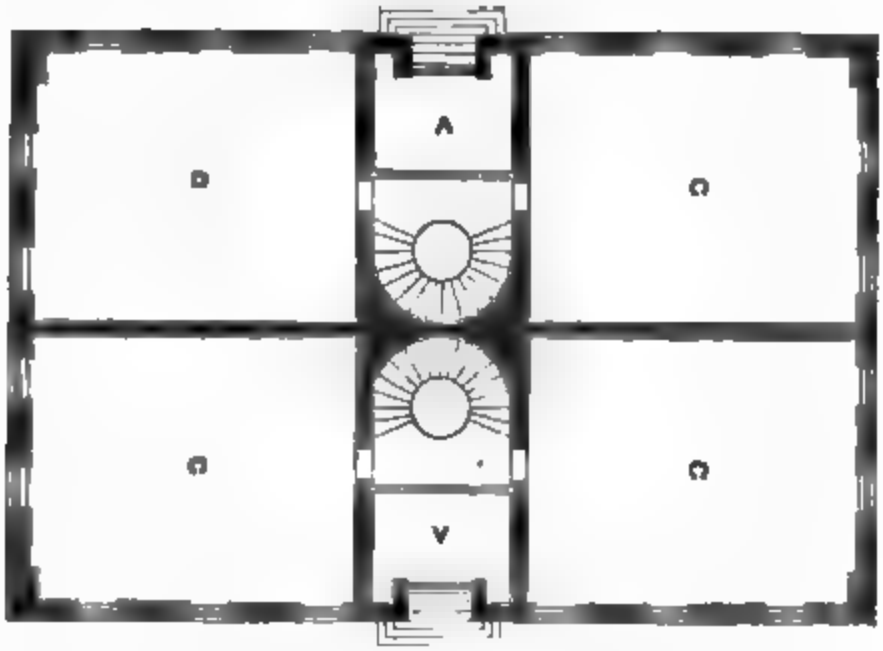


Fig. 1.—First Floor.

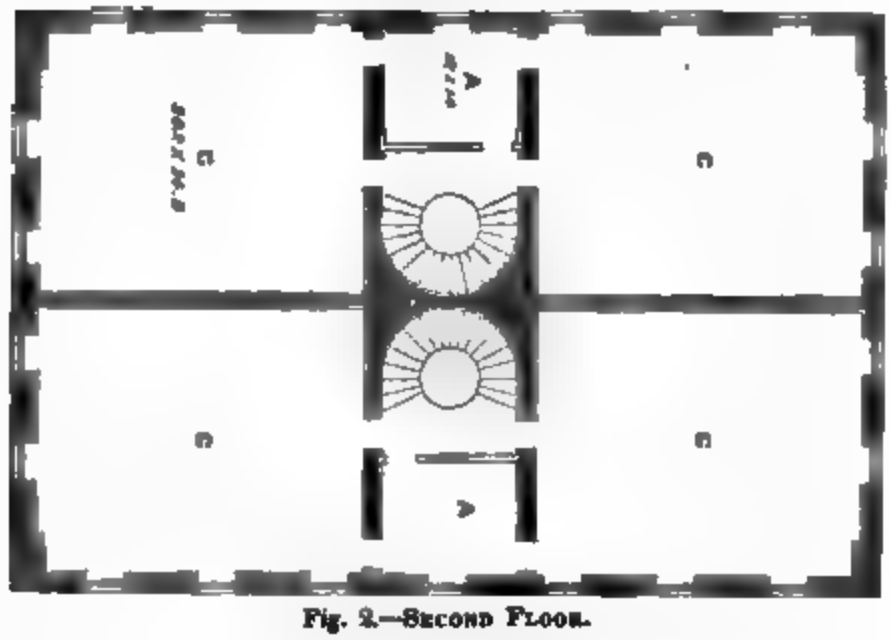


Fig. 2.—Second Floor.

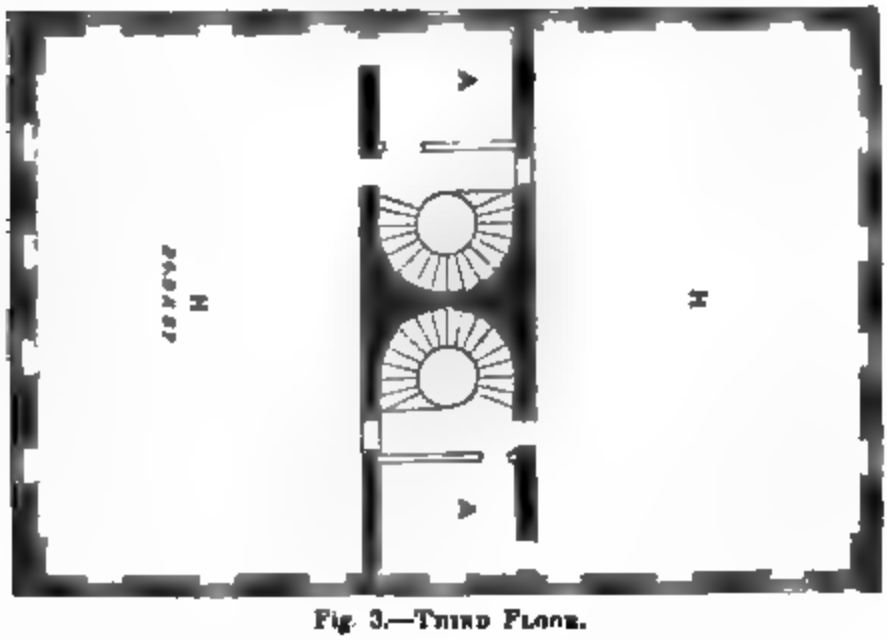


Fig. 3.—Third Floor.

Plans of Boston Grammar School-houses.

BY HON. JOHN D. PHILBRICK, SUPERINTENDENT OF PUBLIC SCHOOLS.

Before describing our latest school edifice (the Norcross Grammar School-house, in South Boston, completed and dedicated March 10, 1868), which embodies in design, construction, and equipment, several excellent features, not found in any one of its predecessors, it may be desirable to note the successive modifications which have been introduced into buildings for this class of schools.

The Boston Grammar School-house of forty years ago, was a two story edifice, each story containing one hall or school-room, with seats for about one hundred and eighty pupils. These halls were wholly destitute of such appendages or conveniences as recitation rooms, clothes-rooms, closets, and blackboards. In each of these large rooms there were usually three teachers, and their recitations had to be carried on at the same time, while the pupils not occupied in reciting were expected to close their ears to the surrounding din, and attend to their tasks. Of this type was the old Mayhew School-house, which continued to be occupied until 1846.

The first modification of this type consisted chiefly in the addition of a third story, the two upper stories being appropriated to the two halls as before, and the lower story to a ward-room or to Primary Schools. An illustration of this modified type is found in the Wells School-house, a cut of which Mr. Mann introduced into his Report on School-houses, as the best City Grammar School-house in 1838. It was subsequently remodelled, and is just now being replaced by a structure of the Norcross type. There was, of course, some improvement in respect to style of finishing and furnishing, but no new feature of importance added. The first important steps of progress consisted in the addition of two recitation rooms of moderate dimensions to each of the two large school-rooms or halls. This was instituted about the year 1840, and from this time until 1848, the recitation rooms were embraced in all the plans for new buildings, and most of the old buildings were enlarged for the purpose of securing these much needed conveniences. The Brimmer School-house, erected in 1848, was an example of this improvement. Recently it has been remodelled and enlarged.

In 1848, the Quincy School-house was erected, a description of which is contained in Barnard's School Architecture. This building was not, properly speaking, a modification of what had preceded it, either here or elsewhere. *It was a* NEW *type.* Its main features were these.

1. It was large. Up to this time, a Grammar School containing four hundred pupils was considered very large. This building had six hundred and sixty seats in its school-rooms, exclusive of the hall.

2. It contained a separate school-room for each teacher, twelve in all, and, of course, recitation rooms were not needed.

3. It contained a hall large enough to seat comfortably, all the pupils that could be accommodated in the school-rooms, and even more.

4. It contained a clothes-room attached to each school-room, through which the *pupils* passed in entering and leaving their respective rooms.

5. It contained a separate desk and chair for each pupil. This was probably the first Grammar School-house into which this feature was introduced.

All the Grammar School-houses which have been built in this city during the past twenty years, have been of this type. Modifications more or less important have from time to time been introduced, but the *type has not been changed.* The chief modification of this type which has been made in the plans of the buildings erected during the past fifteen years, consisted in increasing the number of school-rooms to fourteen by cutting off about two-fifths of the size of the hall for this purpose. This modification, so far from being an improvement, was undoubtedly a retrograde step. The rooms thus gained were too near the sky for ordinary school purposes, the hall was rendered too small in proportion to the size of the school, and the number of school-rooms was too great for a single Grammar School, containing one series of grades. The Prescott Grammar School-house, erected two years ago, a description of which may be found in Barnard's Journal of Education, Vol. XVI., is an improvement on the *modified* Quincy type which had been in vogue for some years, inasmuch as it is only *three* stories high, and has a sufficiently spacious hall. It is a noble edifice, but it is too large, having *sixteen* school-rooms, and the plan is more costly in proportion to the accommodations than that of any other building which has been built in this city.

The Superintendent of Schools, in a report submitted to the School Board in 1867, set forth his objections to the buildings which he calls *modifications of the Quincy type*, and advocated the adoption of a plan for a Grammar School-house, as a model or standard, which should provide for only three stories, and only *ten* school rooms, with a hall spacious enough to seat comfortably all the pupils that the ten school-rooms would accommodate.

In determining the plan of the Norcross building, the Superintendent's recommendation was considered, but not adopted in full. The Committee on Public Buildings of the City Council who really had all the *power* to decide what the plan should be, concluded to adopt a plan which may be called a compromise between that of the modified Quincy and that recommended by the Superintendent. The improvements on the Quincy type consist in its architectural character, in its style of finish, in its heating and ventilating apparatus, and in some minor details, especially for security against fire.

[Before giving Mr. Philbrick's description of the Norcross School-house, we will introduce the plans of the houses above referred to, with descriptions written at the time of their completion, to mark the successive modifications of this class of houses, together with statistics and remarks in the dedicatory exercises, to show the interest taken in their Public Schools by the most eminent citizens of Boston. H. B.]

SCHOOL-HOUSES CONVERTED INTO MONUMENTS OF PUBLIC SERVICE.

The practice begins to prevail of distinguishing the public schools of different localities of the same city by naming them after individuals who may happen to hold office at the time of instituting the school, or erecting the building, or, which we deem far better, after some of those noble men who, in the infancy of the state, laid the foundations of its prosperity by providing for the education of the whole people. In no way can their names pass so universally into the household words of a community. We select two beautiful instances of well-deserved commemoration of this kind.

WINTHROP SCHOOL-HOUSE, BOSTON.

The spacious, commodious, and elegant school-house recently erected in Boston, at an expense, including the site, of $90,000, was dedicated with appropriate exercises, and called after the name of the first Governor of Massachusetts,—the WINTHROP SCHOOL-HOUSE. Hon. Robert C. Winthrop, a lineal and worthy descendant of John Winthrop, made an address on the occasion, substantially as follows:—

I need not say that I have felt something more than a common interest in this scene. As a mere citizen of Boston, born upon her soil, educated in her public schools, and bound to her by a thousand ties of affection and gratitude, which no time can sever, I should, indeed, have found abundant reason for gratification and for pride in seeing her engaged, in the person of her chief magistrate, in dedicating so spacious and noble an edifice to the cause of popular education. As a humble but sincere friend to free government and republican liberty, too, I could not have failed to rejoice at beholding another buttress added to the bulwarks which are to save them from overthrow and downfall. For, my friends, it cannot be too often repeated, trite and common-place as it may sound, that these free institutions of ours can rest securely on no other basis than that of intelligence and virtue; and that intelligence and virtue can be disseminated and inculcated by no other agencies than the school and the church. Our school-houses and churches—these are the true towers and bulwarks of a republic, and the only standing army of freedom is that innumerable host of children who are in process of being trained up, in our sabbath schools and our week-day schools, in the fear of God, in the love of their neighbor, and in the elements of all useful knowledge and all sound learning.* It may well be a subject for joy, then, to every patriotic heart,—and I hope mine is one,—to see our cities and towns vying with each other, not like those of the old world, in the sumptuousness of their private mansions, or the magnificence of their government halls, but in the elegance and spaciousness and completeness of their common school-houses.

But, my friends, it would be affectation in me to conceal that I have another and peculiar interest in this occasion. I am sure that I need feel no delicacy in speaking of the distinguished person in whose honor this school has been primarily named. Five entire generations have now intervened between him and myself. More than two hundred years,—a long time in your little calendar, my young friends,—have passed away since he was laid beneath the sod in what is now King's Chapel Burying Ground, within a few feet of the City Hall, where a humble tomb-stone may be seen, bearing the inscription "John Winthrop, 1649." my relation to him, though direct, is thus almost too remote to subject anything I may say of him to the imputation of being dictated by any mere partiality or family pride. His name, too, is an historical name, upon which the judgment of the world has long ago been irrevocably pronounced.

Coming over here in 1630, as the leader and Governor of the Massachusetts

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*On another occasion Mr. Winthrop characterized our public schools thus: "Other nations may boast of their magnificent gems and monster diamonds. Our Kohinoor is our Common School System. This is our "mountain of light,"—not snatched, indeed, as a prize from a barbarous foe, nor destined to deck a royal brow, or to irradiate a Crystal Palace, but whose pure and penetrating ray illumines every brow, and enlightens every mind, and cheers every heart and every hearthstone in the land, and which supplies, from its exhaustless mines, a ornaments of grace unto the head, and chains upon the neck "of every son and daughter of Massachusetts."

Company, with their Charter in his hand, he was identified, perhaps beyond all other men, at once with the foundation of our Commonwealth and of our city. And there is not a page of our Colonial Records, or of our Town Records, during the nineteen years of his living here, which does not bear testimony to his labors and his zeal for the public service. The very first entry in the records of Boston, if I mistake not, was in the handwriting, still extant, of John Winthrop. The first voluntary subscription for the support of Free Schools, in 1636, bore his name, as one of the three equal and largest contributors. The first statute for the establishment of a system of Education in New England, was passed under his auspices as Governor of the Commonwealth. The neighboring Common, the pride of our city, the play-place of our children, the source of so much health and happiness to us all, was originally laid out while he was at the head of the old Town Government, and by a Committee of which he was Chairman. The evidences of his services and of his sacrifices might be multiplied on every side. He spent his whole strength and his whole substance in the service of the infant Colony, and died, at last, a poor man; poor in everything but that good name which is above all price.

But, it is not so much what he did as what he was, that entitles him to the grateful remembrance of the sons and daughters of Boston, and of Massachusetts. He was a man of the purest life, of the sternest integrity, of the loftiest moral and religious principle; and, he has left an example of moderation and magnanimity, of virtue and piety, second to none which can be found in the annals of our country. His residence was near the site of the old South Church,—his garden, I believe, including the land upon which that venerated edifice now stands,—and it would scarcely be too much to say, that the atmosphere within those hallowed walls, purified as it is by the weekly prayers and praises of a thousand worshippers, is hardly more pure than when it was the atmosphere of John Winthrop's mansion.

I know not how, Mr. Mayor, I can do anything more appropriate to this occasion, or furnish any more striking illustration of the principles of him whose name has been inscribed upon these walls, than to read you a few brief sentences from one of his own letters. The letter is dated on the 16th of October, 1622, and was addressed to his eldest son, then a lad of 16 years old, who was pursuing his studies at Trinity College, Dublin. It furnishes ample proof that the writer was not a man to be satisfied with any mere intellectual education; but, that his first care was for the moral and religious instruction of the young.

"*My dearly beloved Son*:—I do usually begin and end my letters with that which I would have the *alpha* and *omega* of all thy thoughts and endeavors, viz.: the blessing of the Almighty to be upon thee,—not after the common valuation of God's blessings, like the warming of the Sun to a hale, stirring body,—but that blessing which faith finds in the sweet promises of God and his free favor, whereby the soul hath a place of joy and refuge in all storms of adversity. I beseech the Lord to open thine eyes, that thou mayest see the riches of His grace, which will abate the account of all earthly vanities; and, if it please Him to give thee once a taste of the sweetness of the true wisdom, which is from above, it will season thy studies, and give a new temper to thy soul. Remember, therefore, what the wisest saith, The fear of the Lord is the beginning of wisdom. Lay this foundation, and thou shalt be wise indeed."

Such was the career, and such the character of Governor Winthrop, and I need add nothing more, I am persuaded, to show that his name is worthy of being given to your school. And now, my young friends, it is for you, in your turn, to decide whether the school shall be worthy of the name. No names, however distinguished; no buildings, however convenient or costly; no committees, however enlightened and vigilant; no instructors, however accomplished and devoted, can make a good school, without the hearty coöperation, and willing compliance, and faithful study of the scholars. Let me conclude, then, by expressing the hope that you will not be unmindful of your opportunities, that you will not be unmindful of the example of him by whose name you are to be designated; and that, by your diligence, your good conduct, your fidelity to your duties, your reverence for the laws of God and of man, and your observance of the lessons of your instructors, you may strive to render the Winthrop School as much a model school in its internal condition and discipline, as it certainly seems to be in its external structure and arrangement. And, may the blessing of Heaven be upon your efforts!

Plan and Description of Bowdoin Grammar School-House.

The new Bowdoin School-house, completed in 1848, is situated on Myrtle street, and with the yard occupies an area of about 75 feet by 68 feet, bounded on each of the four sides by a street. It is built of brick with a basement story of hammered granite, and measures 75 feet 9 inches extreme length by 54 feet 6 inches extreme breadth—having three stories, the first and second being 13 feet, and the third, 15 feet high in the clear. The ground descends rapidly from Myrtle street, thereby securing a basement of 15 feet in the rear. One third of which is finished into entries, or occupied by three furnaces, coal bins, pumps, &c., and the remaining two thirds is open to the yard, thereby affording a covered play-ground for the pupils.

The third story is finished into one hall 72 feet long by 38 feet wide, with seats and desks for 180 pupils. On the south side of this hall there are two recitation rooms, each 16 feet by 12 feet, and a room for a library, &c. There are three rooms of the same size on the two floors below.

The second story is divided into two rooms by a partition wall, each of which is 35 feet by 38, and accommodates 90 pupils, and so connected by sliding doors that all the pupils of both schools can be brought under the eye and voice of the teacher.

The first story corresponds to the second, except there are no sliding doors in the partition, and no connection between the room except through the front entry. The two rooms on this floor have each seats and desks for 100 pupils.

Each story is thoroughly ventilated, and warmed by one of Chilson's Furnaces. In each furnace the air chambers, the apertures for conducting the cold air into them, and the flues for constructing the heated air into the rooms in each story, being all large, a great quantity of warm air is constantly rushing into the rooms, and the ventilating flues or ventiducts being so constructed and arranged that the air of the rooms will be frequently changed, and that a pure and healthy atmosphere will at all times be found in each of these rooms, provided the furnaces are properly and judiciously managed. On the top of the building there are two of Emerson's large ventilators, connected with the attic and ventilating flues, through which the impure air passes out into the atmosphere above.

To accommodate pupils who come to school with wet feet or clothes, there is an open fire in a grate in one of the recitation rooms.

Each room is furnished with Wales' American School Chair, and Ross's Desk, and both desk and chair are in material, form and style, as described on page 202 and 205.

This is a school for girls only, and consists of two departments, one of which is called the Grammar department, and the other the Writing department; the master of each department being independent of the other.

The number of assistant female teachers in each department of this school, when full, will be four, the teachers in each department being independent of the master and teacher in the other.

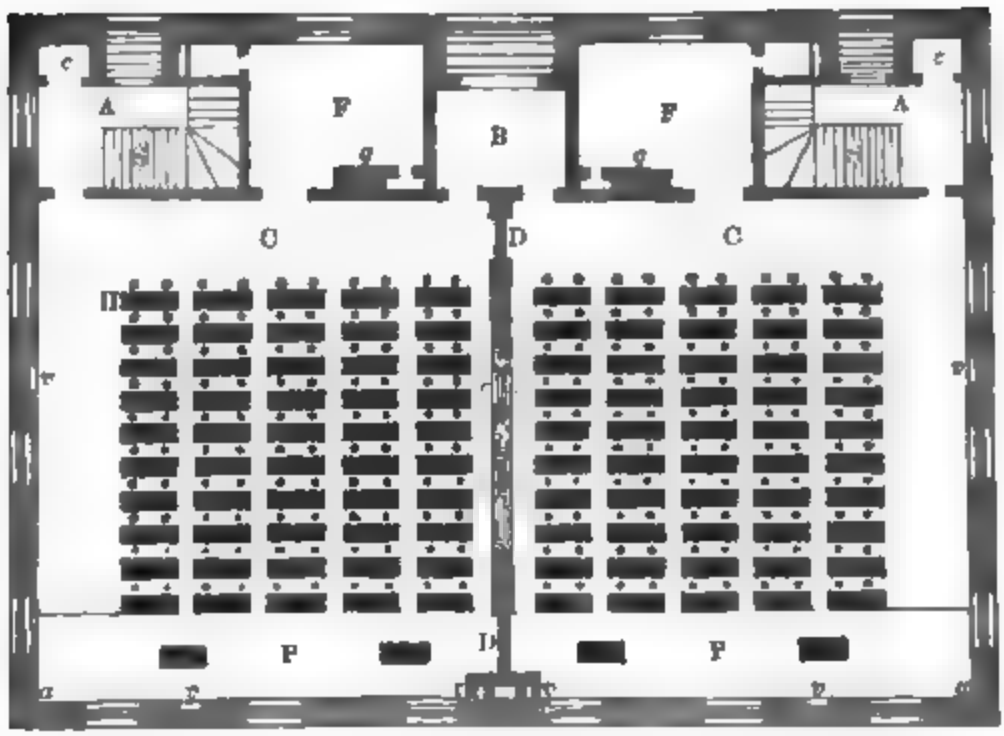
The master of the Grammar department and two of his assistants will occupy the large hall in the third story, and his other two assistants will occupy one of the rooms in the first story.

The master of the writing department and two of his assistants will occupy the rooms in the second story, and his other two assistants will occupy the other room in the first story, each master being the superintendence of his own department.

The school, when full, will be divided into five classes, and each class into two divisions, nearly equal in numbers. The first week after the vacation in August, the first division of each class will attend in the grammar department in the morning, and the second division of each class will attend in the writing department; and in the afternoon, the second division of each class will attend in the grammar department, and the first, in the writing department. The next week, this order of attendance is to be reversed, and this alteration is to continue through the year, the weeks of vacation not being counted.

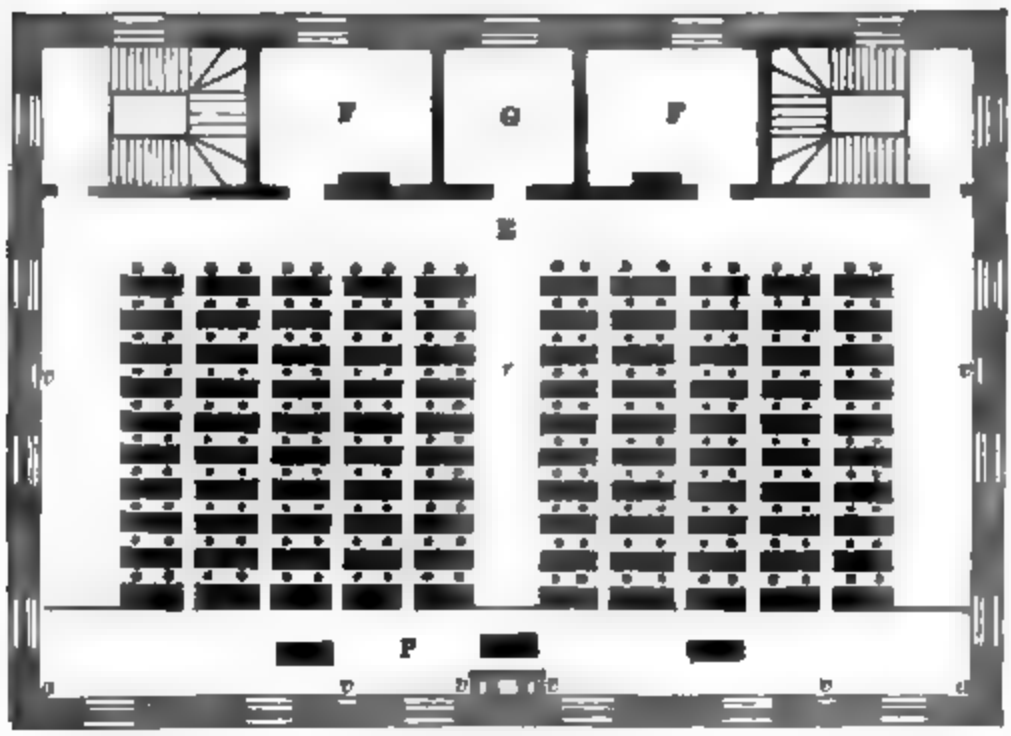
This house and the Quincy Grammar School-house are built after designs by Mr. Bryant.

PLAN OF FIRST AND SECOND FLOOR.



A, A, Entrance for Pupils.
B, Ditto for Teacher.
C, C, Study halls, each 35 by 38 feet; with seats and desks for 100 pupils.
D, Sliding door, by which the two rooms on the second floor are thrown into one.
E, Study hall, 72 feet by 38.
F, F, Two recitation rooms on each floor, 16 feet by 12.
G, Room 10 feet by 12, for library, apparatus, &c.
H, Ross' desk, and Wales' chair.
P, Teacher's platform with desk for teacher and assistants.
S, S, Staircase leading to second and third floors.
a, Case with glass doors for apparatus.
c, Closet for Teacher.
g, Grate.
r, Hot air register.
v, Flues for ventilation.

PLAN OF THIRD FLOOR.



Plan and Description of Quincy Grammar School-House, Boston.

This building, which was commenced in 1847, and dedicated on the 26th of June, 1848, is situated on a lot 90 feet by 130 feet, extending from Tyler street to Hudson street.

The ground plan is in the form of a cross, the exterior dimensions of the body being 80 feet by 58 feet, the end fronting on Tyler street. The wings are 12 feet in front by 36 feet deep. It is four stories high, with a basement 8 feet in the clear, for the furnaces and fuel, and an attic for gymnastic exercises.

Each wing contains a front and back entrance, a flight of stairs from the basement to the attic, and a room on each floor 10 feet by 11 feet, connected with a school-room.

The fourth story of the body is finished in one spacious hall, 16 feet high in the clear, with centre-pieces and a cornice, and a platform at each end 23 feet by 11 feet, and 22 inches high. It is furnished with settees arranged in 4 rows, sufficient to accommodate 700 children.

The third floor is divided by a corridor 8 feet wide, extending across the main body from one wing to the other, having 2 school-rooms on each side.

These four school-rooms are of nearly the same size, averaging about 31½ feet by 26½ feet, and 13 feet high. Each room is lighted by 2 windows at the side, and 2 at the end, and has a platform for the teacher 24 feet by about 5½, with one end towards the entrance from the corridor, and on the other end is placed a book-case of cherry, 3½ feet by 8 feet, with glazed doors, facing the entrance.

The scholars' desks front the platform and the windows on the side of the building, and are separated by aisles 1 foot and 4 inches wide. They are 2 feet in length, made of cherry-wood, and varnished and supported by cast iron stands. J. L. Ross, maker. Each scholar has a desk by himself.

The chair is made by Mr. Wales, of Boston. It has a scroll back and cast iron support.

Each room accommodates 56 pupils, one desk and chair being placed on a small movable platform for a monitor.

The rooms are lined with composition blackboards 3½ feet wide, 2 feet from the floor.

The school-rooms which have not small rooms attached, are provided with closets for the children's clothes. There are 2 sinks in the corridor, with conveniences for introducing Cochituate water. The description of this story will answer for the two below it, as the first three are essentially the same.

The windows are furnished with inside blinds, having revolving slats, so that the light may be regulated with great ease.

The building is warmed by 4 furnaces placed in the basement, 2 being placed at the middle of each end, each being intended to warm the three rooms immediately over it, the cast iron chimnies being relied upon for heating the hall.

Emerson's system of ventilation has been introduced since the building was finished, each room having a separate air-duct to the roof, 14 inches by 14 inches.

The apparatus consists of the Boston Philosophical set, by J. M. Wightman, Eayrs and Fairbanks' globe, 2 sets of Pelton's Outline Maps, and one of Mitchell's.

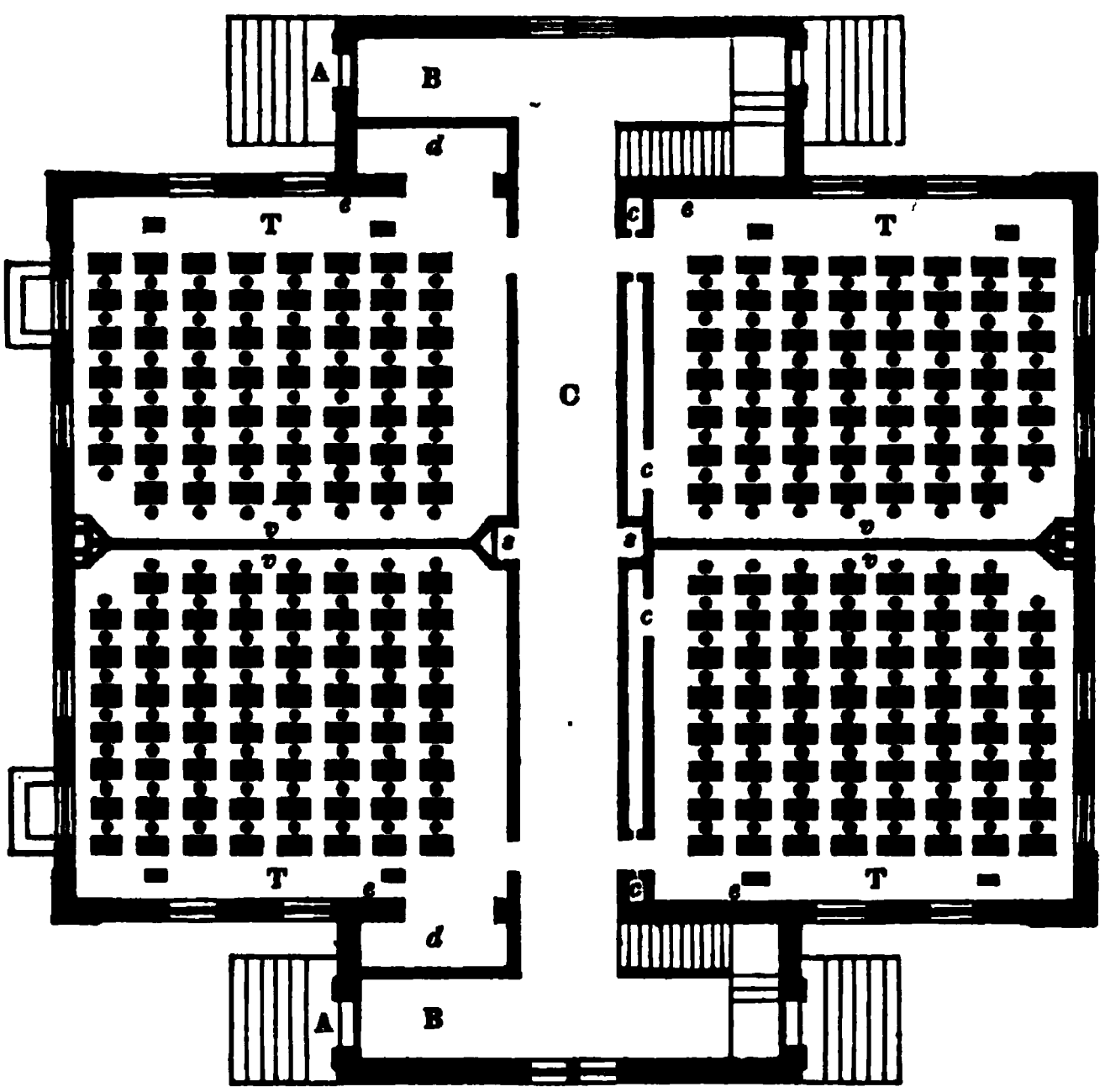
A library costing $200 has been furnished by the donation of Mayor Quincy.

To protect the desks from injury, the slate-frames are all required to be covered with cloth, and each scholar is to provide himself with a convenient box to contain his pen, pen-wiper, pencils, rubber, &c. Each desk has an inkstand sunk into the right-hand corner, with a revolving metalic cover.

The building is calculated for but one school, and is at present occupied by but one, the organization of which is adapted to the arrangement and construction of the house. When the organization is complete, the school will be divided into 4 classes, each class containing 168 scholars, and each class into 3 divisions. At present the 3 lower classes contain two divisions each, and the first class 3.

On the 3rd floor are the first division of the first class under the instruction of

the Principal, and the several divisions of the 2d class instructed by assistants; On the 2d floor is the 2d division of the 1st class instructed by the sub-master, with the several divisions of the 3d class under assistants; and the usher takes the 3rd division of the 1st class, with the several divisions of the 4th class on the 1st floor. By this arrangement the government is rendered comparatively easy. The whole school is brought together in the hall for devotional services, and other general exercises.



Plan of First Floor.

A, A, Front Door.
B, B, Entries.
C, Corridor or Hall.
T, T, T, T, Teachers' Platform 24 feet by 5½.
r, *r*, *r*, *r*, Hot-air flues.
v, *v*, *v*, *v*, Preston's Ventilators for controlling the flues in the partition wall, which communicate with the iron smoke pipes near the top of the building. This plan is adopted in the first story only.
e, *e*, *e*, *e*, Indicates the location of the flues of Emerson's Ventilators in the second, third and fourth stories.
s, Sink.
c, *c*, *c*, *c*, Closets.
d, *d*, Closets 10 feet by 11 feet



LINCOLN GRAMMAR SCHOOL, BOSTON.

Plans of Lincoln Grammar School-House, Boston.

The following description of the Lincoln Grammar School-House is taken from the annual report of the school committee for 1859 :—

"In the design of the Lincoln School-House, which is located on Broadway, near K st., South Boston, it was the intention of the accomplished architect, J. F. G. Bryant, Esq., to combine all the advantages of the interior plan of the best buildings, with an effective and tasteful exterior, without any material *increase of expense*.

"There seems to be no good reason for perpetuating that baldness and almost primitive simplicity of style which have characterized most of the school edifices of the city. It can scarcely be deemed too much to demand, that the building which is the daily resort of our children and youth, and in which their mental and moral faculties are to be trained and unfolded, should be designed with careful reference to the rules of proportion, and even, in no small degree, of beauty. Certainly it would be well to keep this object in view, so far as it is consistent with a wise and proper economy. Harmony of style, and propriety and elegance of detail, will never be without their refining influences upon the mind of the pupil.

"The following mechanical description, extracted from the 'specifications' of the architect, will illustrate the interior conveniences of the building and its adjuncts, as well as the manner of construction and the formation of the exterior."

The building is a "parallelogram" in outline of ground plan, measuring ninety-three and four-twelfths feet in length, and sixty-one and two-twelfths feet in width, outside of its base or underpinning course, at the ground or sidewalk level in front of the building. It is four finished stories in hight, with an "unfinished" cellar story over the whole area, which is partially above and partially beneath ground. The cellar is nine feet high. The first, second, and third stories, respectively, twelve and one-half feet high, and the fourth story fifteen feet high. The top of the gutter of the outside walls is located four and two-twelfths feet above the ceiling of the fourth story, which ceiling is formed immediately upon the undersides of the tie-beams of the roof framing, or attic flooring. The roof is "hipped" from each of the four corners of the building, and is made a "Mansard," with curved sides and a "flat" top; the hight above the top of cornice to the top of the curve of the roof is fourteen feet; its "flat" is located in the center of the length and width thereof, and it measures eighty-six and one-half feet in length, and fifty-one and one-half feet in width, and has a pitch over its surface of one and one-half inches to a foot. The four corners of the roof are formed as projections; the spaces between the projections over all four sides of the building are recessed to intersect with recesses in the faces of the four exterior walls; said projections are hipped over the inner corner of each, in imitation of the hip over the outer corner thereof—being the corner hips of the building. The recesses in the faces of the four exterior walls aforesaid are located in the center of the length of each wall, and reach the whole hight of said walls, to meet the roof recesses abovenamed. The recesses in the front and rear end walls each measure twenty-one and five-twelfths feet in width, and those in the two side walls twenty-three feet in width. Besides the four recesses aforesaid, there are recesses in the faces of the projections, or corners, which are formed to each exterior wall, beneath the roof projections; these recesses reach from the ground level up to the top of the third story, where they are formed with semicircular heads. The recesses in the corner projections of the front and rear ends of the house measure eleven feet and three and one-half inches wide, and four inches deep, and are single recesses; and the recesses in the corner projections of the two side walls of the house are eleven feet and three and one-half inches wide, and four inches deep, and are double recesses, with a dividing pilaster located in the center of the width of each of the same, and double semicircular heads to each recess.

springing from said pilasters. The four exterior walls are crowned with a cornice, the upper portion of which is formed as a gutter.

The interior arrangement of the first, second, and third stories is similar: each containing four apartments, located in the four corners of the house, measuring thirty-two and three-twelfths feet by twenty-seven and ten-twelfths feet each; a clothes closet to each room, measuring fifteen feet by five and ten-twelfths feet each; two staircases, measuring fifteen and eight-twelfths feet by ten feet each; and a hall, measuring twenty-four and eight-twelfths feet by twenty-two and four-twelfths feet. Said rooms, closets, staircases, and halls are twelve and one-half feet high, in the clear, in each story. The interior of the fourth or upper story is arranged with two rooms in the two front end corners of the house, each measuring thirty-two and three-twelfths feet by twenty-seven and ten-twelfths feet; an exhibition hall, measuring thirty-eight and nine-twelfths feet by fifty-six and eight-twelfths feet, across the rear end of the house. There are two stairways, measuring five feet by ten feet; a clothes closet for each of the two rooms aforesaid, measuring five and ten-twelfths feet by fifteen feet each; two teachers' rooms (of L form,) measuring five feet by twenty-five feet each; and a hall, connecting with the exhibition hall, measuring twenty-two and four-twelfths feet by twenty-four and eight-twelfths feet. All the apartments, halls, closets, and staircases aforesaid in the four stories are "finished." The cellar story is subdivided into four apartments, in the four corners of the house, two staircases, and six closets. The apartments in the cellar are each to contain a furnace, and the closets are used for fuel. None of the cellar apartments or closets are "finished." There is also a hall in the center, of the length and width of the cellar story, into which the mouths of the four furnaces, the landing of the staircases, and the doors of the six fuel-closets all open.

All the apartments, halls, and closets in the fouth story are fifteen feet high. The teachers' rooms in this story have their floors located two feet above the floors of the other apartments. Each story is lighted by windows in the exterior walls. There are floor-lights in the hall of each story, immediately beneath the cupola or bell-tower, which crowns the roof of the house, in the center of its length and width. The four sides of the base or plinth of this cupola (above the roof level,) contain each an upright skylight. The attic or area beneath the roof is lighted by light stationary circular or "bull's-eye" windows, inserted in the upright circular sides of the "Mansard" roof. There are no chimneys, other than metal pipes, in any part of the building, excepting one brick chimney located over the wall which forms the inside end of the exhibition hall. There are two entrances to the building in the first story, in the two sides of the same.

The lot measures one hundred feet in front by one hundred and seventy-five in depth, and contains seventeen thousand five hundred square feet. It is inclosed on the sides and rear end by a substantial brick wall, and in front by a granite foundation, surmounted by an ornamental iron fence. The rear portion of the yard is divided into two equal parts, by a brick wall running from the center of the building to the rear boundary.

The building is warmed by Chilson's cone furnaces, four in number, located in the center apartment of the basement. The cast-iron smoke pipes pass up through and warm the corridors.

The ventilating apparatus consists of a separate ventiduct of wood, leading from each school room to the roof. Here they are brought into two groups, at the opposite ends of the building, each of which is surmounted with one of Emerson's ejectors, of a large size. The transverse section of each ventiduct is about fourteen inches square. In each room there is a sliding register near the ceiling, and another near the floor, opening into its ventiduct.

A. A., &c., School rooms, twenty-three by twenty-seven feet.

C. C., Closets for clothes.

B., Exhibition hall, two-hundred and thirty-eight by fifty-six feet.

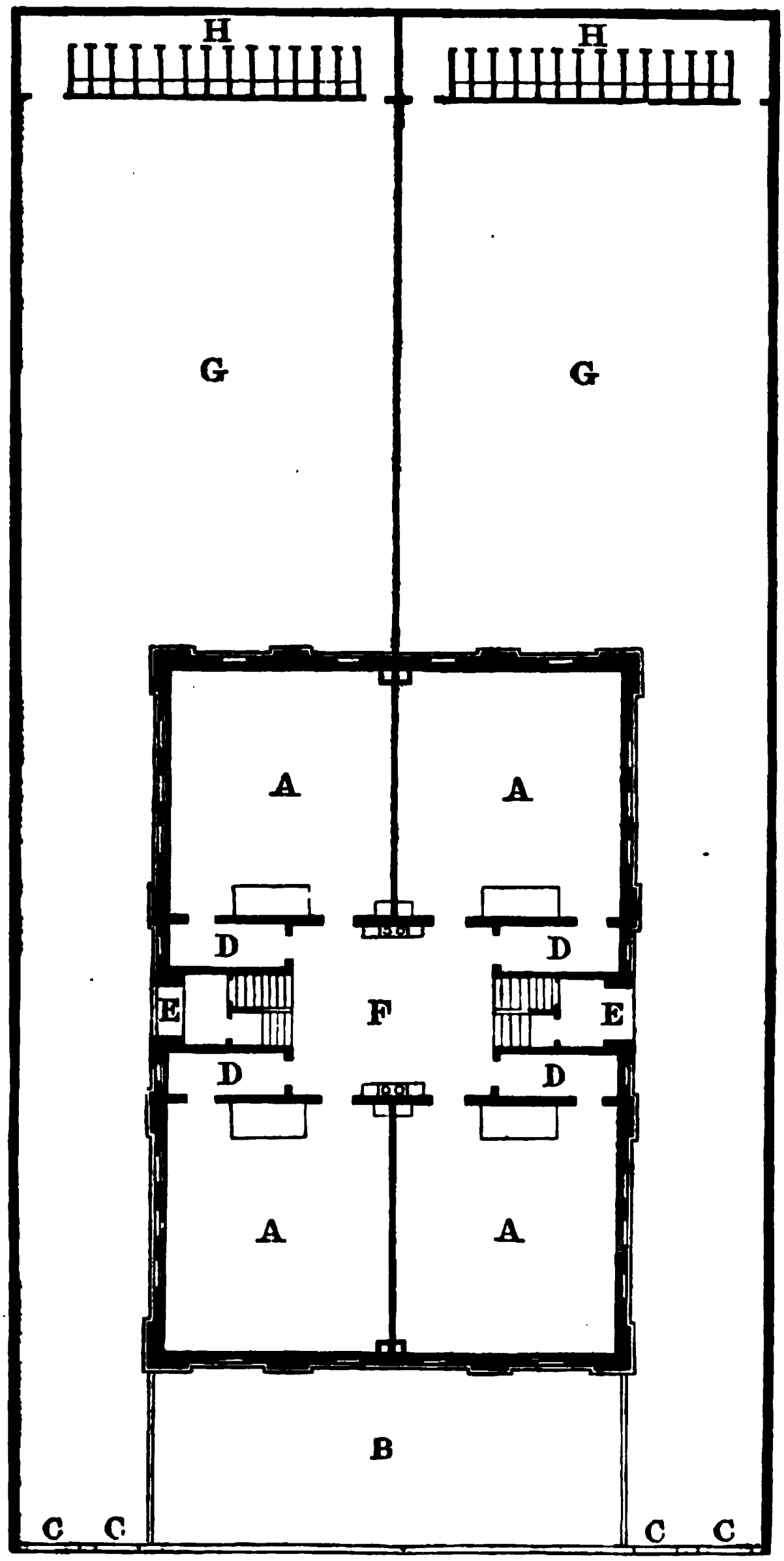


Fig. 2. Ground Plan.

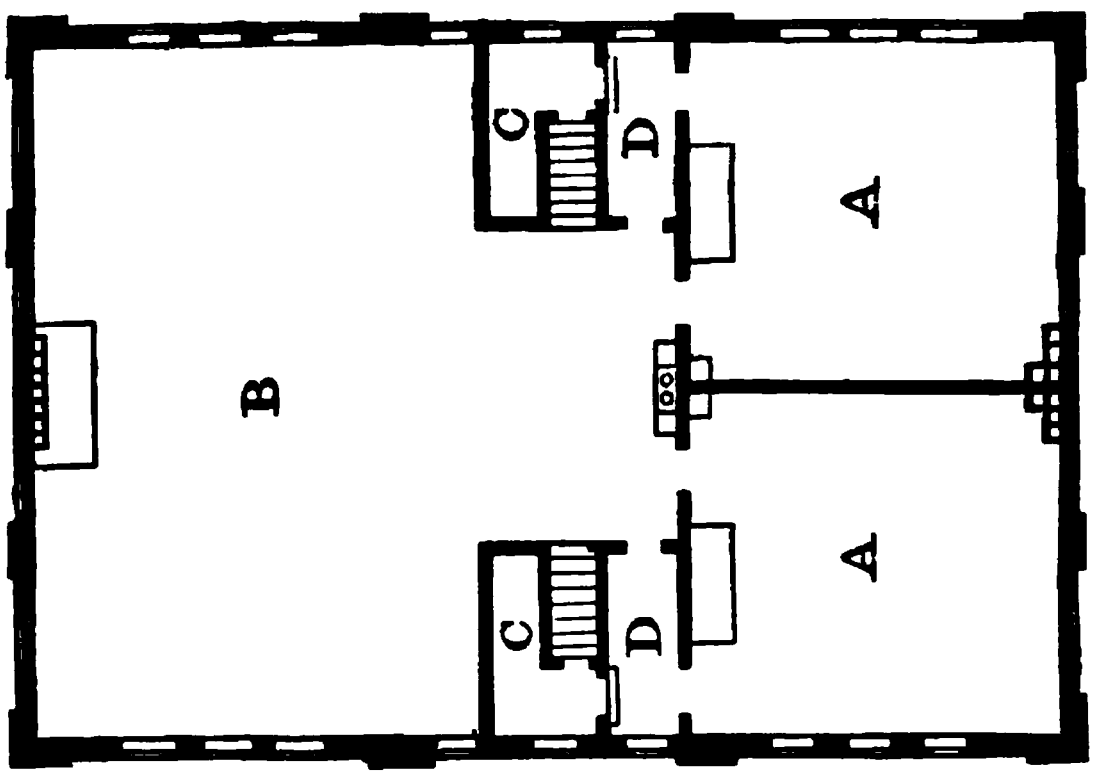


Fig. 5. Fourth Story.

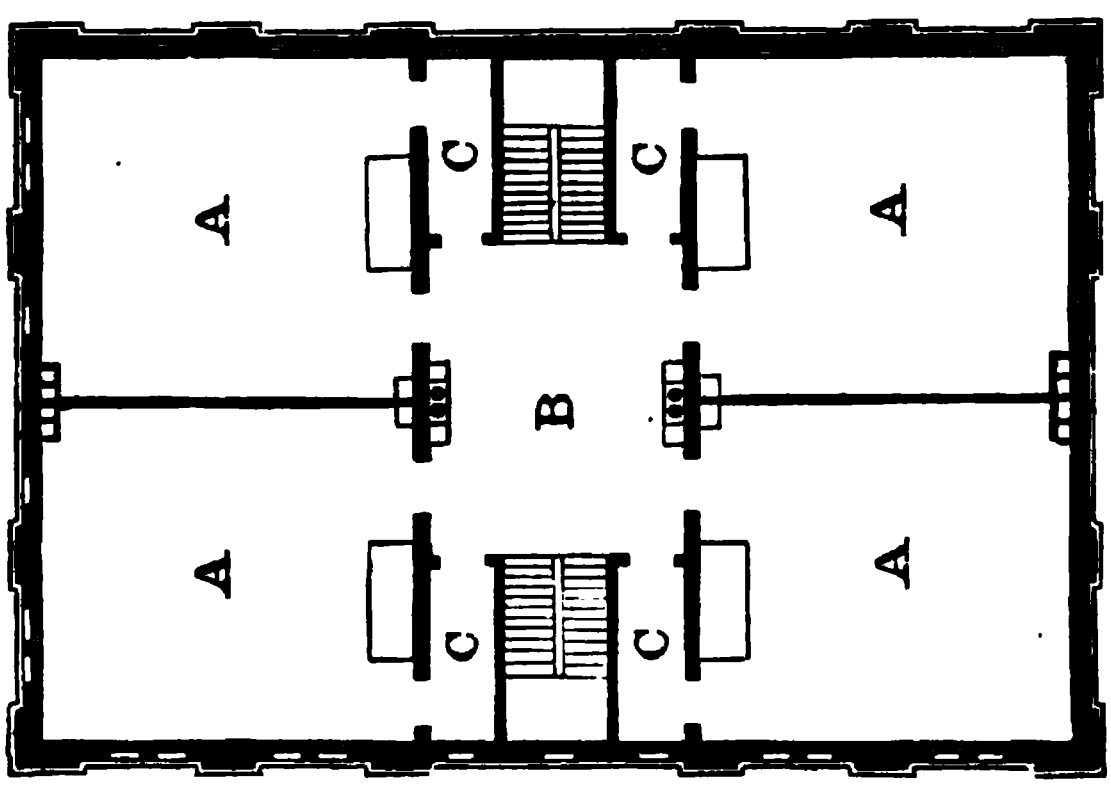


Fig. 4. Third Story.

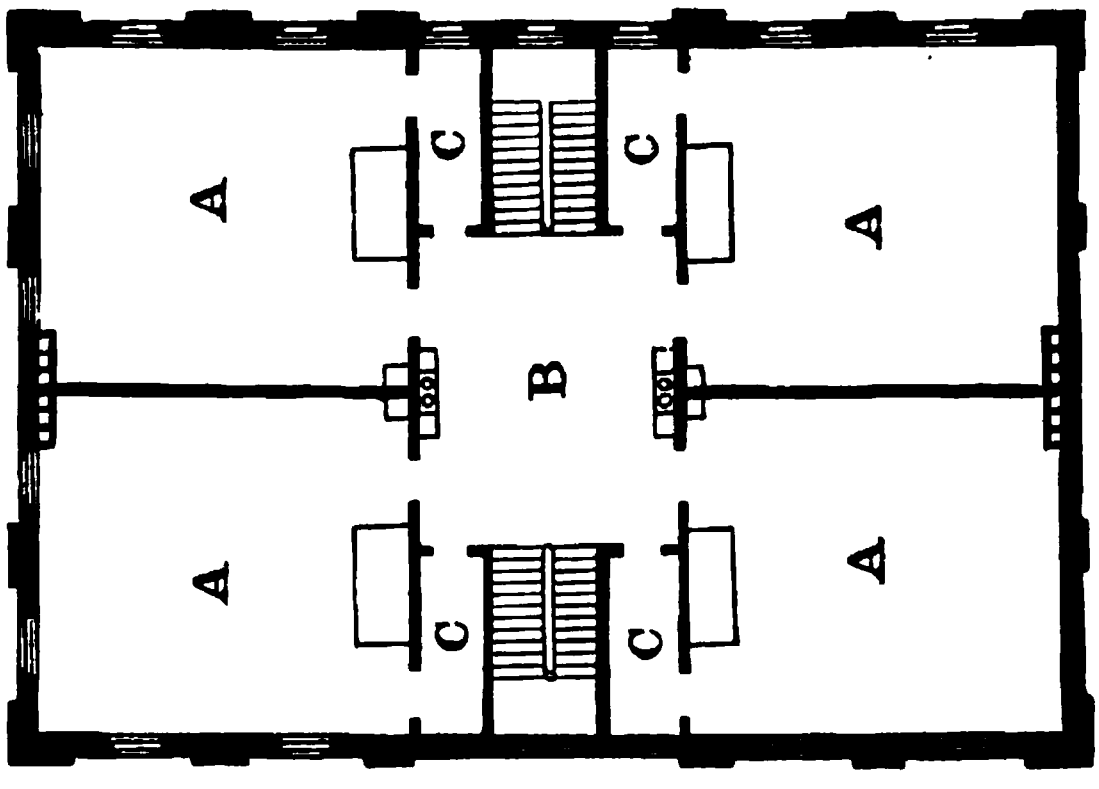


Fig. 3. Second Story.

THE LINCOLN GRAMMAR SCHOOL-HOUSE was dedicated on the 17th of September, 1859,—the day on which the Statue of Daniel Webster, in the State-House Grounds, was inaugurated by appropriate exercises. From the address of the Mayor, Mr. Lincoln, (after whom this spacious and commodious structure was named,) we give the following extracts:—

Boston, through its whole history, has regarded this as one of its dearest interests, from that April 13th, 1635, when "it was agreed upon that our Brother Philemon Purmont, shall be intreated to become a schoolmaster for teaching and nurturing of children with us," to this day, the two hundred and twenty-ninth anniversary of its settlement, when we are assembled to dedicate the most elegant edifice yet erected within our limits to be devoted to this great cause.

The School-house and the Church have stood by the side of each other as the two main pillars which support our social fabric, and when either of them goes to decay, fallen will be our fortunes, and the days of our prosperity will be numbered and gone.

A few years since an intelligent foreigner visited all parts of the Union, and without prejudice or favor examined the condition of every community. He was struck with the industry, thrift, and general culture of the people of New England. He went into a thorough examination of the primary cause of this state of things. It could not be, he thought, our climate or the nature of our soil, for Providence had more richly endowed other portions of the land; it could not be our ancestors, for they were from the same stock as some other portions of the Union, coming from every county of old England, with representatives also from every nation of the European world; it could not be a special form or system of religious faith, for all sects had their disciples, and universal toleration gave no one a supremacy over the others; it could not be political institutions, for we were all alike under the Republic; and he finally came to the conclusion that the problem could only be solved by the fact that we had enjoyed for upwards of two centuries the benefits of free public schools.

In this connection, associated as this very day will be in our memories by the erection of a statue in our city, of the great statesman, Daniel Webster, I can not forbear to quote some of his own language in regard to this subject. He said, in a communication addressed to the Hon. Mr. Twistleton, of England, which was afterwards laid before a committee of the House of Commons: "I have been familiar with the New England system of free schools for above fifty years, and I heartily approve of it. I owe to it my early training. In my own recollection of these schools, there exists to this moment a fresh feeling of the sobriety of the teachers, the good order of the school, the reverence with which the Scriptures were read, and the strictness with which all moral duties were enjoyed and enforced. In these schools, or it may be partly by my mother's care, I was taught the elements of letters so early that I never have been able to remember a time when I could not read the New Testament, and did not read it. Many moral tales and instructive and well-contrived fables, always so alluring to childhood, learned by heart in these schools, are still perfectly preserved in my memory. And, in my own case, I can say that without these early means of instruction ordained by law, and brought home to the small villages and hamlets for the use of all their children equally, I do not see how I should have been able to become so far instructed in the elements of knowledge as to be fit for higher schools.

"In my opinion, the instruction communicated in the free schools of New England has a direct effect for good on the morals of youth. It represses vicious inclinations, it inspires love of character, and it awakens honorable aspirations. In short, I have no conception of any manner in which the popular republican institutions under which we live could possibly be preserved if early education were not freely furnished to all, by public law, in such forms that all shall gladly avail themselves of it. As the present tendency of things is to extend popular power, the peace and well-being of society required at the same time a corresponding extension of popular knowledge."



EVERETT GRAMMAR SCHOOL, BOSTON. ERECTED, 1800.

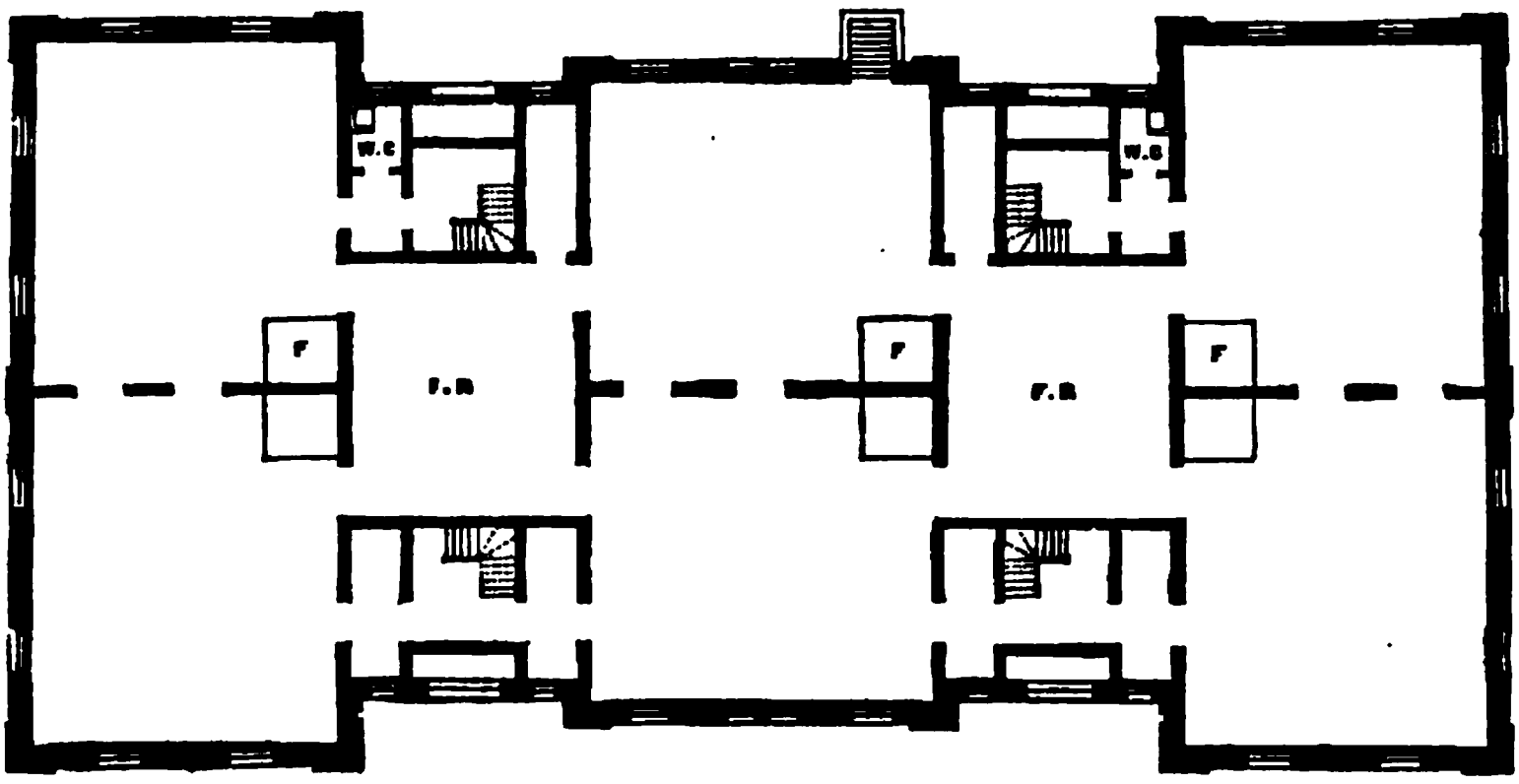
Plans of Prescott Grammar School-house, Boston.

The following description of the Prescott Grammar School-house, prepared by Hon. John D. Philbrick, Superintendent of Public Schools, is taken from the Annual Report of the School Committee for 1865: —

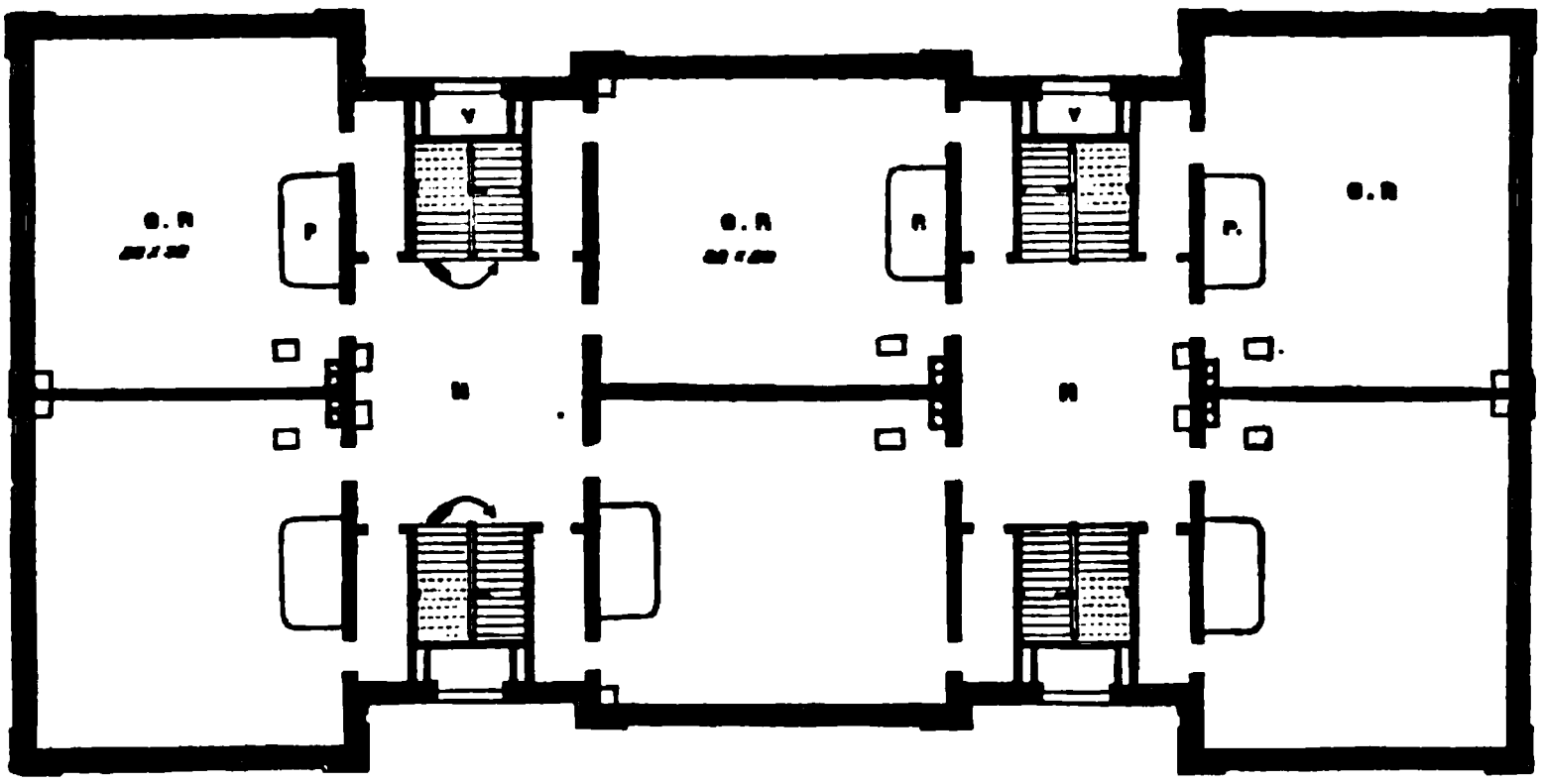
This noble edifice, which is well represented in the accompanying perspective view, is located in the easterly part of East Boston, about two miles from the City Hall. It stands near the centre of a lot which is just two hundred feet square, and is bounded on three sides by wide streets. It has a frontage of one hundred and thirty-eight feet on Prescott Street, and sixty-eight feet on Bennington and Saratoga Streets, respectively. It is three stories high, exclusive of the basement and attic. From an inspection of the accompanying cuts it will be seen that the ground plan of the building consists of five parts, namely, a central portion thirty-five feet by sixty, two wings, each thirty-one feet by sixty-eight; and two entrance halls, connecting the wings with the central portion, each twenty-one feet by fifty-six. There are four entrances, one in the front and one in the rear of each entrance hall, the two principal or front entrances being on Prescott Street. In each of the entrance halls there are two well-lighted staircases, leading from the first to the second story, and one leading from the second to the third story. The building contains *sixteen* school-rooms, of the same size, namely, twenty-eight feet by thirty-two. Six of these rooms are on the first floor, six on the second, and four on the third. It will be seen, on examining the plans, that each of the twelve rooms which are in the wings has a spacious and well-lighted clothes-closet attached, and that each of the four rooms in the central portion has two such closets. Each of these closets communicates both with its adjacent school-room and entrance hall, and serves as a passage-way for the pupils in going in and out of their rooms These closets are only half a story in height, there being above each an apartment of the same size and height, which is entered from a middle landing of a staircase. The latter are designed for dressing-rooms and water-closets for teachers, receptacles for books, school apparatus, etc. The school-rooms of the first and second stories are twelve and a half feet high in the clear; and those of the third story fourteen feet. The whole of the third story of the central portion, with a part of the space over each entrance hall, is devoted to an assembly and exhibition hall, which is sixty-five feet long, fifty-seven feet wide, and eighteen feet high. This is the largest and best hall for school purposes in the city. Its symmetrical and convenient arrangement is shown in plan No. 3. The basement, which is well paved with bricks, is ten feet high, and its extensive area, with the exception of the space occupied by the heating apparatus, is available as play-rooms for the pupils in stormy weather. The floors of the entrance halls are rendered fire-proof by means of iron beams supporting brick arches, on which are laid North River flagging stones. The other floors are laid with scantlings 1¼ by 1¾ inches, blind-nailed, forming a solid and smooth surface, — such as is needed for receiving the screws which secure the seats and desks, — without any wide cracks at the joints. All the windows are fitted with inside folding blinds, and those on the northerly and westerly sides have double sashes. The halls in each story are furnished with sinks, which are supplied with water from the Cochituate pipes. All the rooms are brought into communication with the master's room by means of speaking tubes and bells. Each of the school-rooms is furnished with fifty-six single desks and chairs of the most approved



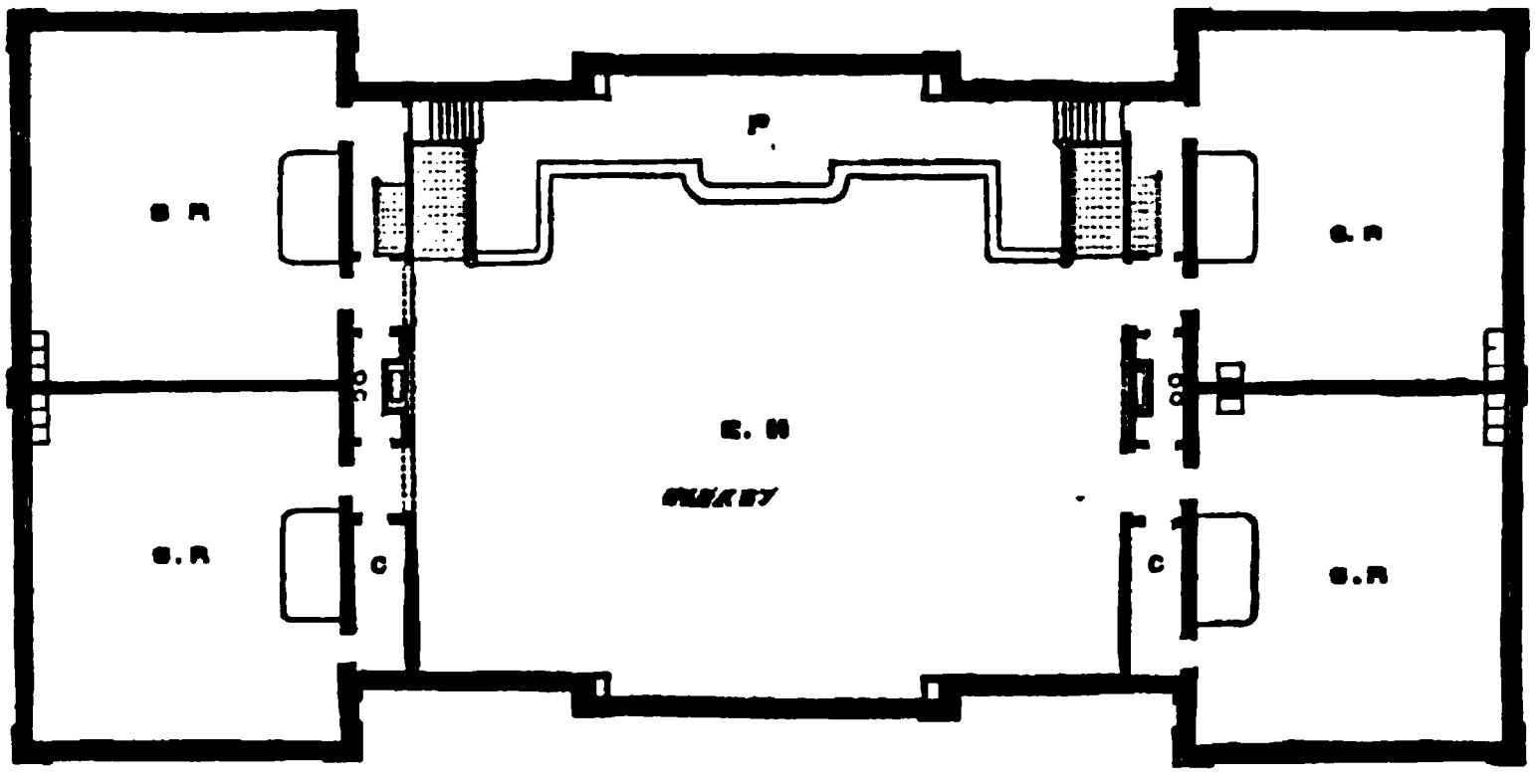
PERSPECTIVE OF PRESCOTT GRAMMAR SCHOOL-HOUSE, BOSTON.



Plan No. 1. Basement.



Plan No. 2. First and Second Floors.



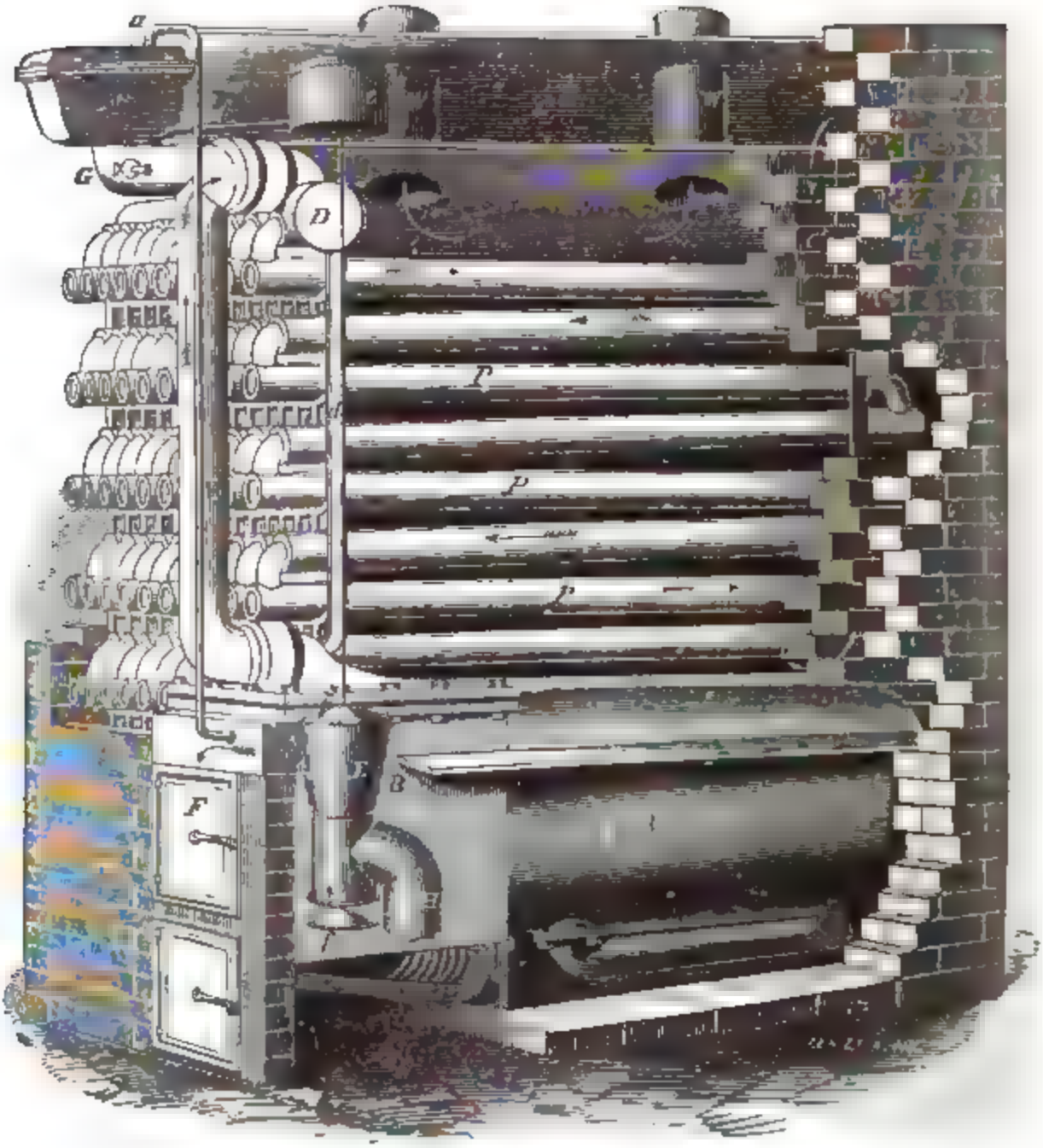
Plan No. 3. Third Floor.

Plan No. 2.—			Plan No. 3.—		
	S. R.	School-room.		S. R.	School-room.
	P.	Teacher's Platform.		E. H.	Assembly Hall.
	H.	Corridor.		P.	Platform.
	V.	Vestibule.		C.	Clothes Closet.

patterns. All the school furniture proper for teachers and pupils was manufactured at the establishment of J. L. Ross, of the best materials, and in the most workmanlike manner. The teachers' chairs and the settees for the large hall were furnished by John C. Hubbard, whose work in this line is always of the very first quality.

The method of ventilation does not differ essentially from that which has been applied to the other Grammar School-houses, excepting the Bowditch School-house. A ventiduct 16 X 16 inches in the clear, constructed of smoothly planed matched boards, is carried up from the floor of each room to the attic. Here these ventiducts are united in three groups, each group being carried up through the roof in a single shaft, which is surmounted by a 42-inch Leed's cap. Each ventiduct has two openings, which are fitted with valves, one being near the ceiling of the room from which it leads, and the other near the floor.

The building is heated by Brown's self-regulating, hot-water furnaces, which were furnished and set up by Geo. W. Walker & Co. The following description and cut, taken from the manufacturer's circular, present the essential features of this apparatus for heating. In this building there are three boilers, and to secure an equal distribution of the heating power, there is an independent stack of hot-water pipes in a separate air-chamber for each school-room.



"This hot-water apparatus consists of a horizontal boiler (*B*) which encloses the fire, insuring perfect safety, and precluding all possibility of any portion of the fire surface being heated above the boiling point. Over the boiler, and forming a continuation of it, is a stack of cast-iron pipes (*P*), arranged in horizontal convolutions, and filled, like the boiler, with water. A constant circulation of hot water is kept up through every portion of the radiating pipe, so long as the fire in the boiler is maintained.

A solid foundation of brickwork being prepared, the boiler (*B*) is set therein, the fire (*F*) being lit in the front of it, and the fire-box is made of the boiler itself, so that all the available heat produced by the combustion of the fuel is absorbed by the water. The entire apparatus being filled and the fire made, the water gradually ascends through the rising pipe (*R*) to the distributing pipe (*D*), and displaces the water in the pipes, causing it to pass into the boiler through the return pipe, (seen at bottom of boiler,) thus a continuous circulation of hot water is secured. The arrows in the cut indicate the direction of the currents.

The boiling of the water in the apparatus actuates the draft regulator. When the furnace is full of water, the bottom of a portion of the box (*V*) is covered with water to the depth of an inch, the box (*V*) is divided up to about four-fifths of its height, and a siphon connects the two compartments.

When ebullition commences, the water is thrown over the top of the partition and passes through the pipe (*b*) into the box (*e*), that contains a float which, as it rises, closes the lower valve (*f*), (which through pipe *H*, supplies the draft to the fire,) and elevates the upper valve (*f*), in order to admit the cold air on the top of the fire and thus check the boiling. The water having ceased to boil, returns from box (*e*) to box (*V*) through the siphon. The consequent descent of the float and valves allows the draft to pass under the fire until ebullition again takes place.

Danger from fire is entirely out of the question, and as the fire is surrounded by cast iron, lined (so to speak) with water, and as the tendency of fluids, when heated, is upward, and to descend when cooled, that portion of the boiler exposed to the fire is always the coolest part of the apparatus. The stack of pipe is enclosed on either side by two walls; and the exterior air, after passing by a conduit (*C*) constructed for the purpose, into the space between them, and being warmed by contact with the pipes, rises through the conductors (*W*) and the registers into the rooms it is designed to warm. Nothing can be more wholesome, pure and refreshing than the atmosphere thus evolved. No pernicious gases are present. No offensive odor is perceptible in the air warmed in this manner."

As an aid to proper ventilation (a subject of vital importance), this invention seems to have some important advantages. The fact that the radiating surface is at so low a temperature (below 212°), shows that a very great volume of air is required to warm an apartment sufficiently, which, when provided with means of egress, will most thoroughly ventilate by forcing out the impure atmosphere through the flues provided for the purpose.

The style of architecture resembles the Italian, with bracketed cornice, and pilasters at the intersections of the exterior and partition walls. All the walls, including the partitions, are constructed of bricks. The exterior walls are faced with pressed bricks, and buil. with a four-inch air space between the outer and inner surfaces The basement, string course, and door and window dressing are to fine hammered Rockport granite. The cornice is of wood. The roof is covered with Welsh slate, and fitted with copper gutters. The interior standing wood-work is grained in a very tasteful style.

The yard is enclosed on the three sides which are bounded by streets, by a substantial and handsome iron fence, and on the back

side by the water-closets and a brick wall. The rear portion of the yard, which is used as a play-ground, is paved with bricks; the front part is to be ornamented with trees, shrubs and flowers.

The contractors who furnished the heating apparatus and the furniture have already been named, and it is but just to record here the names of other parties who have, in various ways, contributed by their skill and taste to the construction of this great and well-built school-house. The excellence of the painting and graining is due to James Ransom; of the mason work, to Sayward and Lothrop; of the carpenter work, to Isaac C. Trowbridge; and of the slating, to C. S. Parker and Sons. Its architectural merit is due to George S. Ropes, Jr., the able architect. The adoption of the design was secured mainly through the influence of Judge Wright, of the Committee. Mr. James C. Tucker, Superintendent of Public Buildings, had the immediate supervision of its erection, — a duty which he performed with great fidelity and good judgment. Special credit belongs to the Sub-Committee of the City Council, consisting of Alderman Davies and Councilmen C. R. McLean and N. M. Morrison, who had the entire responsibility of the execution of the work in their hands, and who spared no pains to render it satisfactory and complete in all its parts, "from turret to foundation stone."

The cost of the lot was about $8,000, and the whole cost of the building and lot, including the iron fence, the furniture and heating apparatus, was $109,585.76.

Thus has been designed and erected the largest and most costly school edifice in Boston, and perhaps in the whole country. Two of the objections to the plan of the Grammar School-houses which we have built in the course of the last year, namely, the too great height of four stories, and the imperfections of the exhibition halls, have been obviated in the plan of the Prescott School-house. To accomplish this, a larger size was adopted. Whether the future Grammar School buildings shall be constructed on this model, in respect to size, is a question for the School Board to decide.

We subjoin from Mr. Philbrick's Twelfth Semi-Annual Report as Superintendent of Public Schools, for March 1866, the following remarks on the *proper size* of Grammar Schools in Boston. —

After much study and many efforts, we seem to have settled some important points in building school-houses, such as the mode of seating, the providing of a separate school-room for each teacher, and the proper model of such rooms as to size, arrangements, and the essentials of the clothes-rooms connected with the school-rooms. In these particulars our more recent school-houses are as good as could be desired. In a pamphlet by G. P. Randall, an accomplished architect in Chicago, containing plans in perspective of several noble school-houses which have recently been erected in the Northwestern States, — a document well calculated to open our eyes to the extraordinary educational enterprise of that section of the country, — I find the following statement respecting the arrangements of school-rooms.

"It is now pretty generally admitted by practical educators that a single room, large enough to seat from fifty to sixty-five scholars, and exclusively under the supervision and instruction of a single teacher, is better than a larger room, with recitation rooms and assistant teachers. I make designs for them both ways, but probably not more than one in fifteen with the large room and recitation rooms attached. As I am generally *instructed* in this matter, it follows that teachers are almost unanimous in the opinion that the single room system is the best; and it is the system adopted by the School Board of Chicago in the public schools of this city."

The origin of this system may be easily traced to the Quincy Grammar school-house, in this city, erected in 1847–48, the plans and description of which were published in Barnard's School Architecture. Another feature of this edifice as it then was, has not been so generally imitated, but which, I trust, will ultimately come to be considered an indispensable element in every Grammar School-house, namely, — *a hall large enough to seat comfortably all the pupils accommodated in the several school-rooms.* This is the case already in the city of New York.

But in respect to the important elements of heating and warming, we are still unsettled. Within the past twenty years there have been three radical changes made in the mode of heating our Primary school-houses. First, the old-fashioned coal stove gave place to Clark's ventilating stove. Subsequently this stove gradually went out of use, and in its place the ordinary cylinder coal stove was substituted. Lastly, this stove has been removed and hot-air furnaces introduced. The High School buildings are heated with hot-air furnaces; and nineteen of the Grammar School buildings are heated in the same way, while two are furnished with different systems of steam-heating apparatus. For ventilation, most of the buildings have Emerson's caps, with a separate ventiduct for each room, furnished with two registers, one near the ceiling and one near the floor. Robinson's system has been applied to one Grammar and one Primary building, the Normal Hall is furnished with the Archimedean system, and the Prescott School with Leed's caps. To furnish school-rooms in large and high buildings with an abundant supply of pure air of the requisite temperature and humidity, for health and comfort, is a difficult problem. Considerable progress has been made, no doubt, towards its solution, and it is hoped that the Committee on Public Buildings will continue to experiment upon it, guided by the principles of science and the light of experience, until satisfactory results are reached.

The question as to the maximum number of stories in height to which a school-house should be carried has caused some discussion amongst us. Nearly all the Grammar school-houses are at least four stories high. Several are practically five stories in height, as they have their play-ground on a level with the basement. There can be but one argument thought of in favor of carrying school-buildings up to this great height, and that is the argument of economy. As sky costs nothing, the expense of a building four stories high is less than one of the same capacity which is two or three stories high. But a school-house is never truly economical unless *it meets the requirements of health, convenience and safety.* In all these respects the four-story plan is decidedly objectionable, and I earnestly hope that it will be wholly and forever repudiated. In Baltimore a large and fine building has been erected for a Girls' High School. This edifice is only *two stories* high. There is in the same city another building three stories high occupied by a school of the same description. This school-house is considered too high, and it is proposed to build one to take its place which shall be only two stories high. In this particular the educational policy of Baltimore is certainly wiser than that of our own city, and more truly economical. Our new Primary school-houses are, with a single exception, three stories high, and it is to be hoped that no one will ever seriously think of carrying one to a greater height.

I have said that we seem to have arrived at a definite idea of what a school-room should be in respect to size, arrangements, proportion and seating. This is an important step gained. *But what should be the standard number of rooms for a building?* This is a question which has very important bearings on the interests of our schools, and it deserves the most serious consideration of the Board. In what I have to say on this topic, I do not propose to refer to High School

buildings, which constitute a class by themselves. By referring to the list of our school-houses, it will be seen that fourteen school-rooms is the number contained in each of the more recent buildings, excepting that of the Prescott School, which has sixteen. The former number of rooms will accommodate about 800 pupils and the latter 900. It thus appears that the Prescott school-house, the latest on the list, is designed to accommodate a hundred more pupils than could be seated in any one of the very large buildings which had been previously erected. Now, in view of our system of classification, the course of study required, the way in which pupils are promoted, the management in respect to graduation, and the distribution of the work of instruction to teachers of different sexes and grades, — considering these circumstances, and looking back upon the operation of the schools twenty years ago, when the number of pupils to a master averaged about one-third as high as it now does, to my mind it is clear that *the tendency to increase the size of our schools is a bad tendency*. Other things being equal, I should much prefer to send a child to one of our schools of the smallest size rather than to one of the largest. It is true, in general, that a large school may be more efficient and economical than a small one. But there must be a limit somewhere. It is certain that a school may be too large as well as too small. In some cities the schools are too small, in others they are too large. There are two objections to small schools; first, the expense of salaries sufficient to secure first-rate principals, — and without such principals you can never have superior schools; and, second, they cannot be perfectly classified, and so the teaching power cannot be applied to the best advantage. On the other hand, as you increase the size of a school, *conducted on our present plan*, you diminish the chances which a pupil has to get through the school and graduate at a suitable age. I do not say that our schools *might not be organized and conducted* in such a manner as to obviate this objection, but the accomplishment of this object in the face of the opposition which it would inevitably encounter, is a consummation rather to be desired than expected. Instead, therefore, of attempting to change the organization so as to adapt it to the largest sized building, it seems to me wiser and more practicable to adapt the size of the buildings hereafter erected to the organization as it now exists.

But besides the radical objections to the size of the largest buildings already stated, there are others of grave importance. One of these is its tendency to keep large and numerous "school colonies," so called, in poor and unfit accommodations. Ever since the large schools have been in fashion, we have had almost continually large colonies, or branches of one or more Grammar Schools, stowed away in rented rooms, where the pupils suffer many inconveniences and disadvantages. The Chapman School had colonies scattered about in different buildings for eight or ten years, before it was relieved by the erection of the Prescott house. There are still at this very time eight of our Grammar Schools with colonies of this description attached, comprising twenty-five divisions, with pupils enough to make three good-sized Grammar Schools. The cause of this state of things is plain enough. It is found in the policy of building very large school-houses. For it is obvious, that in order to justify the great expense of erecting one of these colossal edifices, there must be a large surplus of pupils in a given locality. To furnish these colonies with better accommodations, it has been proposed, in two or three cases, to erect buildings for their special use, thus making them permanent branch-schools — a remedy worse than the disease, and tending only to aggravate and perpetuate all the evils of overgrown schools. The true and effectual remedy for this great evil of keeping in operation so many colonies outside the regular school organization, is to be found in the policy of limiting the size of our buildings to reasonable dimensions.

There is another serious evil connected with this system which has been too little regarded. It is the necessity which it involves of bringing together, to make up the schools, the most diverse and heterogeneous materials. I know this is an extremely delicate subject to touch upon, but I am satisfied that it ought to be considered, and therefore I shall venture to throw out some suggestions upon it, and take the risk of having both my motives and my judgment condemned. My sympathies naturally lean very strongly to the indigent classes who are struggling to better their condition. But I remember that the image of Justice is pictured to us with bandaged eyes, to symbolize her impartiality. The just rights of all classes should be equally regarded; and while we are anxious to provide every needed facility for the education of the children of the poor, I think we ought not to ignore the educational wants of the wealthy portion of the community, who pay taxes so largely and liberally for the support of our schools. I think that Beacon Hill* should be just as well provided for as Fort Hill.† But if you build a school-house large enough to accommodate both localities, and require the parents to send their children to that one school or none, it is obvious that both sections are not equally provided for. But this supposed extreme case illustrates the kind of injustice we are doing, to a greater or less extent, all over the city, by the large-school system. I often point with satisfaction and pride, as an evidence of the success of our system of common schools, to the fact that boys from the wealthier families, and the sons of the highest officials, are found in the same schools with the child of the African race, and the poor newsboy. But I see plainly that there are necessary limitations, even in our intensely democratic community, in the practical application of this idea of bringing together the representatives of the extremes of society in the same school-rooms. The children of the poor must go to such schools as are provided for them, or not go at all; but if the schools provided do not suit the taste of the wealthy parent, he can and will withdraw his children and put them under private tuition. You may say, let him do it, then. That is not my way of disposing of the matter. I hold to the great principle that public schools should not only be free to all, but that they should be made good enough for all, so that, as far as practicable, the children of all classes may attend them. To this end the schools must be *adapted to the wants of all*. I am well aware that this cannot be done in this country by copying the British system of caste schools, which is based on the idea that the laboring classes, the middling classes and the aristocracy, must each be educated in separate and distinct classes of educational institutions. I only mean to maintain, and this I do maintain firmly, that the wealthy citizen in Boston ought not to be virtually deprived of the advantages of the Public School, which he would enjoy *incidentally*, if the school-houses were only kept within the limits as to size which a proper regard to efficiency and true economy demands.

. . . . .

Having now presented some of the objections to the policy of building very large edifices for Grammar Schools, I am prepared to give my answer to the practical question, What should be considered the standard size for a Grammar school-house? I proceed on the assumption that there is a natural limit to the size of such a school for the purposes of economy and efficiency. And in view of the vast and varied interests involved in the management of public education, it is highly important to understand what that limit is, and to make our school architecture conform to it. This principle is aptly illustrated in navigation. The size of the vessel must be adapted to the business, or profits do not accrue. What would be thought of the business

* The residence of the wealthiest inhabitants.
† The residence of the poorest foreigners.

sagacity of the ship owner who should send his coasting schooner to India, and put his Indiaman to the coasting service? What steam is in navigation, classification or grading is in school economy. But the application of steam to navigation has its natural limitations, as the experiment of the Great Eastern has proved. And so has classification its proper limits, as has already been shown in some overgrown graded schools which seem to have been modelled on the pattern of the mammoth steamship. To determine the proper size of a Grammar School, it is only necessary to ascertain how many pupils are required to secure a good classification, and then adapt the size of the edifice to the accommodation of this number. To ascertain this number is a practical problem. It is easily solved by experience. Every intelligent educator understands it. All would not of course fix upon exactly the same number, but there would not be an essential difference of opinion among experts. The able superintendent of schools of New Haven thinks that both the Primary and Grammar grades combined in one organization in one building require only about 750 pupils for the purposes of a good classification; and he bases his recommendations respecting school architecture on this conclusion. This I should regard as the minimum number for the purpose, if I must take in pupils from five to sixteen years of age. But our system of Grammar Schools includes pupils from eight to sixteen years of age. Within this range, I consider 500 pupils about a fair average necessary for the purposes of a good classification, and a building large enough to accommodate this number is my standard for a Grammar School organized as ours are. I do not say that I would never build one larger or smaller; I should pay a proper regard to other considerations in every particular case to be provided for. But this would be my standard, all variations from it being considered as exceptions. Now, what sort of a building will answer this purpose? I answer, a building nearly resembling the Chapman schoolhouse in proportions and capacity, being three stories high, *and having ten school-rooms, and a hall large enough to seat all the pupils* accommodated in the school-rooms. I do not name the Chapman as a building to copy in all details, nor yet in architectural taste, for it is by no means a model in respect to beauty; but I refer to it as containing the essential accommodations for a Boston Grammar School. We may take pride in showing strangers an enormous four-story school-house, as evidence of our liberal provisions for free schools, but we cannot afford to sacrifice our substantial educational interests for the sake of any such gratification. We do not want mere show schools: we want real educating schools.

Twenty years ago I strenuously advocated the policy of large schools, according to the extent of my limited influence. But at that time the question was not between schools of five hundred pupils and schools of a thousand, under one head, but between those of two or three hundred and those of five hundred. What was then deemed a large school is now reckoned (with us) a small school. Twenty years ago I ventured to predict that the increase of the size of our schools to five hundred or six hundred pupils under one master would elevate the position of the master and secure for him a higher salary,—a very important consideration in school economy. My anticipations have been more than realized. But this is only an incidental advantage of large schools, and it will not do to increase the size of schools without limit, merely to create responsible situations for principals. Besides, a Grammar School of five hundred, with the Primary Schools grouped around which should be placed under the same head, is as large as is desirable for the proper supervision of one principal.

I have thus protracted the discussion of this topic, because it seems to me a topic of vital importance, and if what I have said shall lead to a careful consideration of it by the School Board and the City Council, my object will be accomplished.

Plan of the Norcross School-house.

The building is located on a lot of land bounded on three of its sides by D, Fifth, and Gold streets, the principal front facing on D Street. The building is three stories high exclusive of the basement and attic, the main building having a frontage on D Street of 90 ft. 4 in., and on Fifth and Gold streets 61 ft. 8 in. In the centre of the D-street and rear sides is an *avant corps*, or projection from the main building, each projecting 7 ft. 4 in. and having a width of 34 ft. The entrances to the building, of which there are two, one in front, the other in the rear, are in the projections. The entrance hall extends across the building from front to rear and is 22 ft. wide in the centre of the building, a staircase and scholars' cloak-rooms occupying a portion of the width at each end of the hall.

On each side of the entrance hall, in each of the three stories, are two school-rooms, each 29 by 32 ft. and 12 ft. 6 in. high. Each of these rooms, twelve in all, has its separate cloak-room for scholars, each about 5 by 17 ft., connecting both with hall and school-room, and a small room for the teacher, 6 by 10 ft., connecting with the school-room. The teachers' rooms are located in the angles of the projections, a broad and well lighted staircase occupying the middle portion at each end of the halls. In the attic, the whole of the main building within the high Mansard roof, is devoted to a hall about 54 by 80 ft. and 16 ft. high, for exhibitions and general exercises; in the projections are the staircases and closets for apparatus, &c. The large hall is lighted from all sides, and the whole floor space is clear of obstructions, a handsome stucco cornice finishes the angle of the walls and ceiling, and the walls, which are entirely vertical, are finished about 4 ft. high with hard wood. It is larger than any other school-house hall in the city.

The basement is 10 ft. high in the clear, 5 ft. of which is above the level of the yard paving. In this story is a Committee room about 17 by 30 ft., a janitor's room, teachers' water closets, the heating apparatus and fuel room, and two play-rooms for scholars, each 29 by 32 ft.

Each school-room is furnished with 56 single desks and chairs, a teacher's platform, desk, chair, and waste-basket, a clock and thermometer, blackboards on two sides of each room, with neat receptacles for chalk at the bottom, and cases within the thickness of the partition walls for containing chalk and other necessary articles.

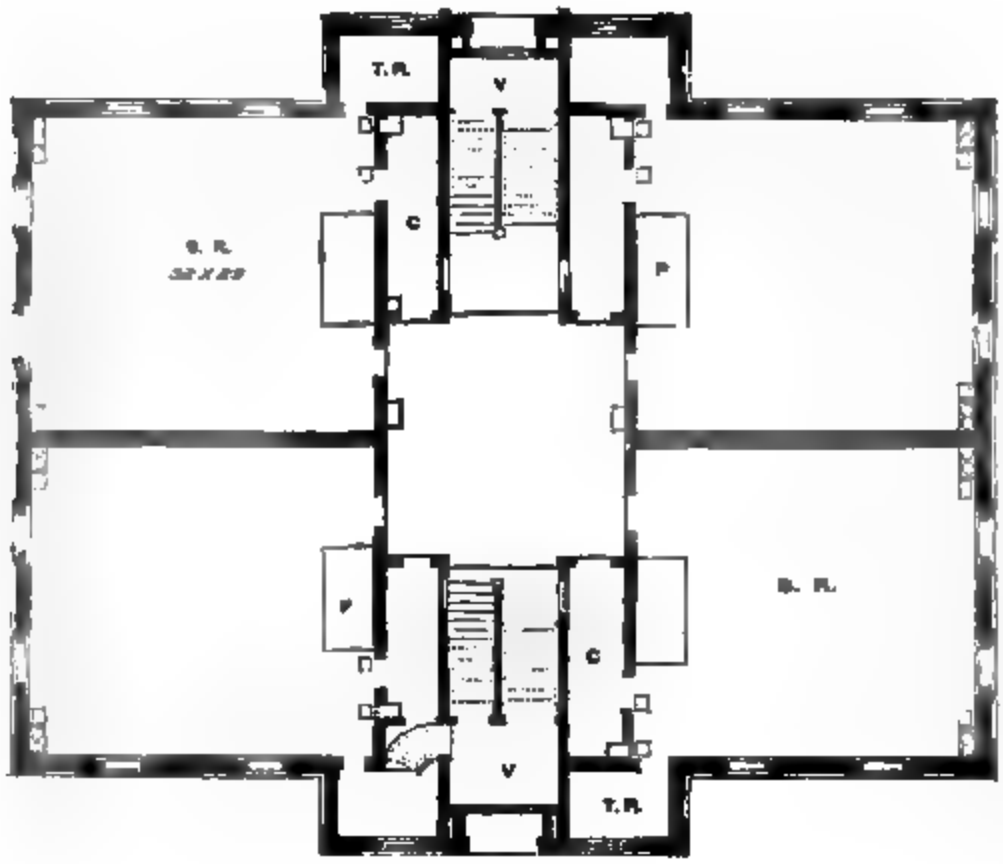
Each school-room is lighted by four large windows, which are provided with inside blinds with rolling slats, for regulating the quantity of light. All the school-rooms and the large hall are in communication with the head master's room by means of bells and speaking tubes.

In the corridor of each story are two enamelled iron sinks supplied with Cochituate water. The teachers' closets in the basement are fitted with wash-bowls and water-closets. The school privies are



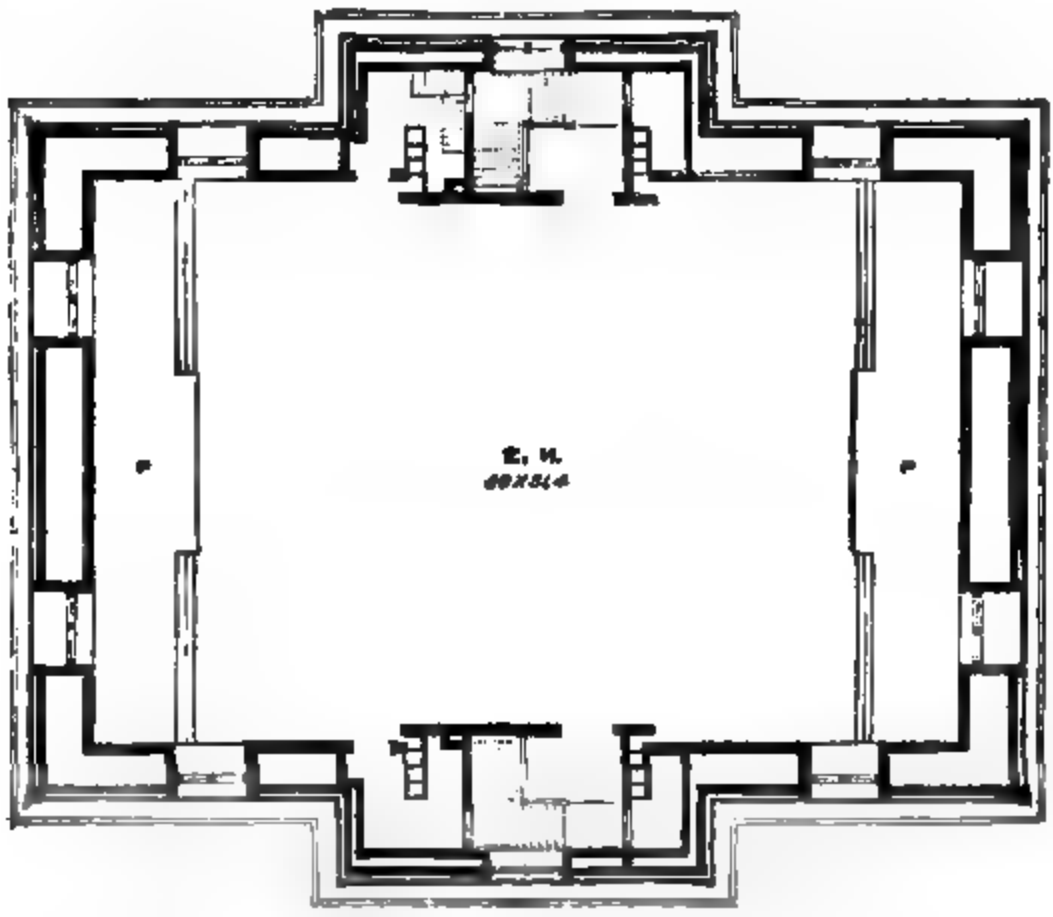
Norcross Grammar School-house, Boston.

1. First, Second, and Third Floors.



S. R. School Room. C. Clothes Room. T. R. Teacher's Room. P. Platform.

2. Hall.



located in the rear of the yard, and are approached by a covered and screened passage from the rear entrance of the building.

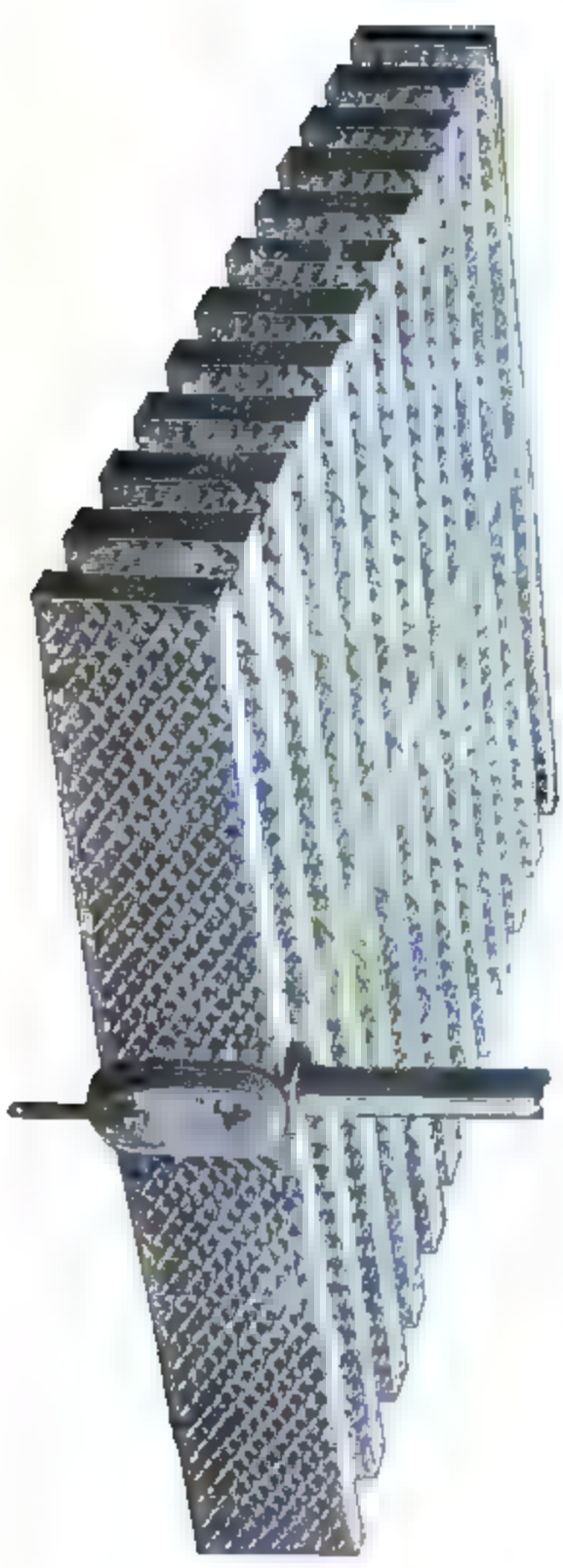
All the standing wood work is of a beautiful brown ash wood. The wood is gummed to fill the grain and then oiled.

The building is heated by a low pressure steam heating apparatus. There are two tubular wrought-iron steam boilers in the basement, which may be worked conjointly or separately. One is supposed to be sufficient for all ordinary winter weather. There are in the basement connected with these boilers, twenty-six stacks of steam radiators, each in a separate air-chamber. Each school-room is connected with two of these hot air-chambers by means of tin pipes and registers located on its two weather sides. The hall is also connected with two of a large size. Cold out-door air is conveyed by means of ventiducts to each hot air-chamber where it is moderately warmed by being *strained* through the stack of radiators [see accompanying cut] and thence passed to the school-rooms. The radiators are of cast-iron; the whole number of them is four hundred, with aggregate of four thousand feet of radiating surface.

The pressure of steam on the boilers sufficient for heating purposes varies from *three* to *five* pounds to the square inch. As fast as the steam is condensed, it is returned to the boilers in the form of warm water, and hence, it is only at intervals of two or three weeks. that it is necessary to replenish the boilers with cold water.

The plan of ventilation is in some respects different from that in any other school building in the city. Each school-room is provided with a separate ventiduct 16 by 16 inches in the clear, constructed of smoothly planed boards, with two valves opening into it, one near the floor and the other near the ceiling. These valves are about 16 by 24 inches. The lower one is to be kept open for ordinary ventilation; the upper one is designed to be opened when there is surplus heat to be expelled. The ventiducts, although connected to the rooms by the valves just described, are located in the several clothes-rooms, and are extended up into the roof; from thence the foul air escapes through one large ejector placed at the highest point of the roof. To further assist in the ventilation of the school-rooms, cloak-rooms and halls, swivel blinds are placed over all the doors, and movable glazed sashes are inserted in the partitions on the hall side of the cloak-rooms, so that a full and free discharge of air from the school-rooms may be effectual without a draught, the air passing out of the school-rooms rises up through the well-rooms of the stair-cases, and through openings in the attic ceiling to the ejector on the roof.

All of the walls and partitions are constructed with bricks, the exterior walls are faced with pressed bricks. The trimmings of the doors and windows, the basement up to the level of the first floor, the belt course at the height of the second floor, and the tablet over the front entrance, on which is the name of the school and the date of erection in bold raised letters and figures, are all of white Con-



STACK OF RADIATORS.



RADIATOR.

cord granite. The cornice is of wood, with copper gutters. The roofs are covered with slates and tin, the Mansard roof is covered with an ornamental cast-iron snow guard. The yard is enclosed by a handsome iron fence on the D and Fifth street sides, and by a brick wall eight feet high on the other two sides.

The accompanying perspective view shows the external appearance of the edifice. It is compact in form, and is solid and substantial in character, rather than pretentious and showy. The excellence of the materials used in its construction, and the thoroughness of the work in every particular from "turret to foundation stone," may be appreciated to some extent by reference to the specifications in detail which follow this description.

William Sayward was the contractor for the mason work, Messrs. Morrison & Shaw were the contractors for the carpenter work, Messrs. Geo. W. Walker & Co. for the heating apparatus, and the furniture was made by Joseph L. Ross. All these contractors have reason to point with pride, as skilful and honest mechanics, to their work on this building. In material and workmanship it is probably unsurpassed by any other school edifice in this country. The whole cost, exclusive of the lot, but including furniture, is about $85,000.

The honorable ex-mayor (Otis Norcross) whose name the school is hereafter to bear, has given to it, besides a large clock for the hall, and a library of reference books costing $100, the sum of $500, the interest of which is to be expended annually for the purchase of such library and reference books as the Chairman of its Committee, and the Master may deem most desirable.

Statistics &c., of the Public Schools of Boston.

	1853-54.	1866-67.
Valuation of real estate	$127,730,200 00	$225,767,215 00
Personal estate	99,283,000 00	189,595,130 00
Total	227,013,200 00	415,362,345 00
Total expenditure for public schools	273,251 75	781,280 60
Viz: for salaries of teachers	192,704 05	492,796 66
Incidental expenses	57,960 46	186,908 85
School-houses	22,587 24	101,575 09
Cost per scholar	11 12	27 90
Salary of superintendent	2,500 00	4,000 00
" (8) high school masters (2d year),	2,400 00	4,000 00
" (5) " Sub-masters "	1,800 00	3,000 00
" (9) " Ushers "	1,500 00	2,200 00
" (22) Gram. school masters "	1,800 00	2,800 00
" (15) " Sub-masters "	1,200 00	2,200 00
" (9) " Ushers "	900 00	1,600 00
" (279) Assistants Gram. Sch. "	300 00	650 00
" (259) Prim. school teachers "	300 00	650 00
" Teachers of sewing (12 in all) average	200 00	387 00
" Teachers of Music (in primary school		2,500 00
" " Vocal and physical gymnastics		4,800 00
" " Drawing		1,800 00
Total number of Teachers — male		67
" " " female		563
" " Pupils		28,126
Assessor's valuation of school-houses and grounds		$1,673,600 00

PLANS OF SCHOOL-HOUSES IN NORWICH.

NORWICH FREE ACADEMY.

THE NORWICH FREE ACADEMY represented on pages occupies one of the most eligible sites in the world,—a lot of over six acres perfectly level in front, and rising into a beautifully wooded hill in the rear, commanding a fine view of the city and surrounding country.

The building was erected after plans by Mr. Evan Burdick, Architect, Norwich, at a cost of $30,000 exclusive of the land.

The building is 87 feet with a front projection of 24 feet by 12, surmounted by an Observatory.

In the Basement, besides the furnaces and the coal-bins, there is a working laboratory, connected by stairs with the philosophical lecture room on the first floor.

On the first floor, besides separate clothes room, one for boys, and the other for girls, there is a Lecture room, and a Library, for the supply of which, Gen. Williams and wife have given a fund of $5,000.

The Second and Third floors are now left, each in a single hall with two class rooms attached, but are capable of being subdivided into two rooms, if the organization of the Academy should require it.

For convenience of access, for spaciousness of halls and class rooms, for light, warmth, ventilation, and seating, for the accommodation and use of apparatus, and library, this edifice is not surpassed by any other erected for educational purposes within our knowledge.

CENTRAL DISTRICT SCHOOL.

This building represented on pages was erected by the Central District of Norwich to accommodate a graded system of schools; there being six rooms, thereby accommodating as many classes or departments. The architect was Mr. Evan Burdick.

The building is 76 feet by 58 feet, with a front projection of 14 ft. by 14 ft. The lot is in 150 feet by 280, well graded and drained and enclosed with an iron fence. The rooms are well lighted, warmed and ventilated, and furnished with desks and chairs manufactured by Joseph L. Ross of Boston. The cost of grounds and building was $37,500.

PRIMARY SCHOOL.

In the organization of the public schools of Norwich, the committee contemplate the establishment from time to time of a sufficient number of Primary Schools, to accommodate all the young children in the immediate neighborhood of their homes. The diagram on page 700, represents one of the houses erected for a school of this grade, capable of accommodating 112 pupils divided into two classes or departments. Each room is furnished with Ross's school-furniture.

The material is wood, and the cost independent of the site was $3,000 Mr. E. Burdick Architect.



FREE ACADEMY, NORWICH, CONN.

Fig. 2.—Basement.

A.—Furnace Room.
B.—Laboratory.
C.—Coal Room.
D.—Boys' Play Room.
E.—Girls' Play Room.
a. a.—Stairs.
b.—Area Windows.
c.—Furnaces.
d. d.—Basement Stairs.
e.—Stairs to Laboratory.
f.—Fire Place.
r.—Iron Columns.

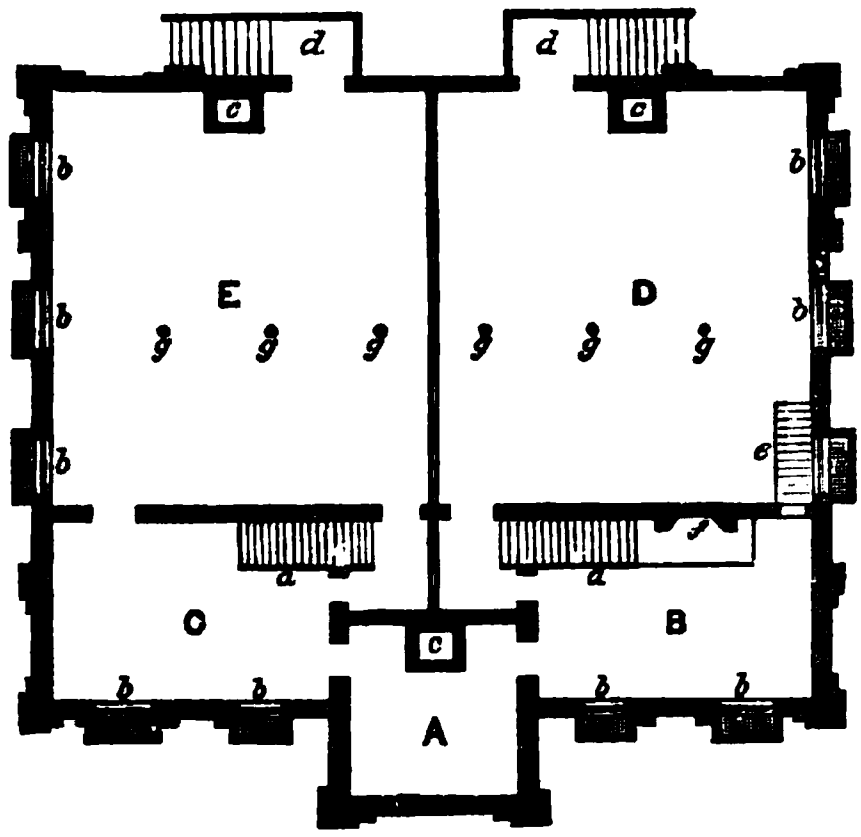


Fig. 3.—First Floor.

A.—Teachers' Entrance
B.—Boys' Hall.
C.—Girls' Hall.
D.—Boys' Clothes-room.
E.—Girls' " "
F.—Lecture Room.
G.—Library.
H.—Hall.
I.—Platform.
a. a.—Stairs.
b. b.—Wash-stands.
c. c. c.—Porches.
d. d.—Teachers' Closets.
e.—Laboratory Stairs.
f.—Ventiducts.
g. g.—Seats.
h.—Iron Columns.
i.—Apparatus.
k.—Book Case.

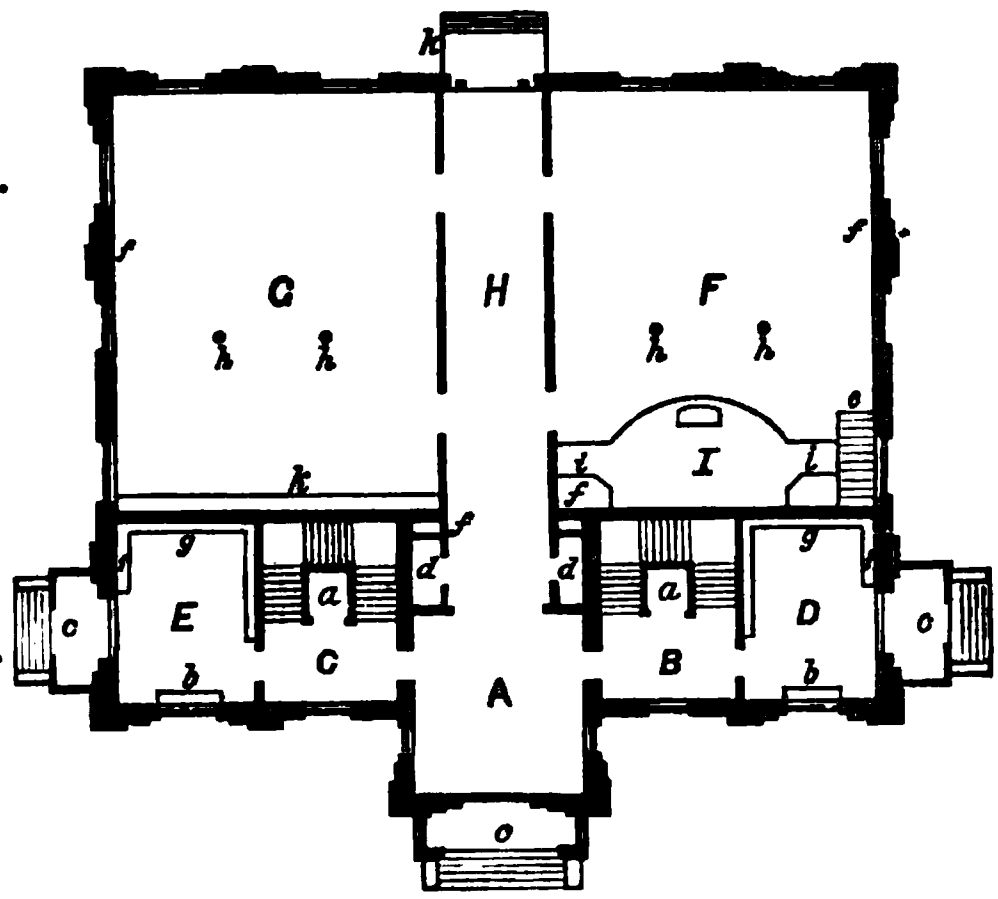
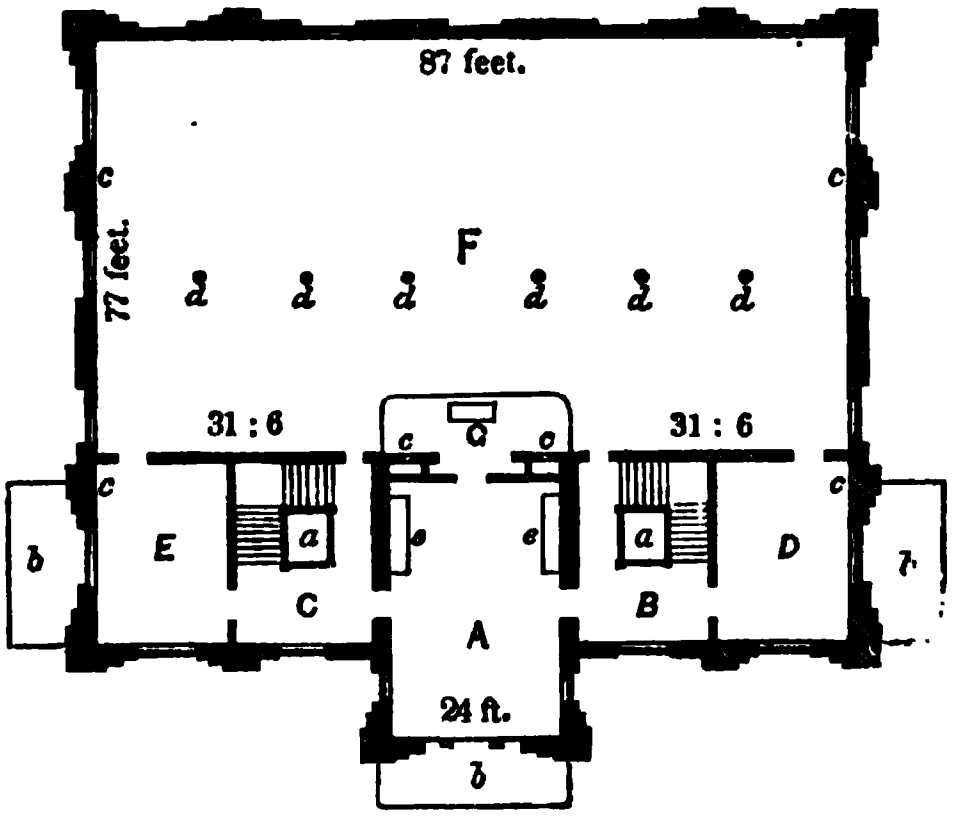


Fig. 4.—Second and Third Floors.

A.—Teachers' Room.
B.—Boys' Hall.
C.—Girls' Hall.
D.—Recitation Room.
E.—Recitation Room.
F.—School Room.
G.—Platform.
a. a.—Stairs.
b. b. b.—Roofs.
c.—Ventiducts.
d.—Iron Columns.
e.—Book Cases.





SKINNER SCHOOL, NEW HAVEN, CONN.
Erected in 1867. Cost, (excluding lot, $5,900.) $41,500.

Plans of School-Houses in New Haven, Conn.

Skinner School.

The Skinner School, named in honor of Aaron N. Skinner, former Mayor, and an earnest friend of public schools, erected in 1867, at a cost of $35,000, including lot, fence, &c., is on the corner of State and Summer streets.

The main building is seventy by eighty-eight feet, and two stories high. Each story is divided into six rooms, with a hall ten feet wide in the centre. There is a projection in front five by twenty-two feet, which, besides extending the hall, gives closets on each side for teachers' clothing and for storing books, maps, &c. In the rear there is an addition sixteen by thirty-six feet, which, besides a recitation-room connected with the principal's room, contains the stairs for the pupils, which being separated from the main building by a wall, will, in case of fire, be the last to be destroyed. The three rooms on each side of the hall are connected by doorways, leaving a passage-way round the entire building, near the outer wall. This plan was adopted for safety in case of fire. The furnaces being all in the centre of the building, fire can only commence there, in which case the teachers and children would find a safe egress through these doors to the protected staircases in the rear. Double doors are placed at these openings, one opening into each room, which prevents noise from adjoining rooms as effectually as a brick wall.

In four rooms on the first floor, a dressing-room six feet wide is formed by running a screen across the room seven feet high, in which the younger children hang their clothing, under the supervision of the teacher. The dressing-rooms for the older children are in the basement, each occupying the space of two school-rooms, as seen in the plan.

There are four furnaces placed side by side in the centre, an arrangement conducing alike to convenience and safety. Each furnace heats three rooms on one floor. The furnaces are supplied with air from a room in the basement of the rear addition, into which air is freely admitted through two windows covered with wire cloth. The air tubes go out at the bottom of this room, and pass under the floor of the dressing-rooms to the furnaces. By this plan all disturbance from outside currents of air is avoided.

The building is ventilated by means of four chimneys, each two feet square inside, up through the centre of which passes a cast iron smoke-pipe, one for each furnace. The rooms are ventilated by registers opening into these chimneys, the heat of the smoke-pipe producing a very strong draft.

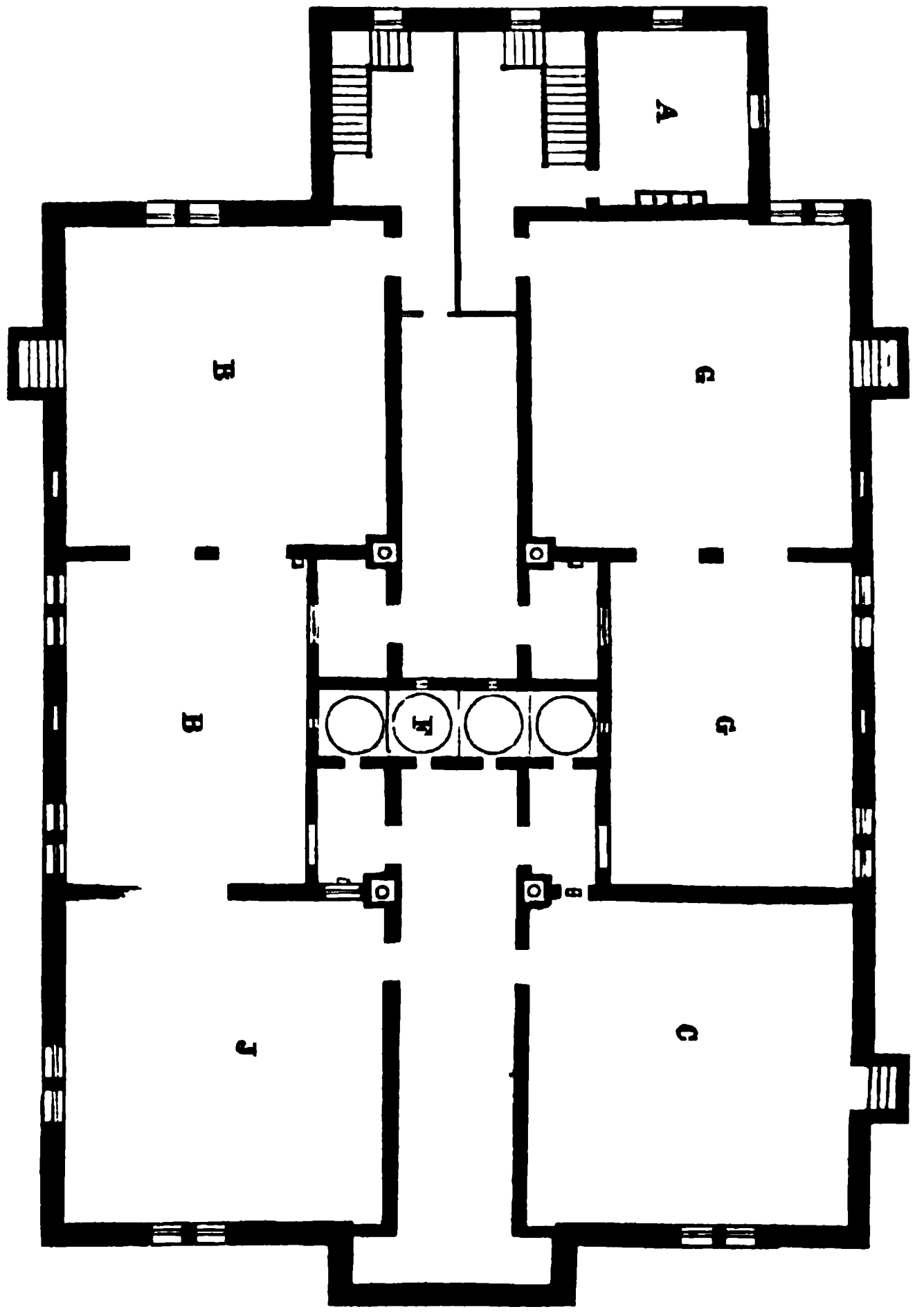
A register from each furnace opens into the hall, by means of which rooms can at any time be cooled off by shutting its register and opening that in the hall.

The street water is introduced into the dressing-rooms in the basement, and into the halls of the first and second floors.

The interior is finished with white chestnut wood, except the floors, which are yellow pine.

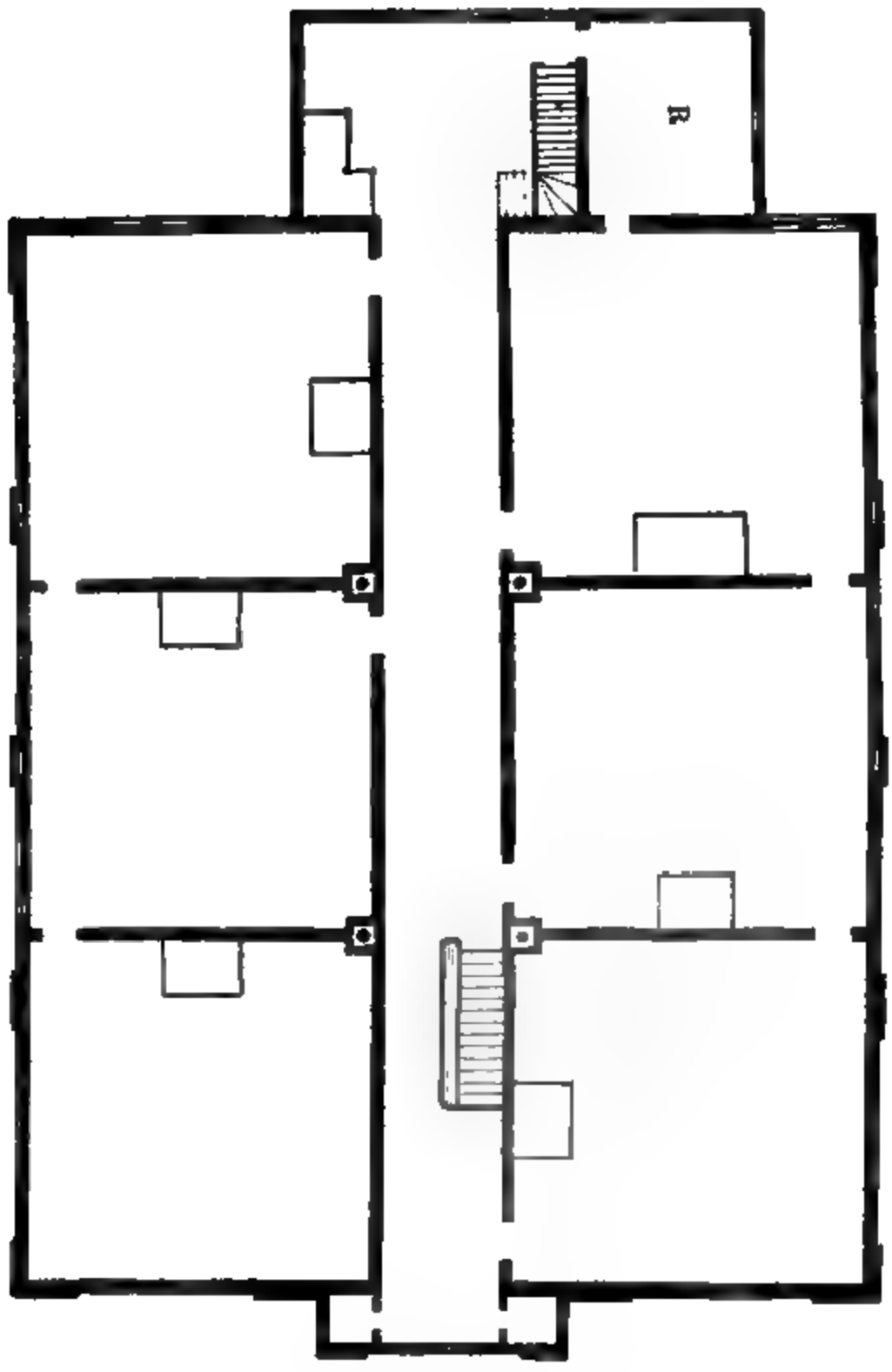
Several important improvements have been recently made in the school buildings of New Haven, making them to conform to the plan of the Skinner School, of a room for only fifty scholars under a class teacher. In the Eaton School, the large rooms on the third floor have been converted into two each. And in the Webster School, two large rooms in the octagon have

been made into four very convenient rooms; and the large room in the second floor of the main building has been divided. This is the final change in the original plan on which the Eaton and Webster Schools were inaugurated, of having large rooms of a hundred or more pupils, with one or two assistants who heard these classes in recitation-rooms adjoining. It is now found that better teaching and better discipline is obtained in rooms containing about fifty scholars, entirely under one teacher's control, a system which now exists in all our schools.—*D. C. Gilman's Report for* 1867.



BASEMENT.

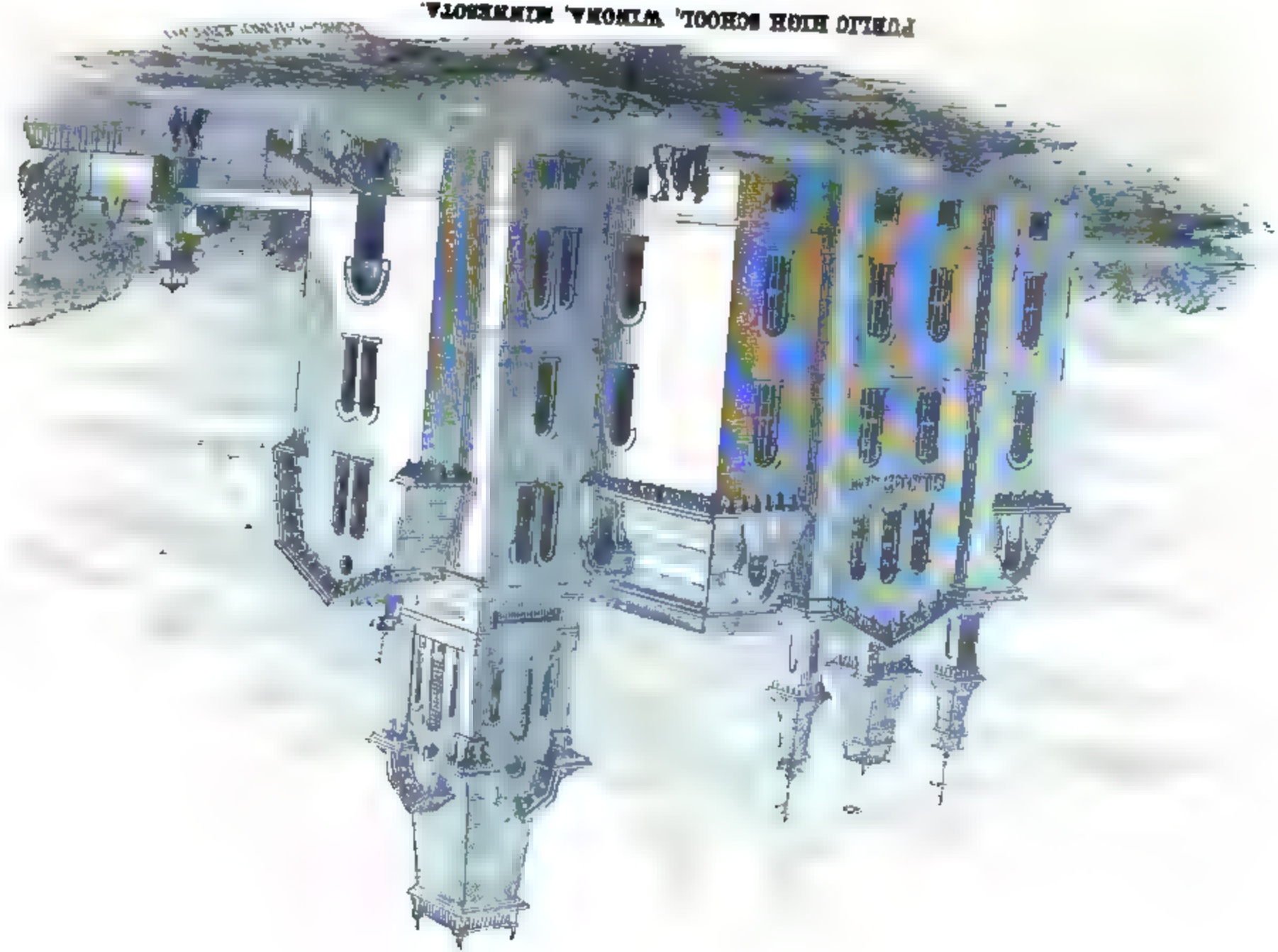
A. Air chamber. B. Boys' Clothes room. G. Girls' Dressing room. C. Coal room
J. Janitor's room. F. Furnaces.



SECOND FLOOR.

R. Indicates a Recitation room connected with the Principal's. All other rooms on this floor are School rooms. The rooms in the first floor correspond.

PUBLIC HIGH SCHOOL, WINONA, MINNESOTA.



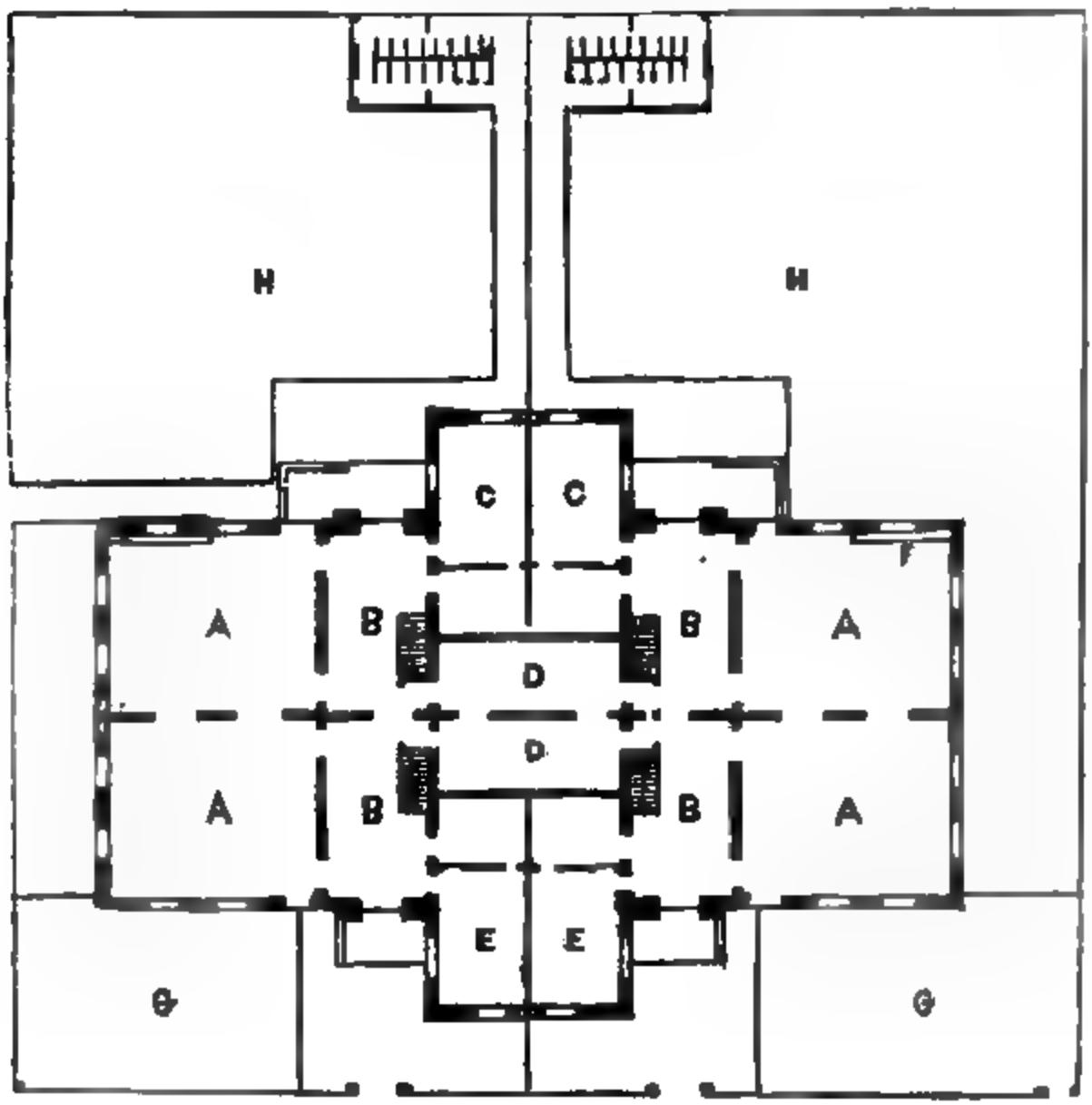
School-Houses in San Francisco.

Lincoln School.

The Lincoln School building was completed in August, 1865, and cost, including furniture, $100,000. It is designed exclusively for boys, and accommodates one thousand pupils, exclusive of the large hall in the attic story. It is situated on the corner of Fifth and Market streets, one hundred and seventy-five feet square, and is inclosed in front by a brick wall and balustrade fence.

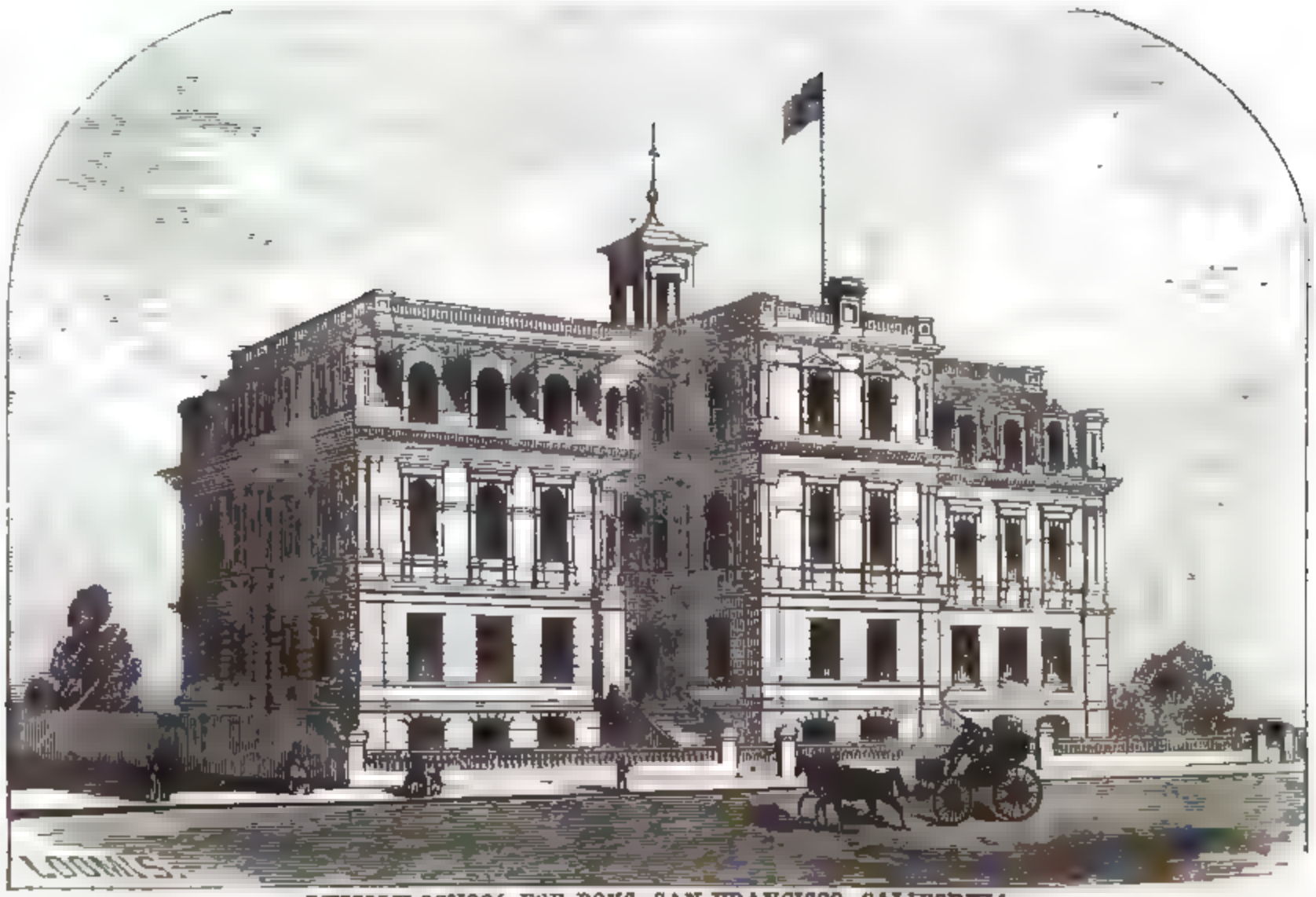
The plan of the building is cruciform, one hundred and forty-one and a-half feet long, by sixty-three and a-half feet wide in the body; the wings are eighteen by thirty-three feet, and the whole covers a superficial area of ten thousand one hundred and thirty-seven feet. It is built of brick, in the most substantial manner, with a basement, two stories, and an attic, terminating with a Mansard roof, which is surmounted by a cupola, and surrounded with a balustrade.

The walls of the basement and principal story are two feet thick; above that, they are eighteen inches thick. The joists of all the floors are three by seventeen inches. The height of the basement in the clear is eleven feet; principal and second stories, fifteen feet; while the attic or assembly hall, which forms one room throughout the building, is eighteen feet in the clear.



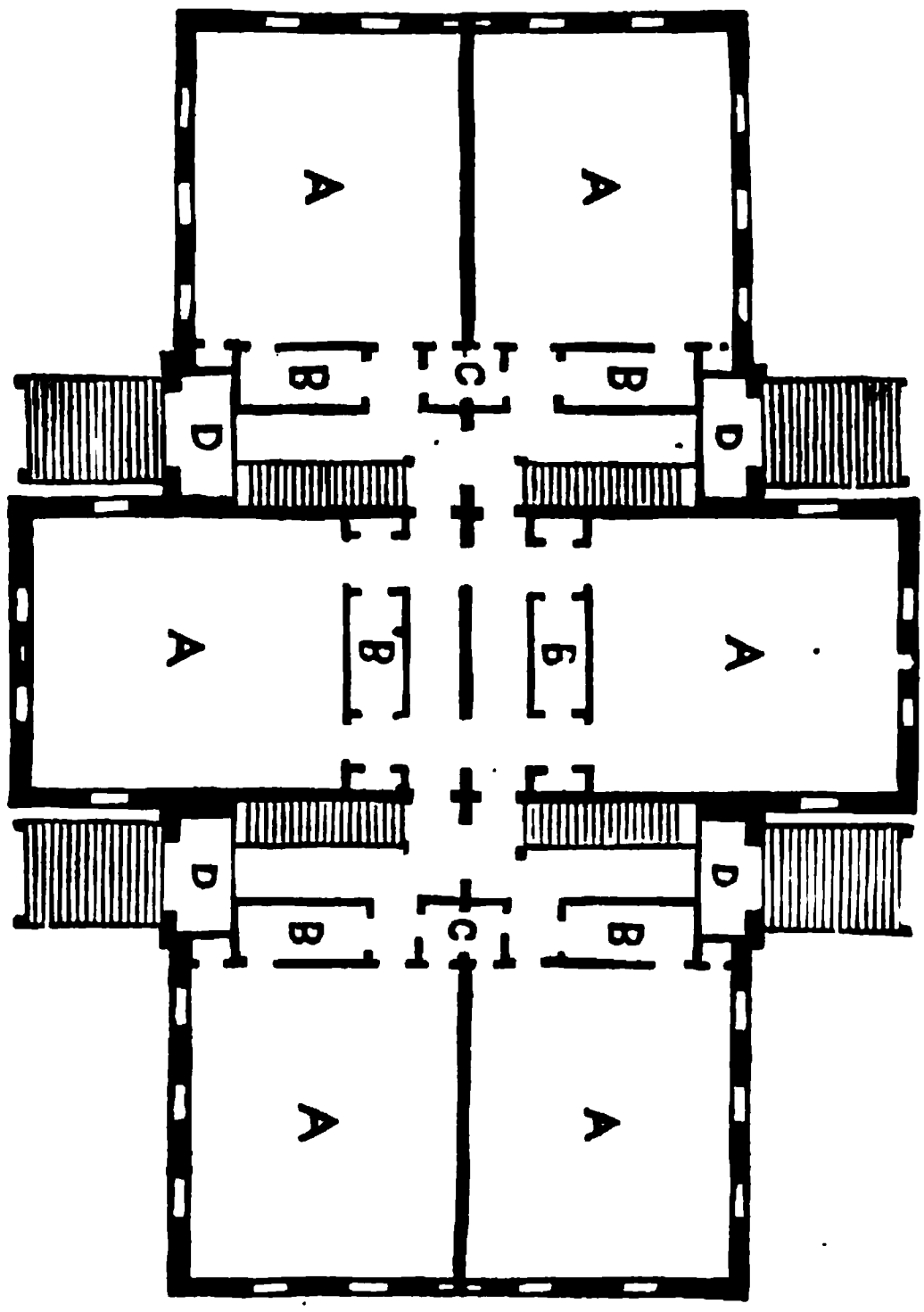
Basement and Yards.

A 1. Boys' gymnasium. A 2. Girls' gymnasium. B. Halls. C. Store rooms. D. Furnace rooms. E. Janitor's room. H. Girls' yard. F. Lavatories. G. Front yards. H. Boys' yard.



LINCOLN SCHOOL FOR BOYS, SAN FRANCISCO, CALIFORNIA.
Erected in 1865. Cost, $100,000. 1,000 seats

Four capacious stairways communicate between the basement and the attic. The ingress and egress to the building are very ample, safe, and convenient, and consist of ten large doorways—four in front, just at each side of the main building, and six in the rear, four of them corresponding with those in front, giving an extent for these purposes of seventy-two feet in breadth.

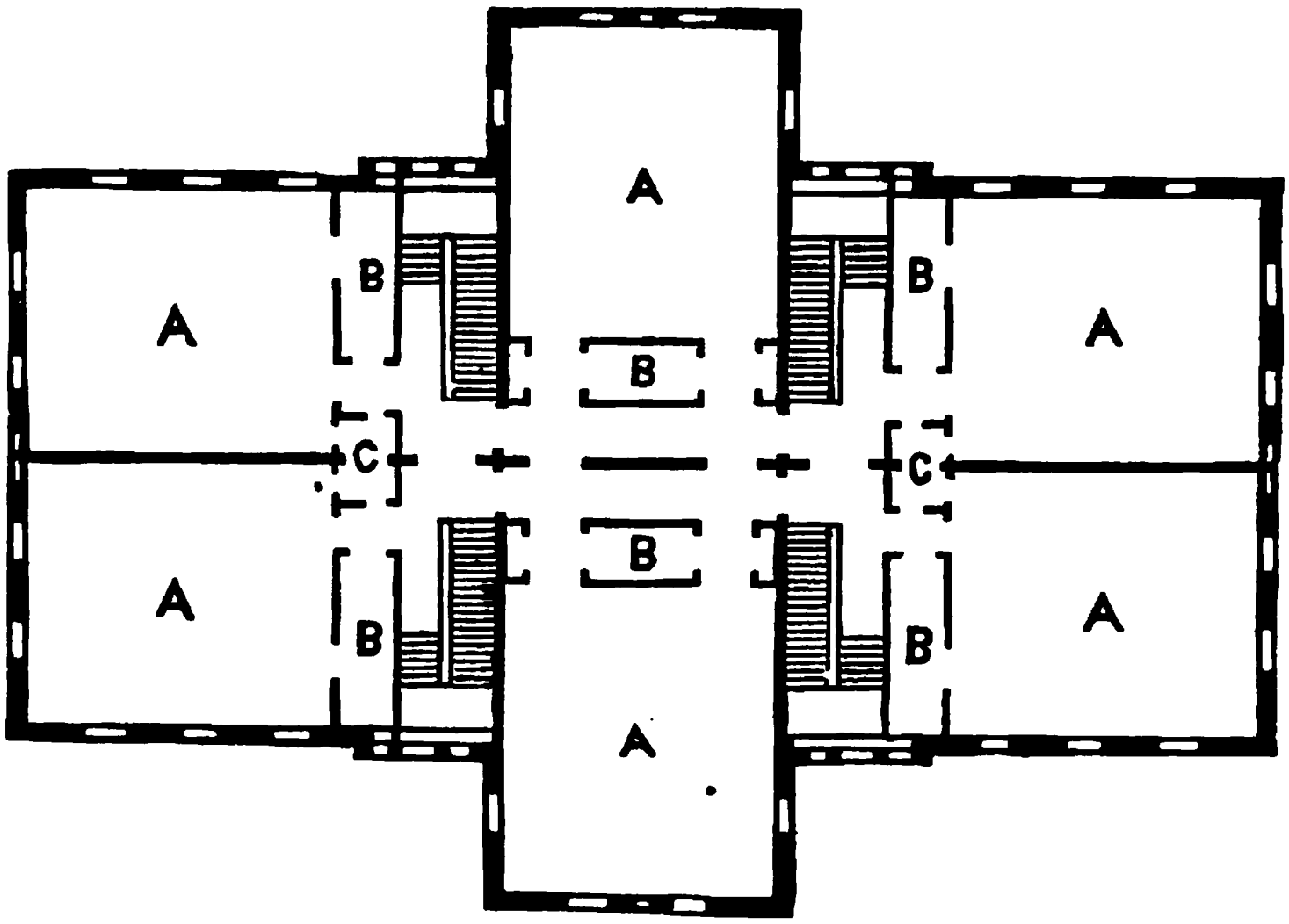


FIRST FLOOR.

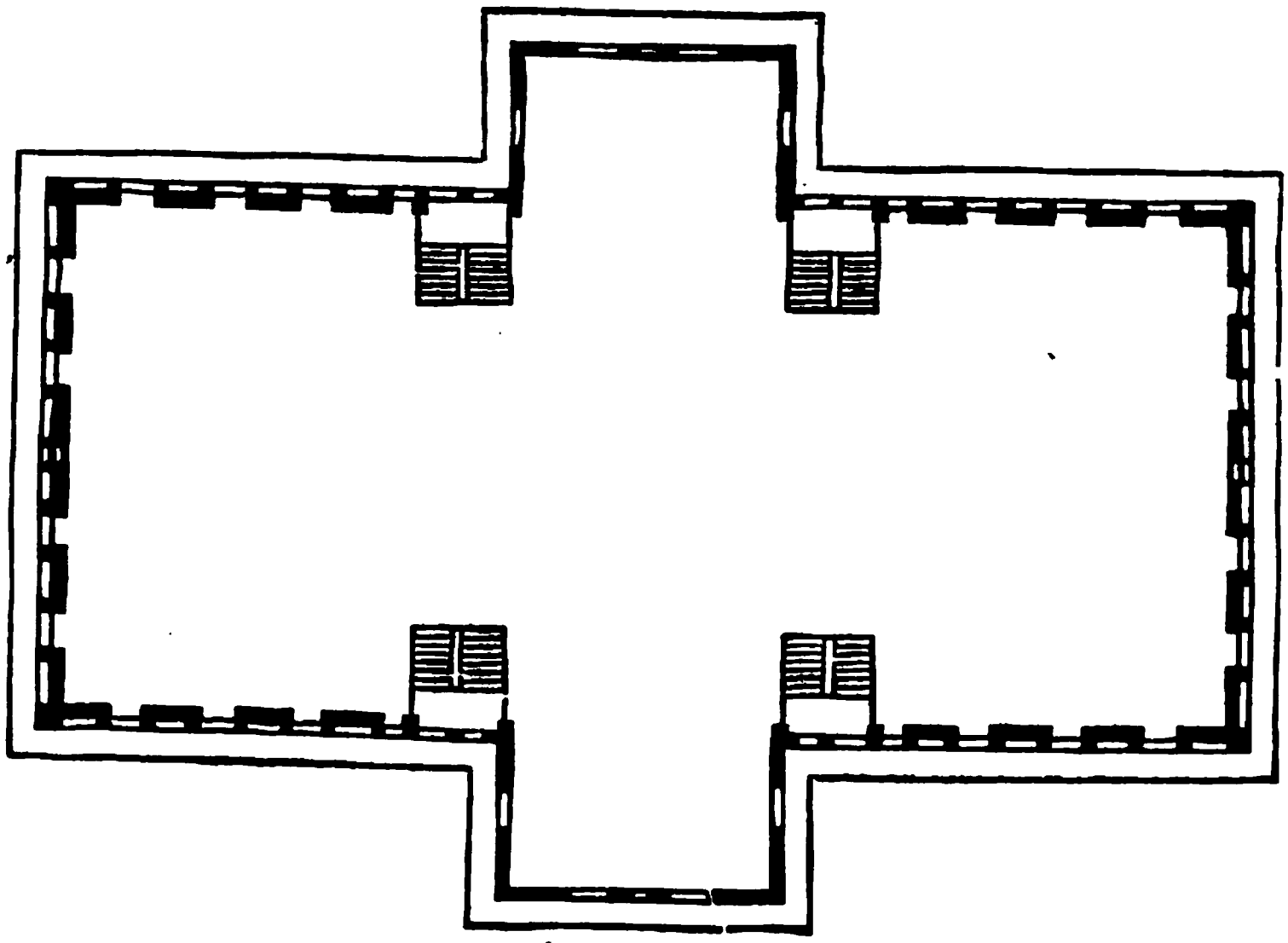
A. Recitation rooms. B. Wardrobe rooms. C. Teachers' rooms. D. Vestibules.

The interior is well lighted and ventilated throughout. The windows are glazed with ground glass, which dispenses with curtains and blinds Fresh air is introduced through the apertures near the doors, which are regulated by registers, while the impure air escapes through ventilators near the ceiling.

The distribution of area on the principal and second floor is uniform, each containing six school-rooms of twenty-nine by thirty-four feet; six wardrobe rooms, six and a half by twenty and a half feet; two teachers' rooms, six and a half by nine feet; and two halls, eleven feet four inches wide, running through the building transversely, with stairways at each end, reaching to the attic or assembly hall. The attic is in one room, but is capable of the same arrangement as the stories below. The basement contains six school-rooms, which accommodate sixty pupils each. All the wardrobe rooms are supplied with marble top wash-stands and water.



SECOND FLOOR.



ASSEMBLY HALL.



DENMAN SCHOOL FOR GIRLS, SAN FRANCISCO, CALIFORNIA.
Erected 1864. Cost, $78,000. 600 seats.

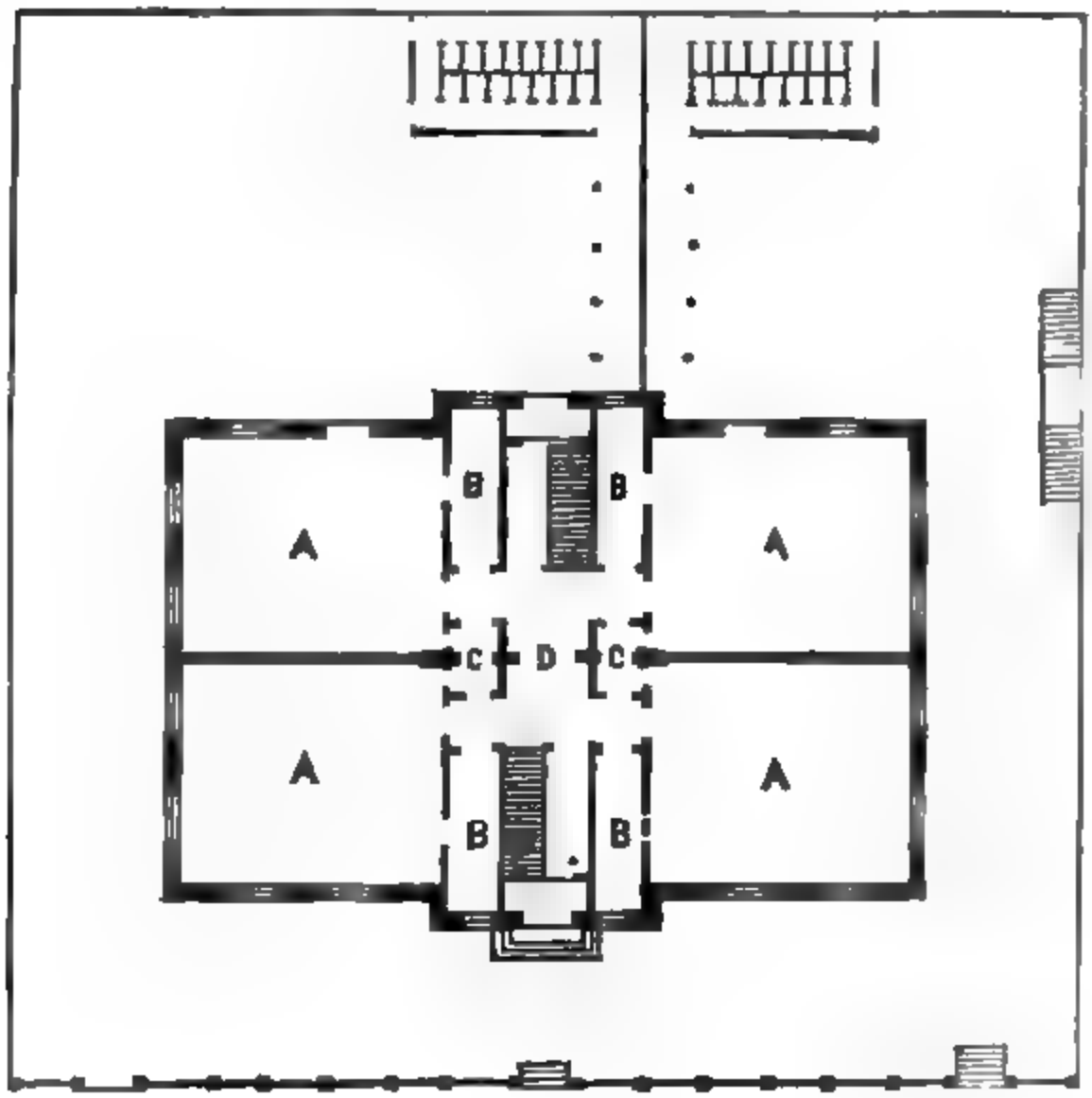
DENMAN SCHOOL-HOUSE.

The Denman School building was erected in 1864, at a cost of $78,000, including furniture, and bears the name of the teacher who founded the school in 1851, was afterwards City Superintendent, and Principal of the school. It is designed exclusively for girls, and accommodates six hundred pupils.

The plan of the building is a parallelogram of ninety-eight and a half feet by sixty-one feet, having its entrance on the long sides, in projecting portions, each twenty-nine feet by three and a half feet.

The building is three stories high, the first being thirteen and a half feet, and the second and third stories, each fifteen feet high, besides the attic, which is twelve feet high, and contains sixteen Luthern windows in its inclined sides, and six in the projecting portions of the two fronts.

The distribution of the first, second, and third stories is uniform, each containing four school-rooms of twenty-eight by thirty-four feet; four wardrobe rooms of six and a half by twenty-one and a half feet; two teachers' rooms of six and a half by nine feet; and a hall, eleven feet wide, through the centre of the building, transversely, with easy, spacious stairways at each end, which extend to the attic and discharge below by four spacious doors.



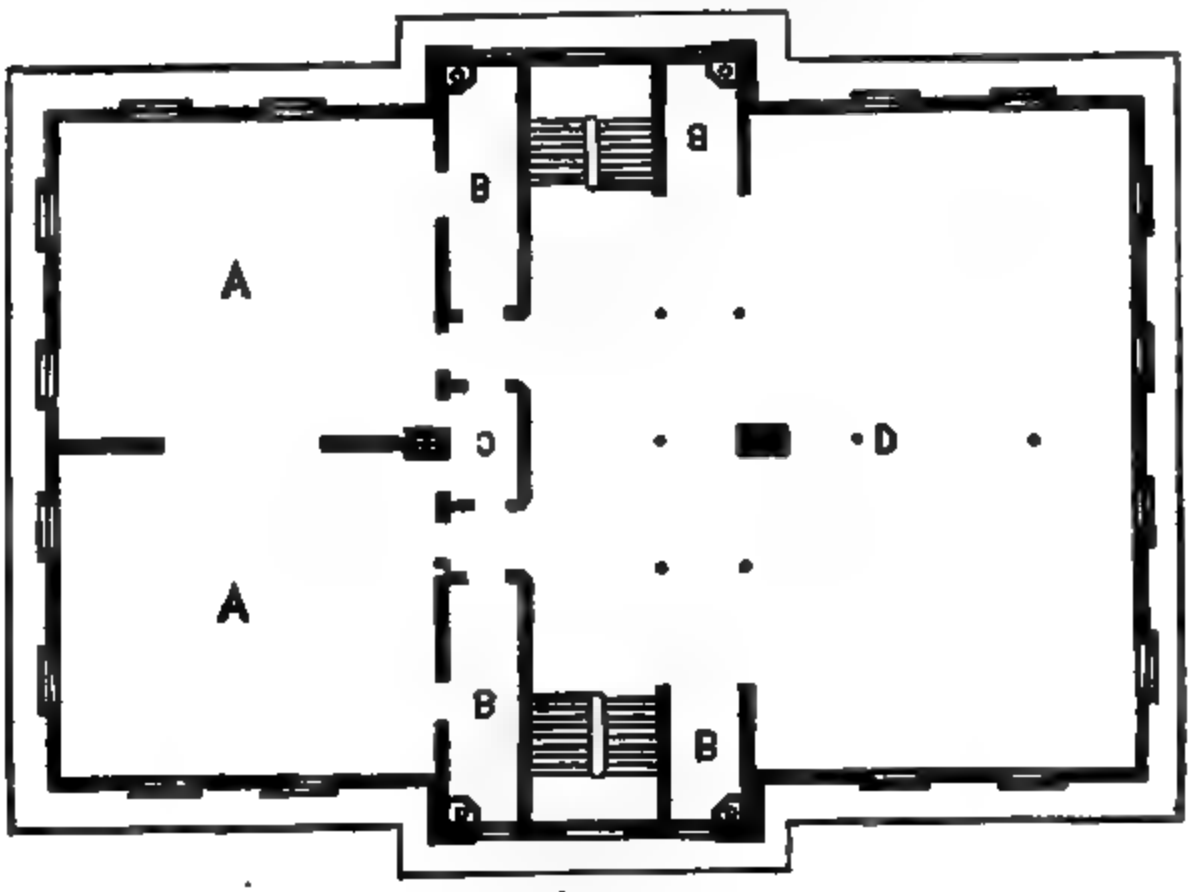
Basement and Yard.

The attic contains two recitation rooms, each twenty-seven by thirty-three and a half feet, and an assembly room capable of accommodating the entire school.

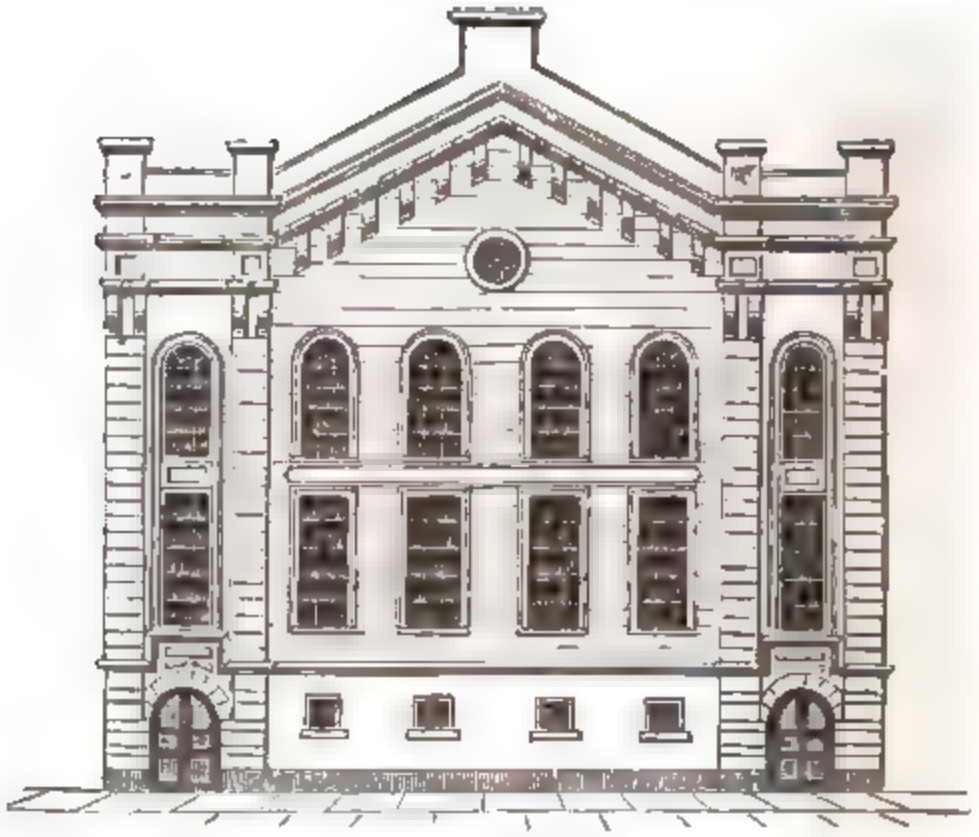
Fresh air is introduced through apertures near the floor, and regulated by registers, while the vitiated air is allowed to escape through ventilators near the ceiling.



First, Second and Third Floors.
A A. Recitation rooms. B B. Clothes rooms. C. C. Teachers' rooms. D. Hall.



Attic.
A A. Gymnasiums. D. Assembly Hall. B B. Clothes rooms. C. Closets.

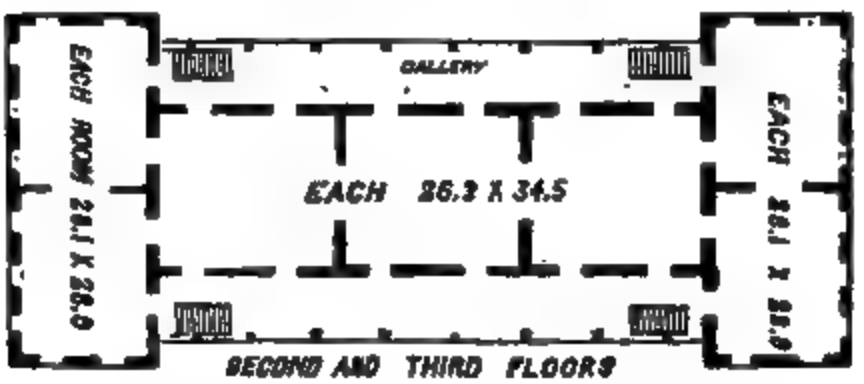


PLAN OF ST. PHILIP SCHOOL, NEW ORLEANS, LA.

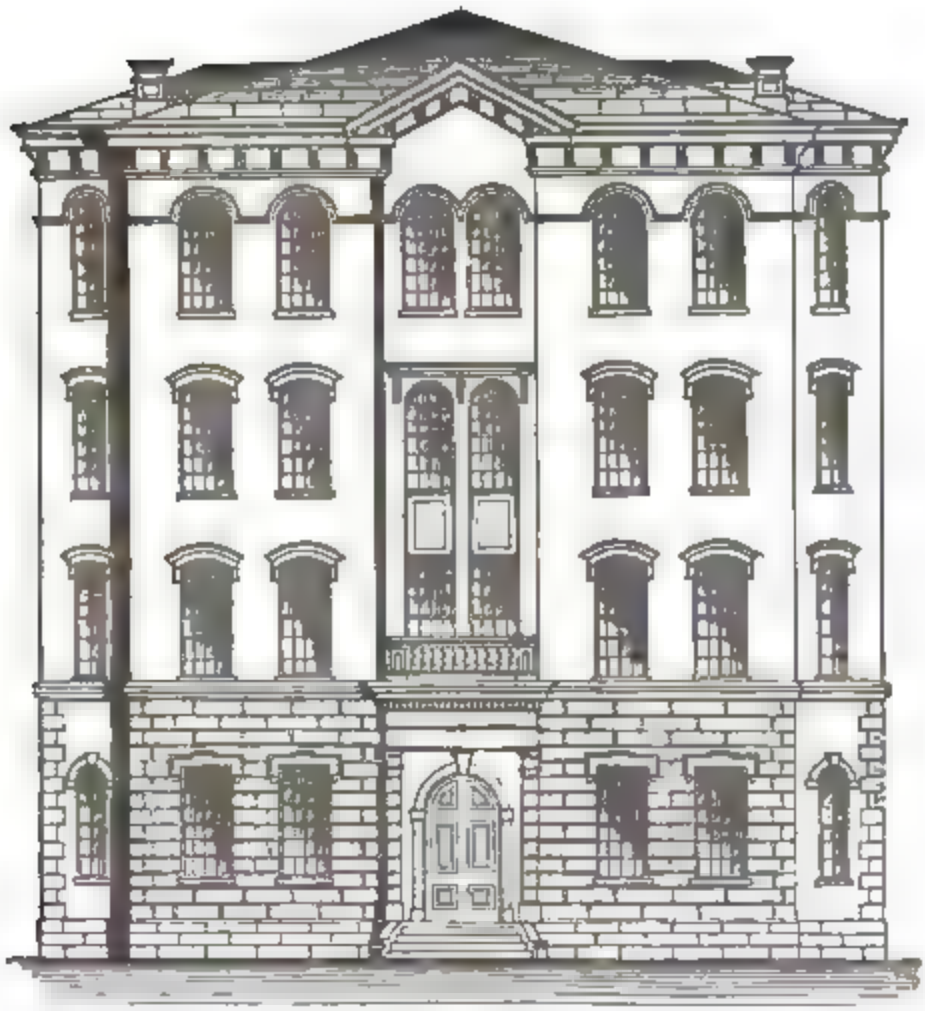
St. Philip Public School for Boys is situated in Second Municipality, on St. Philip street. The building is 57×159 feet—two stories, and a basement, which is used with the yard for exercise. There are fourteen rooms, six of which are 34. 5×26½, and eight are 26½×26.1—all furnished with the best style of seats and desks.



FIRST FLOOR.



SECOND AND THIRD FLOORS



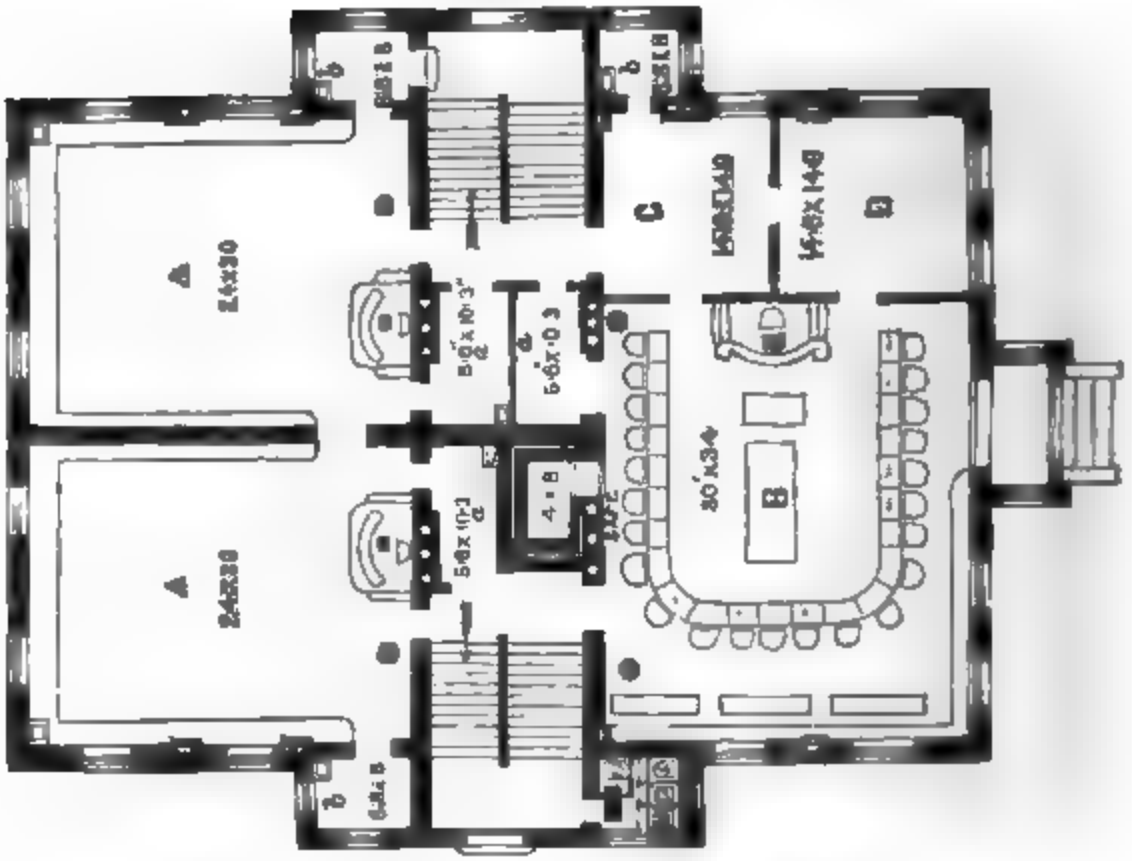
PLAN OF GRAMMAR SCHOOL, LOUISVILLE, KENTUCKY.

THE outside dimensions of the Public School-house on the corner of Centre and Walnut streets are 52 feet front by 77½ feet deep, with a wing on each side for stairs, closets and halls, 7½ by 34 feet deep. On the first floor, besides an office for the Board of Trustees, (B,) the Superintendent, (C,) and Secretary, (D,) there are two school-rooms, (A,) 24×30, with a pupil cloak-room 5½×10 feet, and a teachers' room 6½×8 feet attached. On the second and third floor are four rooms of the same size, with similar small rooms attached, and on the fourth floor are two school-rooms, (A,) and one large hall, (D,) capable of being enlarged to the additional capacity of the school-rooms by sliding the partitions into the walls.

Around three sides of each school-room is a raised platform for recitations, and on the fourth for the teacher. Into the walls, in the place of blackened or other prepared dark surface, are set large slates for demonstrative exercises.

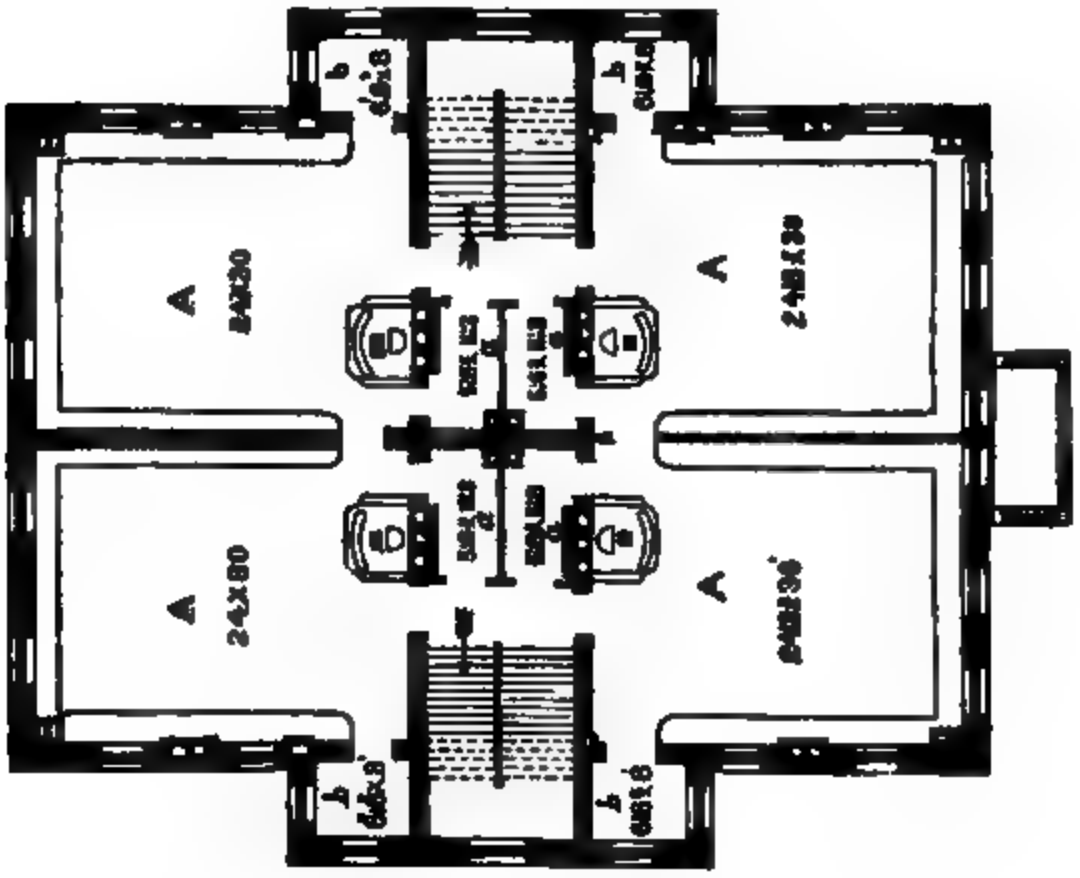
Each story is supplied with pure air, water, and every requirement of comfort, cleanliness and health, and security against fire or panic. The stairs are on each side of the building, running up half way to a platform, and thence to the floor above, with solid partitions dividing the different flights—preventing sliding, and danger from pressure.

It is built of brick, with stone trimmings, slate roof, and galvanized iron cornice, and furnished with the best style of seats and desks, at a cost of $45,000, exclusive of lot valued at $12,000.

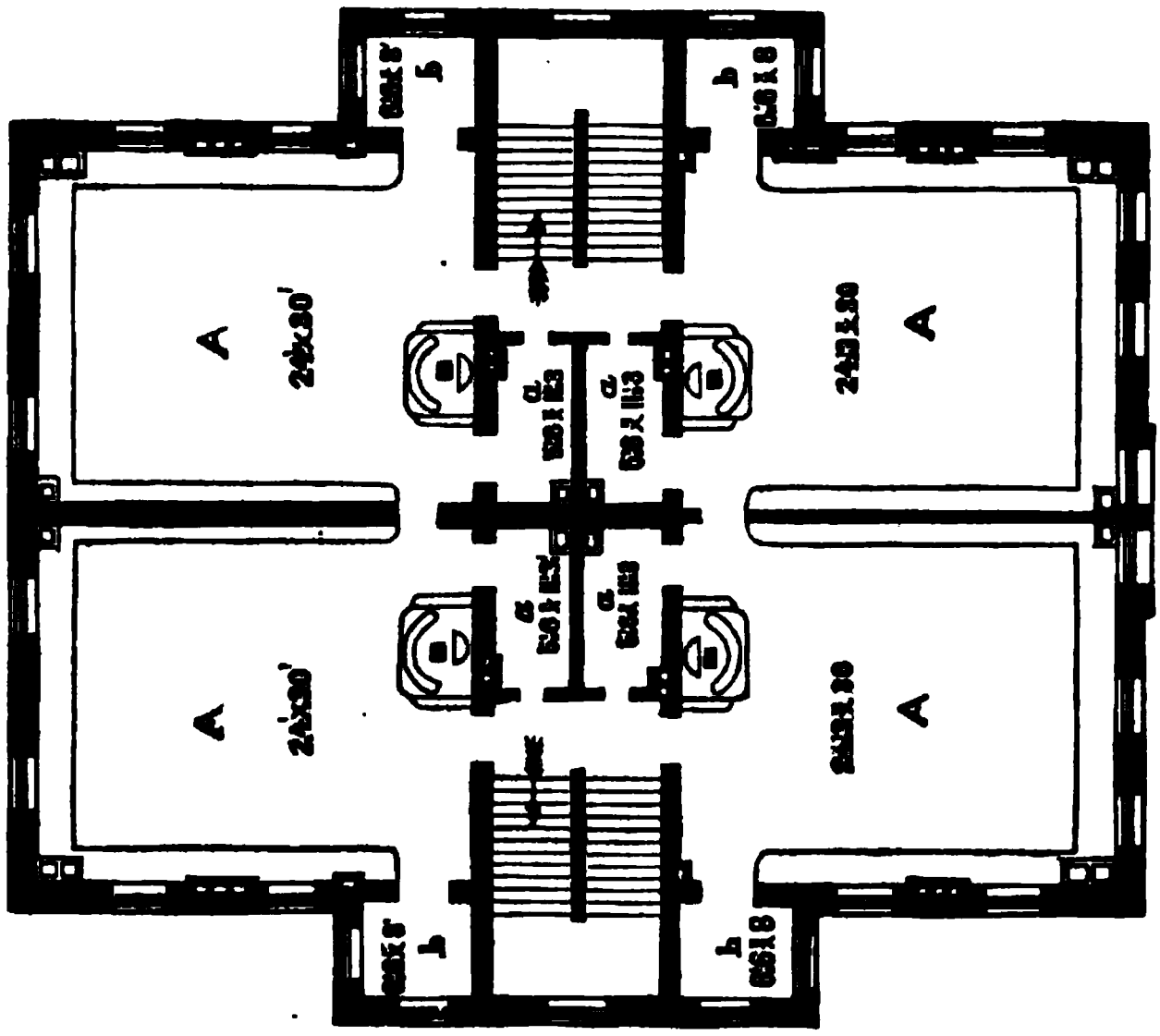


First Floor.

A. School-room. B. Trustees' room. C. Superintendent's office. D. Secretary's office. a. Pupils' cloak-room. b. Teachers' room.

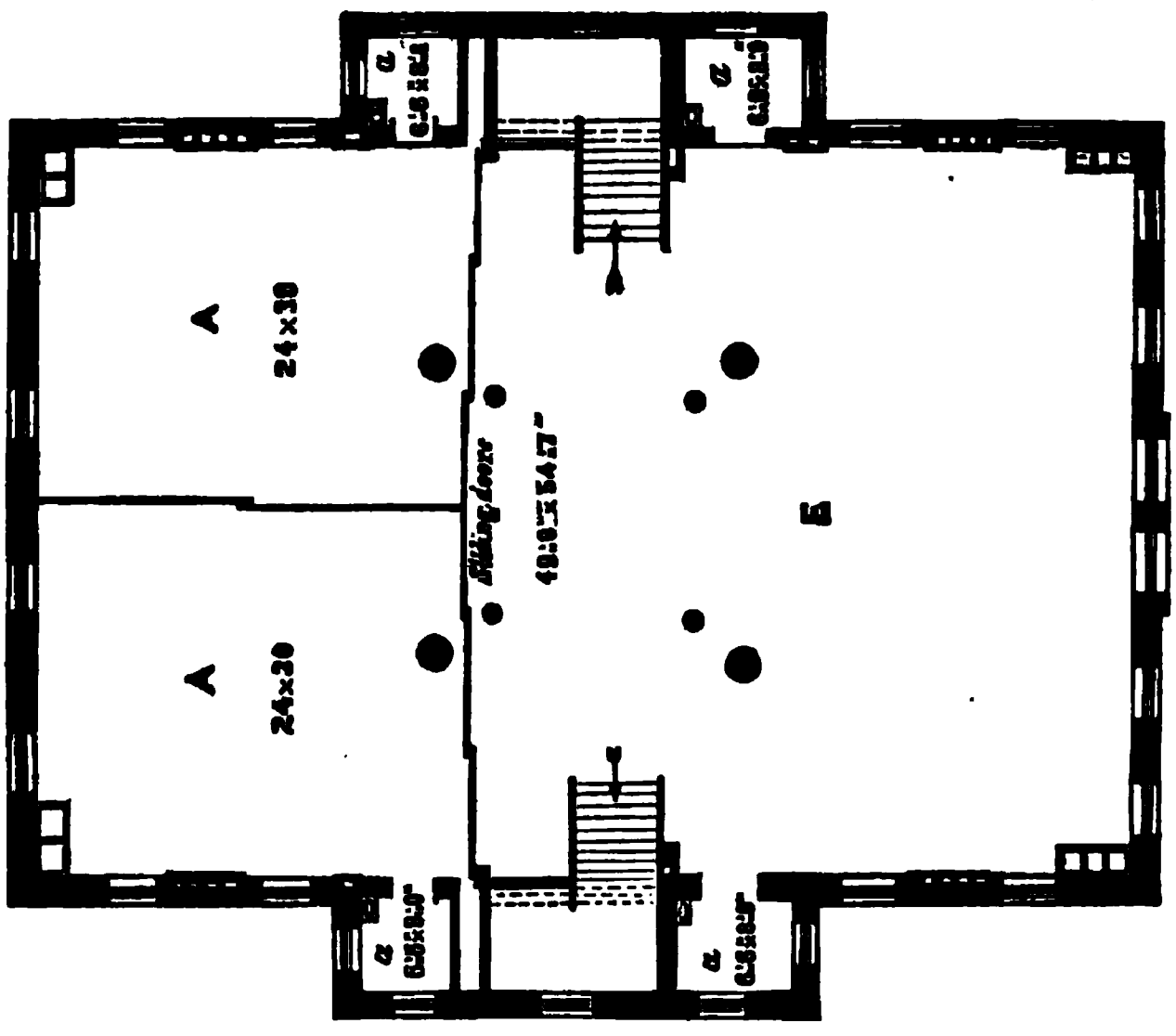


Second Floor.



THIRD FLOOR.

A. School-room. *a.* Pupils' sink-room. *b.* Teachers' room.
B. Assembly room, enlarged by sliding partitions.

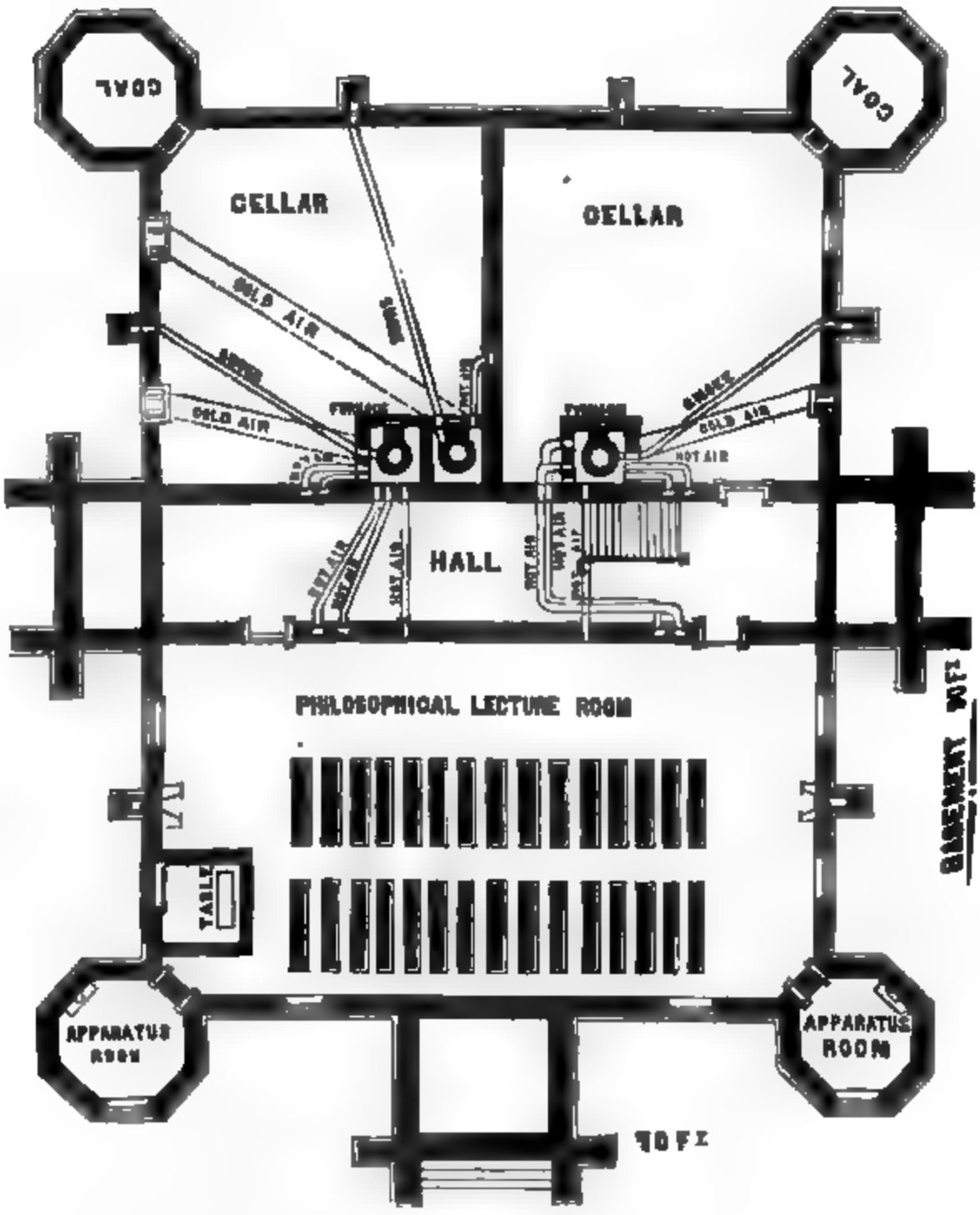


FOURTH FLOOR.



PUBLIC HIGH SCHOOL, ST. LOUIS, MISSOURI.

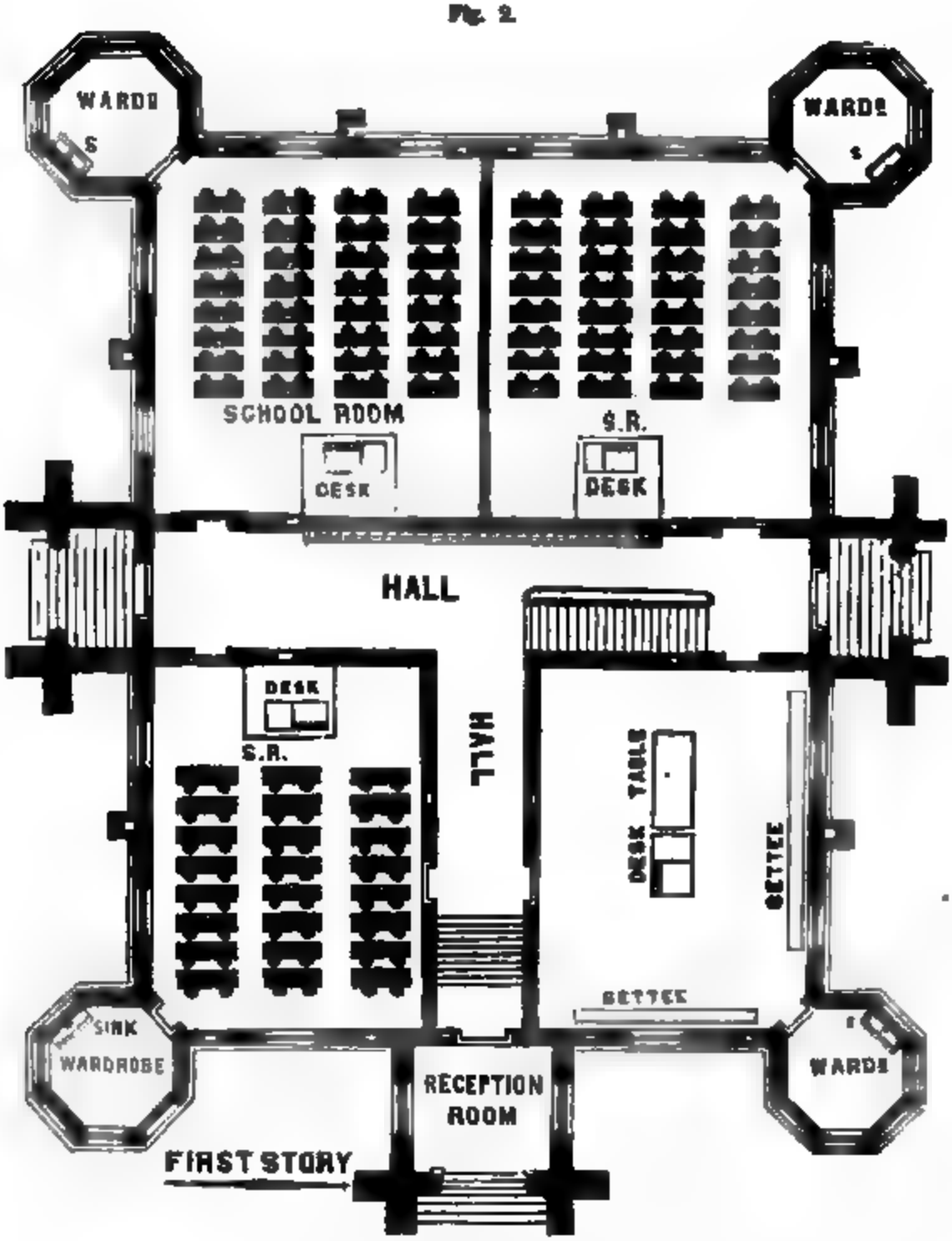
Fig. 2.



PLANS AND DESCRIPTION OF THE BUILDING DESIGNED FOR THE PUBLIC HIGH SCHOOL OF ST. LOUIS, MISSOURI.

THE building in its extreme length is one hundred and six feet; and in its extreme width eighty-four feet, including towers and transepts. The body of the building is eighty-four feet, by sixty-seven; main height seventy-one feet; and to the apex of the roof eighty-six feet. Front square tower, used respectively in each story for reception room, library, museum, and astronomical observatory, is one hundred and six feet high. Octagonal tower flanking each corner, is one hundred and two feet high. The wings or transepts on the sides, are thirteen by seventeen feet, with large gothic windows, seven by thirty-four feet. A similar window is in the large square front tower. All the windows have large cast iron hood moldings painted in imitation of stone; buttress caps, string courses, and wall copings, also of cast iron, and finished in the same manner; the roof is covered with slate, with copper gutters.

Fig. 2.



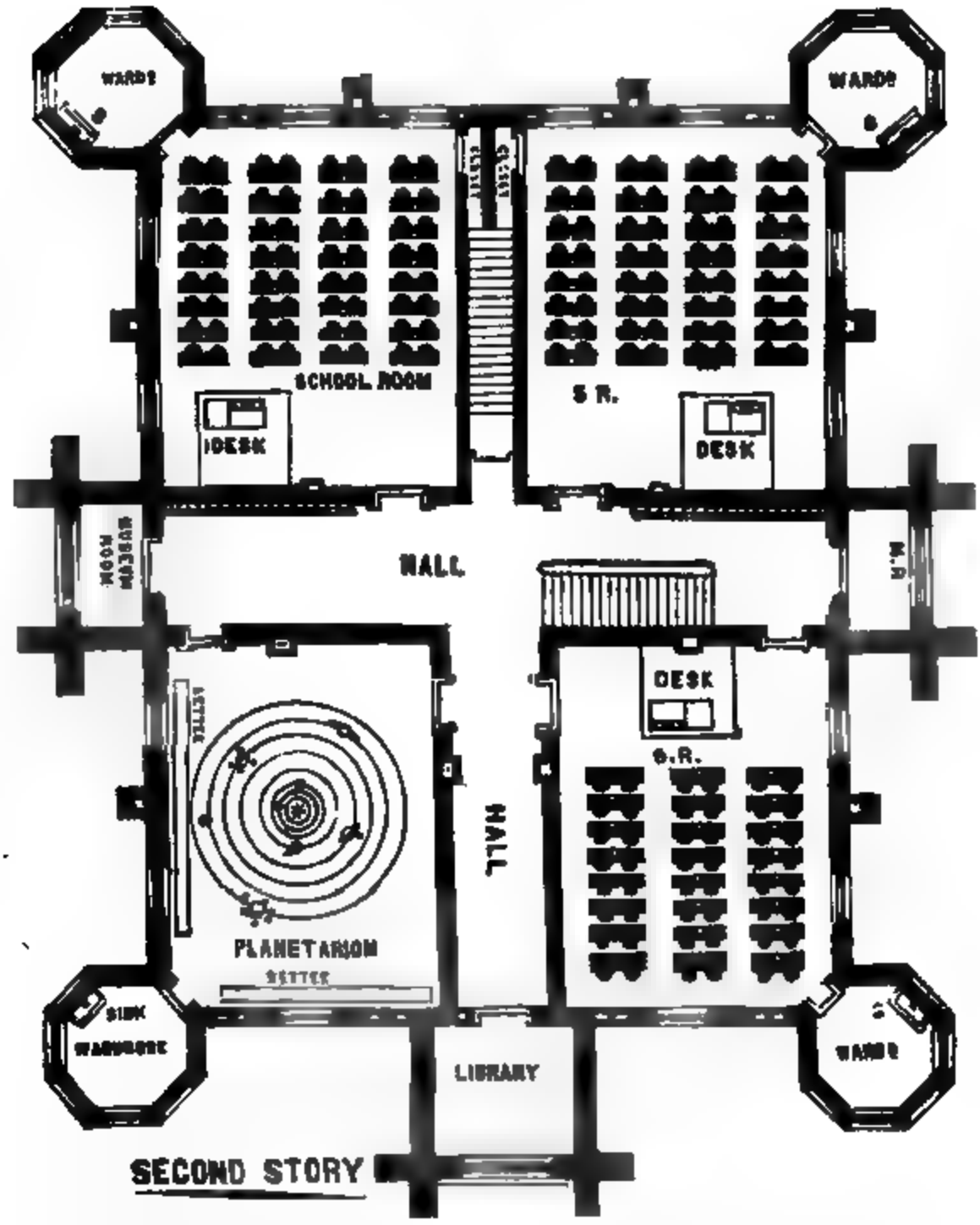
Transverse and longitudinal halls, divide the first and second stories into four rooms each, and each room is capable of accommodating seventy scholars.

The desks are supported in an entire new style, by means of a cast iron peristyle, with large pedestal and four claws for screws. The peristyle is placed in the centre of the desk, adding much to the comfort, cleanliness, quiet, and free ventilation of the room. The desks are made of cherry and varnished. The chairs, which are on the arm chair fashion, are supported similarly to desks, move on a pivot so as to turn one-quarter way round, and the iron work of both desk and chairs are neatly bronzed.

Wardrobe rooms in the towers, are attached to each school-room, with hydrant, and iron sinks for washing and drinking purposes.

The philosophical and chemical lecture-room in the basement, is sixty-one feet by thirty-one feet, with apparatus rooms in towers, with sinks and water; also.

Fig. 3.

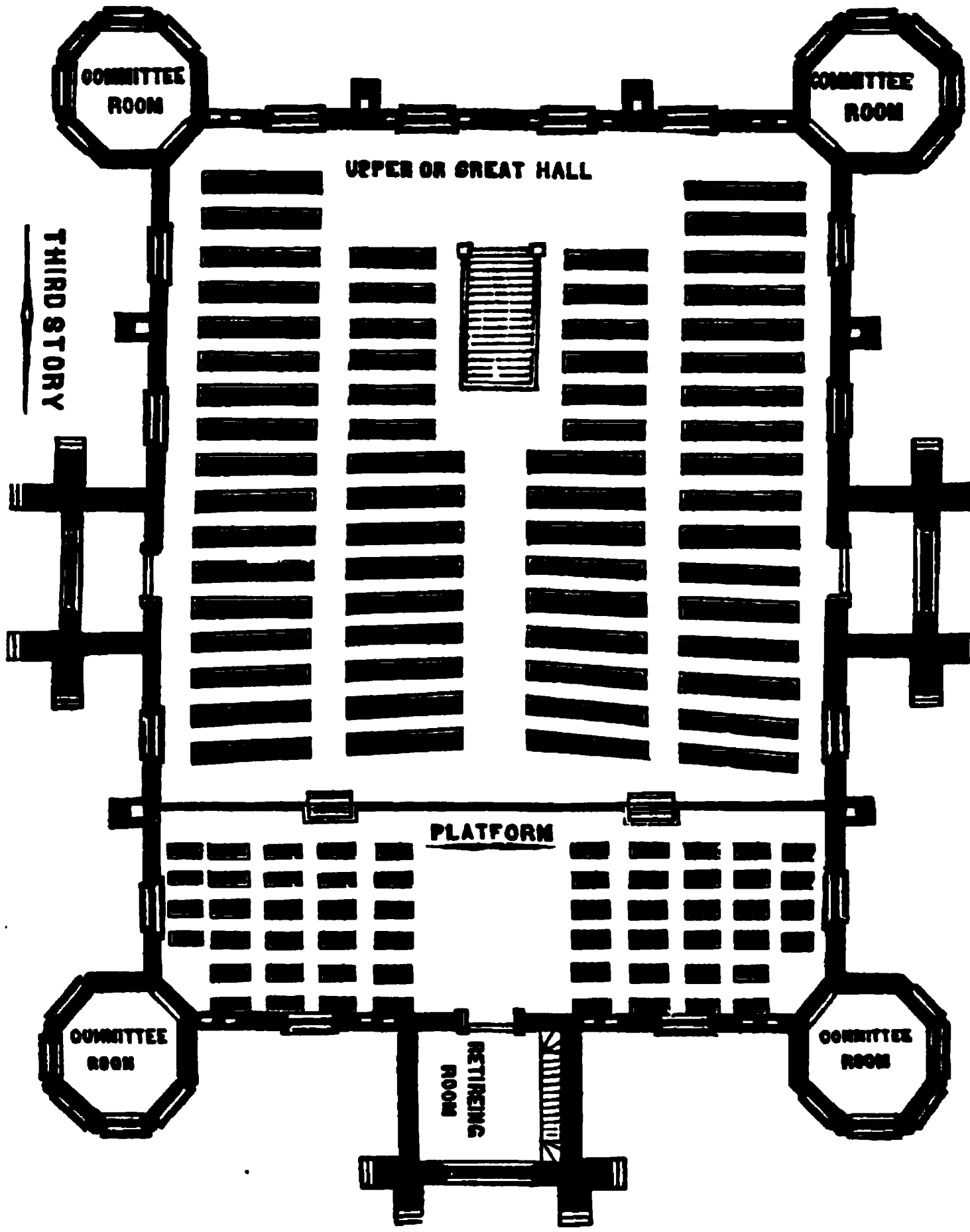


two fire places at each end of the room for experiments in chemistry and philosophy There are stairs leading directly to the philosophical and chemical lecture-room. The other basement is used by three furnaces for heating the building.

The upper, or great hall in the third story, being the full size of the building, is large and commodious, capable of accommodating six hundred persons. A large platform, twenty feet deep, and the width of the building is at the south end of the hall, to be used by scholars on examination day, and for recitation, declamation, and reading their exercises; also, for a stand for lecturers. There is a retiring room behind the platform in the front tower, for scholars to prepare themselves for performing respective parts in dialogue, &c. From this retiring room a flight of stairs ascends to the astronomical observatory.

The rooms in the octagonal towers of the third story are intended for committee

Fig. 4.



rooms for directory, or for private conference of teachers and parents, or friends, at general exercise, or on examination day. There are two museum rooms in the second story of the transepts, one for males and the other for females.

The entrance or reception room, for strangers and parents, is in the first story of the observatory, or front square tower on Olive street. Over the reception room is the library room. Perfect and thorough ventilation is aimed at, and the latest improvements to attain it, adopted. The stairs are broad and direct, giving free and easy access to, and from the building at all times, and securing against all accidents in case of alarm of fire, &c.

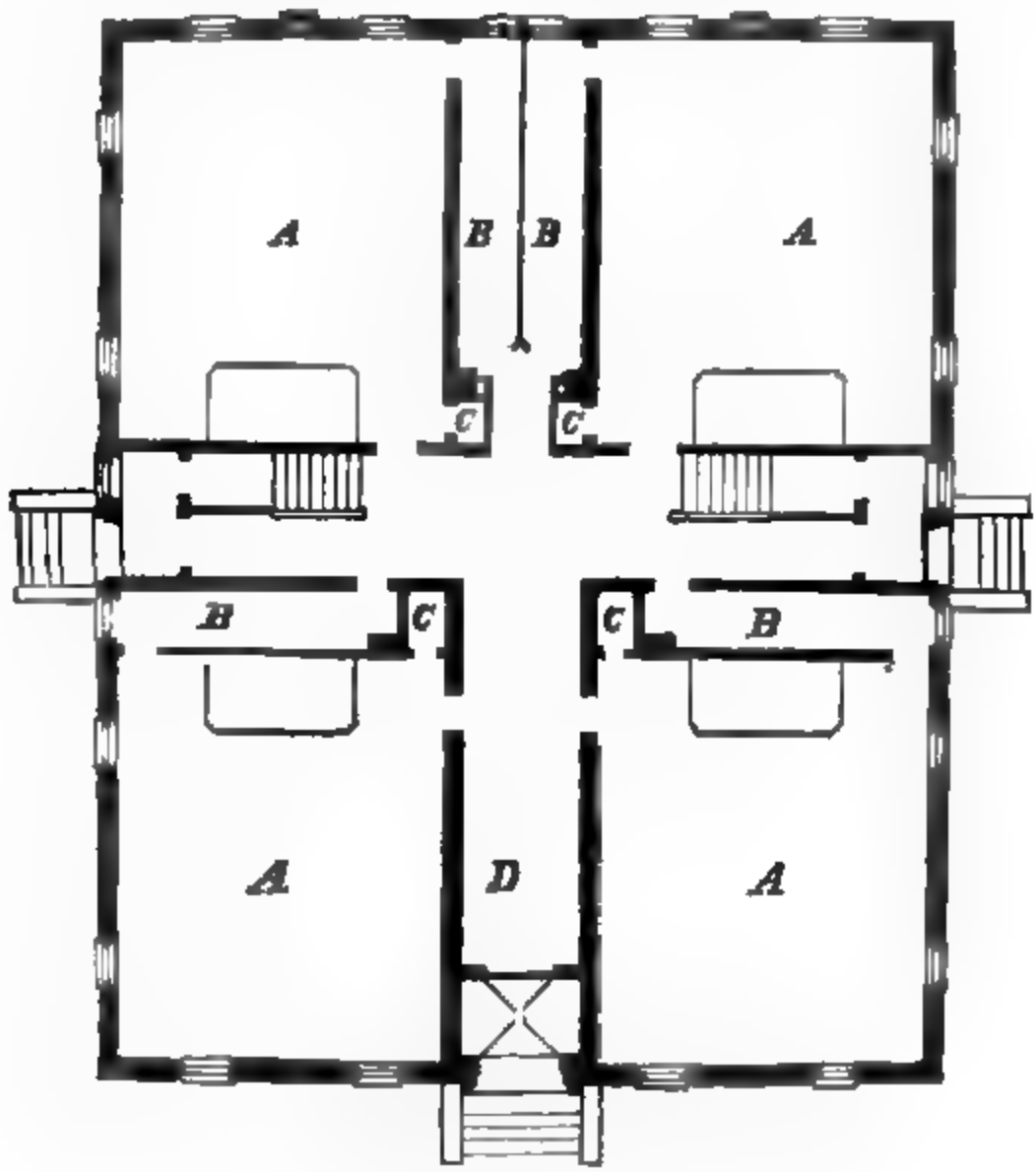
All the finishing of the school-rooms and halls, are grained oak, and varnished. Wardrobe rooms are to be supplied with double clothes' hooks; halls with umbrella racks, troughs, and places for overshoes, all made of cherry and varnished.

Plan of the Wells School, Chicago.

The Wells School building, so called in honor of William H. Wells, the former Superintendent of Schools, is located in the West Division, three miles from the Court House, near the centre of a lot having a frontage on Reuben street of two hundred and fifty feet, and a depth of one hundred and eighty-three feet on Cornelia street. It will accommodate nine hundred and forty-five pupils, distributed through fourteen rooms, each furnished with sixty-three single seats and desks. Total cost, $45,575.00.

The building is 69 × 87 feet on the ground, four stories besides the basement, each floor being divided by a corridor (D) into four rooms (A) 27 × 33 feet each, having a wardrobe (B) for the pupils and a teachers' closet (C) attached, except the fourth floor, which has two rooms of the same character, and an assembly hall (E) 65 × 23 feet in area.

The school-rooms are wainscoted five feet and the wardrobes seven feet high, grained and varnished. Every room is ventilated by large shafts in both the exterior and interior walls, and is warmed by a low pressure steam apparatus, the boiler being located in a separate building in the rear.



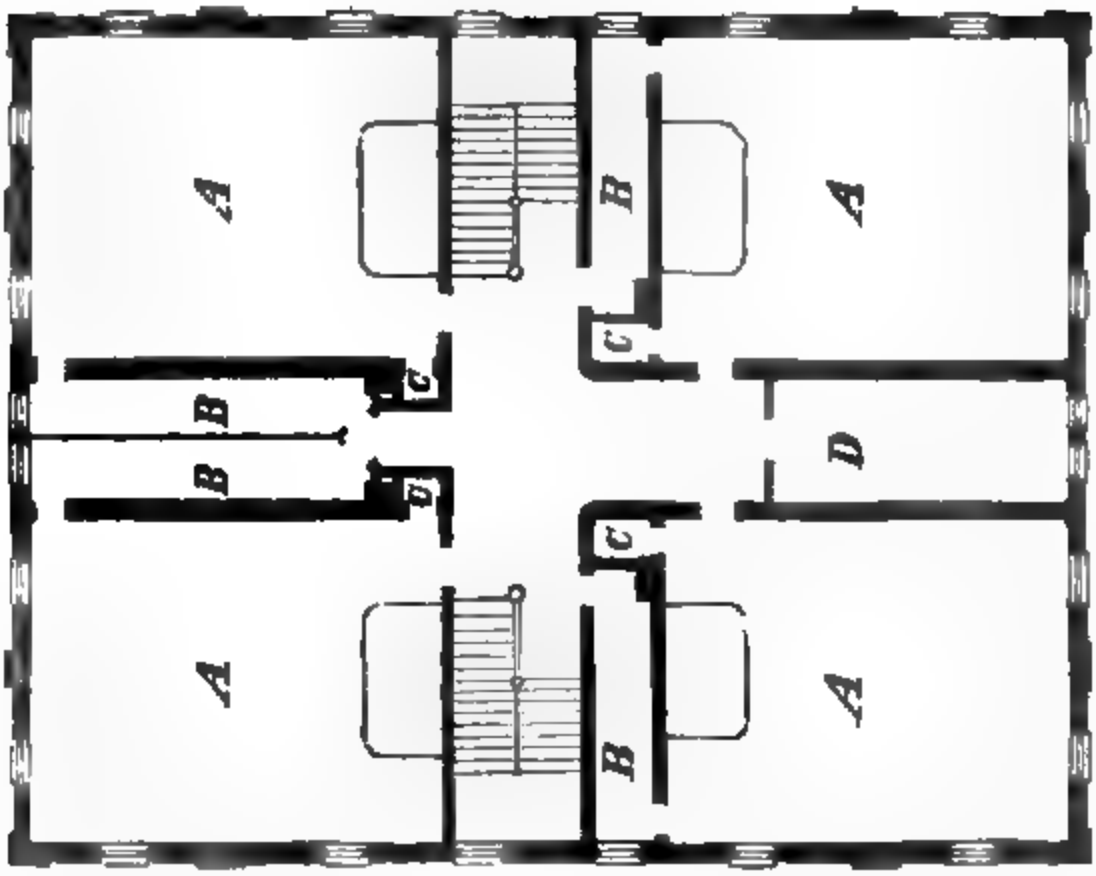
First Floor.



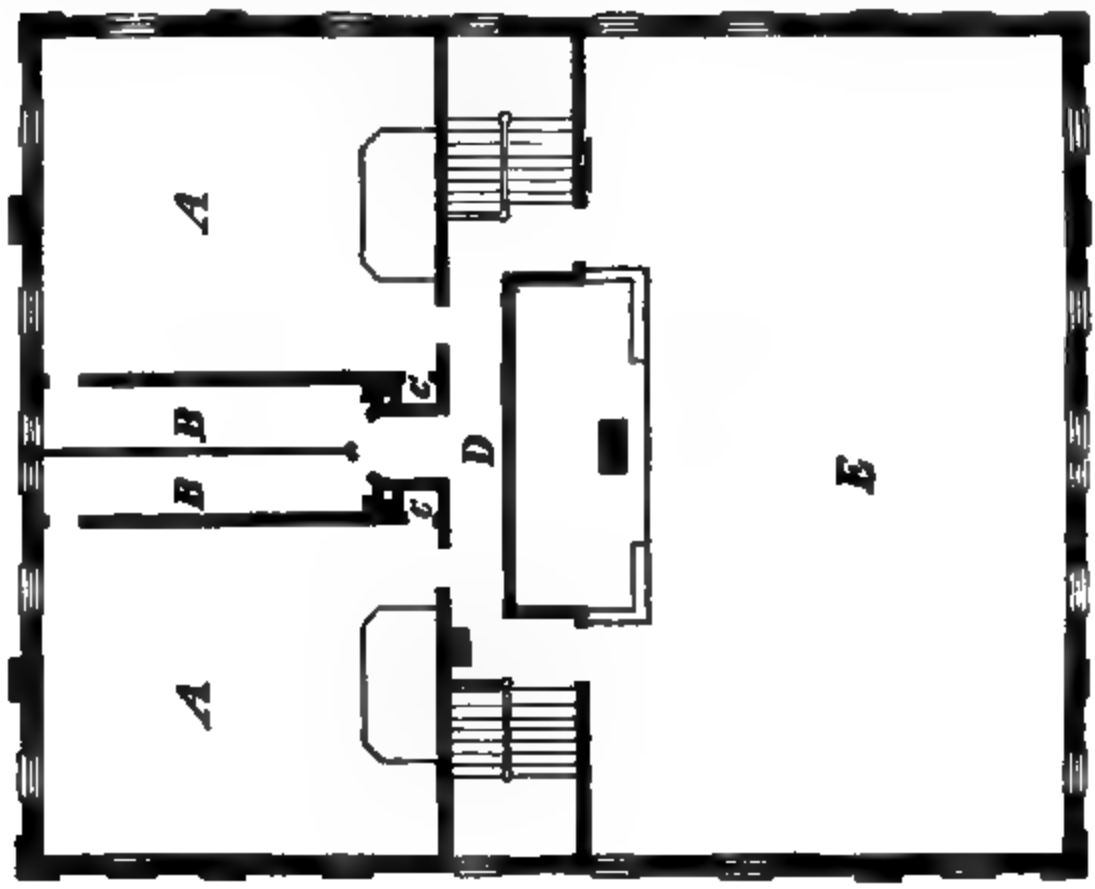
WELLS SCHOOL, CHICAGO, ILLINOIS.

Erected 1866. Cost, (exclusive of lot,) $43,433.) 945 seats.

WELLS SCHOOL, CHICAGO.



SECOND AND THIRD FLOORS.



FOURTH FLOOR.

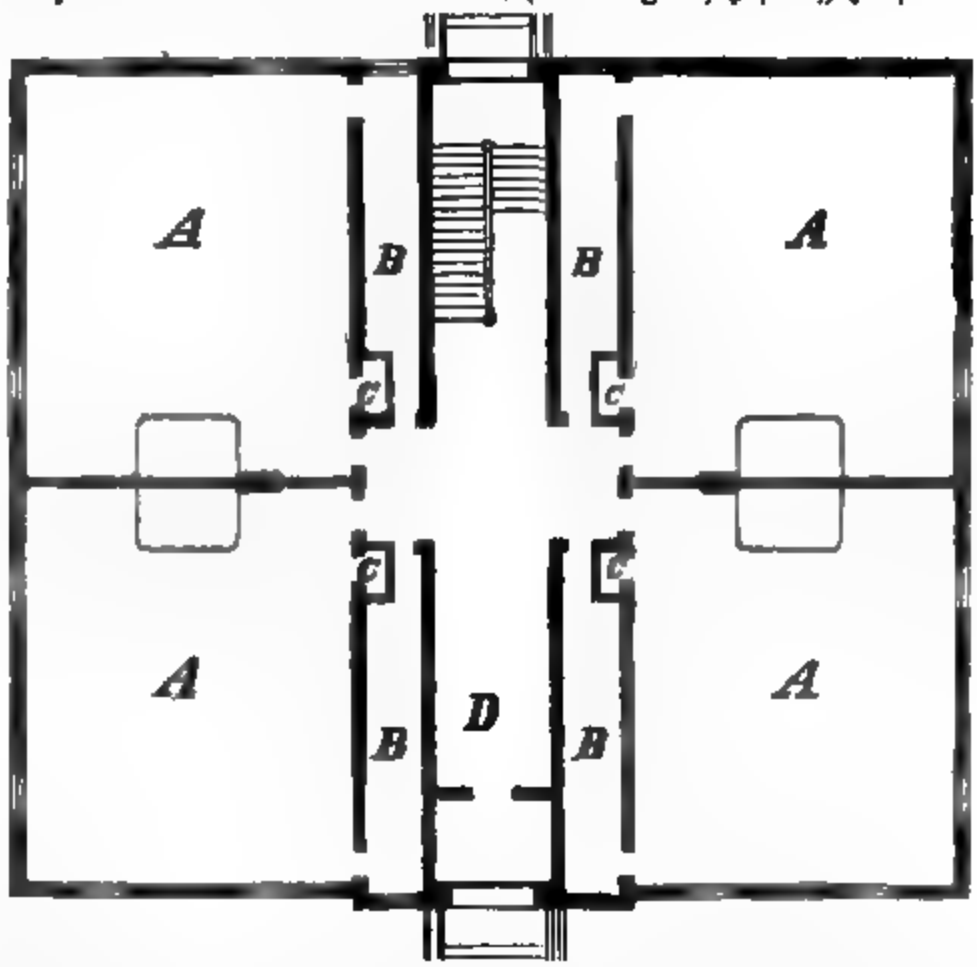


COTTAGE GROVE SCHOOL, CHICAGO, ILLINOIS.

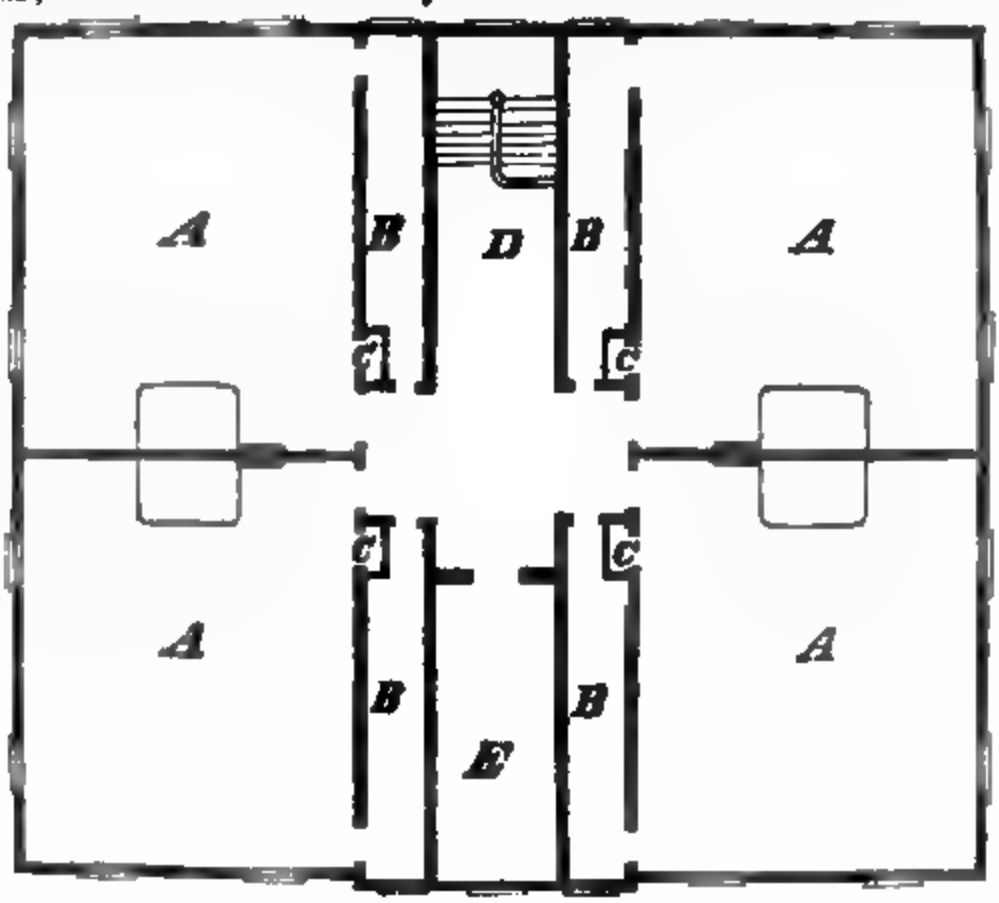
Erected 1867. Cost, (exclusive of lot,) $17,674.22. 448 seats.

Plan of Cottage Grove School, Douglas Place, Chicago.

The Cottage Grove School building, erected in 1866–67, is located on Douglas Place, near Cottage Grove Avenue, in the centre of a lot 200 × 231 feet, finely shaded by native forest trees. Total cost, (including lot, $6,400,) $24,094.92.



The building is of wood, two stories high, 77 × by 68½ feet on the ground, with four school-rooms, (A) each 27 × 33 feet, with a wardrobe (B) attached, 5 × 27, and teachers' closet, (C) on each floor—and a reception room (E) in front on the second floor, 10 × 23 feet. Each room is provided with single seats and desks; and the whole is heated by one Lawson furnace and four stoves.



Second Floor.


W. W. BOYINGTON, ARCHT.



PUBLIC HIGH SCHOOL, SPRINGFIELD, ILLINOIS.



PUBLIC HIGH SCHOOL, MARSHALL, MICHIGAN

Plans and Descriptions of Union School House, Ypsilanti, Michigan.

This edifice stands in the center of a beautiful square in the central part of the city of Ypsilanti, one of the most attractive, healthy and flourishing towns in the State of Michigan. The building has a transept of 120 feet and a depth through the transept of 95 feet, and through the end compartments of 68 feet. The first story of the building which is 20 feet high in the clear, contains a large room, 90 by 45 feet, used for public exercises, chapel, &c., four primary school rooms, with necessary clothes rooms, and two main transverse corridors, running entirely through the building, each 12 feet wide. The large room is a clear and uninterrupted space, without column or pillar of any kind to intercept the view.

The second story contains one class room 45 by 41 feet—two other class rooms, each 41 by 22 feet, four recitation rooms, library, apparatus room and necessary clothes room. In this story the main corridor, 8 feet wide, runs longitudinally through the building, lighted at each end by a triplet window.

The third story contains one class room 45 by 41 feet, one do. 35 1-2 by 28 1-2 feet, two do. each 45 by 22 feet, three recitation rooms, suit of rooms for janitor's residence, clothes rooms, corridors, &c., the latter being arranged as in the second story. The second and third stories are each 16 feet high in the clear. The first story is raised 6 feet above the level of lot, leaving a lofty basement story under which will be occupied by heating apparatus, storage and fuel rooms.

The elevation is designed in the Italian style of architecture, and can be sufficiently understood by the accompanying engraving. The quoins in the corners, the window and door caps and sills, the cornice, the architave mouldings, belt courses, &c., are finished in imitation of brown free stone,—the remainder of the work being of hand pressed brick.

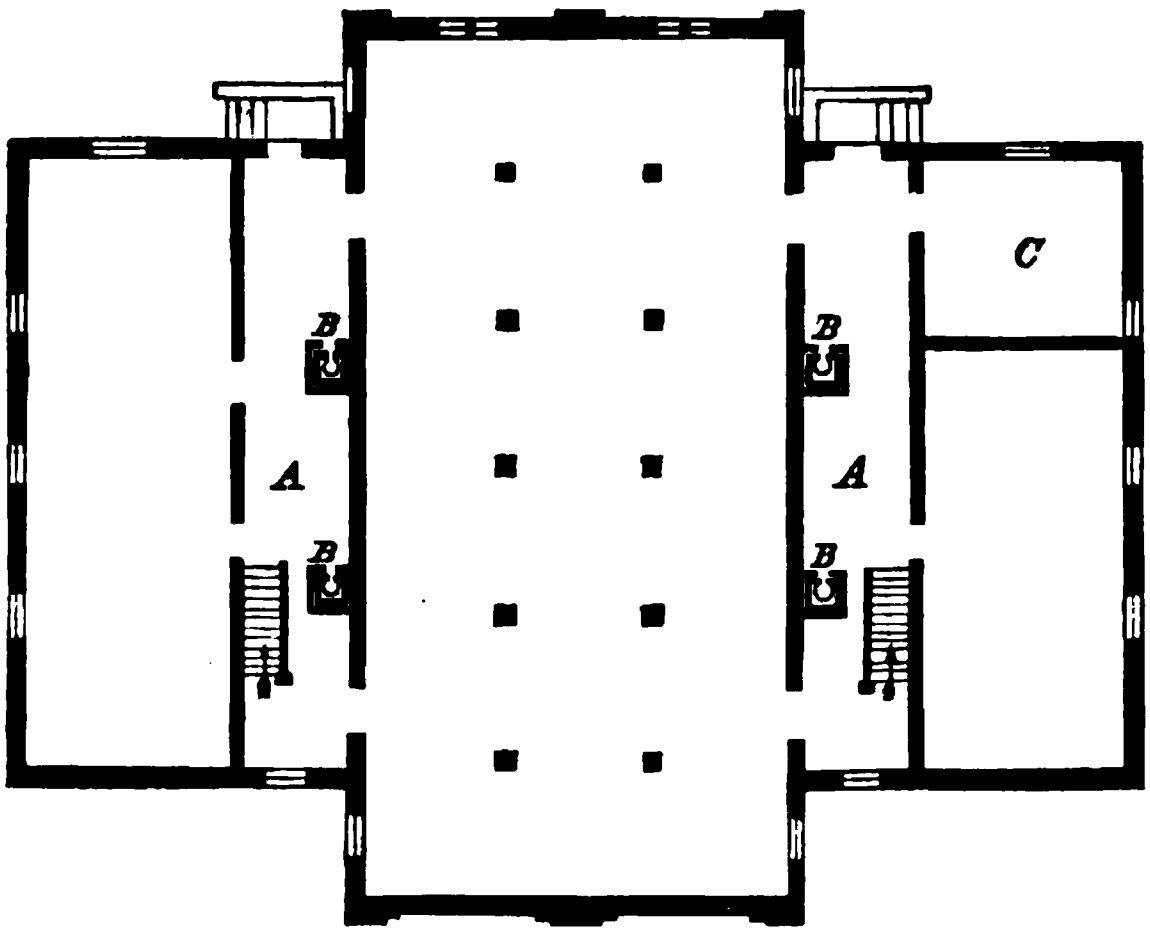
There are several advantages claimed in the plan of this Union School. In the first place the large room or chapel is placed in the first, instead of as is usual, in the third or upper story. This is infinitely more convenient and safe, than it is to require an entire congregation at commencement or other exercises, to climb up to the top of a high building. It is also more desirable, as the infant children can be taken into the room on all occasions, without danger to them, which in ordinary cases, tutors are afraid to do. In this plan it will be seen that the infant children have access to their school room by side doors, independent of the main halls which are used by the older scholars, also a very desirable arrangement. The entire separation of the sexes in the access to, and egress from, the school is secured, and yet by the interior arrangement of the rooms they can unite when required during their studies, and separate again to their respective class rooms without confusion or inconvenience. Constructively also it has several advantages. Requiring strong interior walls, there is ample opportunity for carrying up the warm air and ventilating flues in them, instead of in outside walls, thereby securing more sure and constant action of the air in the flues, both injecting and ejecting, and removing all doubt as to their proper action. The doors to all rooms are made with a swinging panel over the transom, so that in the warm weather, by opening these, and the windows of halls and rooms, a constant change of air is gained. The exterior walls are all hollow and plastered into the brick work. The staircases are wide and easy to ascend, giving ample opportunity to discharge the entire number of scholars in a few seconds of time.

The plans have been originated, matured and carried out, by Messrs. Jordan & Anderson of Detroit, Michigan.



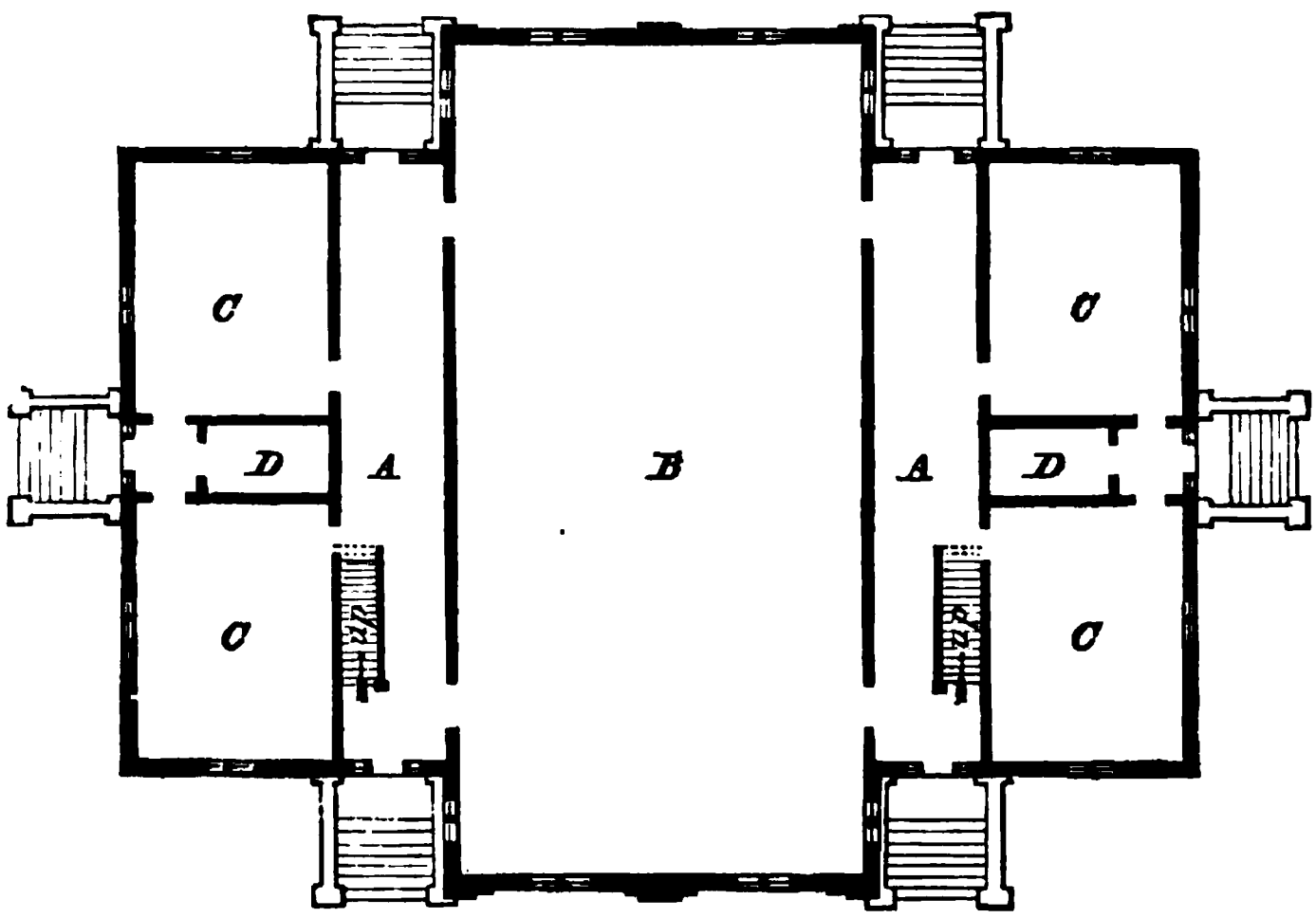
UNION PUBLIC SCHOOL. YPSILANTI MICHIGAN.

Fig. 2.—Plan of Basement.



A A—Halls.
B B B B—Furnaces.
C—Janitor's Room.

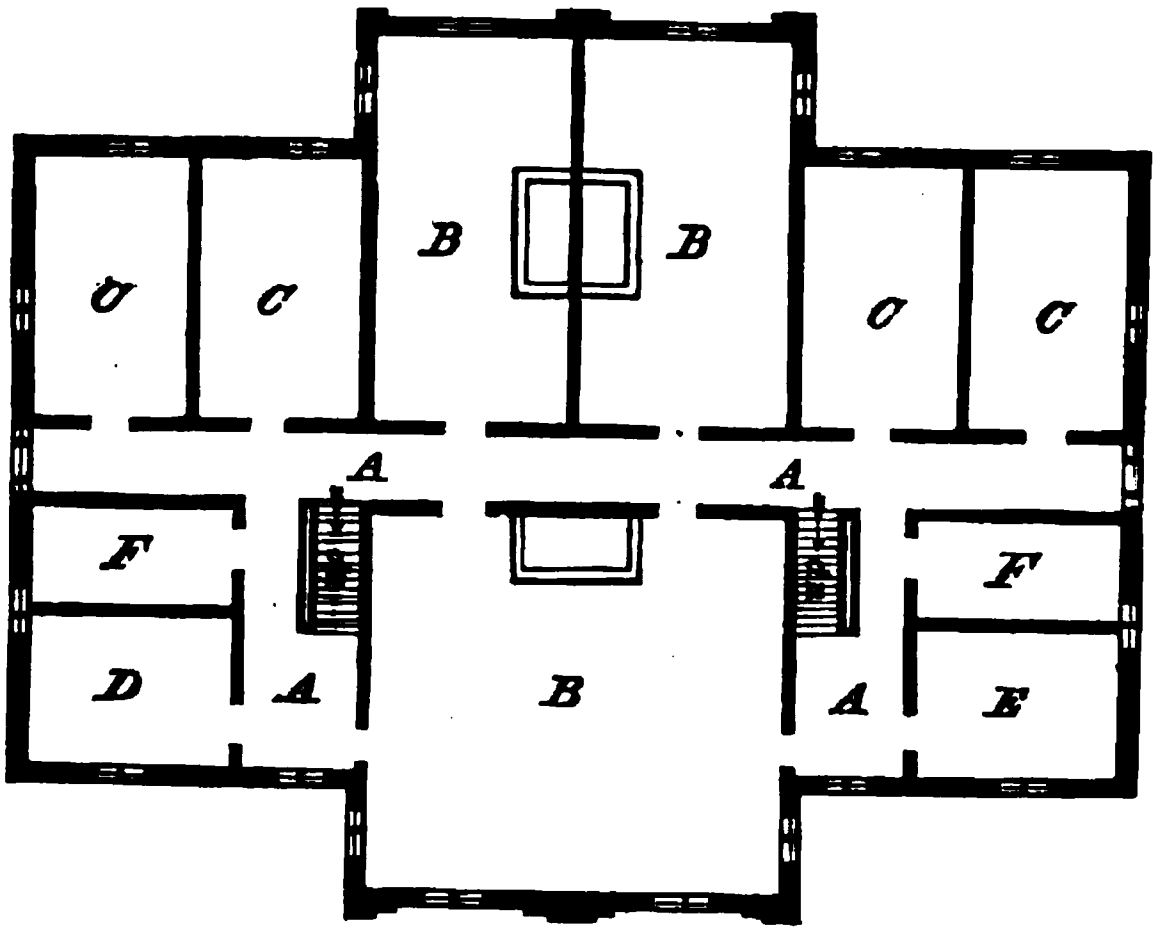
Fig. 3.—Plan of First Story.



A A—Halls.
B—Chapel, or Hall for general exercises.
C C C C—Primary Rooms.
D D—Clothes Rooms.

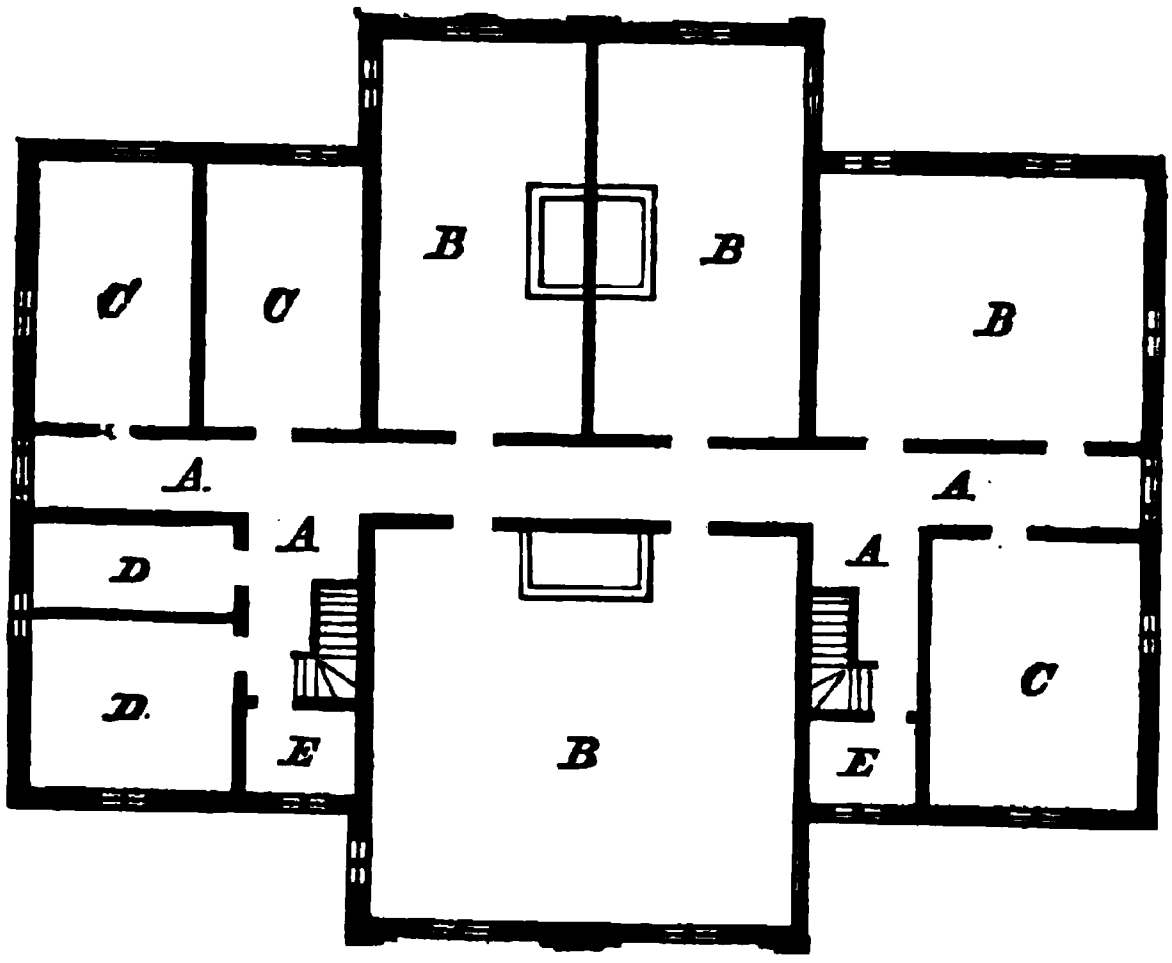
Scale 40 ft. to 1 inch.

Fig. 4.—Second Story Plan.



A A A A—Halls.
B B B—Class Rooms.
C C C—Recitation Rooms.
D—Library.
E—Apparatus Room.
F—Clothes Rooms.

Fig. 4.—Third Story Plan.



A A A A—Halls.
B B B B—Class Rooms.
C C C—Recitation Rooms.
D D—Tutors' Rooms.
E E—Clothes Rooms.

Scale 40 ft. to 1 inch.

Plans of Union School-house in Ann Arbor, Michigan.

The grounds of the Public High School or Union School in the city of Ann Arbor, Michigan, occupy an entire square—in the center of which (Figure 2) the building stands. That portion which is in front is planted with trees and shrubbery, so dispersed with intervals of green sward and parterres of flowers, by an experienced gardener, as to produce the finest effect. The portion in the rear is divided into two yards, appropriately fitted up for the recreations of either sex.

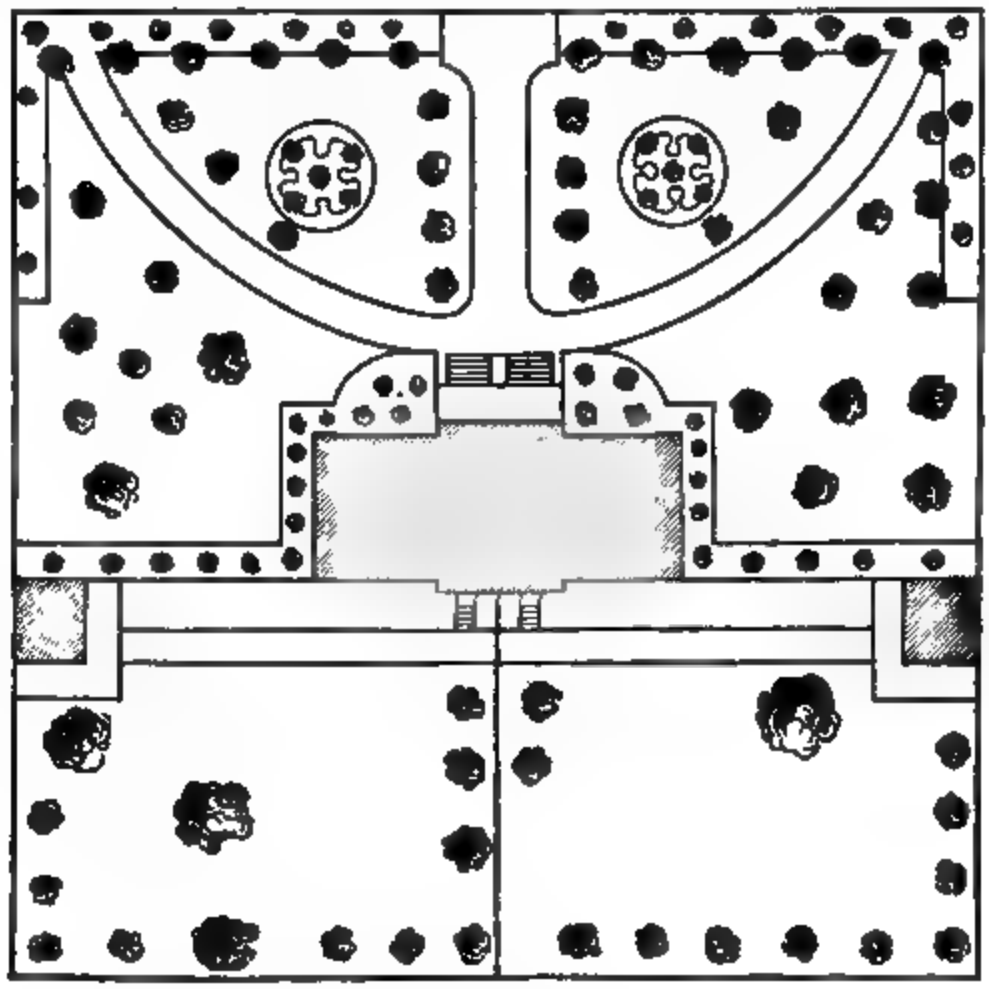


Fig. 2. Grounds.

The building is three stories high, as is shown in Figure 1, besides a basement 9 feet high. The first and second stories are each 12 feet, and the third story, which is finished in one hall, used for chapel and other general exercises of the school, is 16 feet in the clear.

The two wings on the first and second floors are occupied by class-rooms, (A.) each 36 by 37 feet—those on one side for girls and those on the other for boys—each class-room having a large recitation room (B.) On the lower floor one of these rooms is occupied by the library, and the other by apparatus. There are appropriate rooms (D. E. C.) for depositing outer garments. The furniture is of the latest and best style for strength and convenience. Ventilation is secured by separate flues, (V.) and the entire building is heated by air, warmed by furnaces in the basement, and introduced at different points (A.)

The grounds, the school-house, and the school constitute one of the attractions of Ann Arbor.



PUBLIC SCHOOL IN ANN ARBOR, MICHIGAN

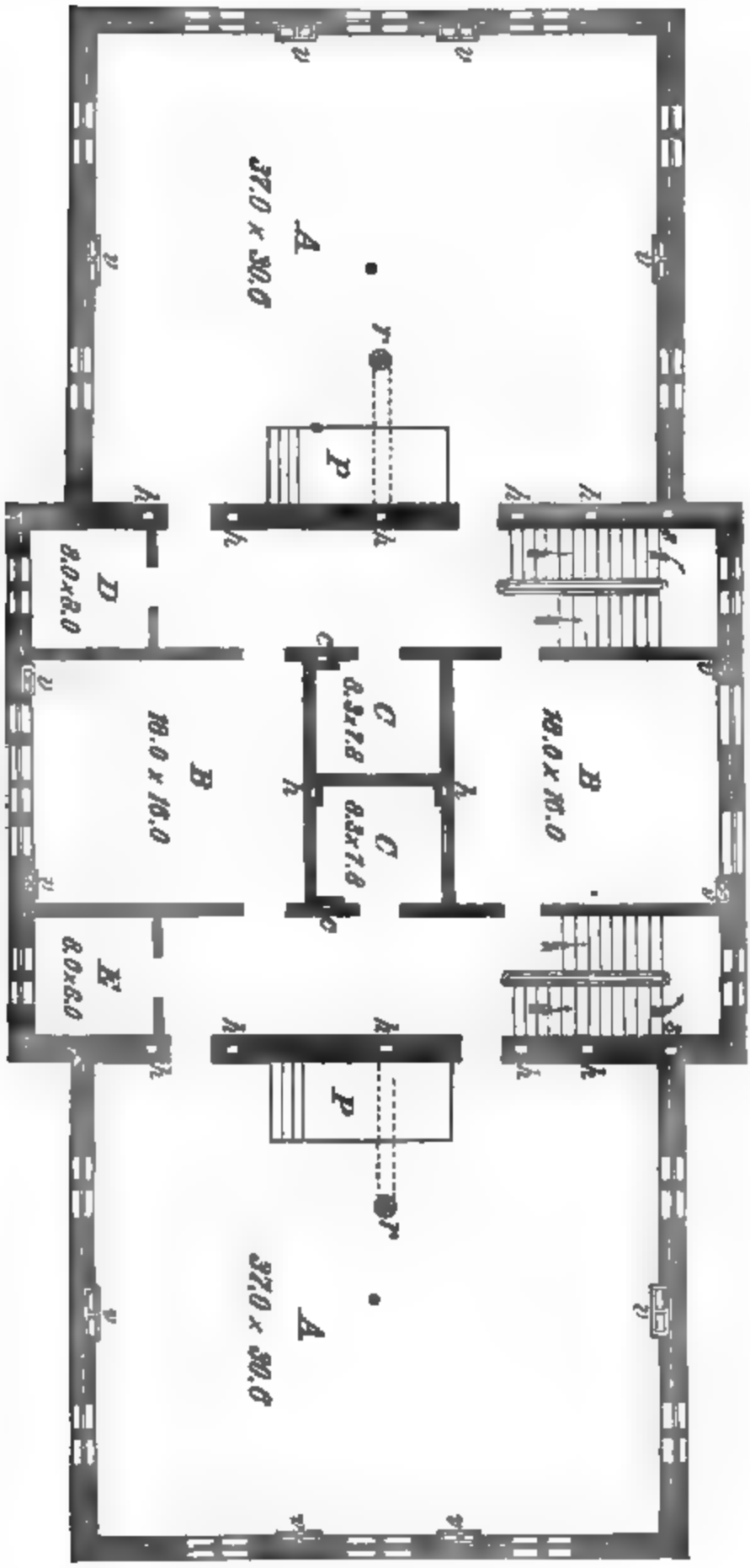


Fig. 3. First and Second Floors.



HUGHES'S CITY HIGH SCHOOL, CINCINNATI

Plans of Hughes' City High School of Cincinnati.

The Hughes City High School is one of two Public High Schools, sustained partly out of two trust estates, known as the "Woodward" and "Hughes" Funds, by the City of Cincinnati, as part of its system of public instruction. This system has grown up to its present extent and usefulness since 1828–9, when Col. Andrew Mack carried through the Legislature of Ohio, a bill for a special act, imposing a tax of $7,000 upon the city, for the erection of suitable buildings in the several wards, and an annual tax of $7,000 in each subsequent year, which, together with the State appropriation, was to be applied to the support of common schools. Under this act, the system was commenced, and in 1834, it was better grounded and greatly extended by an act authorizing the City Council to build substantial school-houses, and to provide for the support of common schools therein at the expense of the city. Accordingly, the city was divided into districts, and in the course of four years nine buildings were erected, at an expense of $96,000—which, in location, size, and arrangement, were greatly in advance of the then generally received notices of school architecture. From year to year the number of houses has been increased, to meet the demands of the growing population, and the style and fixtures greatly improved. The care of the schools is committed to a Board of Trustees and Visitors, one for each ward, elected by the legal voters thereof.

In 1845, the board were authorized to establish schools of different grades, and in 1847, a Central High School was organized under the charge of Prof. H. H. Barney, who has just (1853,) been elected State Superintendent of Common Schools.

In 1850, the Legislature authorized the appointment of a Superintendent of Common Schools, "whose duty it should be to visit and superintend all the common schools of the city, and, under the direction of the board of trustees and visitors of common schools, to establish such course of studies, rules, and regulations as may be deemed best calculated to promote the progress and well being of said schools."

In 1852, the Woodward and Hughes Funds, amounting to $300,000, and yielding an annual income of over $6.000, were united for the purpose of sustaining two High Schools, in different sections of the city—with the same requisites for admission and course of study, and open to both sexes.

For the Hughes City High School a lot on Fifth-street was purchased for $18,000, and a building, of which the following diagrams present the size, and internal accommodations, was completed in 1853, at an expense of $20.000.

The system of Public Instruction in Cincinnati, embraces:

I. District schools—one for each of the twelve districts, into which the city is divided for school purposes. Each school is classified into four sections or grades, and the pupils pass from the lowest to the next highest on examination, which is held twice a year. In 1850, there were 6,740 pupils, under 148 teachers, of whom 124 were females.

II. German English Schools—three in number, are intended for the special accommodations of children born of German parents—and who are taught both the German and English language. In 1850, there were three schools, twenty-four teachers, and twenty-three hundred pupils.

III. Evening Schools. Cincinnati was one of the first cities to provide this class of schools for children who could not attend the day schools, and for adults whose early education had been neglected. In 1850, there were six schools, open five evenings in the week from October to February, with about six hundred pupils.

IV. High Schools—of which there are now (1853) two.

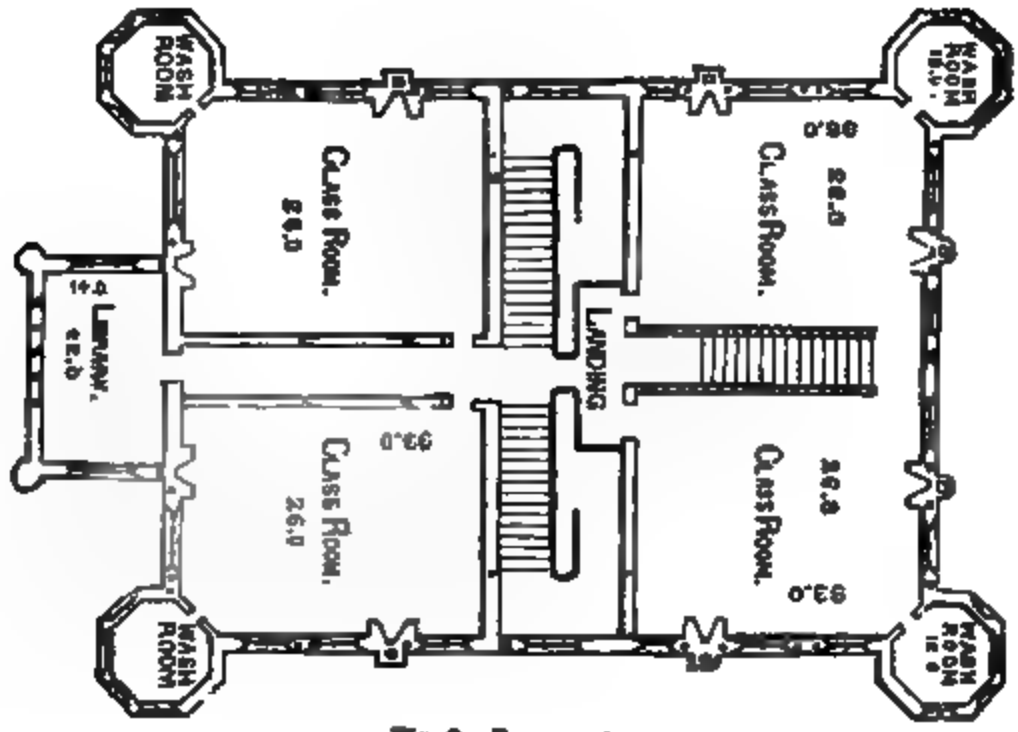


Fig. 2.—Basement

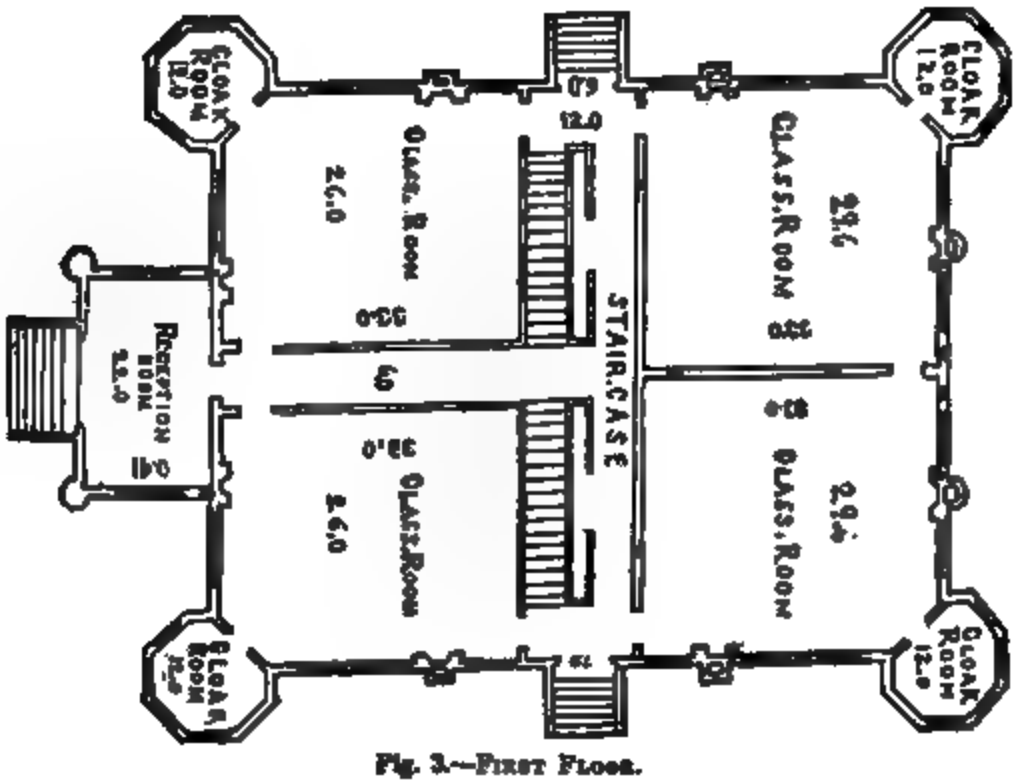


Fig. 3.—First Floor.

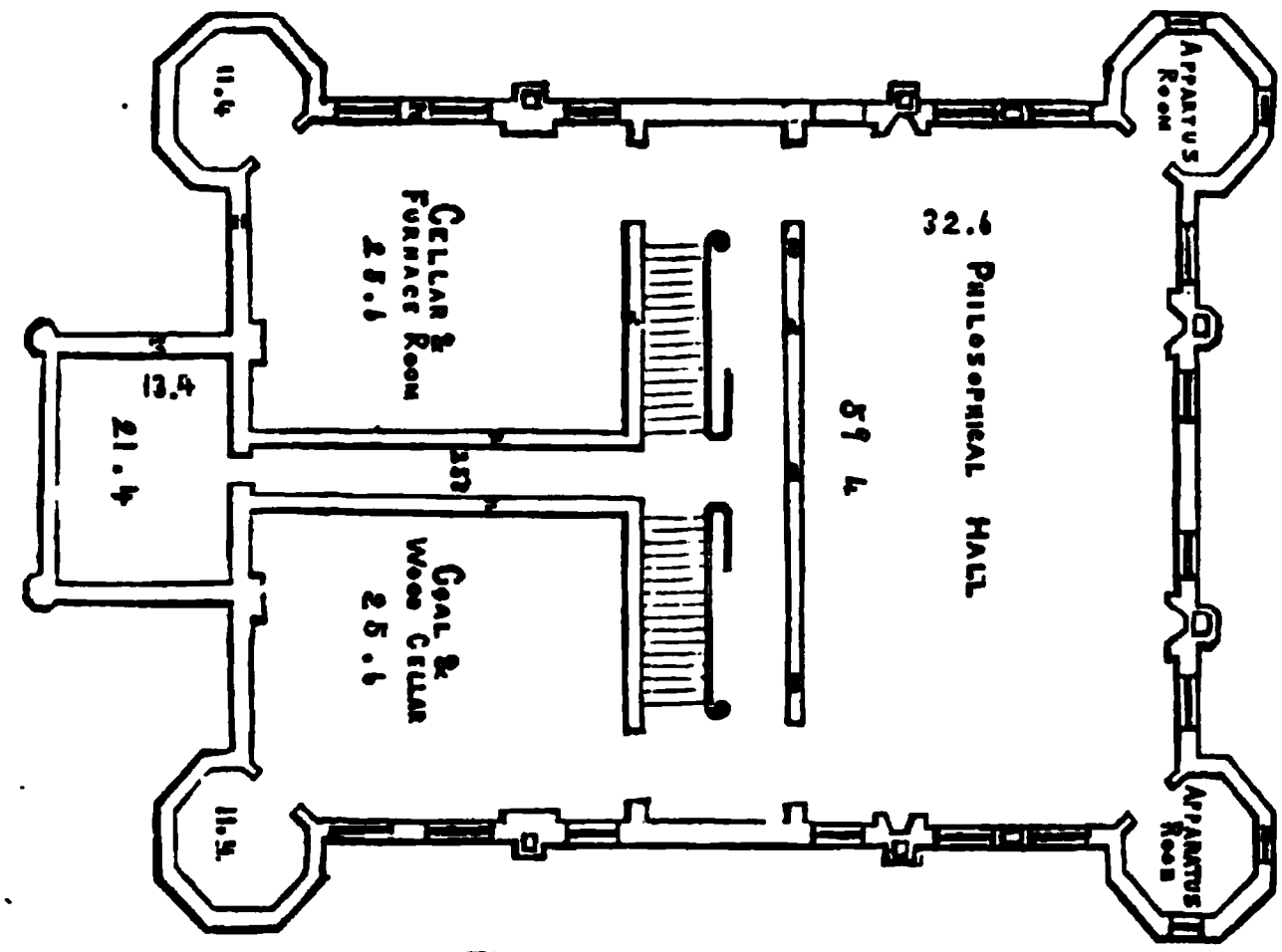


Fig. 4.—Second Floor.

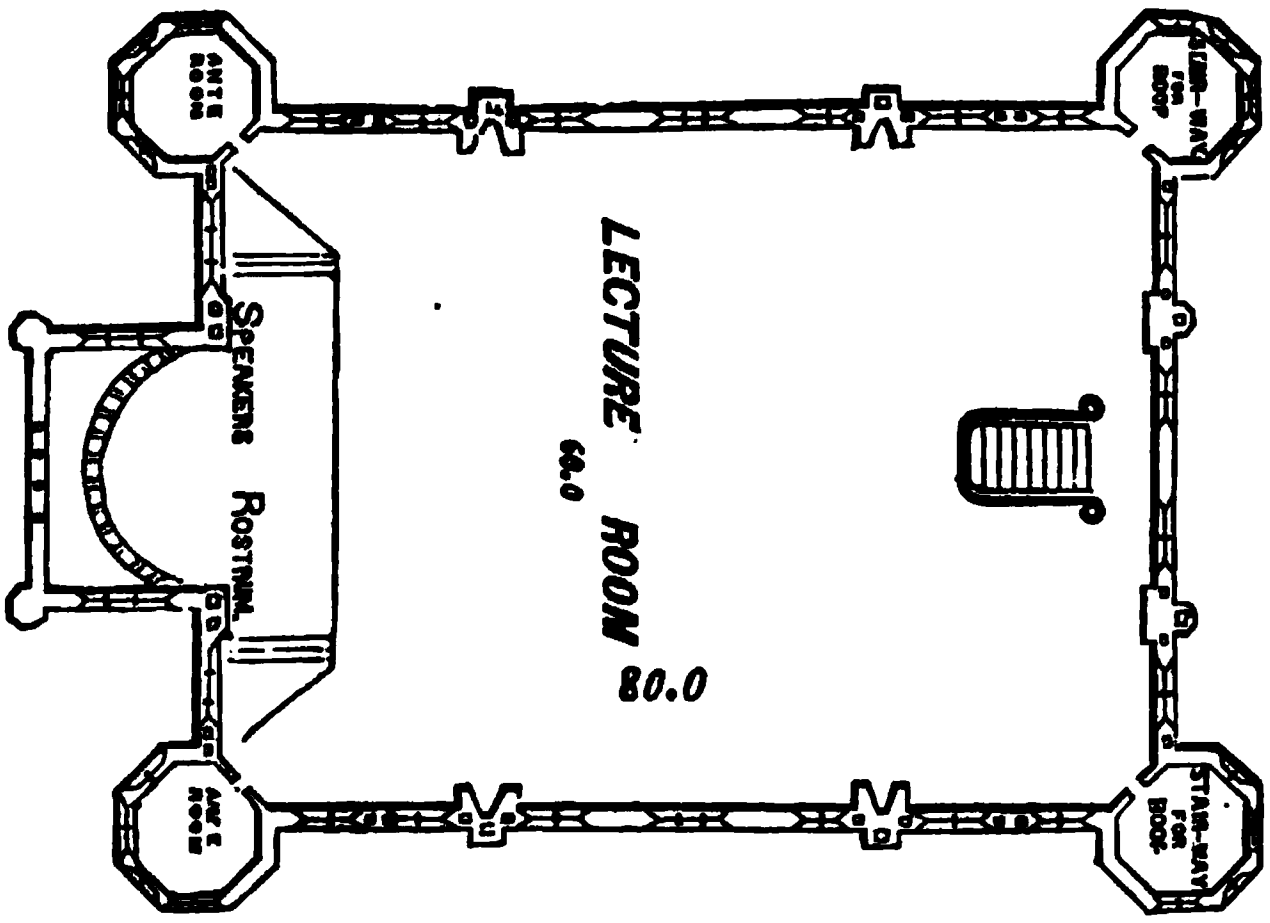
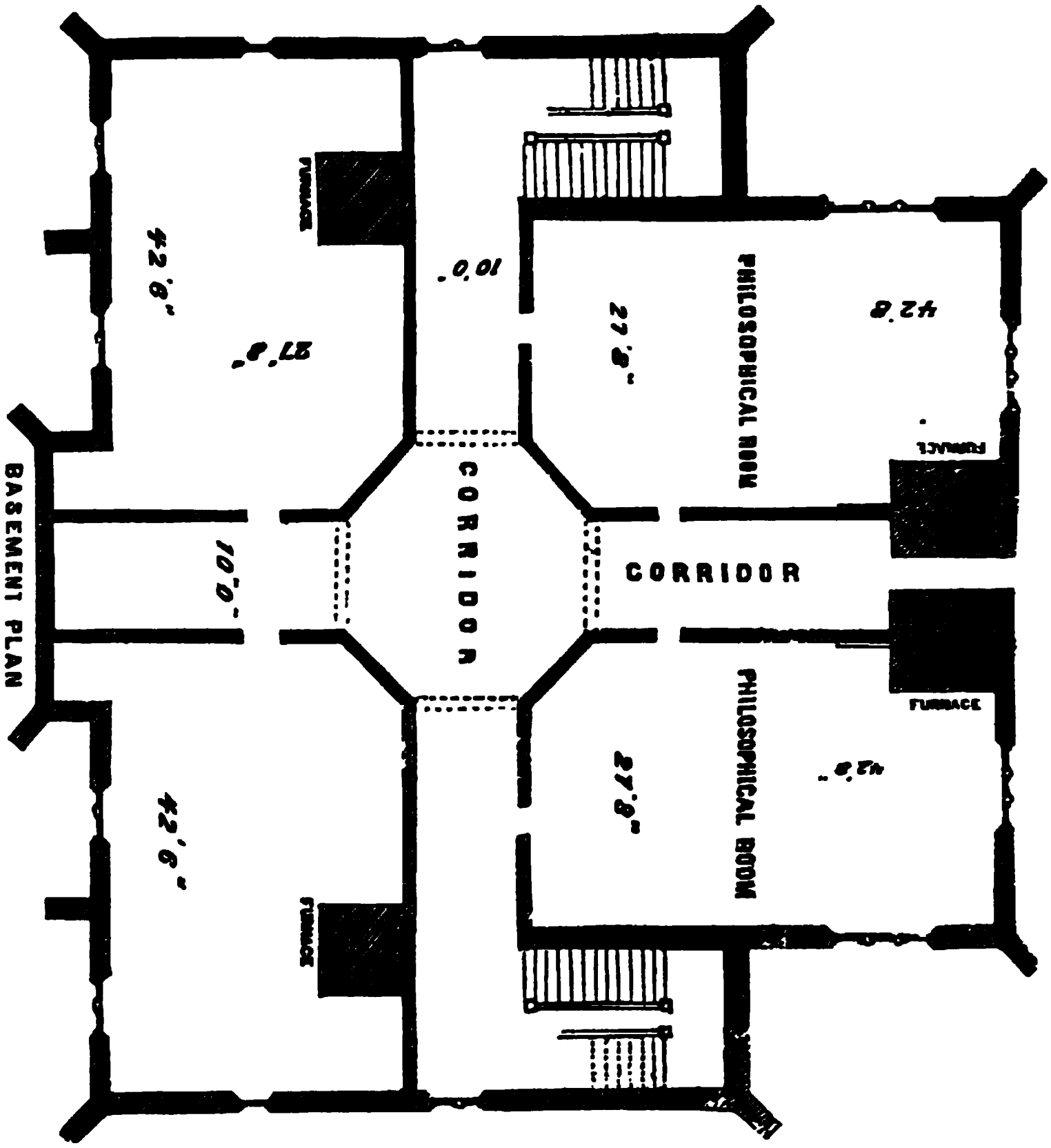


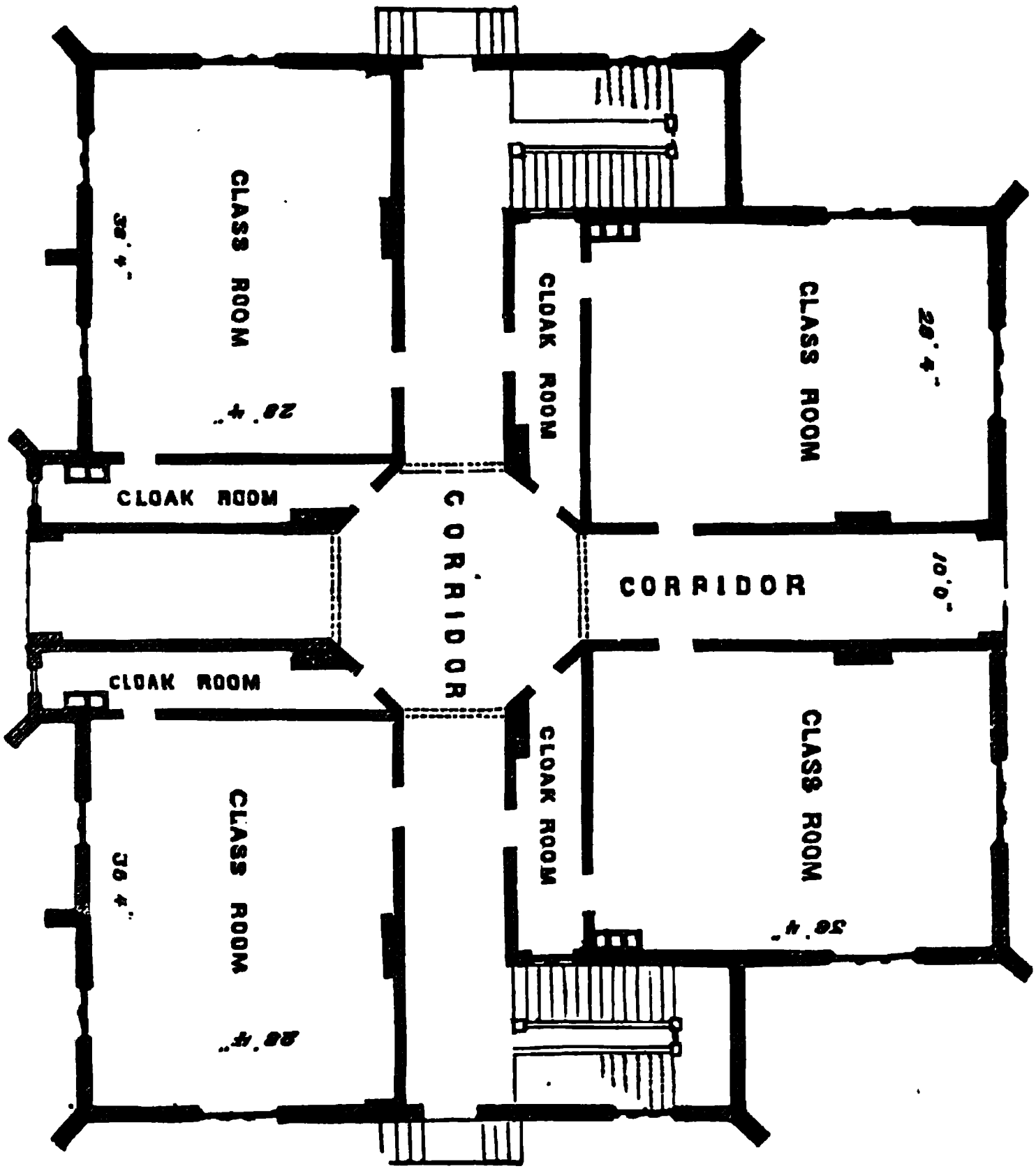
Fig. 5.—Third Floor.



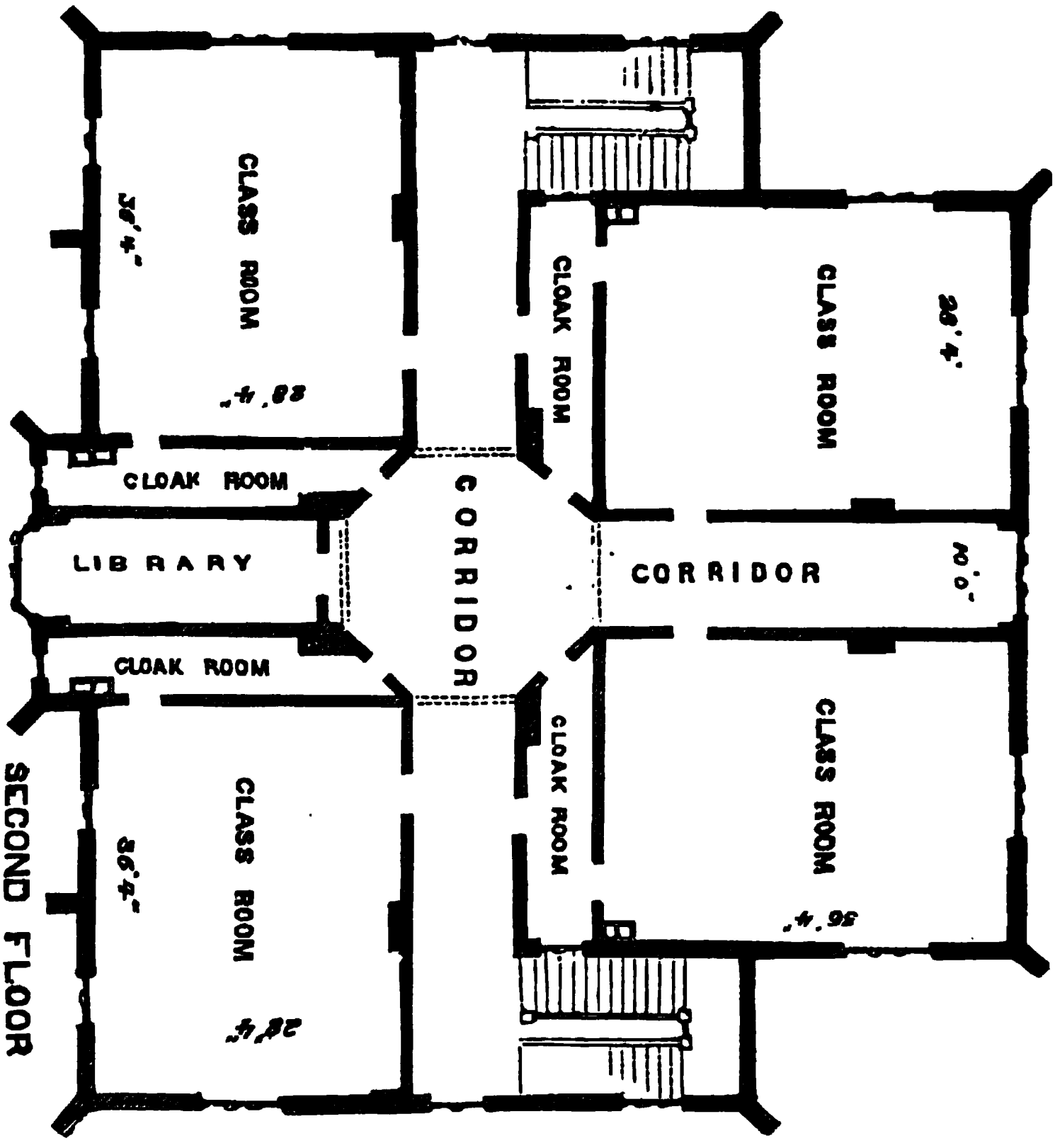
PLANS OF WOODWARD HIGH SCHOOL.

THIS beautiful building, in the Tudor style of architecture, is located on a lot bounded on the north by Franklin street, on the south by Woodward street, between Broadway and Sycamore streets. It is constructed of brick, with solid buttresses running the height of the building and terminating with ornamental pinacles. The windows are of rich tracery, but sufficiently massive to give an idea of strength,—and quite unlike the cobweb effect usually produced by cast iron imitations of stone. The external decorations are very rich, and possess those bold and artistic outlines so peculiar to the style. The roof is of singular but pleasing construction, steep and lofty, covered entirely with cut slates, which give a rich appearance, and fringed with ornamental ridge work. In conception, and execution, it is unquestionably the most correct architectural specimen of this class of collegiate buildings which has yet been produced in our Western States.

The basement, which is lofty and well-lighted, comprises philosophical and apparatus rooms, large and well-regulated chambers for the heating apparatus, fuel, &c.; and the approach to it is by a continuance of the grand staircases, rendering this portion of the building as accessible and well-ventilated and lighted as any other.



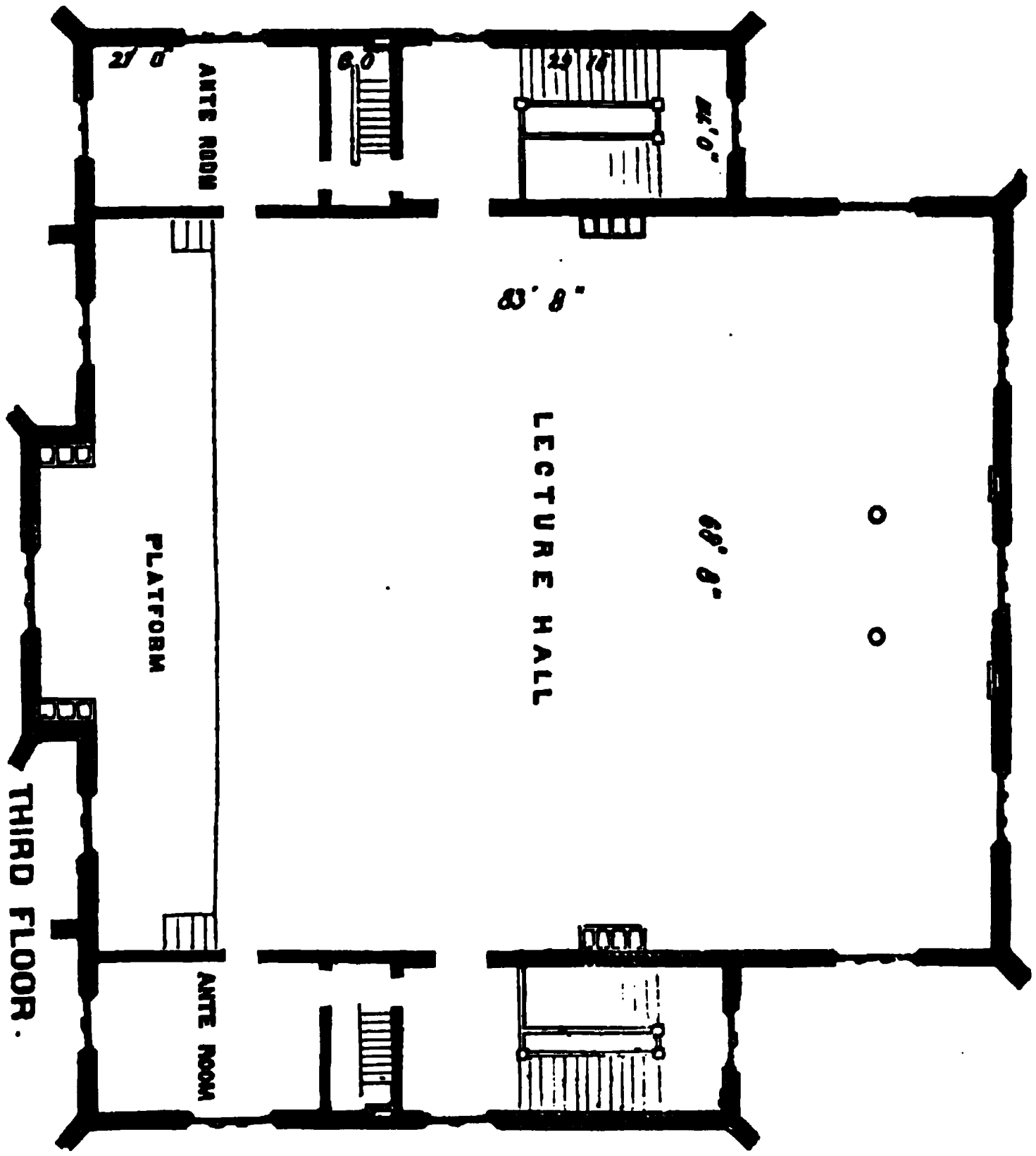
The ground floor has entrances on each of the four sides, leading to spacious corridors, which cross at right angles in the centre of the building,—the intersection being arranged in the form of an octagon, with arches on each side, producing an imposing effect. On this floor are four large class rooms, each 36 feet by 28 feet, well arranged with reference to the position of teacher, and the doors so located that the scholars face any one who enters. Contiguous to each class room is a commodious cloak room, accessible both to the corridors and class rooms. One of the most noticeable and admirably disposed features of the building is the staircases. There are two of these, forming a flank to each side of the building. They extend from the basement to the lecture hall, on third floor, and terminate in two beautiful towers, which add materially to the external effect of the building. These staircases are wide, of very easy ascent, and, in their form of construction, with the arching overhead, present a really noble appearance. But this is their least merit; located as they are, they afford an entrance on each side to the grand lecture hall, and, although contiguous to the latter, do not mar its beauty or comfort by breaking up any portion of its space. Another invaluable result from this treatment, is security in case of fire. Two large staircases so situated, widely apart from each other, and, although attached to, practically isolated from the main body of the



building, present the best safeguard, and render impossible the terrible calamities which have more than once resulted in our schools from the neglect of this precaution.

The second floor is identical in its arrangement with the first.

The third floor is exclusively devoted to the lecture hall, the staircases which flank and give access to it, and two ante-rooms, one on each side, accessible both from stairs and lecture hall. This lecture hall is, without exception, the grandest room of the kind which has yet been seen in this part of the world. Its entire dimensions are 83 feet by 68 feet, irrespective of the galleries, which are ingeniously arranged over the ante-rooms, and in the space gained between the ceiling of the ante-rooms and that of the lecture hall, the height of the latter being 25 feet. The effect of these arched galleries at the end of the room is very fine. At one end of the room is a raised platform, occupying in length the entire width of the room, and in the centre of this end of the hall is a wide and lofty arched recess. The appearance of the hall, with its windows of rich Gothic tracery, the arched galleries, the ceiling formed of oak leaves crossing each other with handsome rosettes at their intersection, and deep-sunk panels of a dark blue color, the



rich wainscotting of the walls, and handsomely devised doorways, present altogether an appearance of unusual beauty. The artistic peculiarities of the Tudor style of Gothic have been faithfully carried into the minutest features of this structure, both internally and externally; and the total absence of any admixture of other styles produces that charming effect of harmony and unity which is the prevailing characteristic of this building.

The enclosure of the area, on the Franklin street or main front, is formed of a rich iron railing, of Gothic design, resting upon a bold plinth of Dayton stone. The piers which flank the enclosure at each end, and the central gate piers, are also of Dayton stone, of beautiful design, and richly carved and ornamented.

The cost of the building was very near $44,000, including four furnaces for warming, gas fixtures, &c.

The entire cost of the structure, including fence, walls, railing, grading, &c., was $53,000. It was designed and superintended by J. R. HAMILTON, architect, and erected by DANIEL LAVERY, contractor, under the foremanship of JOHN TAYLOR,—all of Cincinnati.



Improvements in the Plans and Construction of Public School-houses in Philadelphia.

HOLLINGSWORTH SCHOOL.

LETTER FROM EDWARD SHIPPEN, ESQ., PRESIDENT OF THE BOARD OF CONTROLLERS OF PUBLIC SCHOOLS.

The large, older, and closely built cities of the United States suffer in comparison with their junior sisters in regard to their facilities for the placing of School-edifices. In the new cities there is ample opportunity of obtaining space at moderate cost, and in convenient localities—not so however with the old. School-houses should be fixed at centres of defined school-districts. In the old cities, this is impracticable, as in Philadelphia for instance, at least in the city proper. Consequently there has been built comparatively few School edifices for the public in the last ten years. At length it became essential, in order to supply the demand, that buildings of all conceivable plan, kind, and description, from the rope walk to the stable, from factory to the private residence, should be used for School purposes. The School Controllers eventually took a determined stand, and claimed at the hands of the City Councils that the children of their constituency had a right to be lodged six hours a day in healthy and convenient School-houses, that they had a right to the pure air and sunlight which Providence accords to all mankind free of cost, and that if the mind was worthy of cultivation and preservation, the body was equally so. The Controllers claimed that one million of dollars was needed for building purposes alone, and that so much more was required as would command lots for the new edifices. The claim was heeded, the million dollars accorded, and several hundred thousand dollars more expended in the purchase of lots, in most cases not large enough, but as large as could be had, save at exorbitant cost.

Thus armed and equipped, the Controllers determined that the new Schools should be erected upon the most approved modern models; that they should embrace all points of utility, and should avoid all those which had been tried and had failed. To accomplish this desirable end, their Committee closely examined the edifices of Boston, Providence, Worcester, Baltimore, Chicago, Milwaukee, St. Louis, Columbus, and other cities. In these examinations, much attention was given to details, and it may be fairly presumed that all the modern improvements and appliances have been studied, adopted, or rejected, and that the new structures will have much to commend them to those who seek information upon the subject of School Architecture.

The Report of the Philadelphia School Board of 1867 gives seventeen well executed wood-cuts of elevations and plans now in process of erection. It was wisely decided that among other points should be attentively regarded the following features:

Proper *economy*, not *parsimony*.

That while the School-house should present to the public eye a neat architectural design, all useless ornamentation, internal and external, should be avoided, and most of all that the "confectionery" as well as the millinery of architecture should be dispensed with as useless. costly, and out of taste.

That the School structures should be erected with a view to durability, and the avoidance as far as possible of repair.

That whenever the location permitted, the building should stand alone, for convenience, for light, and for ventilation.

That the best and most economical mode of heating and ventilation should be adopted.

That all buildings should have, when the size and location of lot admitted, light to each room from two exterior sides.

That staircases of easy ascent should be located in different parts of the building, and ample means of ingress and egress should be afforded, so that in case of sudden alarm a whole School might be cleared instantly of its inmates without confusion or danger.

That each class-room should have accommodation for hats and cloaks conveniently located.

That each class-room should be able to dismiss *directly* into the hall or stairways.

That the hardware for School buildings should be suitable for constant and unusual use; and that in all other particulars, regard should be had to utility, economy, convenience, and appearances.

The mode of obtaining plans in Philadelphia for buildings was changed so as to permit those who are most familiar with the wants and requirements of the Schools, to obtain them without being obliged to advertise for competition. The practical result of the old system had proven most unfortunate, for, as a rule, the ablest and most experienced architects were averse to competition, and were unwilling to spend their talent, time, labor, and money upon plans, at the risk of rejection; the effect therefore of the advertising system was to deprive the city of the services of very many architects of acknowledged ability, and to narrow down the competition to a very limited number.

The various Boards of School Directors have been consulted by the Committee on Property, in respect to the wants of their respective Schools, and, as a general rule, it is believed without exception, the plans adopted for new School-houses have met with the approbation of the Directors.

The Committee on Property gained many useful hints and suggestions with respect to School-houses, on their visits to Boston, Cambridge, Baltimore, Milwaukee, Chicago, St. Louis and Columbus; and it is believed that our edifices, when finished, will equal any in the country in their adaptation to School purposes; that they will be a credit and ornament to our city; and that they will, by reason of the care taken in the matters of warming, light, and ventilation, preserve the health of our children, many of whom have in the past been stored in factories, churches, and dwellings rented for educational purposes.

It seems to be the opinion of teachers, as well as of all who have the care and supervision of Schools in cities, that no School edifice is complete unless it contains a large hall, capable of accommodating at one time all the pupils of the School; that every room should be well lighted, and that, when practicable, direct light should come into every room from two sides, and the room should have also whatever of "borrowed light" it can command; that each School-house should be so ordered that every room may have its separate means of ingress and egress; that stairway facilities should be numerous; that each division should have its clothes-room conveniently located; and above all that ventilation, in winter and summer, should be so ordered as to keep the atmos-

phere constantly changing by the expulsion of the foul air, and the continuous introduction of pure air from without, avoiding perceptible currents.

With respect to the hall accommodations above referred to, it is scarcely necessary to say that when space is expressly devoted to that purpose, and to that alone, the cost of the building is correspondingly increased.

On the contrary, if a number of class-rooms can at any time be converted into a large hall or room, the desired end is better attained.

The plans which will be found in the Report explain how this may be accomplished by means of glass partitions hung on pulleys or wheels at the top, and which with a slight impulse may be almost noiselessly rolled into the casements on the sides; one advantage of this principle over a special assembling room, besides the matter of cost, is, that any number of class-rooms in which scholars are assembled may be suddenly converted into a large room, without the vacating of seats, and without the noise or the loss of time caused by moving; and that, instantly after any general exercise, in which a whole School may join, as in singing, or in the opening or closing exercises, the partitions may be closed, the classes all being seated. Each story may be thus arranged.

When public buildings are by law given to the *lowest* bidder upon advertisement, and to be erected on the contract system upon plans and specifications, the door is open wide to fraud upon the public; as a rule, the competition is with very few, and they frequently irresponsible and unreliable builders, who seek to make pecuniary amends for low bids by slighting their work, and furnishing unsuitable material, in the hope of bringing sympathy to their aid, under various pretexts and pleas, when discovery is made or complaint uttered; and too often with success, to the public detriment. Security it is true may be demanded; this, though wise, is not enough, for the sympathy which relieves the contractor also relieves the security; nor is there any way to secure entire justice to the public on the general competitive advertising plan. In Philadelphia, the Committee upon Property of the Controllers of Public Schools have done much to guard the public interests by requiring large and reliable security, by holding the contractor fast by reservations of large, unusual, and ample powers—by requiring incessant watchfulness of the supervising architects—by the appointment of an Inspector of School buildings, whose duty it is to be on constant visitation, watching the progress of each building, and reporting weekly to the Committee. Besides these checks and guards, the Committee itself pay frequent visits.

While due regard seems to be paid to public interests, the Committee in like manner seems to look to fair dealing between the contractor and material man and his sub-contractors. By law, Public buildings are not the subjects of mechanics' lien, and ordinarily it would be possible for an irresponsible contractor to bid low, complete his contract, pocket the price, and by leaving material and labor unpaid for, make large gains himself, and throw the poor laborer and mechanic upon the mercy of a merciless man. To remedy this evil as far as practicable, the Committee has provided for a release of claim by the material man and mechanic before final payment is made; and it has proven by actual experience of great advantage to public and private interests. The form of the building contract is hereto annexed, and is commended to those who have the responsibility of erecting public buildings cast upon them.



HOLLINGSWORTH SCHOOL, Locust Street, west of Broad, Philadelphia.

HOLLINGSWORTH SCHOOL.*

Upon looking over the plans of the many new School buildings in Philadelphia, now in process of erection, one will be impressed at a glance with the Hollingsworth School, in the eighth ward. Having visited this School, the visitor will be struck at once with the completeness and adaptability of the edifice for its purposes, and upon close inspection, he will be satisfied that it is a model in all its detail, well worthy of imitation. This School should be visited in order that its simplicity, its economy and utility may be thoroughly comprehended. It seems to combine all the principles to which reference has been made. I now proceed to give a close description of all its parts, and to comment upon all points which strike us as specially worthy of note.

The Hollingsworth School is named after Thomas G. Hollingsworth, who was connected with the Public Schools of Philadelphia from their institution till his death in advanced years—a fitting tribute to one who was a faithful public servant, and who did his whole duty in his generation.

The cellars are well closed in, and the ceiling joists lathed and plastered. Frequently this important feature in public buildings and private dwellings is disregarded, and consequently the first story is cold in winter, unless heated at an unnecessary expense. A cold floor, though of boards, is not unlike one of stone in winter. Measured coal bins are built in the cellar, by which it can be fairly ascertained whether the coal is correct in quantity. A portion of the front pavement is excavated to enable the deposit of coal directly from the carts. In the cellars are located the steam furnaces, the ventilating stove for summer use, and the various radiating surfaces to generate warm air *directly under* the rooms designed to be heated.

Inside walls throughout the building are of brick; the face work of rubble, neatly jointed and pointed with Portland cement. It is common to use various coloring matters with the cement to mark the contrast between the stone and pointing more decidedly. Whatever effect this may produce to the eye, it is unwise, as all coloring material destroys the adhesivness and cohesiveness, and in time falls out, crumbles, and opens the joints to absorption of moisture. The cement however, uncolored, becomes as hard as the rocks it binds together, and is an enduring protection. The stone used as facing is laid as it comes from the quarries, the flat side outward, and requires no dressing, except when used as quoins and corners. It is readily laid, and, when judgment is used, binds well; and in walls thus built, the spalls are serviceable to fill interstices, so that no portion of the stone is lost. Rubble work as used in this School has proven to be about twenty-five per cent. cheaper than a pressed brick front, and certainly is warmer in winter and cooler in summer.

The areas to cellar windows are paved with brick, and capped with heavy North River flagging, covered with heavy iron bars as gratings. This latter is essential to guard against accidents to small children, who seem to seek dangerous places.

The window and door sills are all of granite or brown stone, and windows

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* This building is planned largely upon the points and suggestions of Edward Shippen, Esq., President of the Board, after much observation by him of School edifices, and much practical attention for many years to public School-houses. by John C. Sidney, Esq., of Philadelphia, an architect who has given much study to the subject of School Architecture.

and door heads of Leiperville stone, affording a better protection to walls in case of fire than if made of wood.

The iron columns hereafter referred to rest on square stones twelve inches by twelve inches, and four thick, set upon eighteen inch walls.

Wells are emptied into sewer through twelve inch terra cotta pipes, into which all yard and roof water passes for purpose of cleansing.

The importance of height of ceiling can not be over-estimated. Fourteen feet in the clear is not too much, and though the number of steps to each story is increased as the height of ceiling is increased, yet by a judicious arrangement of two flights and platform to each story, that objection ceases to have weight. For children's use the risers should never be more than six and a-half inches, and tread twelve inches, one and one-fourth inches thick nosed.

To prevent the danger to small children from sliding on the stair-rail, a simple preventative is used in this building. A neatly devised screw with conical head projecting about half an inch above the rail, set in at distances of three feet apart, very soon admonish the sliding boys that the pastime is more comfortable in the omission than in the observance of the same.

This building is admirably arranged in the matter of stairways, all judiciously located and capable for any emergency, and most convenient for class-rooms—six in number and all well lighted.

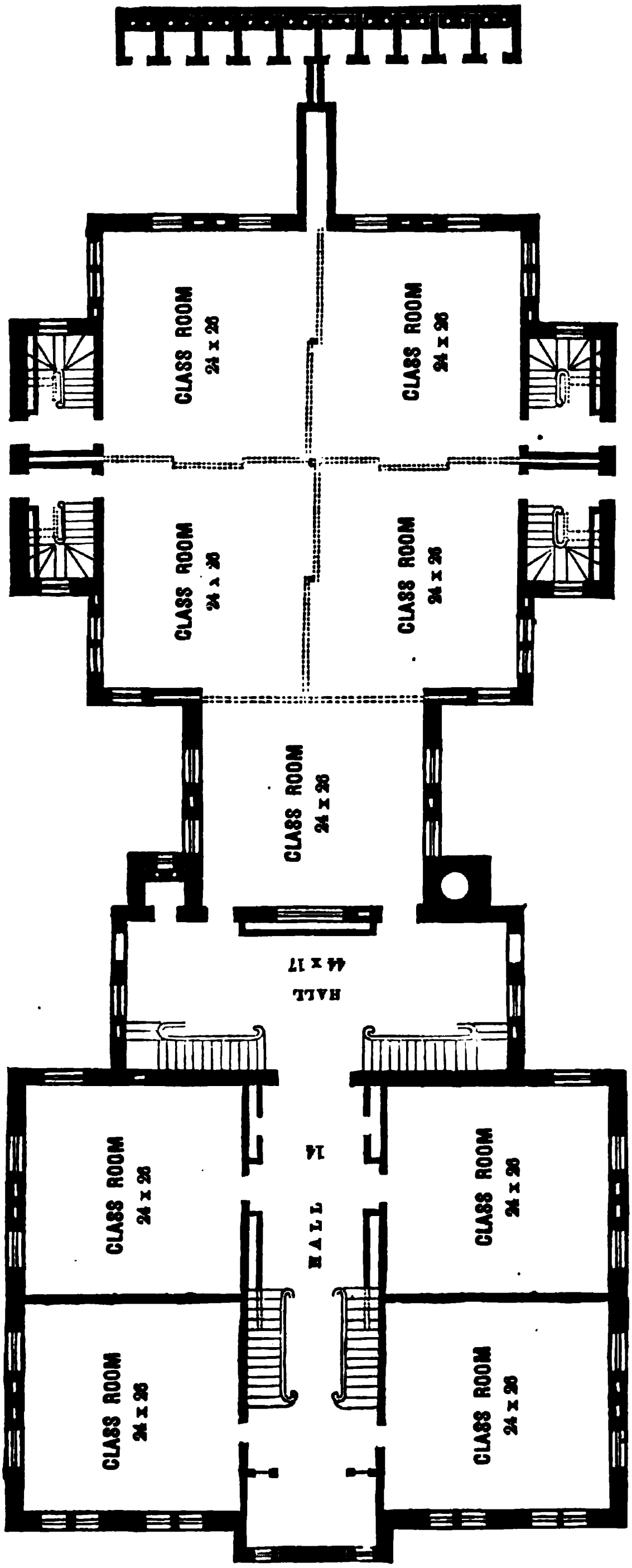
Each class-room is furnished with convenient clothes-rooms, fitted with double hooks. An observer will ordinarily find about one-half of the clothes-hooks broken from ill usage, and therefore it is most essential that they be constructed so as to bear the rough usage of children; so in fact should all the hardware in the School-house be. In this building, the hardware has been selected with special reference to utility and school-boy usage.

The closets are open at the top for drying and ventilating purposes, and the doors of the same for the same reason are kept three inches above the floor.

The casing of window jambs is an unnecessary expense, provided the same are rough floated as is hereafter specified. In fact, the less moulding and woodwork in a School-house, the better. The washboards and architraves should be as simple as possible; mouldings only give receptacles for dust, are of no practical use, and beadings are generally for the same reason unwise, and besides are difficult to keep clean. In doors, however, modest moulding is perhaps desirable for appearance sake. Architraves and washboards look well if simply planed and beveled on both edges; they are easily painted, dusted or scrubbed, and are by no means unseemly.

Wainscoting in class-rooms may well be avoided by the rough plastering referred to. With care on the part of the architect in preparing specifications, a very large amount of material in woodwork and labor may be avoided.

In preparing doors, it should be borne in mind that they are destined for hard usage; and that therefore they should be well made and thick; inside doors not less than two inches. A parlor door may be opened a dozen times a day—a school-room door slammed by each of fifty children ten times a day. The hardware for doors should be well selected, especially where mortice locks are used. Porcelain knobs should never be used, but doors should latch with the old-fashioned substantial thumb latch. The lock need have no knob therefore. A well made fine tumbler dead-lock, with escutcheon, is all that is needed where a thumb latch is used. And we may observe that no School needs more



PLAN OF FIRST FLOOR.

HOLLINGSWORTH SCHOOL, 8TH SECTION, LOCUST ST., ABOVE BROAD.

than one lock for an outside door. This should be on the front and most exposed door, and it alone should have a knob. Other outer doors are better double bolted inside. The mortice lock and latch will not stand School use.

Inside roller blinds without boxes are preferable to outside, being more convenient and less exposed to the weather. Each fold should be cut in the centre except the one next to the frame, and be furnished with bronze or japanned fastenings, and so should be all fastenings and iron trimmings in the building, to be free from rust. Gilt and brass should be avoided.

Wainscoting is only needed where there is incessant passing, as in halls and stairways, provided the walls have the third coat of plaster of sharp pure sand washed clear and floated down hard. And in fact so should all the plastering be done throughout the building, save the ceilings; the effect is pretty, the walls will not change color nor receive pencil marks, and may be readily whitewashed or painted if at any time needed.

All outside walls should be stripped to prevent dampness before the plaster lath is put on.

Yard hydrant should be fitted with screw nozzles for hose attachment.

All glass should be well *bedded* and back-puttied; with bedding, all rattling of glass is avoided.

Before proceeding to a detailed statement of the points which present themselves, it is well to present several general features, which appear to be most striking and worthy of special comment.

1. The distribution of space and excellent arrangement of halls and entrances.
2. The lighting of the building.
3. The ventilating and heating.

It has been wisely concluded to avoid a fourth story building, and though a third story is added to the front, yet the rear has but two; so that the two first stories, containing eighteen rooms, will accommodate nine hundred children, and the third story front two hundred more—eleven hundred in all; and this is as many children as should be thrown together in one building.

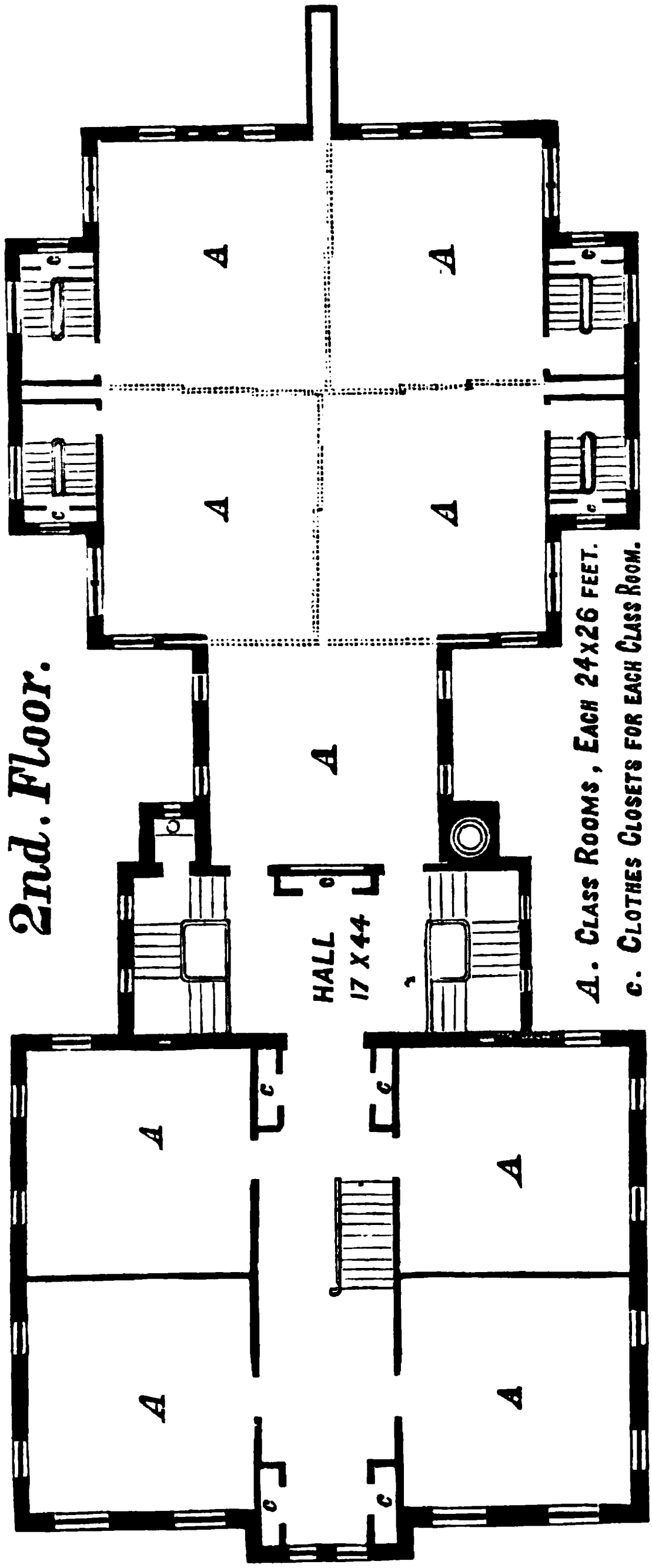
There are nine class-rooms on each floor, so arranged that each has direct light from two sides, while they have also borrowed light from other sides through glass sash. This most desirable end can be obtained in the ordinary square buildings only in corner rooms—say in four rooms—while in the School in question, there is no one of the eighteen rooms without it.

A glance at the plan will at once explain how by means of adding corners or projections, windows can be furnished for each room on two sides, no matter how many rooms in one story. Besides being a service in the matter of light, the plan also aids in the *natural system* of ventilation.

The halls are cornered so as to form the letter T; at the bottom of the T is the main entrance, and at the other ends, the side entrances, and as arranged in the Hollingsworth School, there can be a direct circulation of air from North to South, and from East to West, most serviceable in Summer.

The sliding sash before referred to are hung upon iron rails, securely fastened to the girders. Upon these rails the sash doors, fitted with pulleys, are easily glided into their respective casements, and are guided at the bottom by bolts which run along the floor grooves cut transversely over the flooring; they roll almost noiselessly. The whole arrangement is very simple, and durable.

The heating by steam and the ventilation are under one contract. It


2nd. Floor.
A
A
A
A
A
A
A
A
HALL
17 X 44
c
c
c
c
c
c
A. Class Rooms, Each 24x26 feet.
c. Clothes Closets for each Class Room.

requires every part of the building to be heated to 70° Fahrenheit, at the same time in the coldest weather, and also that the whole atmosphere of the building should be exhausted in twenty minutes, and renewed as often with the outer air, which in winter is to be warmed and thrown into the building. The following is a description of the means and appliances to secure these ends:—

The entire heating apparatus (except a few direct radiators in the halls) is placed in the basement or cellar. The boilers are subdivided, and form two distinct heaters, placed front and back, incased with brickwork, forming heat chambers, and external air introduced; the heat from the boiler surface is utilized, so that in mild weather the building can be tempered without any perceptible pressure of steam.

The steam is conducted to groups of radiators placed in chambers under the flues leading to the different rooms, so arranged that all rooms are warmed by distinct heat chambers, and pure fresh air from outside the building conducted through air ducts under them; creating a constant influx of pure external air heated by contact with the radiators; maintaining a temperature of seventy degrees in winter, and entering in a natural condition at other times.

The ventilation is natural, by what is known as the downward principle, produced by means of a double stack four feet in diameter, with an inner flue of cast-iron, heated by the smoke and escape heat from the boilers when in operation, and by a large cannon stove at other times; thus forming a vacuum and strong upward column.

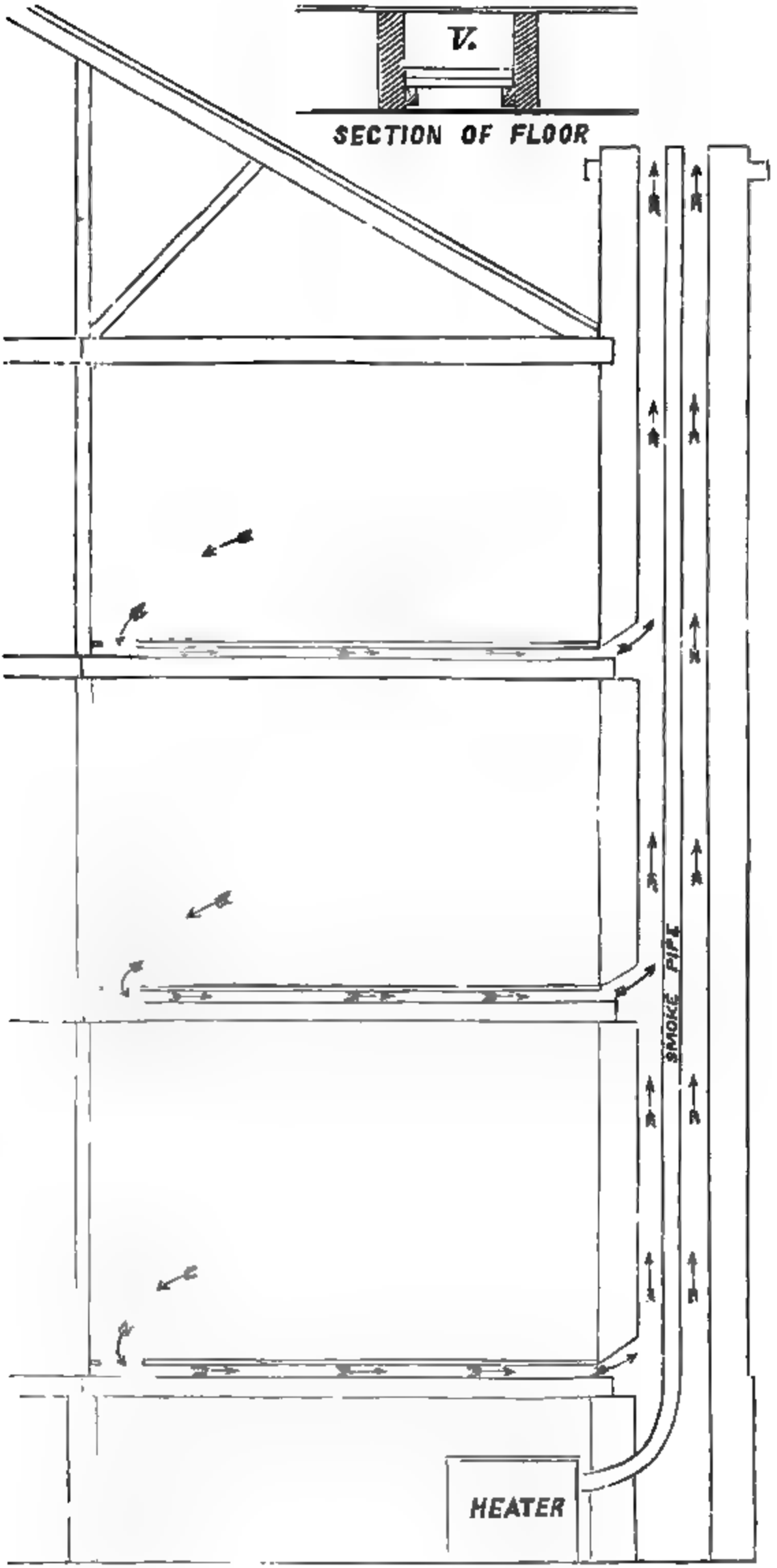
In the stack, at each floor, openings are left connected with air spaces between the ceilings and floors, forming a clear air space under the entire surface of the floors. Openings covered with iron gratings are placed in the floors through which the cool and impure air from the lower part of the rooms escapes to the heated stack, and induces the warm air to come down to the floor, passes under the children's feet, equalizes the temperature throughout the entire building, and changes it every half hour. Top ventilation is also secured by the same means when necessary to waste the heat.

I must not close without reference to an appliance for filtering the water which is to be used by the children; and I am gratified to note that among all the appliances for health, the subject of pure water is not forgotten. The filters are buried eight feet under ground, and are thus described, viz.:

It is made of glass cut into equal lengths, about three-fourths of an inch in width, and one-eighth of an inch in thickness. These pieces are placed together, so as to form a circle fixed upon a basin composed of metal, which is the receptacle for the material filtered from the water. The glass is so arranged as to be almost water-tight, and it is only the pressure of a head that forces the water through. The water is filtered into a reservoir composed of stone jars or iron tanks, as may be preferred, the stop-cock being made so that no pressure is upon the reservoirs except when the hydrant is in use. The filtered water is drawn from the reservoirs, and the hydrant is so constructed that by moving the nozzle to one side, you draw the filtered water, and by reversing it, the ordinary water is drawn, which at the same time cleanses the filter of the accumulation of sediment, it being a self-cleansing apparatus.

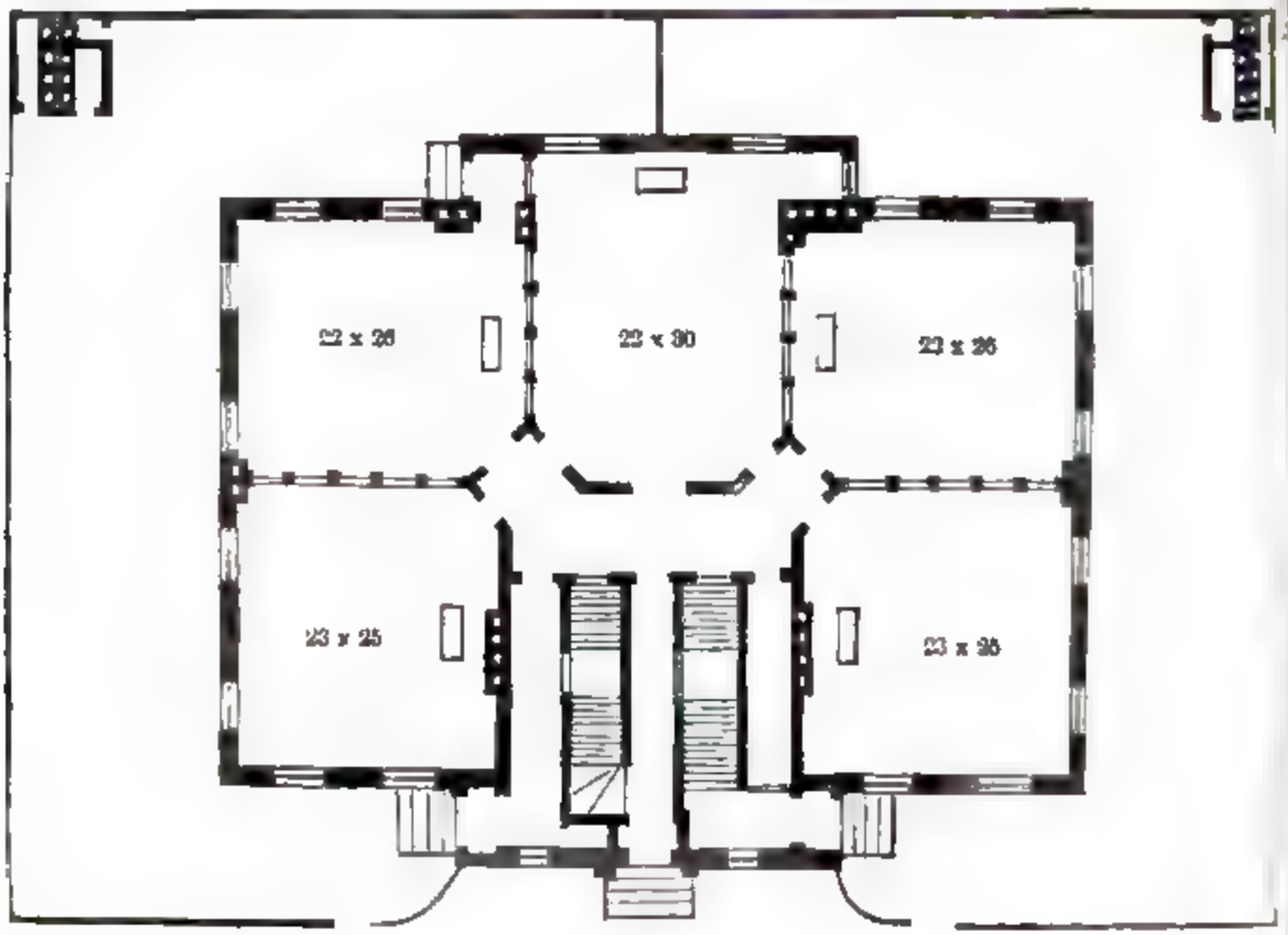
EDW. SHIPPEN.

PHILADELPHIA, Dec. 12, 1867.


V.
SECTION OF FLOOR
SMOKE PIPE
HEATER

NINTH AND TASKER STREETS.

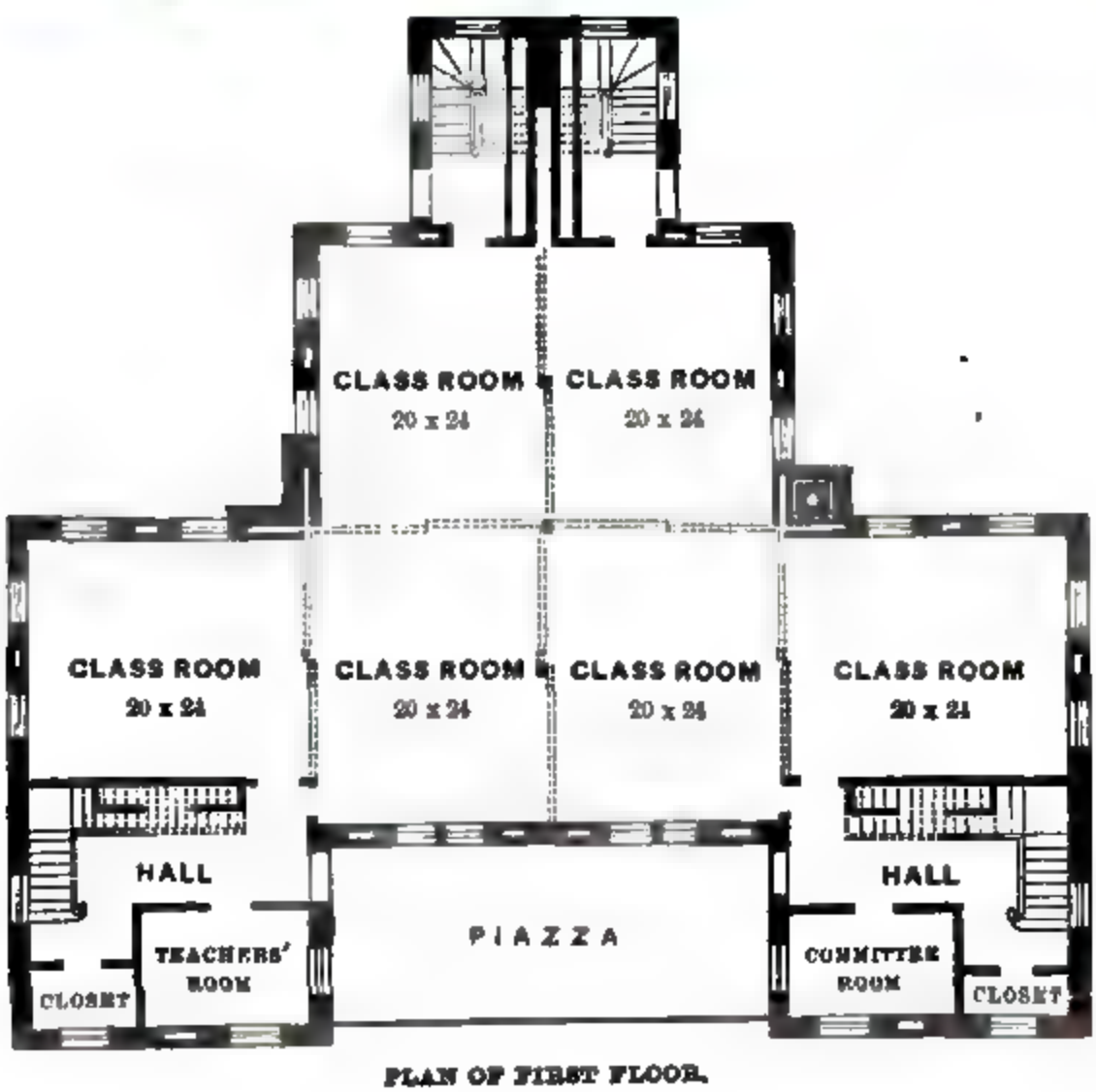




PLAN OF FIRST FLOOR.
TASKER SCHOOL. 2D SECTION.

LUDLOW STREET, BELOW THIRTY-SIXTH.

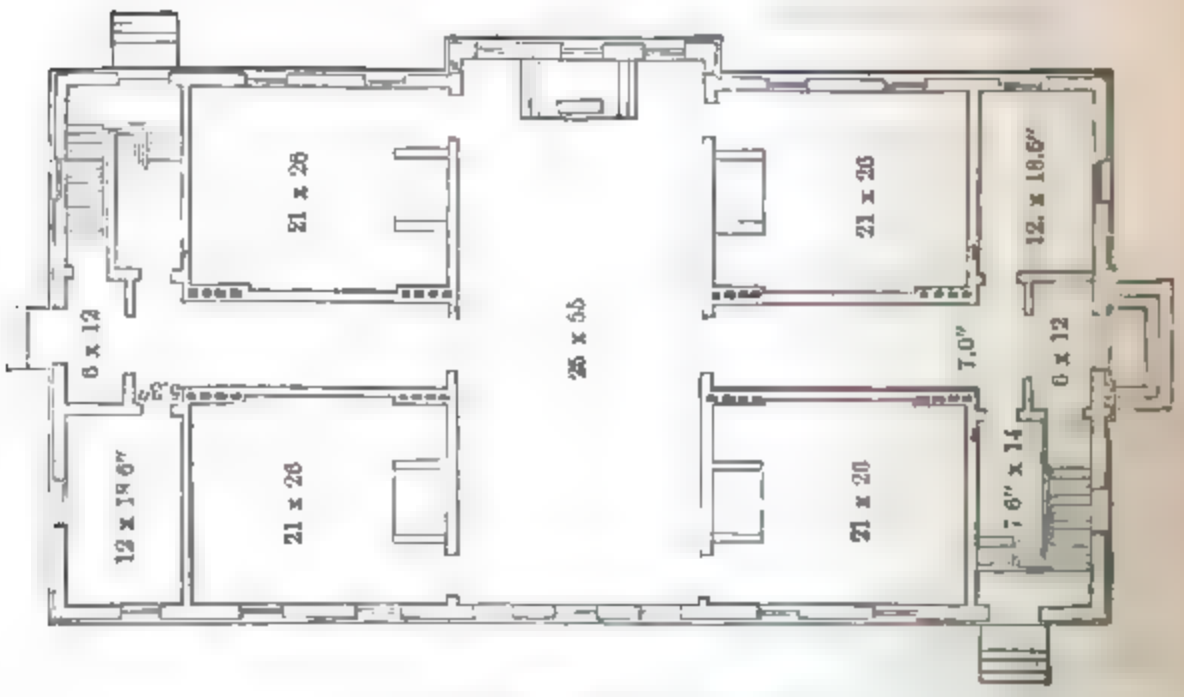




PLAN OF FIRST FLOOR.

MORRIS CITY, ABOVE FAIRMOUNT.



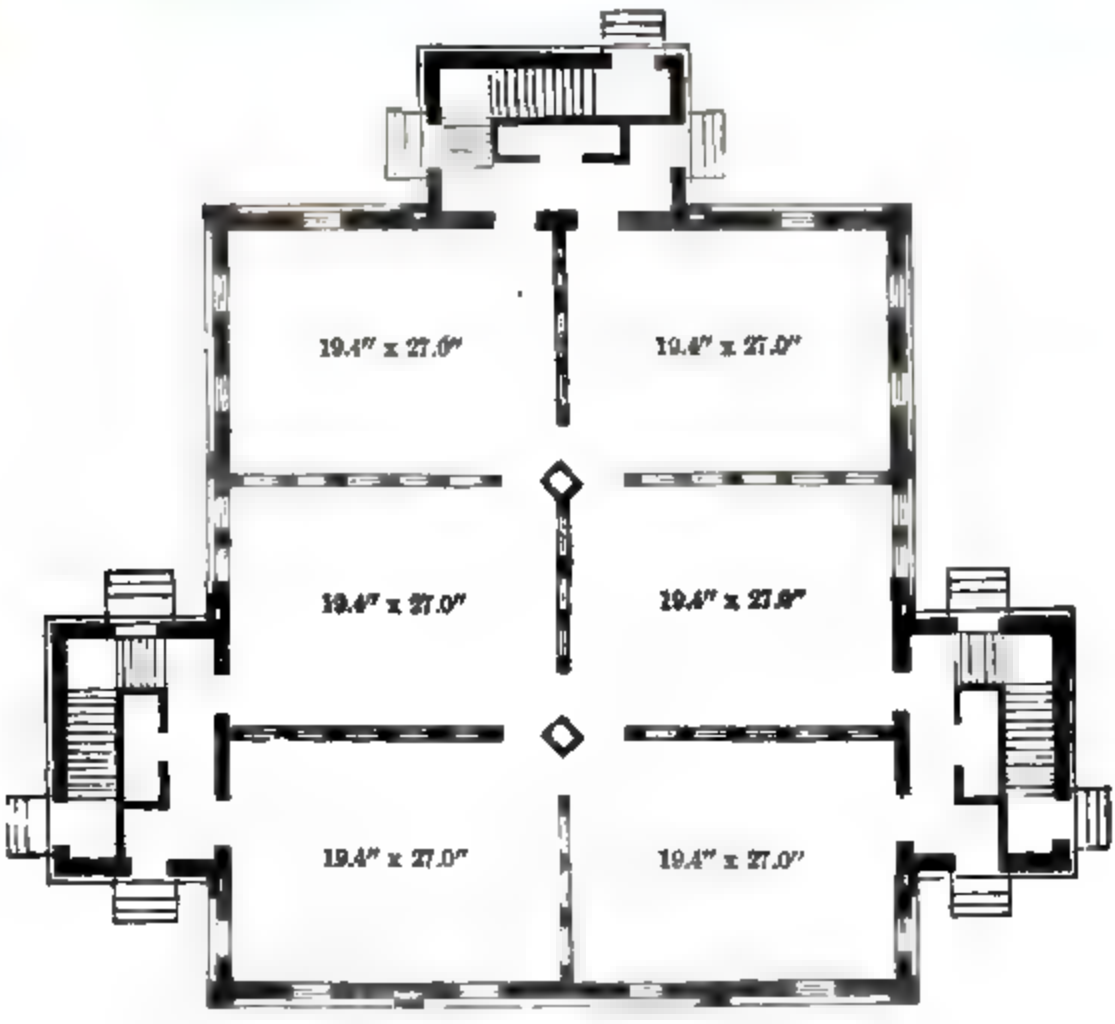


PLAN OF MORRIS SCHOOL HOUSE

20th SECTION. ABOVE FAIRMOUNT.

HESTONVILLE.



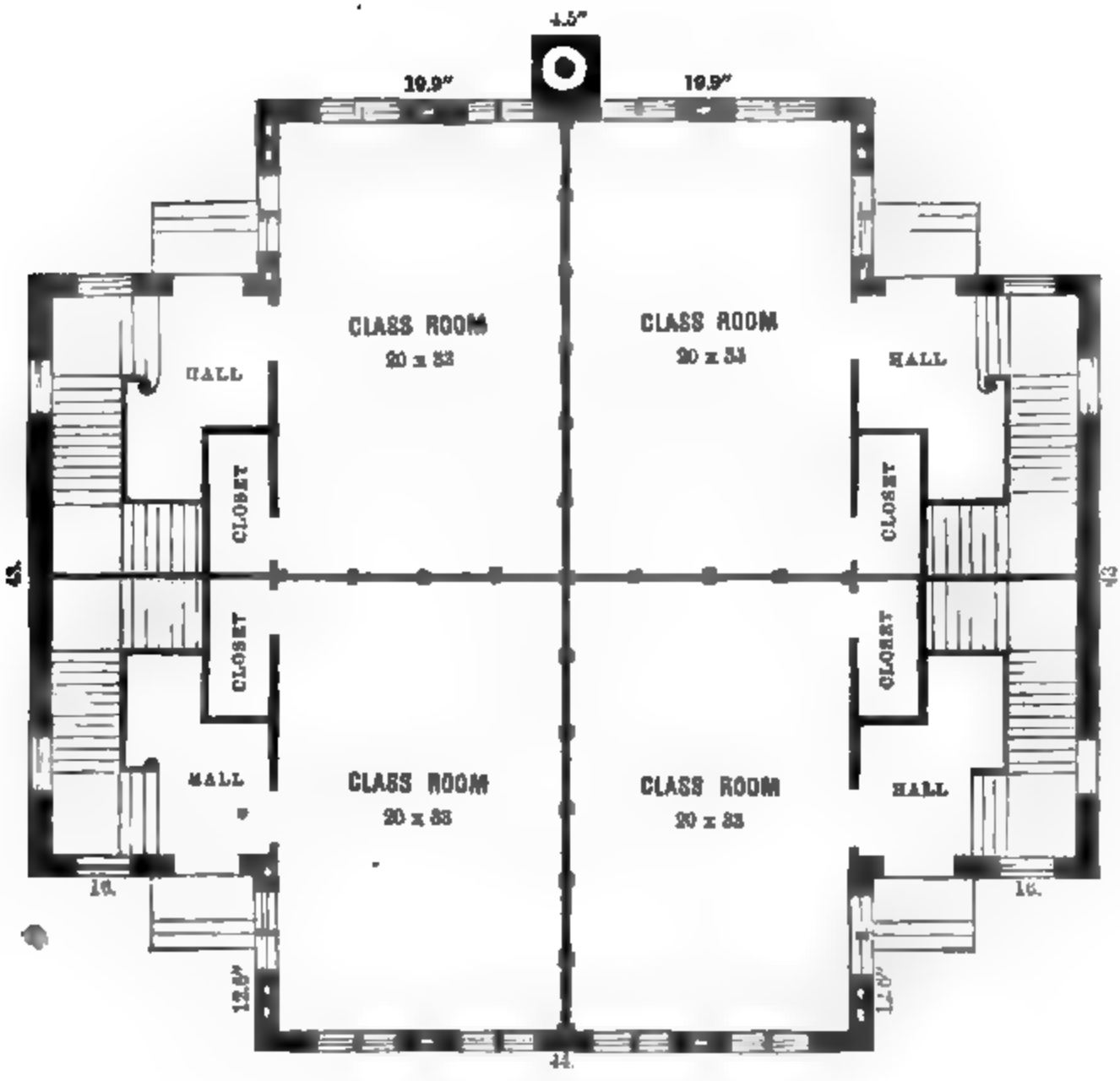


PLAN OF FIRST FLOOR.

24th SECTION.



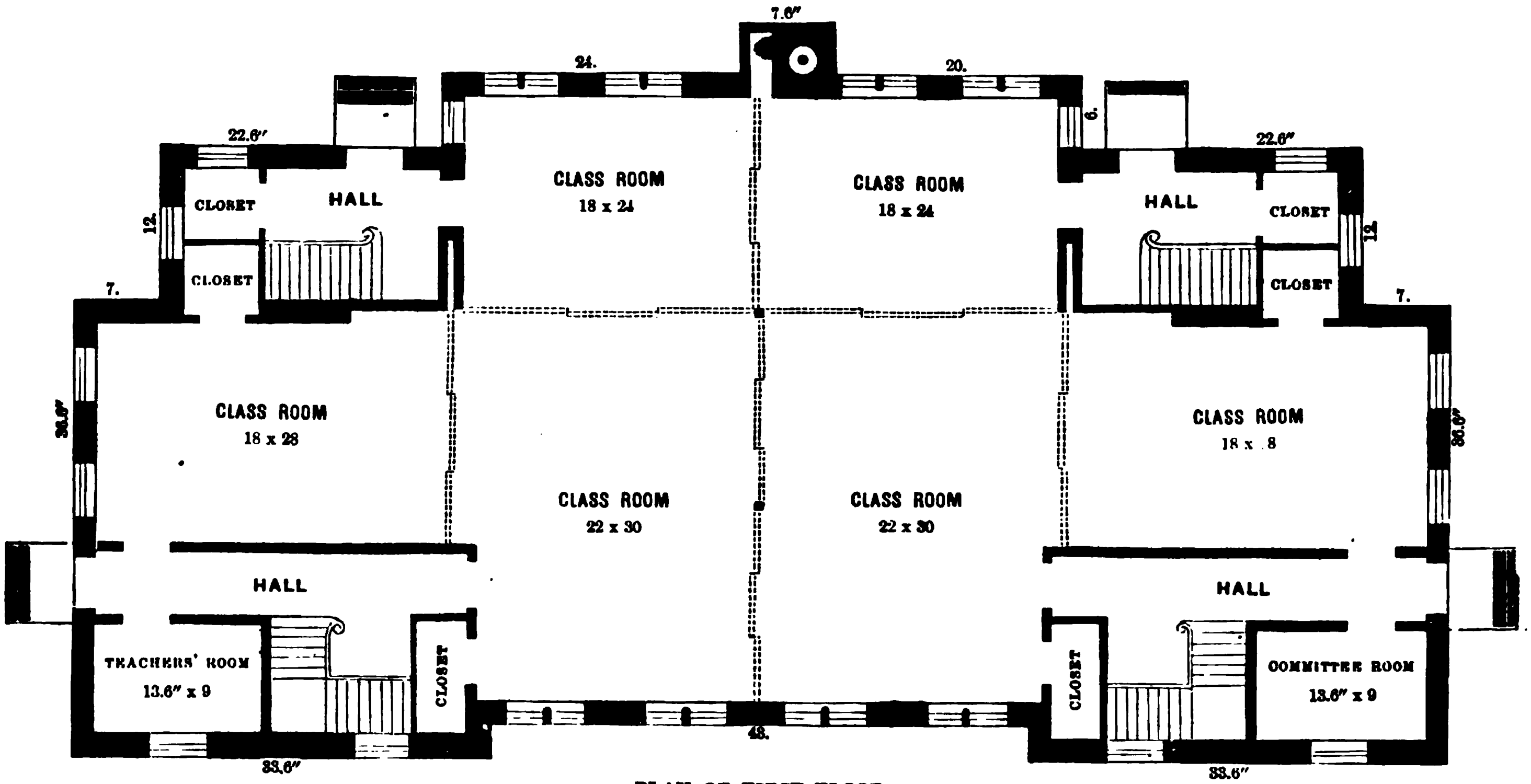
TWELFTH STREET, ABOVE FITZWATER.



PLAN OF FIRST FLOOR.
4TH SECTION. TWELFTH ST., ABOVE FITZWATER.



FOURTEENTH SECTION. Melon Street, below Twelfth, Philadelphia.

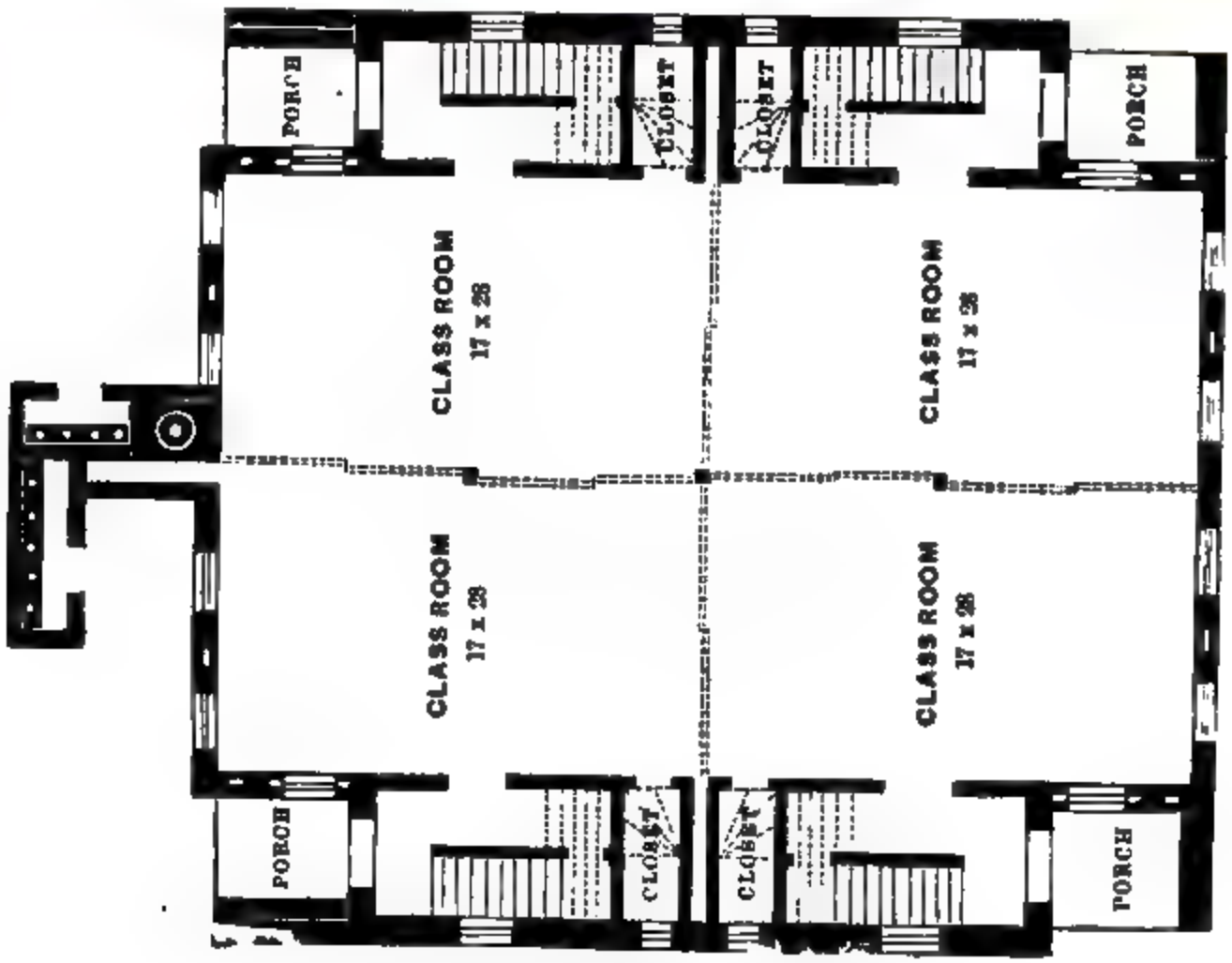


PLAN OF FIRST FLOOR

14TH SECTION. MELON ST., BELOW TWELFTH.

MARIA STREET, BELOW FIFTH.

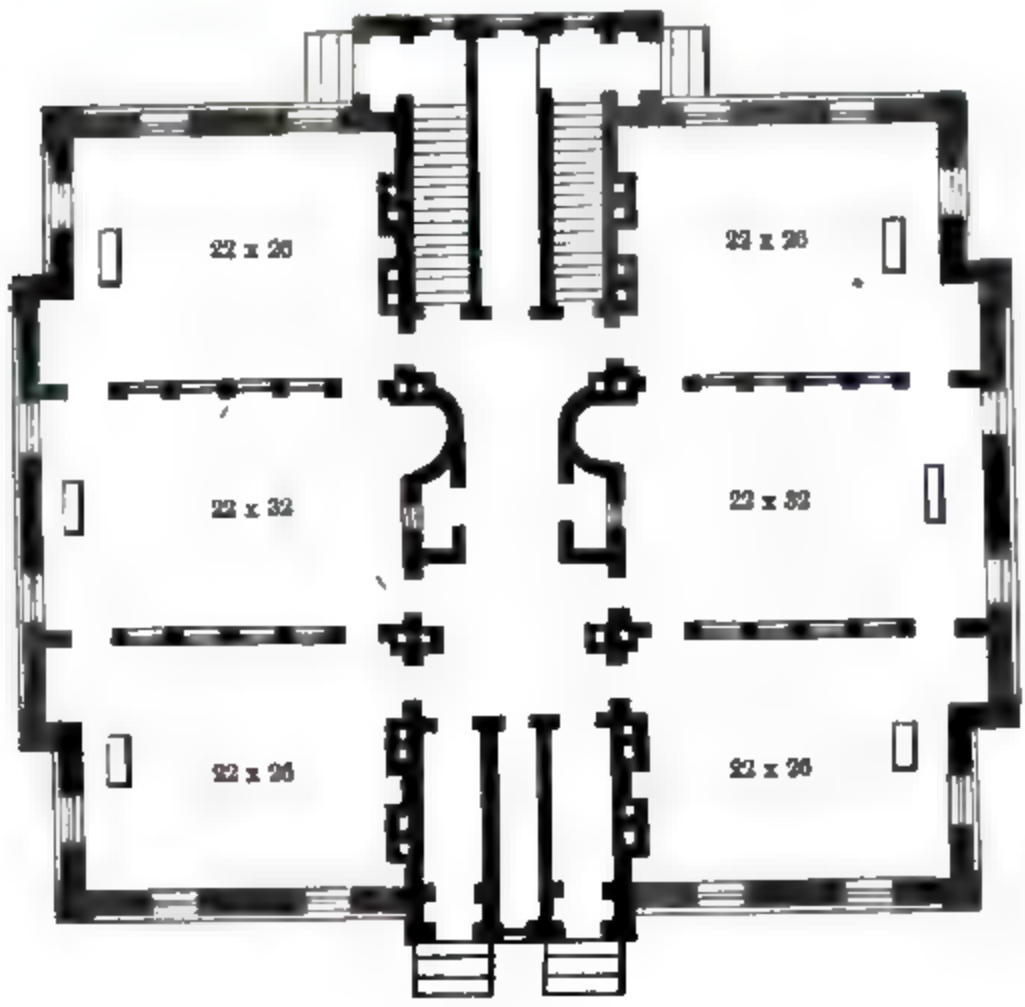




PLAN OF FIRST FLOOR.

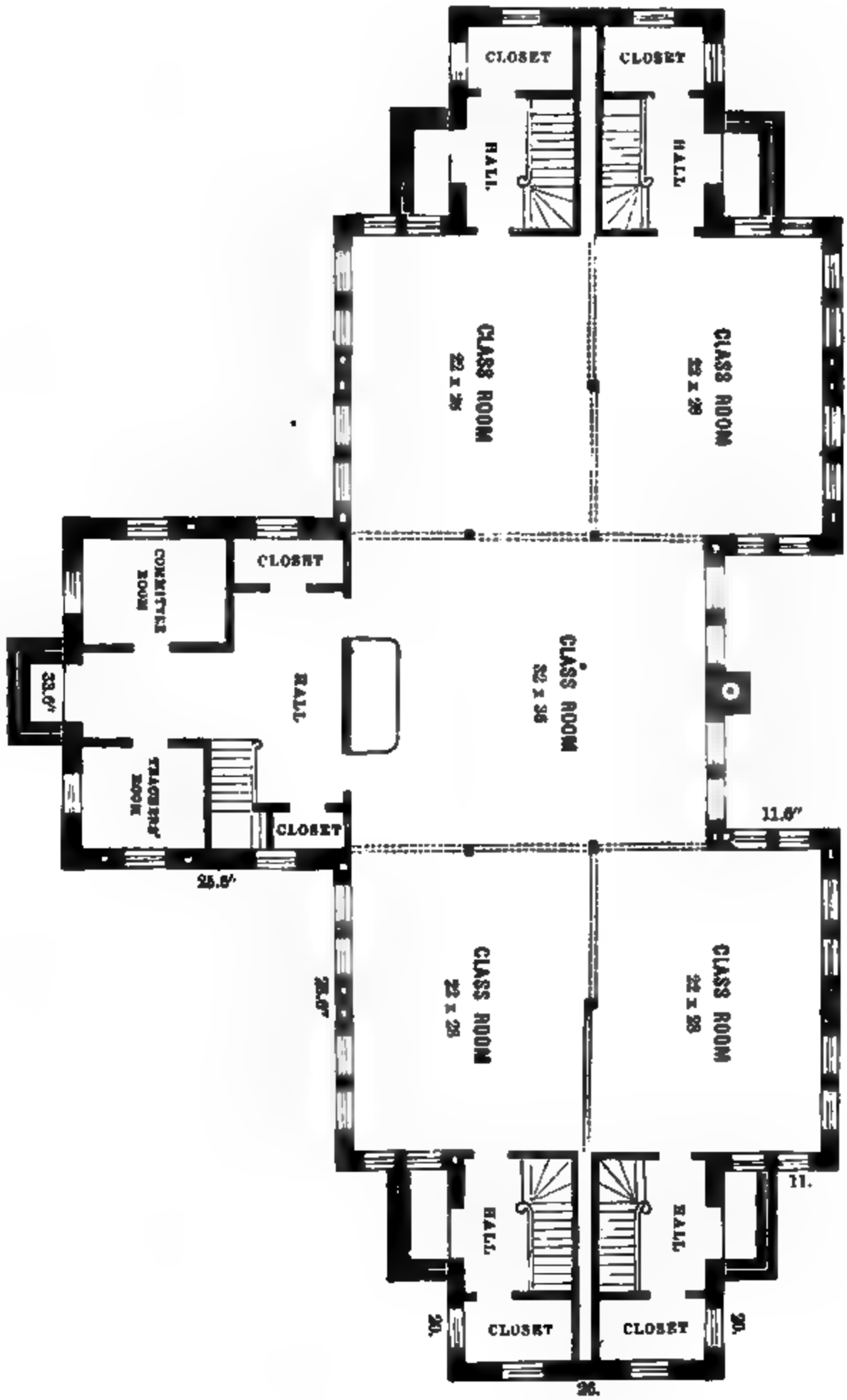
SEVENTH AND NORRIS STREETS.





PLAN OF FIRST FLOOR.
RUTLEDGE SCHOOL. 20TH SECTION.





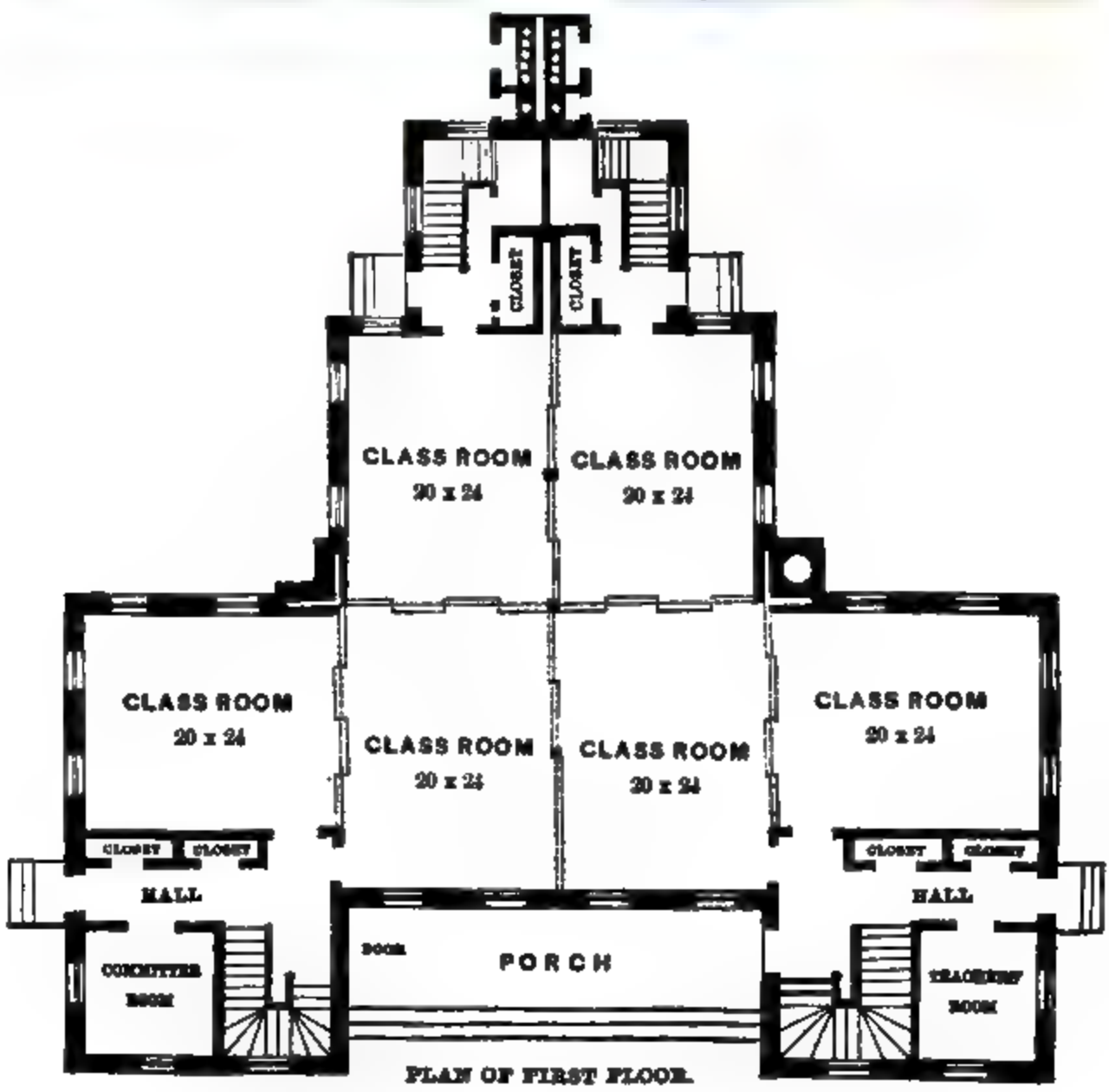
PLAN OF FIRST FLOOR.

94TH SECTION

A. D. BACHE SCHOOL HOUSE.

TWENTY-SECOND AND BROWN STREETS.

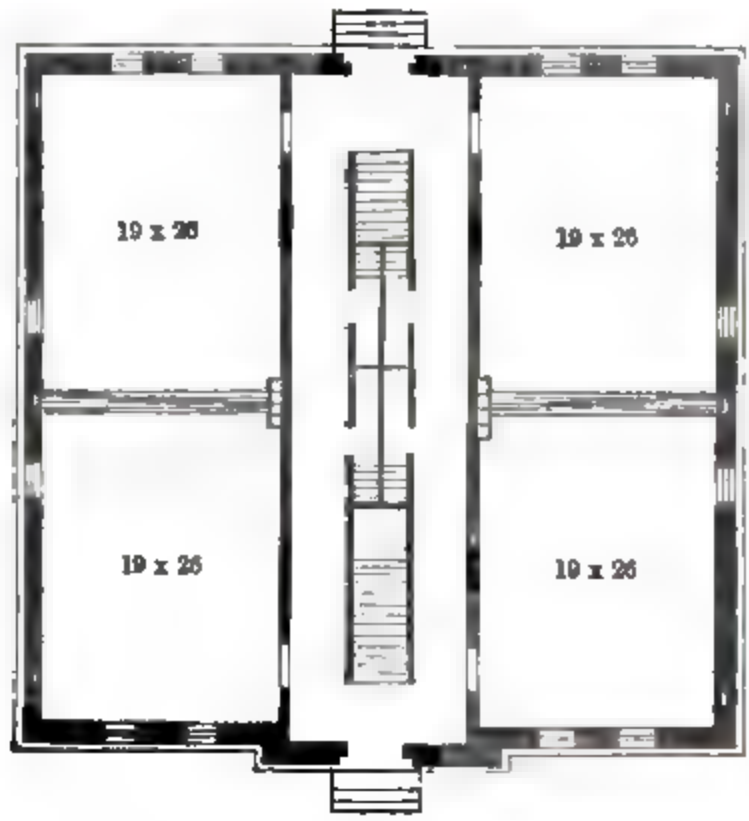




PLAN OF FIRST FLOOR.

FALLS OF SCHUYLKILL.



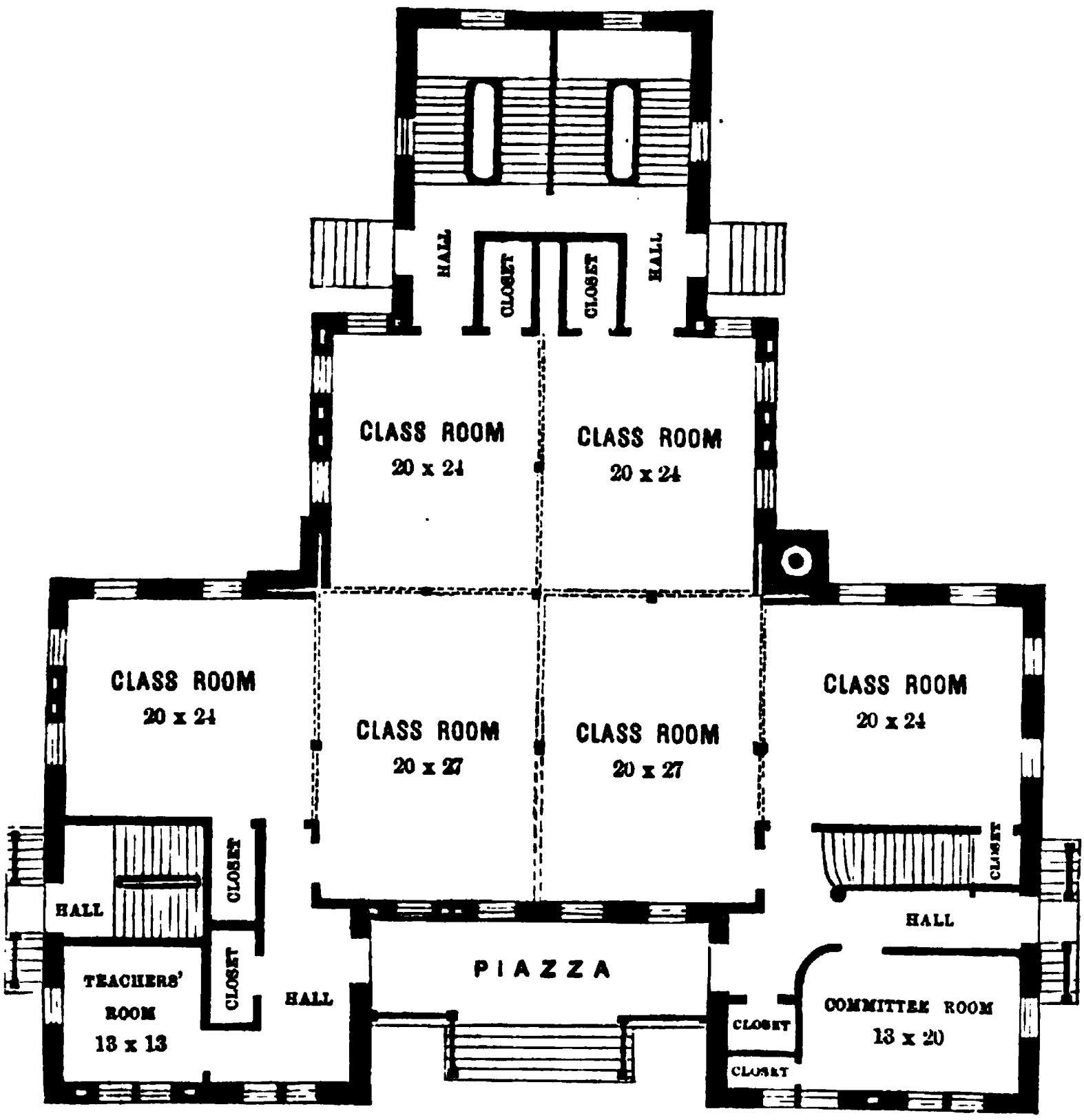


PLAN OF FOREST SCHOOL HOUSE

21st SECTION. FALLS OF SCHUYLKILL



KEYSTONE GRAMMAR SCHOOLS. Nineteenth Street, above Chestnut, Philadelphia.

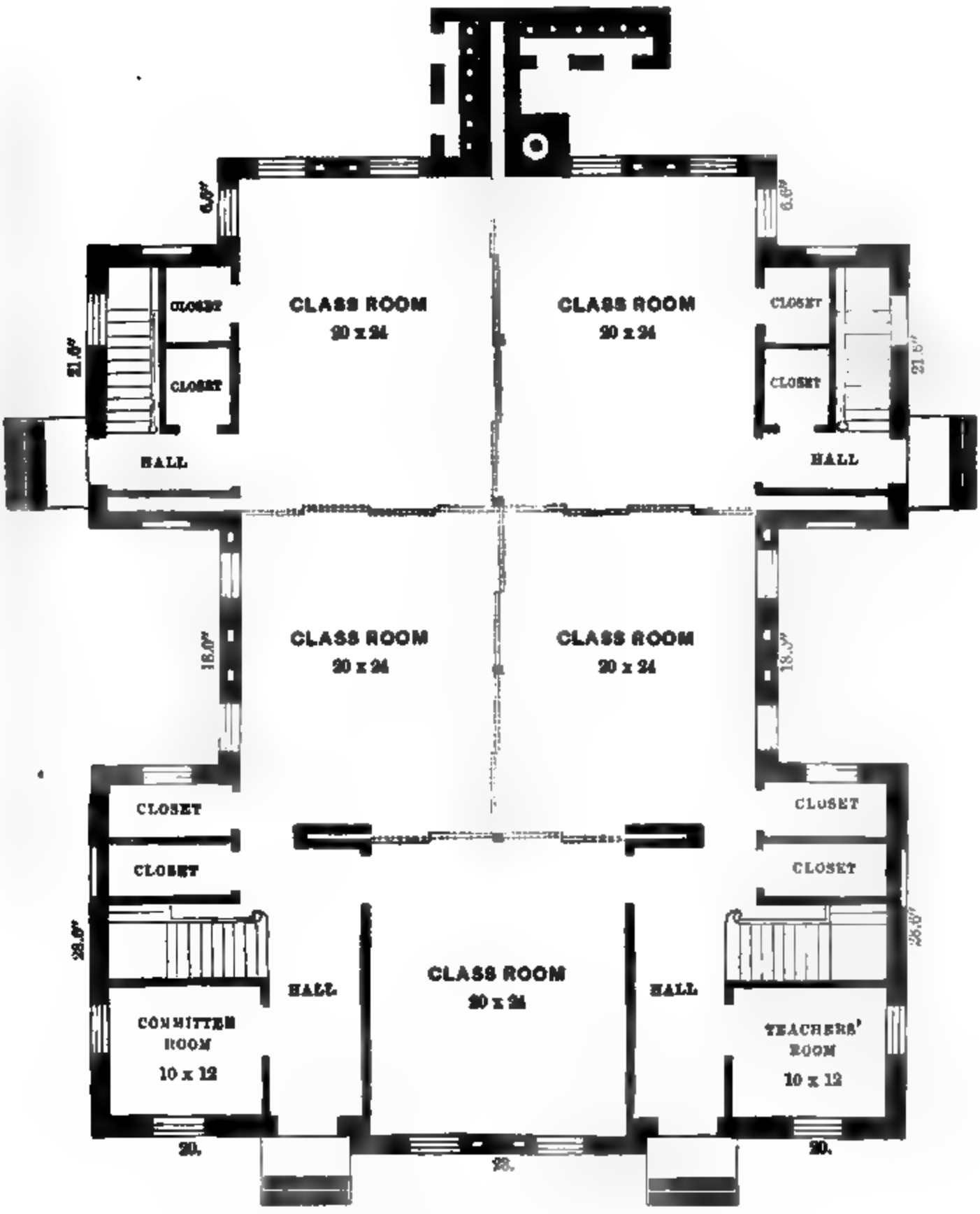


PLAN OF FIRST FLOOR.

9th SECTION. NINETEENTH AND BARKER STS.



SEVENTEENTH AND WOOD STREETS.

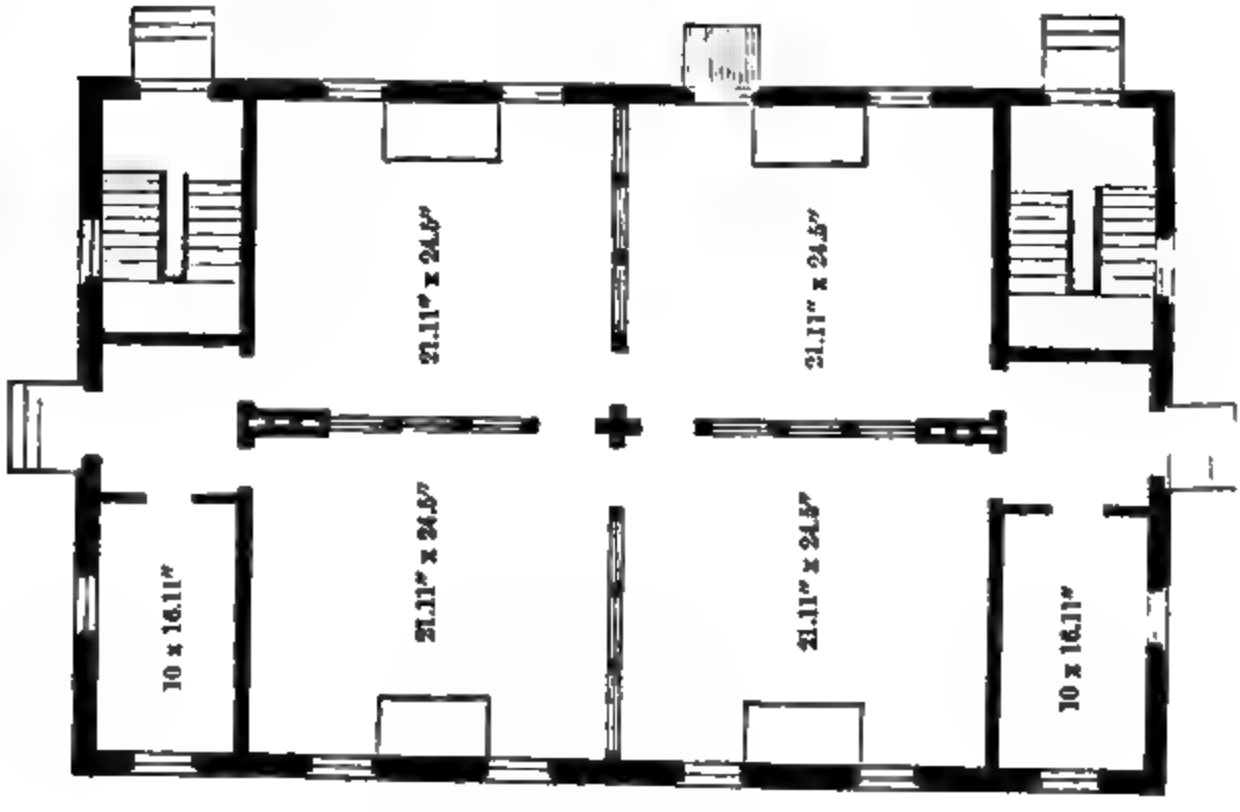


PLAN OF FIRST FLOOR.

15th SECTION. SEVENTEENTH AND WOOD STS.

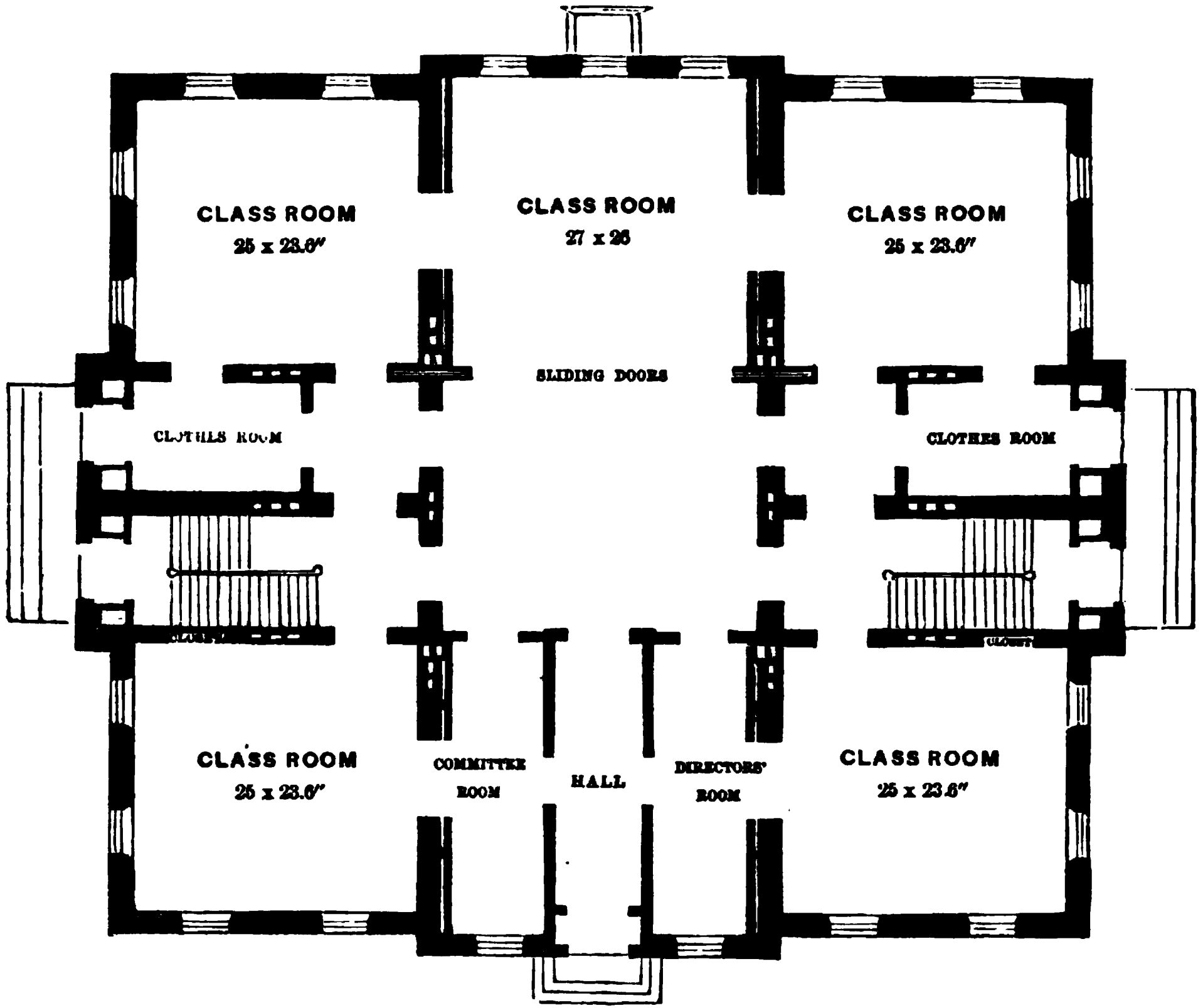
TWENTIETH SECTION.





PLAN OF FIRST FLOOR.

20th SECTION.



PLAN OF FIRST FLOOR.

7th SECTION. SEVENTEENTH AND PINE STS



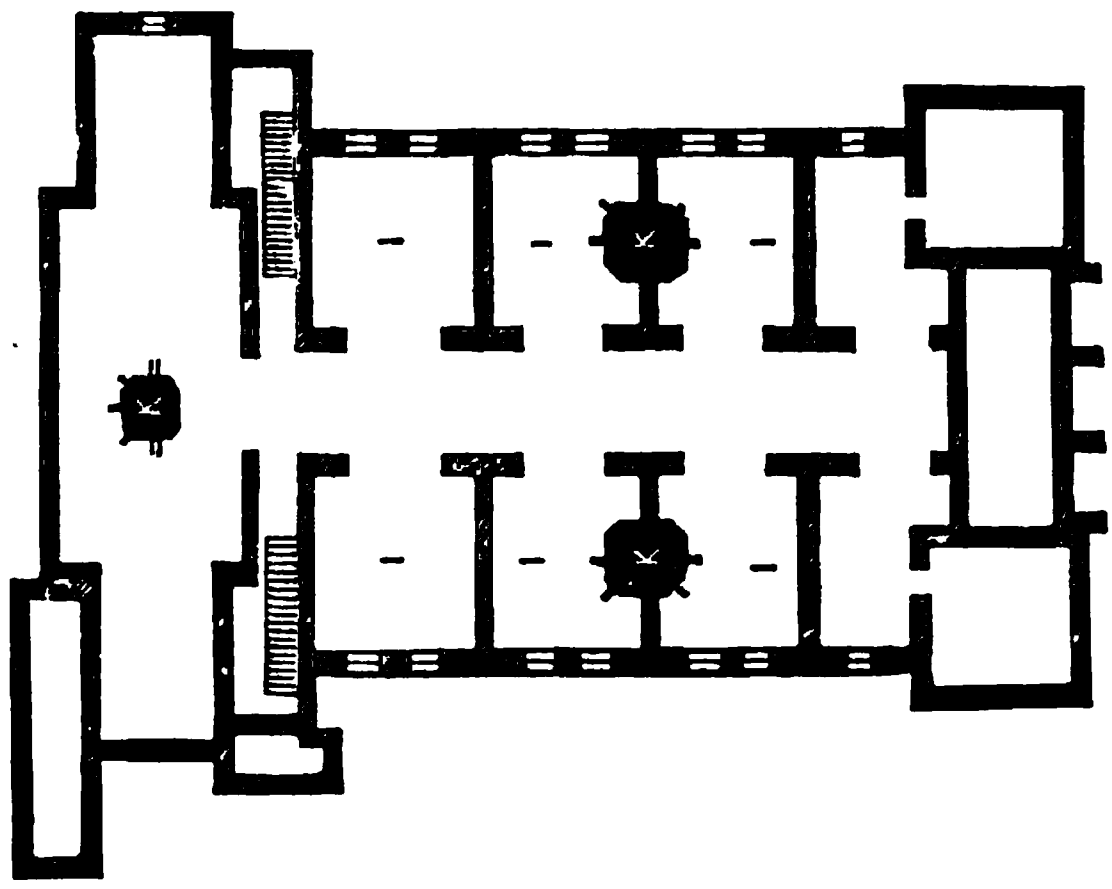
WESTERN PUBLIC HIGH SCHOOL FOR GIRLS BALTIMORE MD

SCHOOL ARCHITECTURE.

Plans and Description of the Western Female Public High School Building, Baltimore, Maryland.

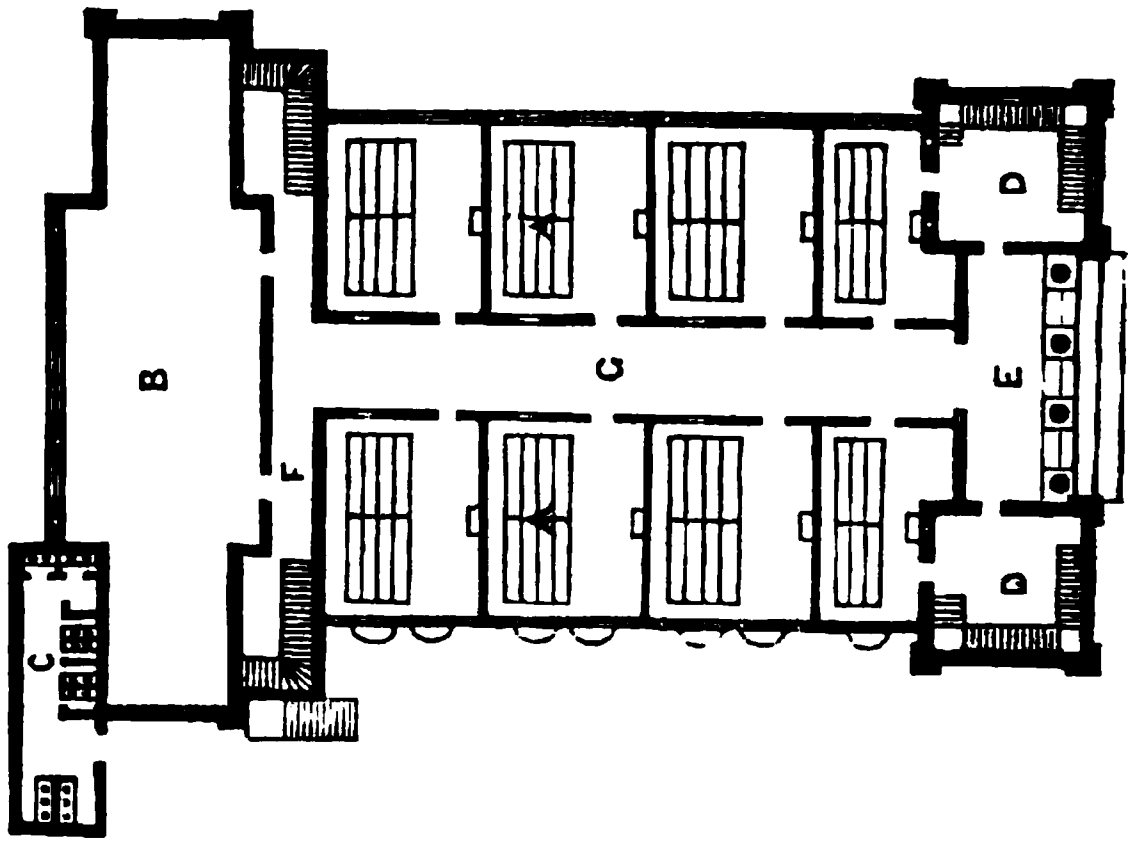
This building is located on Fayette street, about thirty feet west of Paca street. It stands on one of the highest eminences in the city of Baltimore, and has a front of seventy-seven feet, including two towers twenty-two feet square, which project four feet, each side of the main building, and a depth of one hundred and thirty-four feet. In the rear the building is eighty-eight feet, including the towers. It is capable of accommodating five to six hundred girls. The style of Architecture is Italian. There is a tower in each corner for stairways. Besides the stairways the towers will contain several rooms. They project fifteen feet from the facade of the main building, and form a Galilee or enclosed porch in front. The doors and windows are round top. Those of the towers are unequal triplets. Those of the flank are formed into couplets. The lower floor is divided into nine recitation rooms, including the chemical hall, which is twenty-four by eighty feet. The other recitation rooms are twenty-two by twenty-eight feet. The study room, which is in the second story, is one hundred and sixteen feet ten inches in length and sixty-five feet wide in the clear. Its altitude is twenty feet. There are two Female High Schools in Baltimore, the Eastern and the Western. They were organised in 1844. They have been found eminently useful in affording to young ladies the opportunity of receiving instruction in the higher branches of education. Cost of lot, $20,000; of building and furniture, $30,000.

Fig. 2. Basement and Foundation.



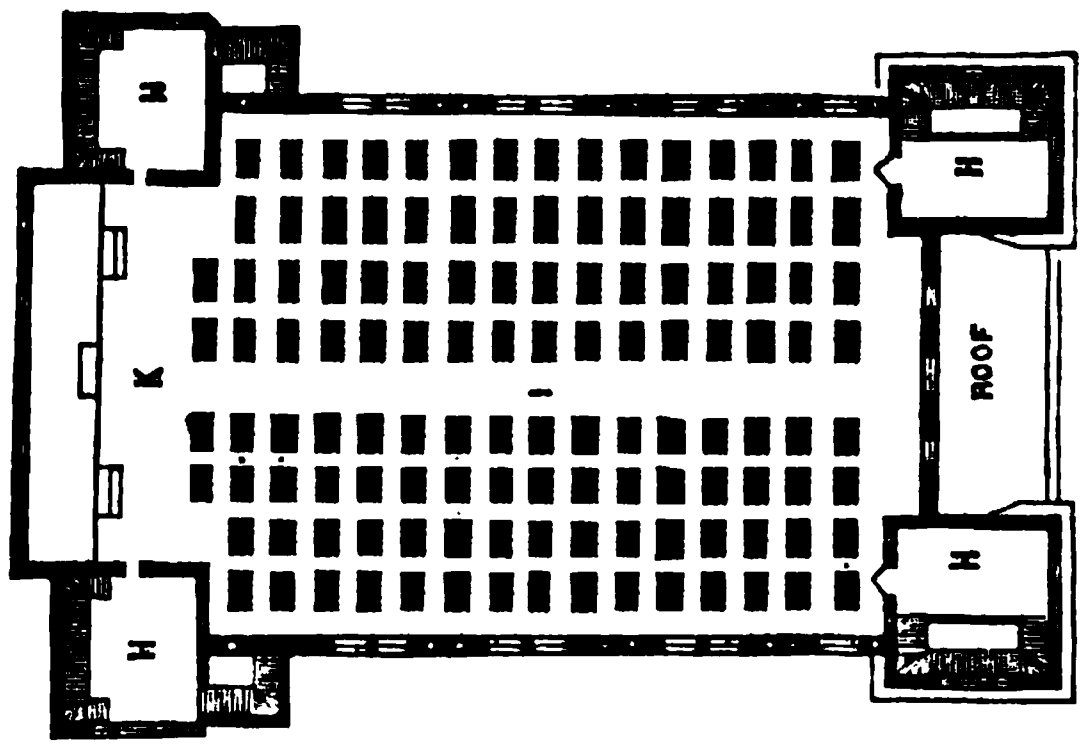
I—
K—Furnaces

Fig. 3. First Floor.



A—Recitation Rooms.
B—Chemical Lectures and Apparatus.
C—Water Closets.
D—Towers, with Stairways.
E—Arcaded Portico.
F—Passage, with Stairway.
G—Hall.
·—The small dots represent flues, for heated air, and for ventilation. Each ventilating flue is eight inches in diameter and terminates in a smoke flue on each side of the building.

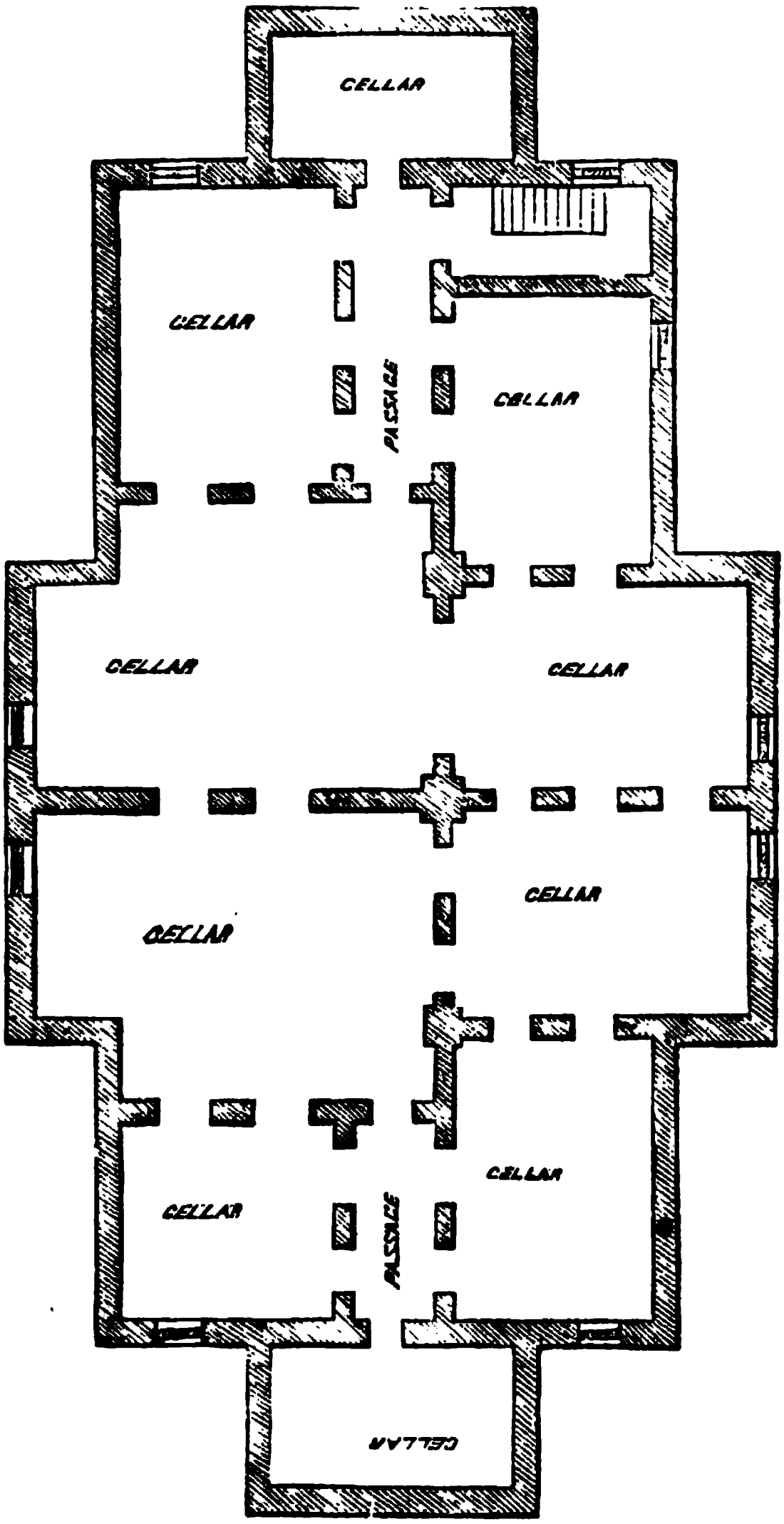
Fig. 4. Second Floor.



H—Towers.
I—Saloon and Lecture Room—seat 500 girls.
K—Rostrum.

PLANS OF PRIMARY AND GRAMMAR SCHOOL BUILDINGS IN BALTIMORE, MD.

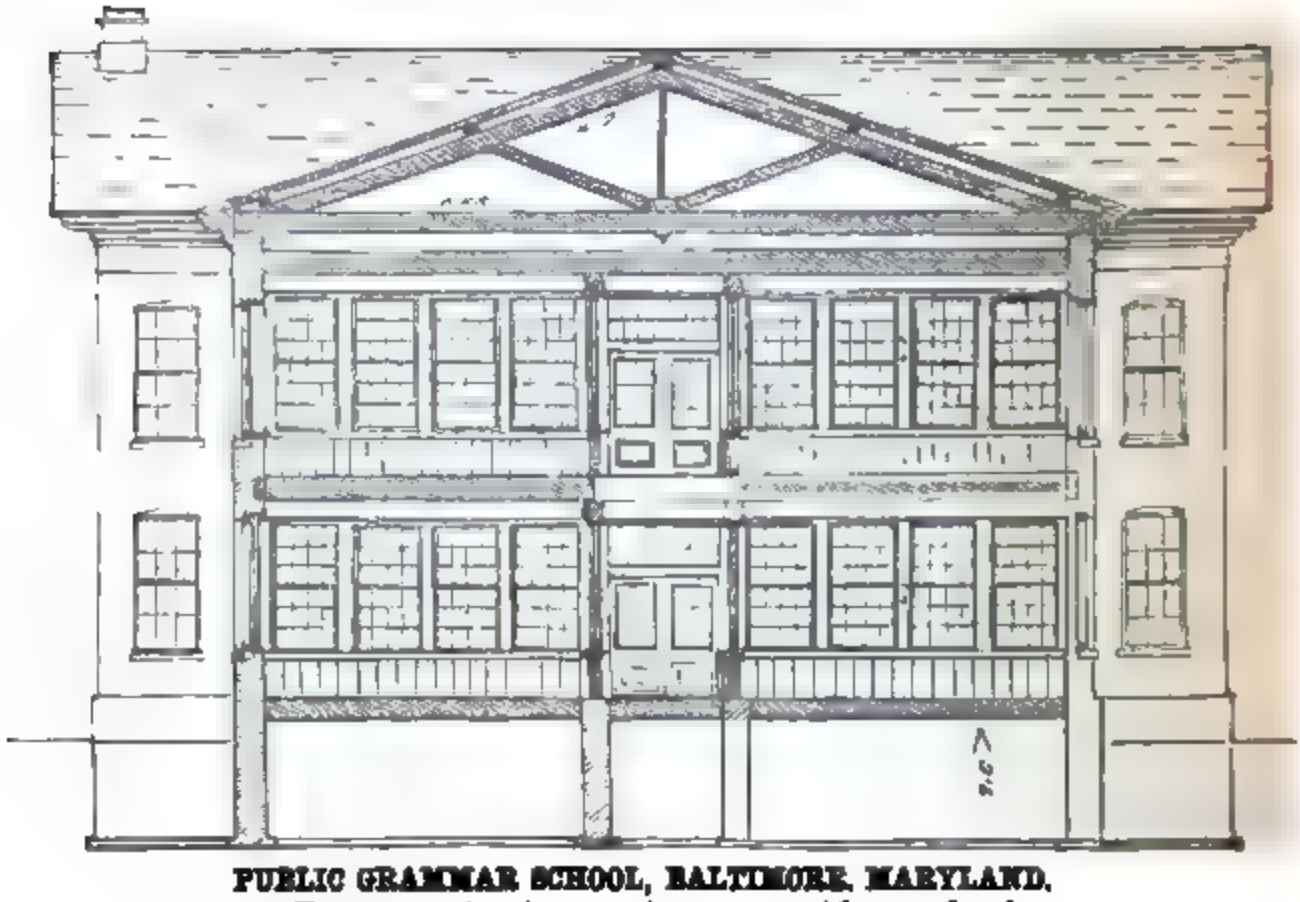
THE following plans were prepared by Mr. J. J. Husband, of the firm of Avery & Husband, Architects, Baltimore, with the assistance of the Superintendent of Public Schools, Rev. J. N. M'Jilton, D. D., under instructions from the Building Committee of the School Board in 1867.



CELLAR—GRAMMAR SCHOOL



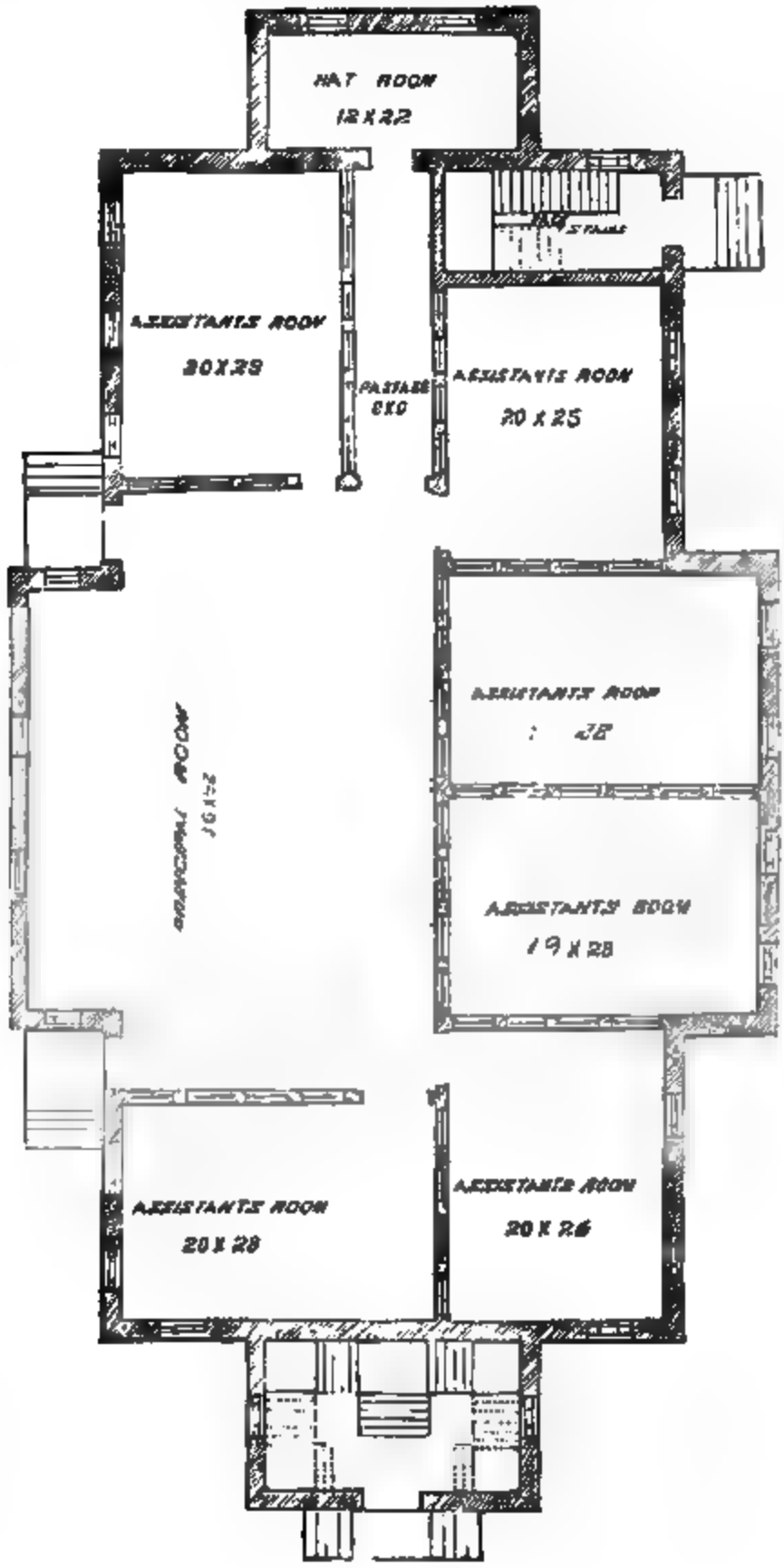
GRAMMAR SCHOOL, BALTIMORE, MARYLAND, (Front Elevation.)



PUBLIC GRAMMAR SCHOOL, BALTIMORE, MARYLAND.
Transverse section, showing sash partitions, and framing of roof.

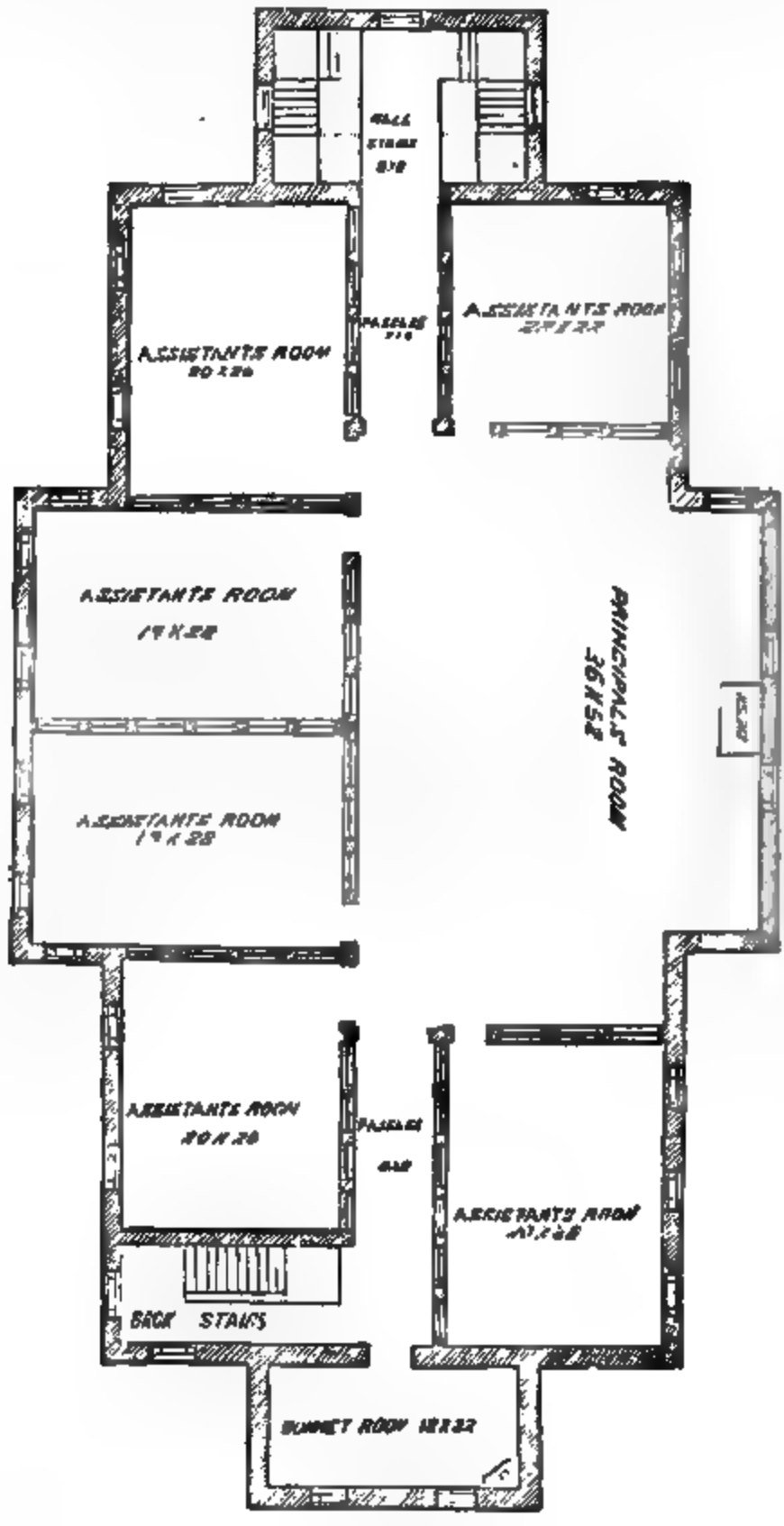
Plan for a Grammar-School.

The plan of the Grammar School shows seven school-rooms on each floor, with hat and bonnet rooms, stairways, &c. The Principal's room in each story is 36 × 52 feet, containing an area of 1,872 square feet, and capable of seating two hundred and fifty pupils, without interference with the aisles which lead from the apartment to the rooms of the assistant teachers. The class-rooms of assistant teachers are six in number. They are varied in their dimensions. In each of these rooms seventy or more pupils may be seated. Each floor will



First Floor—Grammar School.

afford accommodations for six hundred and seventy to seven hundred pupils. The rooms are so arranged that the Principal at his desk, or in any part of his room, can have a view through the sash partitions of all the rooms, and of all the pupils in them. The pupils may be so seated as to face the side wall at which the Principal's desk is placed, and by a slight turn of the head their faces may be directed towards the desk whenever it may be necessary. By

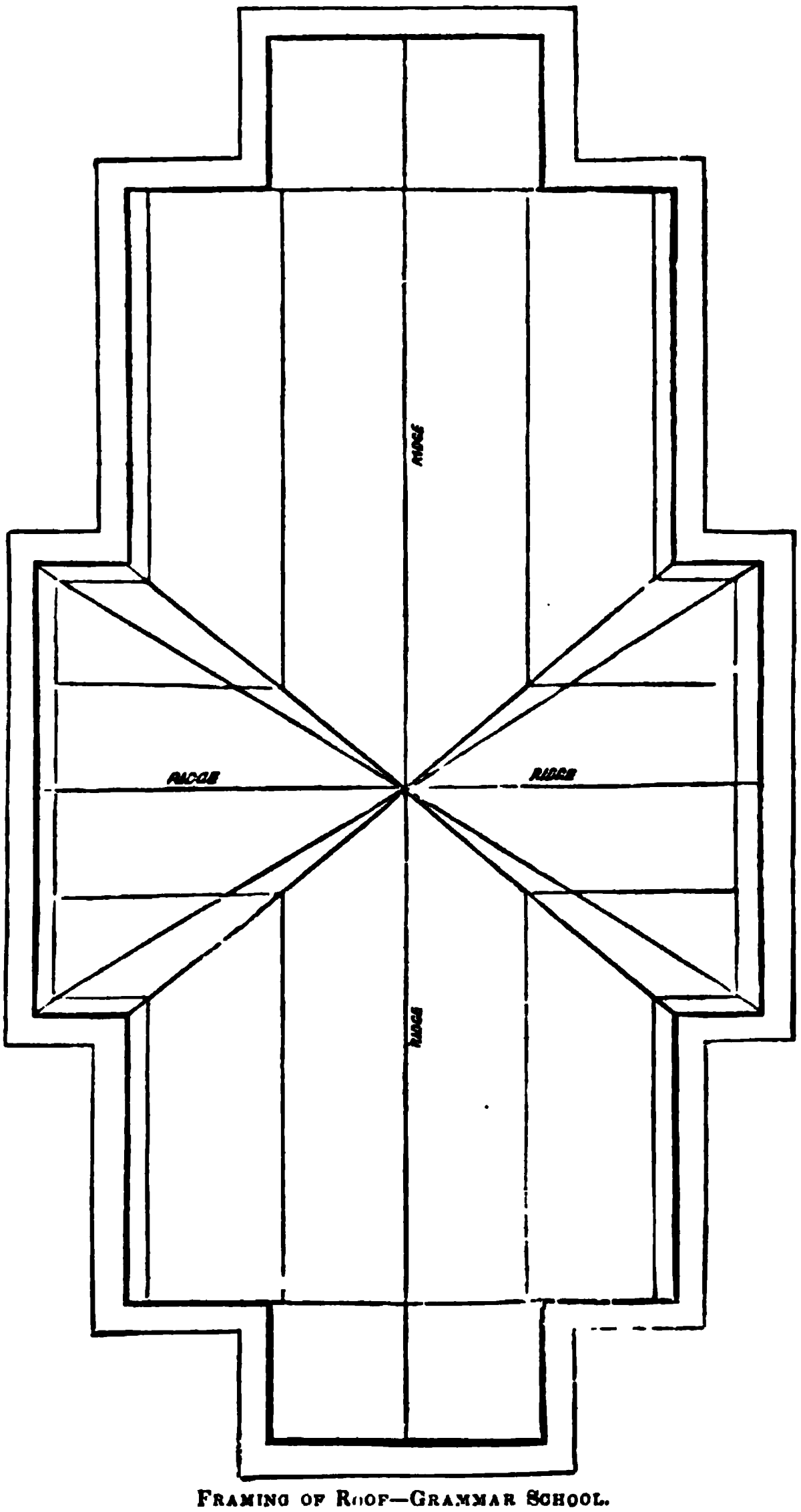


SECOND STORY—GRAMMAR SCHOOL.

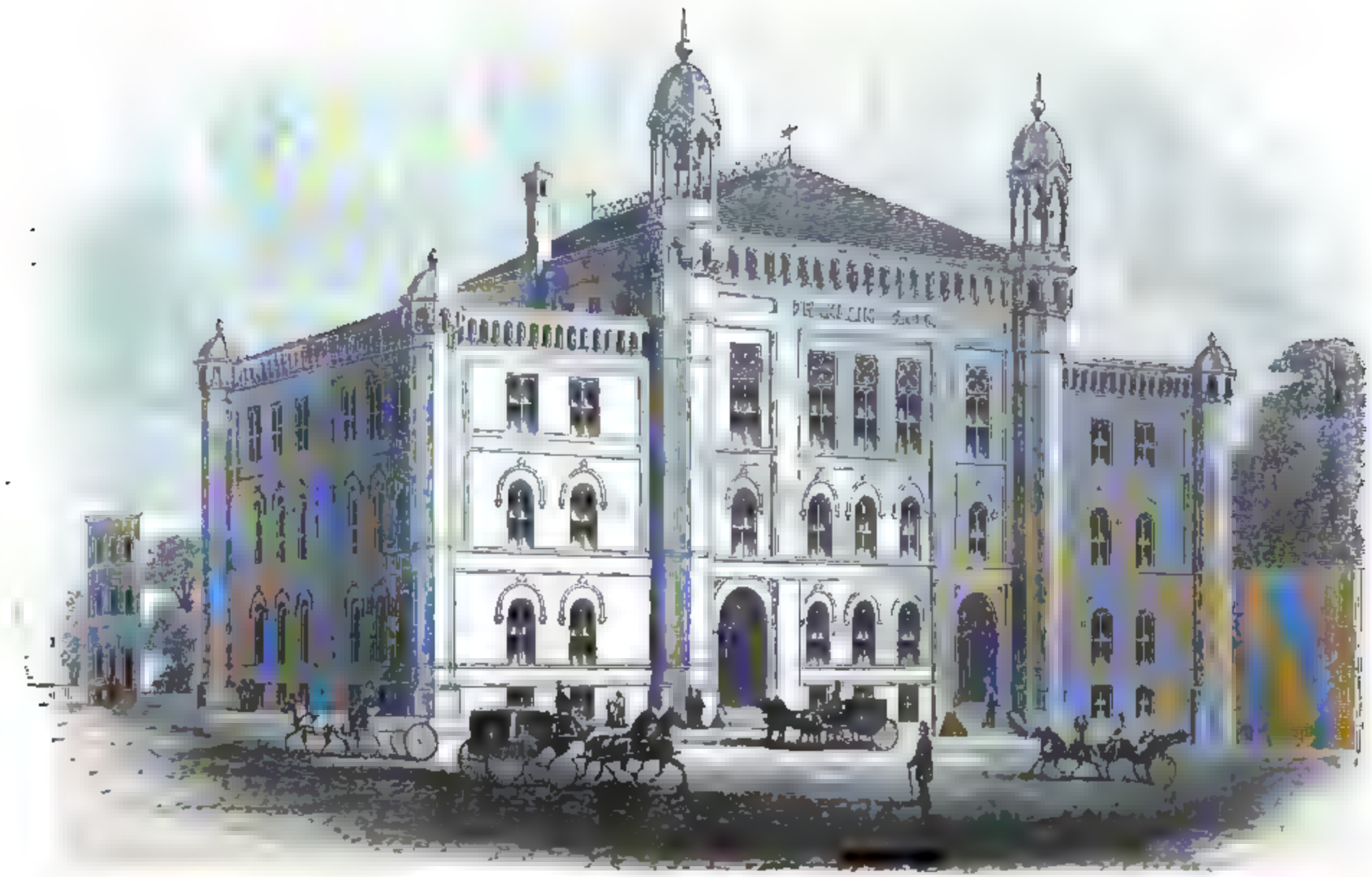
throwing up the sash of the partitions, the whole floor may be used as a single room, when addresses are to be delivered to the school, or general orders given.

There are two stairways on the plans—one near the front, the other near the rear wall, by which, whenever it becomes necessary, the pupils may be removed from the building in a few minutes.

The doors of all the rooms, and those leading from the building, open outwardly.



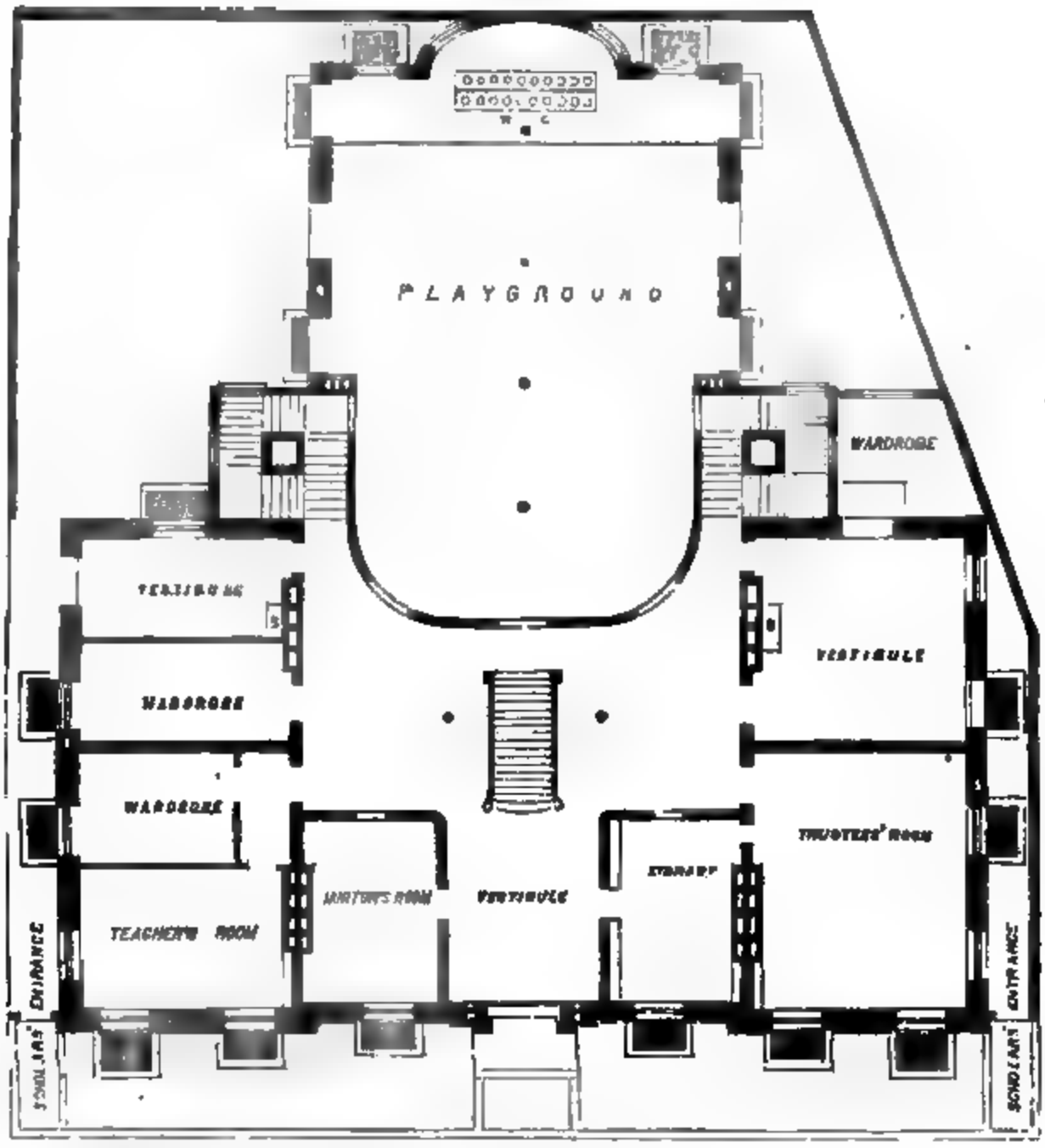
FRAMING OF ROOF—GRAMMAR SCHOOL.



FRANKLIN PUBLIC SCHOOL, WASHINGTON, D. C.

Erected in 18[illegible] — [illegible] Architects

Fig. 7. Ground Floor.



Plans of Grammar School-house, No. 47, New York City.

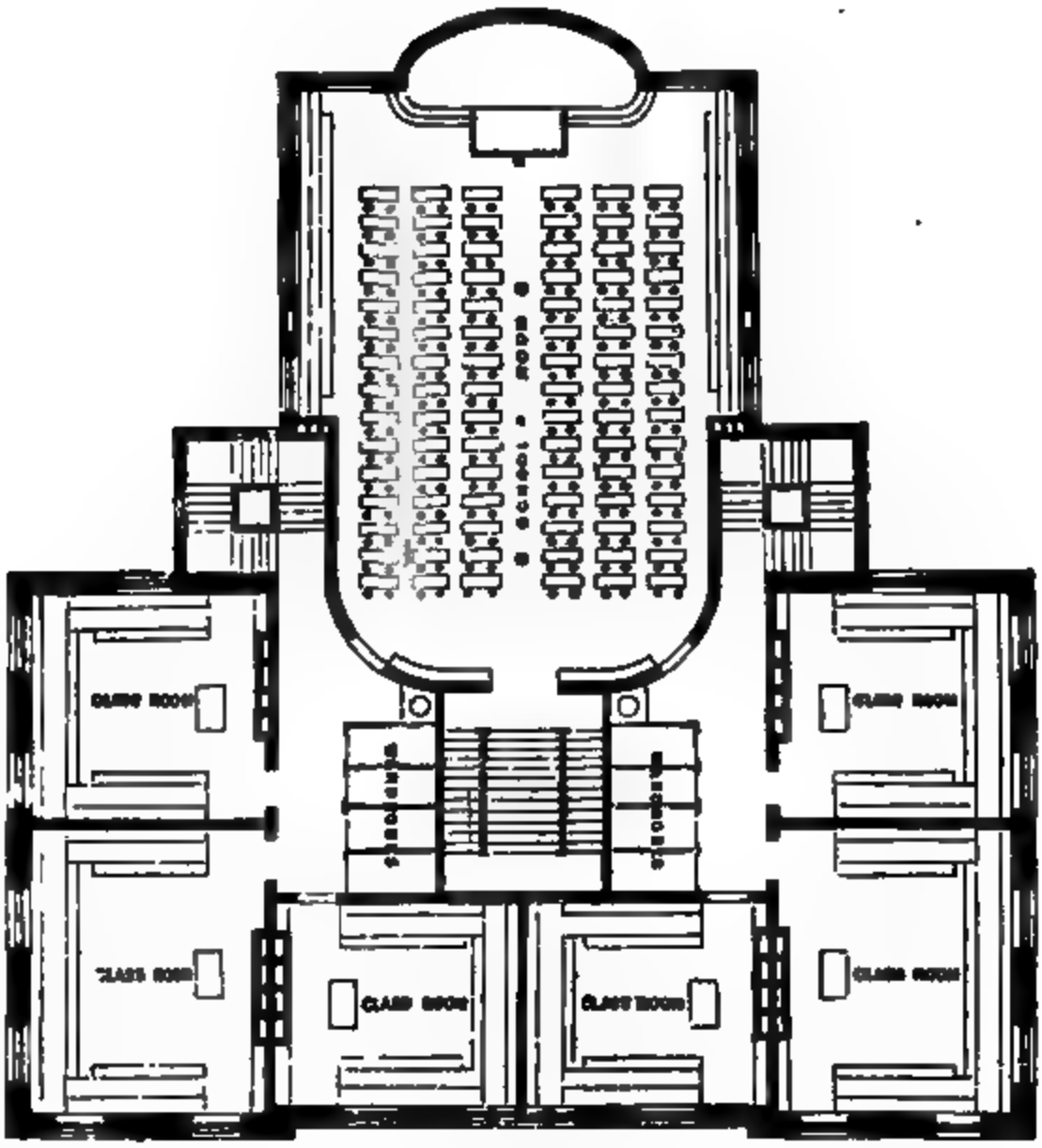
This elevation represents the new School-house erected in Twelfth Street, between Broadway and University Place, for a Grammar School for girls. The building has a front of 94 feet, and is 100 feet deep and 4 stories high. It is built of brick, the basement having a brown stone front, well finished, with an excellent architectural effect.

Figure No. 2, is the ground floor, chiefly occupied as the play-ground for the scholars, extending under nearly the whole building, and protected from the weather by doors and walls. In fine weather the doors being thrown open, ample room is afforded for exercise.

The lettering in the plan will enable the reader to see at once the arrangement of the rooms. At the right is the Library and the rooms for the meetings of the School Officers of the Ward. At the left are rooms for the Teachers, and the Janitor, and Wardrobes for the use of the pupils. The water-closets are at the rear part of the building.



Fig. 3. First Floor.



There is a cellar under the whole building, where fuel is stored, and the furnaces are placed. Of these there are five, constructed by Messrs. Culver, Simonds & Co., of New York.

The first story is occupied by the Primary Department, and has six class-rooms, as represented in Fig. 3, beside the large room, where the pupils assemble at the opening and close of the school. Four wardrobes are placed on each side of the stairway, where the outer clothing of the scholars are hung during school hours. The stairways, on each side of the house, afford an egress into the play-ground.

The second story, Fig. 4, is the same as the first, except that two of the class-rooms are supplied with desks for the upper classes.

The third story, represented in Fig. 5, is the same, with the exception that all the class-rooms are furnished with desks. This department is for the highest grade of scholars, and is similar, in all its arrangements with respect to wardrobes, &c., to the other departments.

The whole house is furnished with the School Furniture of Joseph L. Ross, and is very handsomely and conveniently arranged for the accommodation of the pupils.

The building was erected under the supervision of Thomas R. Jackson, architect; the mason-work being performed by Wm. B. Rhoades, and the carpenter's work by Powers & Schoonmaker.

Fig 4. Second Floor.

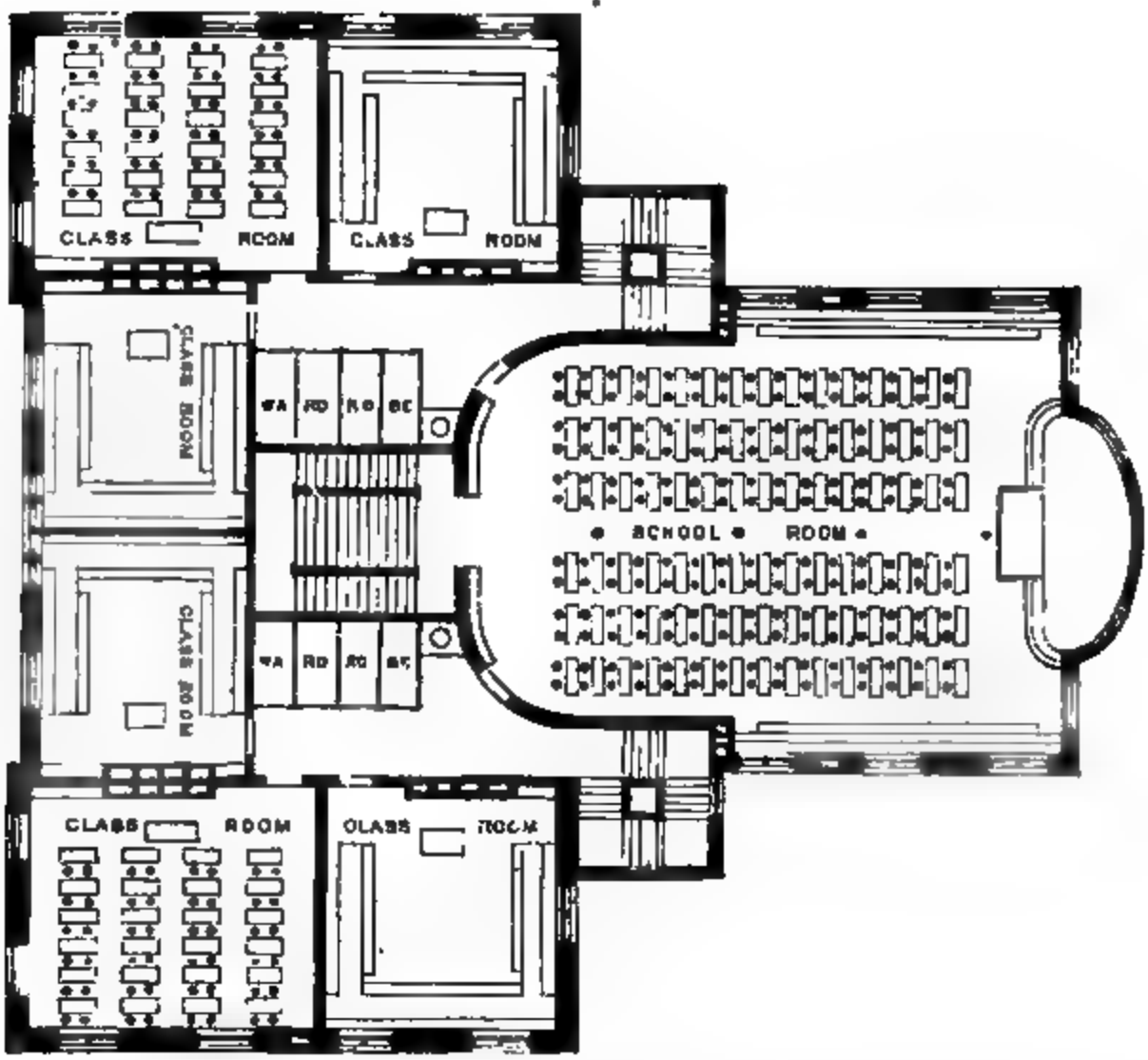
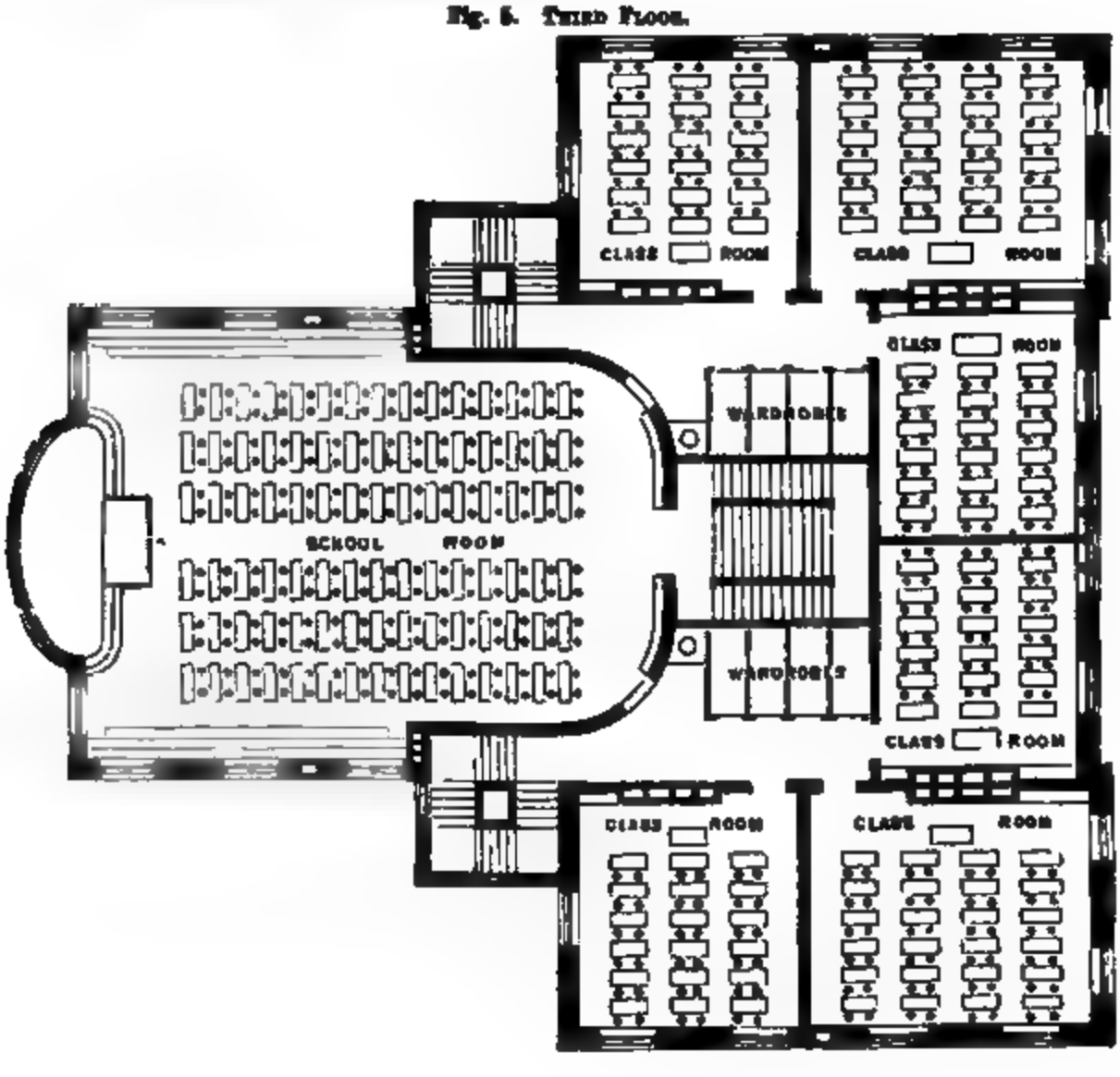


Fig. 5. Third Floor.



PLANS OF PUBLIC SCHOOL-HOUSE NUMBER TWENTY

Public Grammar School No. 20 is located in Chrystie near Delancey street, in the Tenth Ward. The lot on which the building is situated is 100 feet square.

The main building is 50 by 97 feet, with four wings 25 by 28, and 25 by 33, which give it a frontage of 100 feet. The style of architecture of the front is Corinthian.

There is a cellar under four wings and front of the main building. The cellar is eight feet in the clear.

The basement story is ten feet in the clear, and the ceilings of the three remaining stories are fourteen feet in the clear.

The building is heated with Barrows' furnaces.

The rear stairs and platforms are constructed of stone and inclosed with brick walls, thereby rendering the stairs fire-proof.

The whole cost of the building, including the furniture and fitting up, is about $44,000.

Fig. 1.—PLAY-GROUNDS, JANITOR'S APARTMENTS, &c.

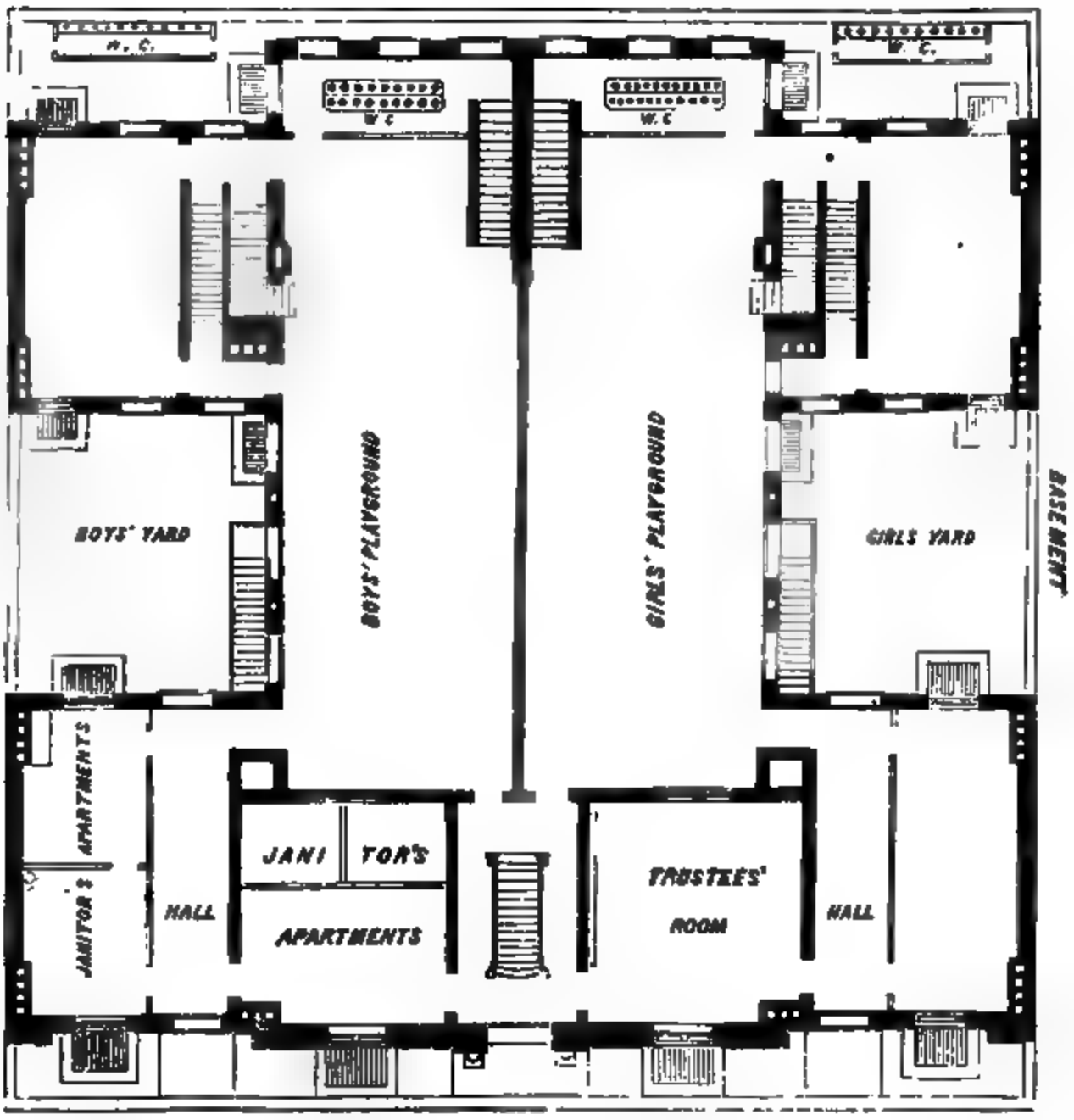


Fig. 2.—Second Floor, Primary Department.

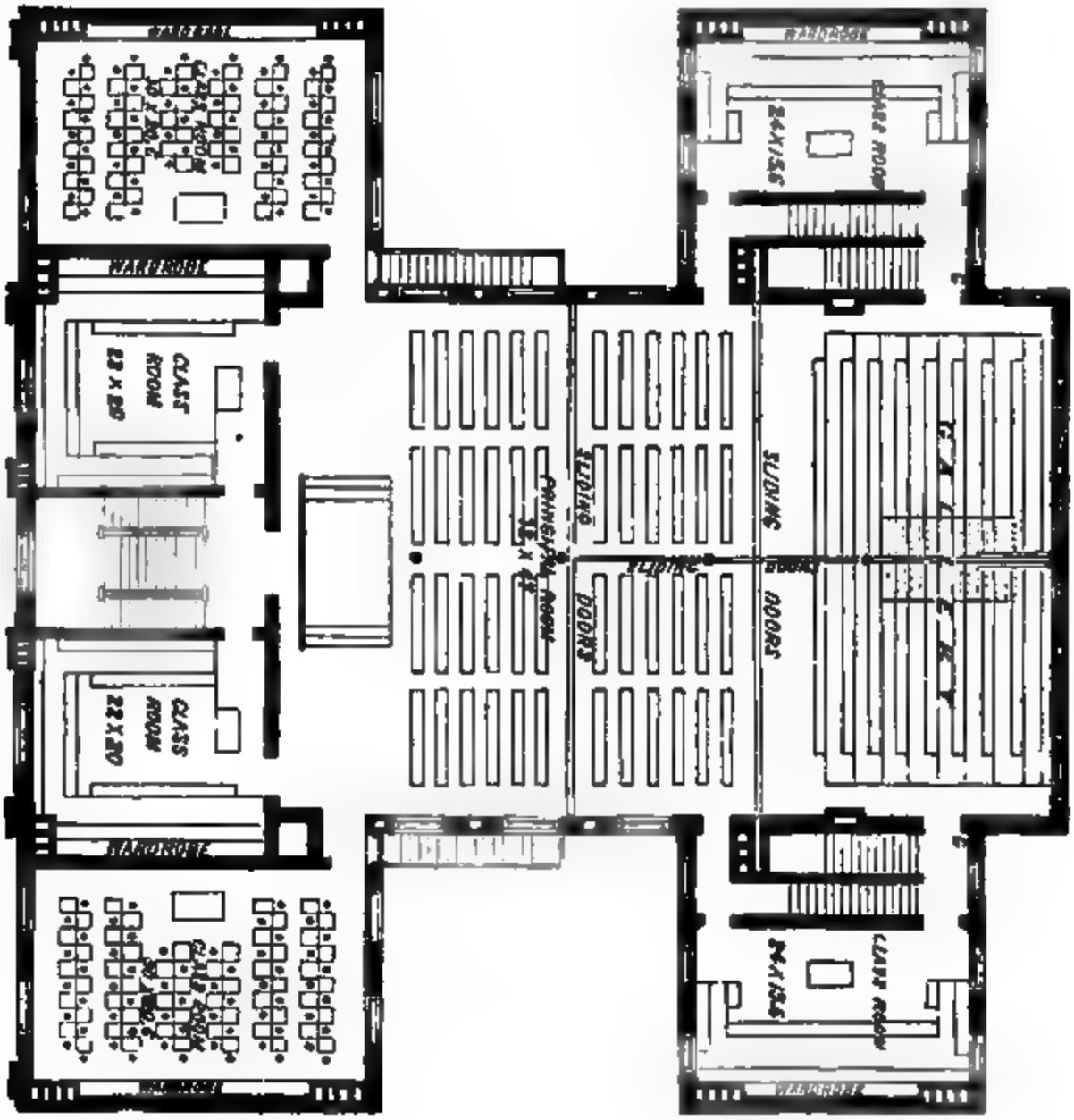
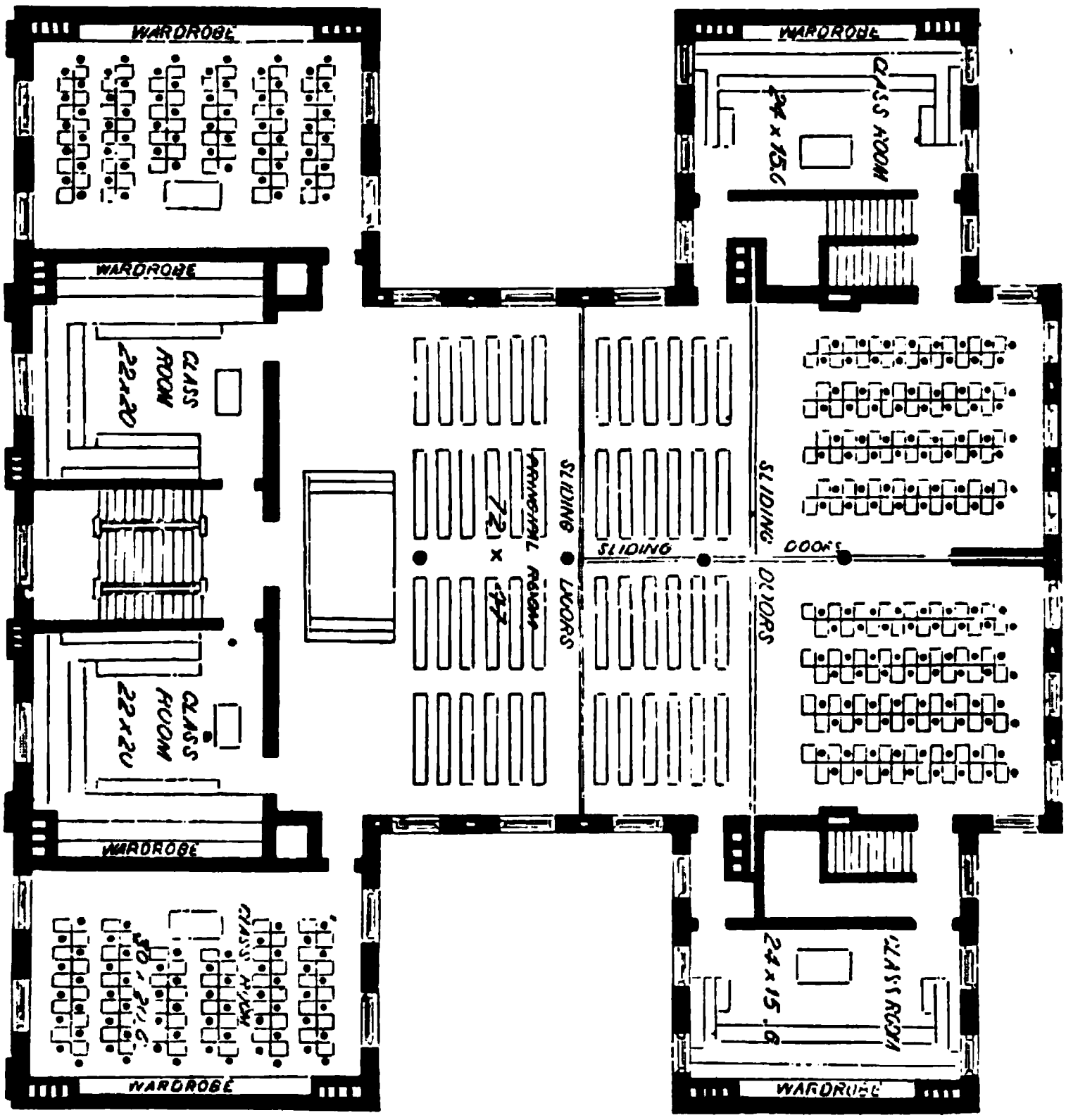
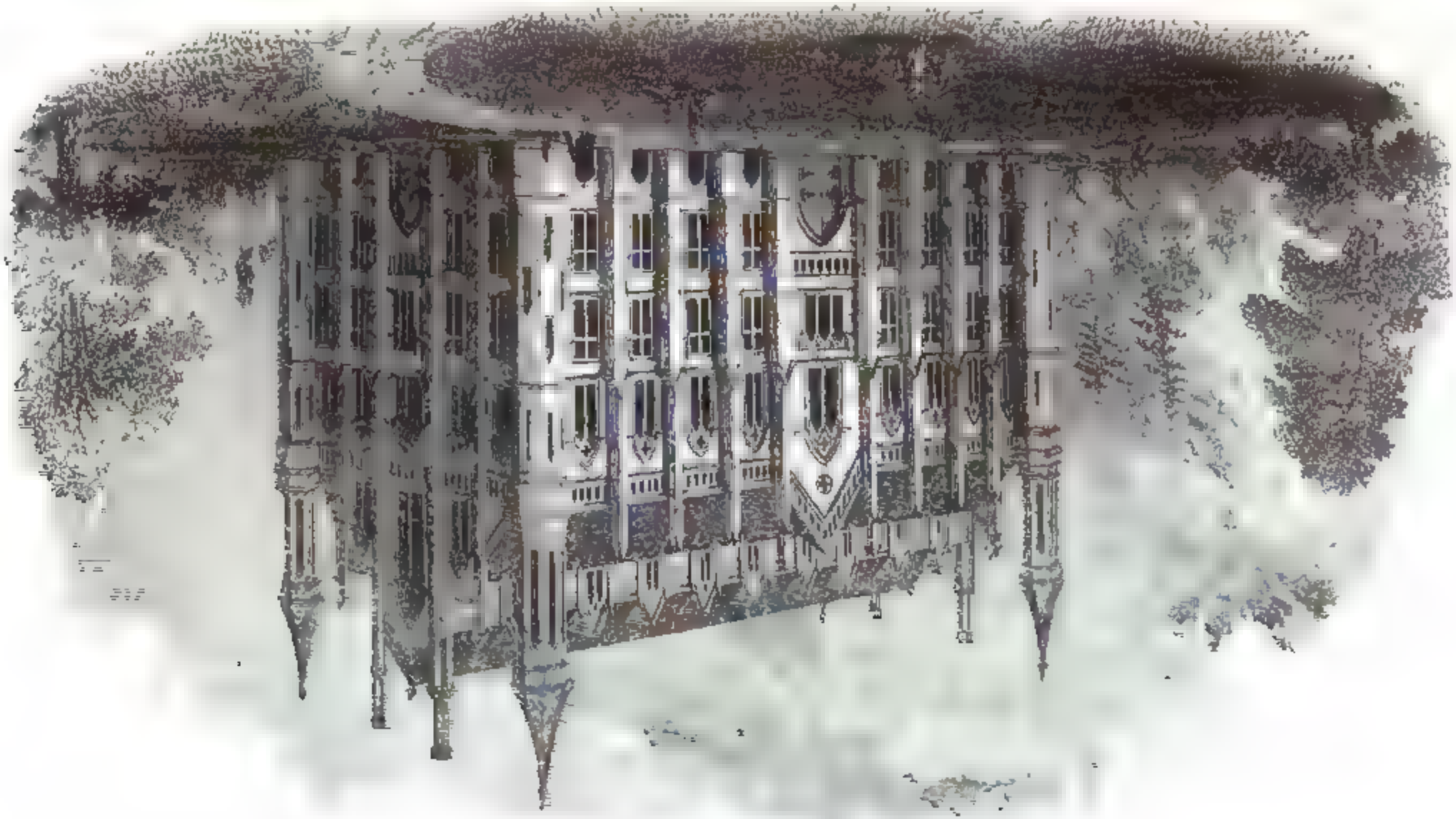


Fig. 3.—Third Floor, Female Department.





STATE NORMAL SCHOOLS,

AND OTHER INSTITUTIONS FOR THE

PROFESSIONAL TRAINING OF TEACHERS.

PRELIMINARY REPORT.

THE following pages exhibit the condition of State Normal Schools and City Training Schools in operation in 1867–8, so far as returns have been received, in response to the Special Circular (No. 10,) of the Commissioner of Education, soliciting information on the whole subject of the Professional Training of Teachers in the several States. A more complete documentary history of the system in each State will be hereafter presented.

NORMAL SCHOOLS.

PRELIMINARY REPORT.

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{ SPECIAL CIRCULAR, No. 10.

CIRCULAR RESPECTING NORMAL SCHOOLS,

AND THE PROFESSIONAL TRAINING OF TEACHERS.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., 1867.

IMPRESSED with the paramount importance of the Teacher, in every institution, and in all systems of instruction, public or private, the Commissioner of Education desires to obtain the fullest and latest information respecting Normal Schools, and all other institutions and agencies which exist in any State, for the preliminary training and subsequent professional improvement of teachers, especially of those connected with public schools.

The subject, as will be seen by the accompanying pages, [Classified Index, IV. and XVI.,) has already received from him much attention, and he has a mass of documentary material which he proposes to make available for the fuller discussion, all over the country, of the organization, studies, and methods of the following institutions and agencies:

I. STATE NORMAL SCHOOLS.

Date and circumstances of their establishment—course of instruction, especially in the principles of education and the art of teaching—conditions of admission and graduation—privileges of diploma—whole number of students and graduates—cost, total and annual—results thus far.

II. CITY TRAINING SCHOOLS, AND CLASSES.

The same class of facts, with particulars as to the methods of training pupil-teachers in the management and instruction of classes and an entire school.

III. TEACHERS' INSTITUTES.

The special work of this agency—date of first introduction—annual State appropriation in aid—number held, and attendance each year—system of conducting,—and results.

IV. TEACHERS' ASSOCIATIONS—STATE, COUNTY, AND CITY.

Date, and circumstances of establishment—frequency and length of meetings—subjects discussed—results.

V. LEGAL EXAMINATION AND RECOGNITION OF TEACHERS.

The extent to which information has already been collected on each subject will be seen by reference to Classified Index, Chapters IV. and XVI.; but statistics in all cases since 1864 are desired, and for 1867, are indispensable.

Any printed document, which has been instrumental in developing and making effective the idea of the professional training of teachers, and other information and suggestions respecting the above institutions, and other agencies and means specified in the accompanying article on the "Professional Training of Teachers," will be acceptable. Selections from these documents will be given with the sketch of the institution to which they refer.

The information, communicated in response to this Circular, so far as relates to State and City Normal Schools, carefully edited, will be published early in 1868.

HENRY BARNARD,
Commissioner.

IV. TEACHERS; NORMAL AND MODEL SCHOOLS; TEACHERS' INSTITUTES.

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PROFESSIONAL TRAINING OF TEACHERS.

THE experience of every country where the schools, public, parochial, or private, have attained any high degree of excellence, and the teachers are respected for their personal and professional worth, has demonstrated that early and continued success in the work of instruction, and in the management of educational institutions generally, demands not only certain qualities of mind and character, and an amount and kind of scholarship equal at least to the standard aimed at in the schools, but special preparation in knowledge and methods, and continued efforts at self and professional improvement to obviate the inevitable tendencies of an isolated and monotonous occupation. To secure this preliminary training, and progressive improvement in individual teachers, to exclude from the profession unworthy and incompetent members, to give opportunities of a generous genial culture as the basis of all special studies, and the source of a powerful unconscious tuition in manner, character, and daily life, to protect all who follow the business of teaching from pecuniary anxiety, and increase their means of personal happiness and social influence, various institutions, agencies, and measures, legal and voluntary, have been resorted to, at different times, and in different countries. We here briefly enumerate some of these Institutions and Agencies, which will be more particularly described elsewhere.

I. Religious Communities, or Associations of persons, who, having served a severe and prolonged novitiate, or preparatory course to test their vocation, devote themselves for life, and without pecuniary fee, or worldly reward, to the business of instruction. Such were the Benedictines, the Hieronymians, or Brethren of the Common Life, the Oratorians, the Brothers and Sisters of St. Francis of Paola, and other religious orders which have done their work, and given way to the Jesuits, the Ursulines, the Brethren of the Christian Schools, (*Institut des Frères des Ecoles Chrétiennes*,) and other teaching communities, whose schools are found in every country where the Catholic Church is established. The Mother House of

each of these orders, where the novitiate is served, is, strictly speaking, a Normal School, having its *norma*, or rule or pattern of professional life and practice. It is at the same time the home, where help, and rest and health are sought by its members in need, exhaustion, and old age. Several of these Houses preceded the establishment of Teachers' Seminaries which are the creation of the State.

II. Institutions, supported or aided by the government for the purpose of training teachers for the schools which the State has undertaken to establish to protect itself from the ignorance of any portion of its people, or to add to its resources of strength and production the cultivated intellect and restrained passions of all its citizens. These institutions are called by different names, and are organized and managed on different plans in different countries, but in all, their aims and functions are special, viz., to give to young men and women, found qualified in age, character, and scholastic attainments, a practical knowledge of the labors and duties of the schoolroom. In most of the German states, where they first received governmental recognition, they are called Teachers' Seminaries or Normal Schools, although the latter designation was originally applied in Austria, to a select class in certain prominent schools composed of pupils who were receiving special instruction, and at the same time were employed as assistants in the school. In England they are called Training Colleges.

III. Classes, or departments in one or more of the best schools in the chief towns, composed of scholars who have mastered the studies of the school, and show an aptness and desire to teach. These pupils receive additional and special instruction, and are employed at a small and increasing compensation, first as assistants, then as under masters, and finally as head masters. This plan of training teachers for the public schools, especially in large towns, is the main reliance of the government in Austria and Holland, and with some modifications by which the best pupil-teacher become Queen's Scholars in the Training Colleges, in England. It is an admirable preliminary test and preparation of candidates for the regular Normal School, and might profitably be made supplementary to the latter.

IV. Courses of Lectures in all Higher Seminaries of Learning on the History, Principles, and Art of Education—designed particularly for such students as propose to teach or may be called on to organize and administer schools. Such lectures are delivered in many universities of Germany, and theological students are required to attend as a necessary preparation for the right performance of the

duties of school inspectors and local school committees, which are always, although not exclusively, composed of clergymen. Such instruction, whether given by lectures, or by class-book and recitation, should be deemed essential to graduation in any College or Academy or High School, which are the natural sources to supply teachers to the schools below. Originally the degree of Bachelor and Master of Arts were evidence of the scholarship and authority of the holders to establish, teach, and govern schools. Such knowledge should enter into the training of all liberally educated American citizens, whose services are in constant demand as trustees and committees of schools of different grade. When such courses are supplemented by practical training in a Normal School, it forms a valuable part of the professional education of a teacher.

V. Itinerating Normal Agents and Organizers of Schools, to hold Teachers' Institutes, to act as Inspectors of Schools, assist in the establishment of new institutions, and imparting life and efficiency to schools which have run down under inefficient teachers, and bring up to a normal standard the schools and the public sentiment of particular districts. The efforts of an indefatigable Normal Agent like William S. Baker, so highly appreciated in Connecticut and Rhode Island, or of a School Organizer like those sent out by the Commissioners of National Education in Ireland, or the British and Foreign School Society, by familiar conversation with teachers, and practical illustrations in their schoolrooms, of improved methods of arranging the studies, and conducting schools will reach more widely than a Normal School.

VI. Teachers' Institutes, or gatherings of teachers, both for conference and instruction, for a period of not less than one, nor more than four weeks, in successive years in different localities, and including in its operations school officers and parents. Such gatherings of teachers, old and young of both sexes, and of schools of different grades; in such numbers as will develop the sympathies and power of a common pursuit, and yet not so large as to exclude the freedom of individual thought and action; for a period of time, long enough to admit of a systematic plan of operations, and yet not so protracted as to prove a burdensome expense, or an interruption to other engagements; under the direction of men, whose claim to respect and continued attention is their large experience and acknowledged success as educators and teachers; in a course of instruction, at once theoretical and practical, combined with opportunities of inquiry, discussion, and familiar conversation—such gatherings of teachers so organized and conducted as to exclude professional jealousy, and at the same time to enlist the coöperation and attendance of school

officers and parents, by assigning to the evening lectures and discussions, all topics of general interest to the community, as well as to teachers, will begin the work of renovation and improvement at once in the home and the school, in the heads and hearts of parents, in the enthusiasm, enlarged knowledge and practical skill of teachers, and in the well considered and liberal action of school officers, and the public generally.

VII. A system of examination, by which only persons of the right spirit, character, attainments, and practical skill, are licensed to teach, combined with modes of school inspection, by which incompetent and unworthy members are excluded from the profession.

VIII. Plans of associations of the teachers of a school, city, or larger district, for periodical conferences for mutual and professional improvement, and for occasional visits to each others' schools.

IX. Legal recognition of the true value of the teacher's office, by exemption from all services which interfere with the full performance of its duties, or imply that the constant care and highest nurture of children and youth are of secondary interest; and by provision for its permanence and adequate compensation, independent of the negligence or parsimony of parents and municipal authorities.

X. A system of promotion from a less desirable school, to one more so in respect to studies, location, and salary, dependent not upon favoritism, but upon an open and impartial examination.

XI. Access to books on the theory and practice of teaching, and to educational periodicals, by which the young and inexperienced teacher is made acquainted with the views of experienced teachers in his own and other times, in his own and other countries.

XII. Facilities for the acquisition of some industrial pursuit, out of school hours, which will add to the happiness and emoluments of the teacher, without diminishing his personal influence as the educator of the community.

XIII. A system of savings, aided and guaranteed by the government, but founded in habits of thrift and forecast in the teachers, by which provision is made for themselves in old age, or sickness, and for their families, in case of death.

By these and other institutions, agencies, and means, already recognized or established to some extent, the office of teacher has been greatly elevated in usefulness and in social and pecuniary consideration. It is the object of this work to bring together the experience of different states in this most important department of the whole field of educational labor, as presented in official documents, and the observations of intelligent and trustworthy educators.

COURSE OF STUDY IN THE NORMAL SCHOOLS, ADOPTED JANUARY 9, 1866.

THE design of the Normal Schools is strictly professional; that is, to prepare, in the best possible manner, the pupils for the work of organizing, governing, and instructing the Public Schools of the Commonwealth.

To this end there must be the most thorough knowledge: *first*, of the branches of learning required to be taught in the schools; and, *second*, of the best methods of teaching those branches.

The *time* of the course extends through a period of *two years*; and is divided into terms of twenty weeks each, with daily sessions of not less than five hours, five days each week.

The branches of study to be pursued are as follows:

First Term.

1. Arithmetic, oral and written, begun.
2. Geometry begun.
3. Chemistry.
4. Grammar and Analysis of the English language.

Second Term.

1. Arithmetic completed; Algebra begun.
2. Geometry completed; Geography and History begun.
3. Physiology and Hygiene.
4. Grammar and Analysis completed.
5. Lessons once or twice a week in Botany and Zoölogy.

Third Term.

1. Algebra completed; Book-keeping.
2. Geography and History completed.
3. Natural Philosophy.
4. Rhetoric and English Literature.
5. Lessons once or twice a week in Mineralogy and Geology.

Fourth Term.

1. Astronomy.
2. Mental and Moral Science—including the principles and art of Reasoning.
3. Theory and Art of Teaching,—including:
   (1.) Principles and Methods of Instruction.
   (2.) School Organization and Government.
   (3.) School Laws of Massachusetts.
4. The Civil Polity of Massachusetts and the United States.

In connection with the foregoing, constant and careful attention to be given throughout the course to drawing and delineations on the blackboard; music; spelling, with derivations and definitions; reading, including analysis of sounds and vocal gymnastics; and writing.

The Latin and French languages may be pursued as optional studies, but not to the neglect of the English course.

General exercises in composition, gymnastics, object lessons, &c., to be conducted in such manner and at such times as the Principals shall deem best.

Lectures on the different branches pursued, and on related topics, to be given by gentlemen from abroad, as the Board or the Visitors shall direct, and also by the teachers and more advanced scholars.

The order of the studies in the course may be varied in special cases, with the approval of the Visitors.

The Board deem it unwise to encourage the formation of regular advanced classes, whose instruction can not fail to divert a considerable amount of the time and attention of the teachers from the under-graduate course; but graduates who wish to review any part of their course, or to make more thorough attainments in particular branches, and who are willing to render such assistance as may be needed in giving instruction in the schools, may, with the consent and under the direction of the Visitors, remain at the schools for a period not exceeding two terms.



STATE NORMAL SCHOOL

AT FRAMINGHAM, MASS.

HISTORY.

The State Normal School at Framingham, the first Normal School under State auspices in America, was opened at Lexington, with a formal Address by Gov. Everett, July 3d, 1839.* Three young ladies were all that presented themselves as candidates for examination. The school commenced with these, and the number increased in a few weeks to twelve. In October, a Model School was organized and placed under the charge of Miss Mary Swift. The school continued at Lexington for five years. In May, 1844, having outgrown its accommodations, it was removed to West Newton, where Josiah Quincy Jr., purchased a building, formerly used as a private Academy, which he gave to the Secretary of the Board of Education, who had searched in vain for a suitable structure within the means of the Board. The building was out of repair, but at the expense of Mr. Mann, and the contribution of the citizens of West Newton, it was put in proper order for the use of the school. The school increased in numbers, and additional accommodations were provided in the rooms at first occupied by the Model Department, which were vacated on the removal of the Model School to other quarters provided by the town.

In 1850 and 1851, the Board of Education took measures to bring before the Legislature the increasing wants of the school, and in May, 1852, the sum of $6,000 was placed at the disposal of the Board, to defray the expenses of providing a more commodious site and building. The Board were directed to receive propositions from towns and individuals, and afterwards to make such selection as would, in their opinion, best subserve the interests of the institution. After carefully considering the propositions presented, the Board determined to transfer the school to Framingham, where it was opened December 15th, 1853.

The building now occupied by the State Normal School, with the preparation of the grounds, and the furniture, cost about $20,000. The site, consisting of five and three-quarter acres of land, was presented by individuals. The town appropriated $2,500, and the Boston and Worcester Railroad Company $2,000, in aid of the erection of the building.

The first Principal, Rev. Cyrus Peirce, was compelled to resign on account of ill health, in 1842. His successor, Rev. Samuel J. May, had charge of the school from Sept. 1842, to Aug. 1844, when he resigned, and Mr. Peirce, who had recovered his health, was re-appointed, and re-

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* This Address was repeated at Barre, on the 5th of September, 1839, on the opening of the Normal School at that place.

sumed his duties in September, 1844. Mr. Peirce again failed in health, and was compelled to resign in April, 1849, and Rev. Eben S. Stearns was appointed to succeed him. Mr. Stearns resigned in 1855, and Mr. George N. Bigelow, his successor, remained in charge of the school from that time till 1866, when on his resignation, the Board of Education determined to place the school under the charge of a lady, and Miss Annie E. Johnson was appointed Principal. Miss Johnson was installed September 4th, 1866. This occasion, the first instance of a State Normal School being placed under the charge of a lady, was inaugurated by addresses from Gov. Bullock and Ex-Gov. Emory Washburn.

CONDITION IN 1867.

The following information of this school is from a Circular for 1867:

Nature and Design.

This School was established by the State of Massachusetts for the preparation of female teachers to instruct in her public schools. Pupils are admitted from any State in the Union.

Tuition is free to those intending to teach in the public schools of Massachusetts; but those intending to teach in other States, or in private schools, are required to pay $15.00 a term for tuition. At the beginning of every term, each pupil pays $1.50 to meet incidental expenses.

Conditions of Entrance.

Candidates for admission must be at least sixteen years of age; must give a pledge to remain in the School at least four consecutive terms, and to observe faithfully all the regulations of the Institution; and must declare their full intention of teaching in the public schools of Massachusetts after graduation. They must also present a certificate of good physical, intellectual, and moral character, from some responsible person, and pass a satisfactory examination in reading, spelling, writing, defining, grammar, geography, and arithmetic.

The examination for admission takes place on Tuesday, the first day of each term, commencing at nine o'clock, A. M. Special examinations are allowed, in unusual cases, for a few days after the commencement of the term.

Every pupil must furnish herself with a Bible, a dictionary, and a common atlas, and can bring such other books as the applicant may have.

Terms and Vacations.

The school-year, consisting of forty weeks, is divided into two terms. The first term commences on the first Tuesday in September, and the second on the third Tuesday in February. The first term is preceded by a vacation of eight weeks, and the second by one of three weeks.

Studies.

The course of study includes reading, with analysis of sounds and vocal gymnastics; writing; spelling, with derivations and definitions; punctuation; grammar, with analysis of the English language; arithmetic; algebra; geometry; physical and political geography, with map-drawing;

physiology; botany; zoölogy; geology; natural philosophy; astronomy; mental and moral philosophy; school laws; theory and art of teaching; civil polity of Massachusetts and the United States; English literature; vocal music; and drawing.

Constant and careful attention will be given throughout the course to drawing and delineations on the black-board.

The Latin and French languages may be pursued as optional studies, but not to the neglect of the English course. There are general exercises in composition, gymnastics, object-lessons, &c.

Lectures on the different branches pursued, and on related topics, are given by gentlemen from abroad, as the Board or the Visitors shall direct; and also by the teachers and more advanced scholars.

Graduates who wish to review a part of their course, or to make more thorough attainments in particular branches, and who are willing to render such assistance as may be needed in giving instruction in the school, may, with the consent and under the direction of the Visitors, remain at the school for a period not exceeding two terms.

The length of the regular course is two years; but pupils who have had much experience in teaching, and are well qualified, may complete it in a year and a half, the shortest time for which one can be a member of the school. Those who, in all probability, would become successful teachers, but who fail for any reason to complete the course in the required time, must, and others who desire it may, take a longer time.

The special professional training consists, 1st, of plans of exercises on each subject studied by the class. These plans are presented orally for the criticism of teachers and pupils. And 2d, of teaching exercises given by the Senior class to a class of children who come in from one of the public schools in town.

Board.

The price of Board varies from $4.00 to $4.12½ per week. There is generally an extra charge for fuel and lights. Pupils are not permitted to board so far from the Institution as to render it impracticable for them to be present at all the regular exercises.

Library, Apparatus, and Cabinet.

A well-selected Library belongs to the school, to which the pupils have daily access. The text-books in most of the English studies, and music, and encyclopædias, dictionaries, and many other works of reference, are furnished to the pupils free of charge. The school is well supplied with apparatus for illustration in natural philosophy and chemistry, and has a valuable cabinet of minerals and geological specimens.

The friends of education are earnestly desired to contribute books and pamphlets for the library; philosophical and chemical apparatus; minerals and specimens of natural history for the cabinet. These will add greatly to the present means of usefulness of the Institution.

The Institution is situated on a beautiful eminence, commanding a fine westerly view, that embraces a part of the village, and a wide and varied landscape. The society of the place is of an elevated character. There are churches of the Unitarian, Baptist, Congregational, and Episcopal orders; and each pupil is expected to attend regularly such one of these as she may select at the commencement of the term.

The number of pupils who have entered the Normal School is 1,541; the number who have graduated, 1,092; number in 1867, 158.

LESSON OF THE HOUR.

In the "Memorial of the Quarter-Centennial celebration of the establishment of State Normal Schools in America, held at Framingham, July 1, 1864," we find a letter from George B. Emerson, LL. D., in which he inculcates the "Lesson of the Hour," as drawn from the life of Father Peirce, and the teachings of this school:

Aim only at the highest ends: Appeal only to the purest and highest motives: Fill your souls with the noblest aspirations, your hearts with the warmest affections, your minds with the richest thoughts, and consecrate all to the great work in which you are engaged, the best and noblest work to be done on earth: Aim always at perfection; "Be ye therefore perfect,"—as no lower aim is adequate to the immortal destiny of man: Appeal always to conscience, so as to exercise it constantly from the beginning; asking, in every event, what is right and good, and what is evil and wrong, and faithfully listening to its dictates and following them: Inculcate the great truth that all pleasure, all enjoyment, must come from the exercise of one or more of our faculties of body or mind, and that labor of body or mind is thus the great blessing of humanity: Prepare for the leisure of life and for old age: Inculcate accountability to one's self as an immortal being, destined to bear the consequences of neglect and enjoy the fruits of faithfulness,—accountability to God as His child, for every power and opportunity to do good to his other children,—the imitation of good and great men, the benefactors of the race,—the imitation of Christ.

Never appeal to brute force except when it is absolutely demanded; remembering, however, that corporal punishment may sometimes be necessary, but he must be a poor teacher who often has recourse to it. Never appeal to emulation, but insist on the divine lesson, "in honor preferring one another:" Remember the injunction of the holy Paul, "Be not overcome of evil, but overcome evil with good," and that the only absolutely irresistible power is ever-enduring, wholly unselfish love.

The teacher *must* be armed with this principle. She *must* love children; and she ought to remember that all of them are or have lately been of that number of whom the Divine Master said, "Of such is the Kingdom of Heaven."

Remember that the art of teaching, which should be the oldest, is really the newest of arts; that, in most schools, in all departments, much time is wasted in teaching what is of little value, while many things, most important for the child to learn, are not taught at all. In short, what should be the great and leading object in every school,—preparation for the duties and labors of life—is, in many ways, in schools of all grades, almost entirely neglected.

FRAMINGHAM STATE NORMAL SCHOOL.

HISTORICAL SKETCH.* By Rev. Eben S. Stearns.

Between the years A. D. 1820 and 1835, there appeared upon the stage a small class of intelligent, cultivated self-sacrificing men, with all the vigor and freshness of early manhood, who saw, as it were at a glance, how matters stood [in elementary schools]; deplored the educational decline; and began earnestly, and, in general wisely, to apply the remedy. An "Educational Revival," as our brother, the Orator, has aptly termed it, took place. The people began to see that a right education, widely diffused, would prove the glory of the State—nay more, was for her the only source of influence, power, and lasting greatness.

Time and present circumstances forbid us to speak in fitting terms of these Educational Revivalists, to portray their characters, and to recount the noble deeds which each performed. Indeed, thank God! many of them yet live; yet enjoy the rich fruits of their early labors; are yet able and ready to lend a helping hand to every good work†

Foremost, perhaps, among these pioneers, was James G. Carter, genial as a friend, accomplished as a teacher, ardent as a politician, who fought most manfully, and for a time nearly alone; and to whom it is believed, belongs the honor not only of starting the great reform, but of perceiving how essential to its completeness and permanent utility, would be the thorough, professional education of teachers under public supervision and at the public charge. His newspaper articles on popular education, from A. D. 1821 to '24,—his letters to Hon. William Prescott, LL. D., on the Free Schools of New England, with Remarks on the Principles of Instruction,—his Essays upon Popular Education, containing a particular examination of the schools of Massachusetts, and an outline for an Institution for the Education of Teachers,"—his Memorial to the State Legislature in 1827, praying for aid to establish a Seminary for the Education of Teachers, with a Model School attached,—his efforts in Lancaster, his native town, to carry out the school as a private enterprise,—his activity and influence in founding the "American Institute of Instruction" in 1829–30, that noble society which for thirty years has been a source of life to the educational interests of the country,—his unremitted labors as a politician in behalf of Popular Education,—his successful introduction of a bill establishing the Board of Education,—the detraction, persecution and financial disasters he encountered in the advocacy of his schemes,—all these entitle James G. Carter to a most honorable mention.

There were William C. Woodbridge, a teacher and the son of a teacher, distinguished as a geographer and editor of the Annals of Education and other works,—and Samuel R. Hall, for many years a teacher of teachers, and in 1829, the founder, at Andover, of a Seminary for Teachers—the first regular seminary in this country designed for such an object—a genuine Normal School,

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* Abridged from an Address delivered at the Quarter Centennial Celebration of State Normal Schools in America, at Framingham, July, 1864.

† Memoirs of the Educational Labors of James G. Carter, William C. Woodbridge, Samuel R. Hall, Thomas H. Gallaudet, William A. Alcott, Horace Mann, Samuel Lewis, Walter R. Johnson, Josiah Holbrook, Cyrus Peirce, Samuel J. May, George B. Emerson, Charles Brooks, Edmund Dwight, William Russell, Edward Everett, Francis Wayland, Warren Colburn, Mrs. Emma Willard, Nicholas Tillinghast, and other laborers in the educational field from 1825 to 1850, have appeared in Barnard's American Journal of Education, and are gathered into *American Educational Biography*, vols. I. and II.

though not of State patronage or adoption,—and GARDNER B. PERRY, of Bradford, a modest country clergyman, in early life a teacher of a distinguished literary institution, who through a long and able life labored as he found opportunity, to promote popular education.

There, too, were THOMAS H. GALLAUDET, the skillful, devoted instructor of the deaf and dumb, who made the dull ear to hear of the wonders of the creation, and the tongue of the dumb to sing the praises of God,—and WILLIAM A. ALCOTT, the eccentric physician and educator and author of many good books.

HORACE MANN, the first Secretary of the Board of Education, came late into the work, [1837] but brought with him all the powerful energies of his mature life; all the learning, culture and acumen which had distinguished him at the bar; all the knowledge of human nature and skill in management which made him successful as a politician; and all the influence which he had acquired among the people. Withdrawing himself from less laborious and far more lucrative occupations, he gave himself, soul and body, to the great enterprise. Of his earnest, self-sacrificing devotion, of his indomitable perseverance amid opposition and reproach, of his enormous personal labors, we cannot here speak. The prime agent in establishing the Board of Education, its *soul* as well as its Secretary, he was the establisher of *this* school, and its most earnest and constant friend, so long as it continued within his reach; and but for him it would have died for want of that mere pittance on which so much of its life has been supported, and which, again and again, he secured.

Prominent among these was EDMUND DWIGHT, the merchant prince, as unostentatious as munificent, whose open purse enabled the Secretary to live, which State patronage alone never could have done; and whose timely gift of $10,000 to the State of Massachusetts, presented March 10, 1838, secured from its Legislature a corresponding grant; and was, as Mr. MANN has expressed it, "the origin, the source, the *punctum saliens* of the Normal Schools of Massachusetts."

But time fails me to speak of SAMUEL LEWIS, WALTER JOHNSON, JOSIAH HOLBROOK, JOHN A. SHAW, and a host of others. These and many more rest from their labors and their works do follow them.

We have yet with us, thank God! WILLIAM RUSSELL, the Educational journalist and associate of Woodbridge, whose native grace and charming elocution were as attractive as his pen was persuasive, and whose whole life has been spent in urging forward the work of popular education:

SAMUEL J. MAY, the accomplished orator of this occasion, and the second Principal of this Institution; the record of whose life is self-sacrifice, and earnest, unremitting endeavor in every good word and work designed to benefit mankind:

CHARLES BROOKS, whose labors in the years 1835-6-7, were second to those of no man—one might almost say to no number of men—to whom we owe the particular *form* which Normal Schools took, and who did very much toward preparing the publi mind to look with favor upon the new system; who, beginning with his own parish in Hingham, for the space of three years, without compensation or payment of expenses, traveled over New England, lecturing upon the Prussian system of Elementary Education, with especial reference to Normal Schools. From his friend, Victor Cousin, the first scholar of France, he obtained reports and documents, and encouraging words, which were to him the pabulum vitæ; for in this phase of the enterprise he stood almost if not quite alone; yet planting his feet literally on "Plymouth Rock," he was conscious of strength. In behalf of a convention of teachers, called by him in Plymouth, he memorialized the Legislature in 1837, and was twice called before that body to speak upon his favorite subject:

HENRY BARNARD, as much as any man in this country, entitled to be called *the Educator*, whose fruitful labors are in their prime, and are destined to produce results greater and still greater as time progresses, and of whom this is not the place to speak at length.

Time and your patience fail me to speak of others who deserve the most honorable mention, and a large place in the affections of the hosts whom they have benefited. One more only shall be spoken of. I refer to Mr. GEO. B. EMERSON, whose whole life has been given to educational labors. The son of a distin-

guished physician, full of interest in popular education, and of labors to promote it, he has by inheritance the qualities which, under his own careful training and culture, have made him eminent in his profession, and distinguished him as the friend of common schools. In A. D. 1821, he was selected to fill the responsible office of Principal of the English High School in Boston, then just established. The work of organization, the plans and course of study, the nature of the discipline to be used, the means and motives to be employed, the moral and religious principles to be urged, all were left to his wisdom, skill and goodness. How well he did his work, let that noble institution, from that hour to the present the just pride of the city, tell. To him Warren Colburn, his friend, submitted the manuscript of that best of works on the science of numbers, "First Lessons in Arithmetic," that, lesson by lesson, he might practically test the work in his school; and the deserved popularity of this book was owing to Mr. Emerson's warm recommendations. In 1827, Mr. Emerson withdrew from the High School to open a Private School for Young Ladies, which he conducted with the most eminent success for more than a generation; retiring from it in 1855, at a moment when, if possible, its popularity was greater than it had ever been before.

Mr. Emerson, in 1827, was instrumental in forming the Boston Mechanics Institute, was its first Secretary, gave the opening address and delivered the first course of Lectures. In 1830 he was one of the foremost in forming the American Institute of Instruction, was its first Secretary, and for many years its President. In 1836, he was Chairman of a Committee to memoralize the Legislature on the subject of the Superintendence of Common Schools, and drew up the memorial. No particular action being taken by the Legislature, in 1837 a second memorial, also drawn up by Mr. Emerson, was presented, on the establishment of a Seminary for Teachers. In 1843 he wrote the second part of the School and School Master, one of the wisest and best works of the kind ever given to the public. In 1830 he was active in the formation of the Boston Society of Natural History, of which he was for many years President, and he was also for many years Corresponding Secretary of the American Academy of Arts and Sciences. In 1837, having been appointed by Gov. Everett Chairman of a Commission to conduct a Botanical and Zoölogical survey of the State, he gave to the public his admirable and exhaustive report on the "Trees and Shrubs of Massachusetts."

From the very first, almost of course, Mr. Emerson was deeply interested in the Normal Schools, and labored assiduously to promote their interests. In 1847–8, he was member of the Boston School Committee, and the latter year was chosen a member of the Board of Education, and during the eight years of his service was most active and influential. He has been for several years, since his return from Europe in 1856, the Treasurer of the Board.

The bill establishing the Board of Education was approved by Edward Everett, then Governor of the State, on the 20th of April, 1837. Horace Mann was then President of the Senate. At the first meeting of the Board, June 29th, 1837, Mr. Mann was chosen its Secretary.

The constitution of the new Board made the ultimate introduction of Normal Schools a certainty. Indeed, any scheme undertaken by such men as Edward Everett, Horace Mann, James G. Carter, Edmund Dwight, George Putnam, E. A. Newton, Robert Rantoul, Jr., and Jared Sparks, was a success the moment they grappled with it. The first two reports of the Board were written by Mr. Everett, and his addresses at Lexington and Barre, with his great personal influence, did much to prepare the public mind to welcome the new measures.

In 1838, on the 19th of April, that day so memorable and glorious, the Legislature by joint resolve accepted the munificence of Mr. DWIGHT, and appropriated an equal sum to the founding of Normal Schools.

The first examination of pupils for admission to the First Normal School established under this resolve, was at the school-house in Lexington, on Wednesday, July 3d, 1839, and the institution began with three pupils. It was a disappointment, cruel, indeed. To feeble minds, the mortification would have been intense, and the seeming failure crushing; but, small at it was, this was a *beginning*, and they knew it, and were content.

Nothing daunted, the Board, on the first Wednesday of September, 1839,

opened a second school at Barre, under the direction of the late Prof. Newman; and on the second Wednesday of September, 1840, a third in Bridgewater, under the direction of the late Col. Nicholas Tillinghast.

It should be here understood that these schools were not at first *State* schools, but the schools of private munificence, *aided* by the State—the State being responsible neither for success nor failure. Consequently, and indeed as a measure of policy also, private aid was solicited and private coöperation secured. To the school in Lexington, a building, used as an academy years before, was given, free of rent, for three years; and some contributions were made by well-wishing citizens for repairs, apparatus, &c. A similar arrangement was effected for each of the other schools.

The gentleman selected by the Board of Education to commence the experiment at Lexington, was Rev. Cyrus Peirce, a native of Waltham, Mass., born August 15, 1790, and graduated at Harvard College in 1810, where he left behind him a reputation for pure morals, upright demeanor, and thoroughness in scholarship. In his sophomore year he taught the village school in West Newton, where he was destined nearly fifty years after to close his long and successful educational career. Soon after leaving college, in 1810, he took the charge of a private school on the island of Nantucket; whence, after two years of acceptable labor, he returned to Cambridge, and completed a course of study preparatory to the Christian ministry. After spending three years in preparation for what he looked forward to as his great life-work, he was urgently solicited to return to Nantucket and resume the work of instruction. Here he labored with his accustomed zeal and success until 1818, when he relinquished his place and entered upon the work of the ministry. During his residence in Nantucket Mr. Peirce was united in marriage with Miss Harriet Coffin of that place, to whose wisdom in counsel, readiness and constancy of sympathy, promptness and energy in action, combined with cheerfulness and hopefulness of disposition, and rich and varied culture, he doubtless owed much of his success in the different positions he afterwards filled. No sketch of his school, at least, could be complete which did not recognize the modest and uncompensated labor of Mrs. Peirce. May she long live to enjoy the gratitude of her own as well as her husband's pupils, and the benign smiles of our Heavenly Father!

Mr. Peirce was settled as a minister in North Reading in A. D. 1819, and continued ably and successfully to perform the duties of his office for eight years, when he resigned and again resumed the work of instruction, subsequently returned again to Nantucket, where he became a recognized authority in all school matters, and was first and foremost in every good word and work. His influence on the common schools of the island was great, and served to make them among the very best in the country. While in charge there of the new public High School, Mr. Mann accidentally met him, visited his school, became charmed with the man and delighted with his work. Hence he was invited, in 1839, as has been stated before, to take charge of the new, difficult and doubtful experiment at Lexington. No one can comprehend the situation of affairs at the time,—the grandeur of the enterprise if successful,—the disastrous consequences, if it failed, without cheerfully considering that this appointment was the highest honor that could be conferred on any educator in the country; without understanding something of his feelings when he exclaimed to his wife, "Harriet, I would rather *die* than fail in this experiment." To his reputation as an instructor a failure would have been a death from which there would have been for *him* no resurrection. No wonder that, when he returned home from the disappointment of that first day, he said to Mrs. Peirce, "The Board have made a mistake in electing me; beyond Nantucket I am not known as a teacher, and the public have no confidence in me." The despondency was but a passing cloud,—cheerfulness and hopefulness returned.

The little school at Lexington of three pupils, with some additions in the next few days, was organized, and commenced its noble career, unfalteringly. Numbers slowly increased; a Model School was organized in October, its first teacher being Miss Swift, now Mrs. Lamson, who is with us to-day; and thus, on a small scale, the system was complete Many persons will remember how apathetic were the people in general, at this time, in regard to these schools;

while some, ignorant of their true character, misapprehended and misunderstood their design, so that envy and jealousy were soon added to the obstacles to be encountered. In the winter of 1840, a storm of opposition arose, and but for the most skillful management and vigorous battle, the destruction of the Normal School and a dishonorable return of his money to Mr. Dwight, would have been the consequence. God be praised, the Old Bay State, which none love more tenderly than those who no longer dwell among her enlightened people, was saved this burning shame! The victory over political and theological opposition, over narrow-minded jealousy and rivalry, gave rise to a better understanding and an unexpected degree of popularity. So God every where "makes the wrath of man to praise Him." Opposition did not cease at once, but it never again gained strength enough to be very formidable. The school once started and safely through its first winter, continued slowly but steadily to increase until 1842, when the Principal, exhausted by the labors and anxieties attendant upon it, was compelled to resign and recruit his wasted powers. Thus far he had labored alone; and, that he might not give an argument to the most penurious, and in order to make the limited funds hold out as long as possible, had not only managed and taught the school, but had performed some of its most menial offices.

Both Mr. Peirce and Mr. Mann at once fixed upon Rev. SAMUEL J. MAY, as a most worthy successor, and, by their solicitations, Mr. May gave up his parish in South Scituate, and accepted the appointment, Sept. 1, 1842. Mr. May, a native of Boston, was graduated at Harvard University in 1817. During his college life he taught school in the winter, first in Concord and then in Beverly. Having completed his studies, preparatory to the ministry, at Cambridge, he commenced preaching in December, 1820, "the very Sunday after Daniel Webster's solemn charge to the occupants of the pulpit to be faithful to the cause of the enslaved." In 1822 he was settled as a pastor in Brooklyn, Conn., where he remained fourteen years; being, during the whole of that time, a member of the School Committee of the town, and devoting much time and thought to education. It was at his instance, that in 1826 the first popular convention on the subject of education and the improvement of schools was called.* In the years 1832–3–4 and 5, he devoted much time to the anti-slavery cause, in connection with Mr. Garrison, George Thompson, and the abolitionists. From 1836 to 1842 he was minister of the church of South Scituate, Mass., and in the spring of 1845, was settled as minister of the First Unitarian Church in Syracuse, N. Y., where he at present resides. During Mr. May's connection with this Institution its numbers greatly increased, and he was compelled to summon to his aid assistants.

The fortunate selection of Miss CAROLINE E. TILDEN, doubtless added still further to the popularity of the school. Miss Tilden, a former parishioner of his, was educated at the Bridgewater School, and by her peculiar genius and talents, high culture and zeal, was well-fitted for the post. Her heart was full of kindness, her manners attractive, and her eye was an almost irresistible charm. Her career was short; she "preferred to wear out rather than to rust out," and soon passed away. Her associate, Miss ELECTA N. LINCOLN, was a pupil of Mr. Peirce, a pupil and then an assistant of Mr. May, again an assistant and chief support of Mr. Peirce, and most ably conducted the affairs of the institution during the interval between the close of the administration of Mr. Peirce and the beginning of that of Mr. Stearns; and with the latter she labored with untiring zeal and faithfulness, assisting him to carry the school through a most difficult and critical period, as no other could have done, encouraging him by her example and cheerful spirit, until her marriage in 1850 to Mr. George N. Walton, of Lawrence.

It may be well to state here, once for all, that it is impossible even to allude to the many highly cultivated, noble-spirited, self-sacrificing ladies who have from time to time labored in this school. May God bless them all, as they have blessed others!

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* An account of Mr. May's Educational Labors, with his Reminiscences of the Educational "Revivalists," will be found in the American Journal of Education, Vol. XVI, pp. 141-145.

The school having now quite outgrown its accommodations, Mr. May urged upon the citizens of Lexington the necessity of providing more ample ones, if they would retain it. But a spirit of apathy had fallen upon the people, or possibly they felt too sure of retaining the school without exertion on their part, and nothing was done. Finding that there was no hope at Lexington, Mr. May visited several other towns in the vicinity, and succeeded in finding in the then greatly secluded village of West Newton, a suitable building and grounds, and a manifest desire for the school on the part of the citizens. The premises had cost originally $3000, but were greatly out of repair, and were now offered at $1500. But how to raise the sum was a question. The Board of Education had no funds which could be appropriated for such a purpose,—the munificence of private persons was apparently exhausted,—the prosperous school bid fair to die of poverty. In this strait, Mr. Mann, to whom this school was dear as the apple of his eye, had recourse to an old, well-tried, personal friend, as well as a friend of popular education, who had stood by his side in defense of Normal Schools "when they were a novelty on this side of the water, and ignorance, bigotry, economy and ridicule were arrayed against them." For five years they had progressed steadily in usefulness and popularity, but their permanent establishment was not considered to be certain. The school at Lexington was the most popular, and the scholars more than the building could accommodate. Should it die for the want of $1500?* Should all the anxieties, labors, and triumphant successes be lost for the want of so small a sum? On the other hand, let a building be purchased, and the school would have a home at once; it would be immediately placed above contingencies; it would have stability and strength. No wonder that Mr. Mann, in his anxiety to seize the golden opportunity, and in full view of the glories of success and the sad consequences of failure, in the figurative language which he was, perhaps, more likely to use than approve, exclaimed, as he rushed into the office of the Hon. Josiah Quincy, Jr., of Boston, "Quincy, do you know of any one who wants the highest seat in the kingdom of Heaven? for it is to be bought for $1500?" Mr. Quincy asked what he meant. An explanation followed. Mr. Quincy, with noble generosity, at once drew his check for the amount, directing Mr. Mann to buy the building, "take a deed in his own name, and, in case the Normal School system should be abandoned, to devote the proceeds that might arise from a sale of the building to the advancement, in any way he pleased, of common school education." The building was out of repair, and Mr. Mann sold his library and stocks, and expended $1500 of his own money upon it. The citizens of West Newton gave $600 more, the State added something; the broad seal of permanency was affixed, and success was written over against experiment.

While things were thus progressing with reference to removal from Lexington, Mr. May, finding that his predecessor, Mr. Peirce, had recovered his health, with characteristic modesty and distrust of his own success, at once stepped aside and, by his resignation, August 31, 1844, made way for the re-appointment of Mr. Peirce, which took place September 1, 1844.

Mr. Peirce brought to his work renewed health and vigor, and, if possible, more comprehensive views of its nature and importance. The experiment was now regarded by the public generally as successful, and people began to seek to enjoy its benefits rather than to destroy it. A new Model Department was created and placed in charge of Mr. George N. Walton.

On the 20th of March, 1845, the Legislature resolved, "That the schools heretofore known as Normal Schools, shall be hereafter known as *State* Normal Schools,"—thus formally adopting them into the school system of the State, and, by implication, becoming responsible for their generous support and conduct. That must have been a proud day for Mr. Peirce. His favorite school had succeeded. The little one had become a thousand; the mustard seed a mighty tree, and its leaves were for the healing of nations. After three years more

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*To mark the progress of the Normal idea—the necessity of special training for the work of teaching, it may be mentioned that the two last established State Normal Schools will have buildings which will cost—the one at Winona, (Minnesota,) at least $100,000, and the other, at Terre Haute, (Indiana,) with the grounds, over $150,000. The grounds and building of the State Normal University of Illinois, cost over $250,000.

of unremitting labor, the health of Mr. Peirce again broke down, and he was compelled to resign in April, 1849, worn out and grown old before his time; his physical condition bearing witness to the nature and extent of the labor he had performed, and the responsibilities he had borne. On leaving the institution, his pupils and friends, by a public meeting and presentation of $500, to defray in part his expenses to Europe, testified their appreciation of his services, and love for him as a well-tried, devoted friend.

We have no time to give an analysis of Mr. Peirce's character, or of his method of instruction. This must be left to other persons and a fitter occasion.

Mr. Peirce's successor was EBEN S. STEARNS, a native of Bedford. He was appointed in May, 1849, but did not enter upon his labor until the following September, spending most of the intervening time in visiting schools in this and other States, preparing himself for the work. Mr. Stearns graduated at Harvard University in 1841, and was immediately engaged in teaching; first in charge of the Ipswich High School; then of the Free Street Female Seminary in Portland, Maine, whence he removed to Newburyport, organizing and teaching in the Female High School as its first Principal. During this time he observed carefully the nature and workings of our Common School system; and, being required to establish and conduct a teacher's class in his school at Newburyport, he not only had opportunity to acquaint himself with the Normal Schools, but also to gain considerable experience in the preparation of teachers.

The school now became very large. The Model School was moved across the street to excellent accommodations fitted for it by the town of Newton, and now became, under Mr. Allen, one of the most useful and popular of schools. The room vacated by the Model Department was speedily appropriated to the growing wants of the Normal School. Even this was not enough, and the question of a new building and larger accommodations began to be agitated.

The increase of numbers made possible some changes, which, with a smaller attendance, might have seemed of doubtful expediency. The requirements for admission were more rigidly exacted. Pupils falling short of the required age, but a few days often, were rejected. A severe and binding pledge was given in writing by every candidate, that she would be faithful as a member of the institution, and devote herself to teaching, if qualified, in the schools of this State, and every one unwilling to give this pledge was excluded. The examinations for admission were made as severe as they well could be, and were conducted by members of the Board of Education, assisted by the teachers. None were allowed to stay in the school who did not give promise of aptness to teach, and ability to manage schools, however faithful in study or agreeable in behavior. The course of study was extended half a year, and made as thorough as possible; and an additional three years' course was introduced for such as sought a still higher culture. The carefulness and severity practiced in admitting pupils, the strictly professional character of the school, and the sifting and resifting, which the pupils had to undergo, had an obvious tendency to keep down numbers, as well as to raise the standard of acquisition. In 1850, and again in 1851, the Board of Education took measures to bring before the Legislature the increasing wants of the school, and on "May 13, 1852, the sum of $6000 was placed at the disposal of the Board of Education to defray the expenses of providing a more commodious site and building, and the necessary appurtenances and apparatus for the accommodation of the State Normal School at West Newton; and the Board were directed to receive propositions from towns and individuals in aid of these objects, and afterwards to make such selection as would, in their opinion, best subserve the interests and accommodate the wants of said school. The time for receiving such propositions was limited to six months.

Propositions soon began to come in. Lexington, seeing here an opportunity to recover the ground so carelessly lost, made most praiseworthy and liberal offers, and urged her claims strenuously. Salem, with that large-hearted generosity for which her citizens are so conspicuous, offered to provide such a building as the Board would direct, and meet the expense. Many other places made offers. West Newton was, perhaps, on the whole, the least liberal. The

people had believed the school to be permanently located on the side of their pleasant hills; "they didn't like the idea of other towns trying to buy it away;" "they did not believe that the opulent and liberal State of Massachusetts really wanted their money or cared for more than a testimonial of good will;" they did not realize, that, under Providence, the Normal School and the influences brought with it, and attendant upon it, had raised their village from comparative obscurity to notoriety, and added to it a large and cultivated population and considerable wealth. The landholders did not seem inclined to part with a suitable site for any reasonable sum; and, in short, the effort of West Newton to retain the school, was too feeble to carry with it much weight. The final determination of the Board was to transfer this school to Framingham Centre, and to reward the generous impulses of Salem by creating a new State Normal School which should be located in that city. The Salem school was accordingly soon organized, and from that time to the present has been in a most flourishing condition.

A site for the new school building having been selected in Framingham, the work of erection was soon commenced, and the school removed and established in its new and appropriate quarters on December 15, 1853, on which day the house was dedicated by appropriate services, His Excellency Governor Clifford presiding, and Mr. George B. Emerson making the dedicatory address.

On the 22d of September, 1855, Mr. Stearns, who had been appointed Principal of the Female Academy at Albany, N. Y., resigned his place; and Mr. GEORGE N. BIGELOW immediately succeeded him.

Of the last two administrations we cannot give an extended account, since the historian cannot impartially represent the former of these, and the latter, however prosperous, is still in progress.

In closing this protracted sketch the author must again say that he has found the task of reducing the important facts of history to the limits prescribed, exceedingly arduous, and if much seems dry, or imperfectly stated, or if any fact of importance has been overlooked, he hopes that his desire, ever constant, but unattained, to be very brief, will be the apology.

He must, also, be allowed to recognize the great assistance afforded him in the preparation of this sketch by gentlemen interested in this occasion, and especially by Hon. HENRY BARNARD, from whose excellent Journal many facts have been drawn.

NOTE.

Mr. Bigelow withdrew on account of failing health, in 1866, and was succeeded by Miss Annie E. Johnson, whose inauguration as the first female principal of an institution for the professional education and training of teachers, was signalized by an appropriate address as marking an era in American education.

INAUGURATION OF MISS ANNIE E. JOHNSON,

AS PRINCIPAL OF THE

FRAMINGHAM STATE NORMAL SCHOOL,

September 4, 1866.

REMARKS OF GOVERNOR A. H. BULLOCK.

Gentlemen of the Board of Education and Young Ladies:

I have on many accounts deeply regretted my inability to visit this institution earlier in the year. But that regret is now greatly mitigated by the opportunity to be with you upon the present occasion of so great interest, and to bear a part, by my presence rather than by much speaking, in the ceremony of inaugurating a new mode of making the Normal School system attractive and effective.

This system has now been in successful operation more than a quarter of a century. I have attributed its prosperity largely to two instrumentalities. First, during all this period the schools have been under the oversight and direction of a central Board, comprising gentlemen eminent among the people, fit for this great work, and self-sacrificing in this cause of causes, for the present and the future Commonwealth. And, second, the system began under the management of teachers distinguished for their ability, and has been at all times since kept in such hands.

The distinguished gentleman, one of my predecessors in office, illustrious equally in the practical and the ornamental departments of life (Governor Everett,) under whose administration these institutions were established, marked the new epoch in education by delivering an inaugural address. The last thing I did before coming hither was to read over that very striking address, and I was impressed, as I have often before been impressed, by the freshness and originality which he at all times brought to his discussions of the subject of education—discussions ranging over his whole lifetime, and adapted with wonderful versatility to every occasion and to every grade, from the highest university to the commonest school of the land. I noticed that he treated the present topic with more than his wonted caution, derived from history and philosophy. He spoke of the system as an experiment, and discoursed under the evident restraints of a felt uncertainty as to the degree of public sympathy it might attract, and as to the public disposition to make appropriations liberal enough to carry it to the verge of reality and success. His words of counsel have sunk deep into the policy of the State, while his fears have disappeared like morning clouds before the rising culture which has kept pace with the general prosperity. The system has gone through many changes—of locality, of specific plan of administration, of the measure of money appropriations, and of internal details with which you are familiar. But out of all these vicissitudes it has emerged to have and to hold to-day, in the confidence of the people, the position of the central, primary, and essential instrumentality of the entire

system of schools in Massachusetts. I regard the Normal Schools now as much a certainty in the complicated yet unified organization of persons and things which we call THE STATE, as the legislative or executive or judicial department of the government. To invest these schools with all the requisite intellectual machinery, the State now appropriates nearly thirty thousand dollars annually; and, I doubt not, will increase this amount to meet any reasonable demand. For one, I like this, and take it to heart. I do not believe we can expend too much in this way. I never did believe, and I never shall believe, that from the time of the apparently extravagant expenditure upon Solomon's Temple until now, too much money has ever been laid out on a church edifice, or that from now to the end of time too much of the same article is likely to be expended upon school-houses or school-teachers.

I think that every observing person who has watched impartially the stages of our social progress for the last twenty-five years, must concede that in no calling or pursuit has there been greater advancement than in that of teaching; and that the Normal Schools have manifestly elevated the professional standard in this department. The man who doubts this will doubt all progress—will doubt the benefit of all education—will be unhappy over a world now covered with a network of railroads, and connected in all its parts by the daily communication of a weird tongue which speaks under the seas to all people—and he ought henceforth to have another world and another civilization all his own. We have nothing to do with any such. All men who are fit for our country and our time must agree that these institutions have added dignity and grace and power to the department of education.

And we are here to-day to establish, to mark, to consecrate another stage in this steady and beneficent progress. We commit for the first time to a woman's care and instruction one of these grand public institutions. The institution is worthy of any man or any woman; and I am happy to believe that the woman is worthy of the institution, of the cause it represents, of the consecration she comes here this morning to receive. As the official head of the Board of Education, I need not say that they have arrived at this measure only after mature reflection and much deliberation, and I take pleasure in saying that the theoretical opinions derived from general philosophy and supported by general observation, which have brought them to the present conclusion, have been enforced and illustrated in this instance by the efficient and successful service of the lady into whose hands I now give the keys. We need not doubt that the experiment, if it can be called an experiment, will result in complete and triumphant success.

It is not a little remarkable, that while in all the avenues and retreats of domestic life we have appreciated the power of woman, and have made the recognition of it a part of our religion and of our rhetoric, in this broad field of education our action has been in advance of our theories—and that the greater part of our schools have actually gone into the hands of female teachers before it has occurred to us to frame a theory in support of the practice. It looks a little as if our instincts had proved superior to our wisdom—as if our conduct had outrun our logic, as I believe usually happens in practical life. It proves the power of these conquerors in the State, that noiselessly and without public observation they have taken possession of the school-houses, where their success appears to be as absolute in shaping the characters of a rising generation

of men, as it is afterwards in turning the men themselves to the best account. And thus we have it before us, as a great fact of social progress and public administration, that the best instructors, they who best develop the faculties which afterwards ostensibly prevail and rule in our affairs, are women, whom we have so long acknowledged rather as subjects for our protection than as moving powers of control and government. I speak of them as the best instructors, not to the exclusion of male teachers, and under the limitation of equality with males in acquired attainments and fitness. The induction of Miss Johnson to her office to-day is perhaps the first official and conspicuous announcement of a policy which appears to be founded on philosophical reasoning and on the results of a large experience.

And it is after all a promulgation of a policy which has much to support it in the analysis of the mind and heart of the sexes. I can not at this time expand this topic. I trust, however, that some of the many gentlemen who go about and do the lecturing upon education, while the women are doing so much of the teaching, will sometime favor us with a discussion that shall be worthy of this question. When they shall do that, they will portray those manifest and appreciable qualities, as well as those finer and more subtle qualities of nature and genius and art and culture and divinity, which make woman in many respects the best teacher; best by reason of her masterly power of patience, which is sought in the first and in the last solemn nursery of life—best by her instincts, which are quite as safe as the common logic of men—best by her greater industry, which no labor paralyzes—best by her quicker perceptions, which are brought into beautiful play in all conversational or oral instruction, as well in the school-room as in the social circles—best by her moral sensibilities, which neither physical exhaustion nor mental fatigue can dull—by her radiant countenance, which reflects the soul and becomes a utility as well as a joy forever—by the whole music of her nature, which makes the heart of the universal school-room of mankind to sing in tune with her own.

ADDRESS OF EX-GOVERNOR EMORY WASHBURN.

The circumstances and considerations by which the Board of Education have been led to adopt the change in the direction and management of this school, which has this day been inaugurated, have been so well and ably presented by those who have preceded me, that nothing is left to be supplied. And it remains for me, therefore, only to offer, in their behalf, a few brief suggestions upon one or two topics which seem to be naturally associated with the occasion. One of these is the position which the Normal Schools hold in our general system of popular education. They must from their constitution be regarded in the nature of a specialty. They supply no part of the scheme of free schools which the law originally contemplated as requisite for the wants of the people. Nor do they profess to occupy the place of our academies or private seminaries in furnishing the broader or more liberal culture which these are expected to provide. The purpose they have to serve is a special and peculiar one, and the time within which they are expected to accomplish it is the shortest in which it can reasonably be attempted to be done. Nor is it so much to contribute a given amount of learning, as it is to give to their teaching such a practical character that it may in turn act upon others through the agency of their own pupils. What pupils acquire here, can hardly fail to yield the fruits of liberal

culture in their minds, although the instruction they receive is designed to have an ulterior bearing upon those whom they are themselves to teach. It is therefore not only to communicate useful and valuable learning to their pupils that these schools are maintained, but to explain to them practically the best mode of doing this, that they, in turn, may know how best to apply the processes of educating others, by knowing how they themselves have acquired the knowledge they possess. There is nothing in all this incompatible with the cultivation of science or literature for their salutary effect upon the individual pupil, or with the development of a refined taste or any of those qualities which give ease and grace in the amenities of social intercourse. These are among the legitimate fruits of any well directed intellectual culture. What I mean by this is, that while the scheme of instruction which is prescribed in these schools tends, almost as a matter of course, to the attainment of the graces and accomplishments of scholarship, it has a wider aim and a broader purpose in its practical bearing upon the education of the children in the State.

This gives rise to two inquiries: 1st, What are these pupils expected to teach to others; and 2d, How it is to be done? In answering the first, we approximate the solution of another inquiry, which becomes important in determining the proper functions of Normal Schools. For if it is their object to teach pupils how to teach, it is obvious that the things must first be taught to them, which it will be in turn required of them to teach to others. If therefore it requires a whole two years' attention to these particular branches and those immediately connected with them, to fit a pupil to become a teacher, it must obviously be unwise, to use no stronger term, to divert her attention and occupy her time upon others, however important they might otherwise be considered in the light of general culture. It would be wasting time, for instance, for her to attempt to master Greek or the higher mathematics, not because these are not important branches of education in themselves, but because she can only do this at the expense of what is indispensable for her to know, if she hopes to succeed in the profession she has chosen. The remark applies to any language or accomplishment, the attainment of which requires the pupil to sacrifice any of the qualifications which are essential to success. Nor does the proposition lose any of its force, although, here and there, there may be a pupil whose taste or superior advancement might seem to call for a more extended course of instruction. It is not possible to afford the extra instruction required in such a case, without taxing the teachers with an undue amount of labor, or doing injustice to the other pupils who are pursuing their regular course, or else adding to the present corps of instructors. The objection to the last is, that the public are not sufficiently educated to the importance of these schools to be willing to appropriate money whereby such extra teachers can be procured or paid. One important step has first to be gained, and that is, to get the public up to the point of paying those who are already in the work. There is no class of labor so inadequately paid, if we regard its value and importance, as that of competent, well trained teachers of schools. The public mind is, we are happy to believe, in the process of being enlightened upon the subject; and every good teacher that goes into the field does something to bring sensibly before the people the miserable economy which refuses to provide a fair compensation for good instruction merely because it is furnished by a woman, or because that of a poor quality can be had cheap. The true policy, therefore, in respect to the number of sub-

jects to be studied in these Normal Schools, is to limit them to what can be fully, thoroughly and accurately taught by such a corps of teachers as can be employed and reasonably paid.

If now we turn to the other part of our question, as to how these subjects are to be taught, we shall have to consider what is the condition of those of whom the Normal pupils are expected to have charge. Our tables of statistics inform us that a large proportion of the children in attendance upon our common schools are of an age to be able to take only the primary and early steps in the curriculum of school instruction. Taking the census of 1860 and adding to those who are set down there as being between five and ten years of age, the 5,000 who were in attendance the last year under the age of five, and we have a total of more than 130,000 under the age of ten. I need not say in this presence, that the instruction of these must emphatically be elementary. Much of it must be in the very rudiments of knowledge. And if we go still further and include those between ten and fifteen, we embrace comparatively but few, especially in the country districts, who have advanced beyond the simpler branches of school education. It is to supply teachers for pupils of this grade that the Normal School was chiefly intended. But it may be asked, if this is all that a teacher is expected to accomplish, what is the occasion for speculating how she is to teach what must be so simple and easy to acquire? If teaching was simply mechanical, treating all children alike, and putting them through a daily drill like that of a company of raw recruits, if calling words was reading, and working out a sum in fractions or the rule of three was mastering, to any appreciable degree, the science of mathematics, I might be willing to concede that it mattered little how the teacher taught or the pupil learned these lessons. We might admit with Dogberry that "reading and writing comes of nature," and the old alliteration of the Rs, "*reading, riting and rithmetic*," might be easily acquired. But the more the Normal pupil studies into this matter, the more she perceives that there is a science in every step of intellectual training, and the more anxious she becomes to discover its laws and how they are applied. And she soon perceives that to do this successfully, she must be morally and intellectually, as well as liberally, trained herself. She must have command of the same powers in her constitution which she expects to reach and control in that of her pupils. She must have disciplined powers of attention. She must not only be able to get knowledge, but must be able to trace the steps and processes by which she gains it, and to make others understand and know how to apply the processes by which they too may acquire the knowledge which they seek. Then again her judgment must be trained, her sympathies awakened, and her faculties generally so far under her control as to be brought into lively and vigorous exercise at will. One of the main difficulties to be encountered in making an accurate scholar is, that he does not know how to study till he has been taught. And one of the earliest lessons which a teacher has to make a pupil understand, is what the process of study is. The Normal School aims to supply this very kind of instruction and training, which the pupil is in turn to apply to the children of her charge. And it is for this purpose that the State is careful to provide for them skilled teachers of experience and tried capacity. They deal with their pupils by laying open to their own comprehension the constitution of their own minds, and the processes by which they gain and use knowledge.

But the time in which this knowledge is to be acquired is limited to some eighteen months of actual study, and it is hardly necessary to repeat that the topics which can be thoroughly and effectively taught within that space of time must necessarily be few. Having reference to what their pupils are to teach again, these subjects divide themselves into two classes. One of them relates to what, in the process of learning, becomes incorporated as it were into the mind of the learner, so as to render what is acquired, as it were, intuitive, ready for use without any conscious mental effort. Of this character is the knowledge we get of letters in reading or writing. We forget the slow process by which we originally attained to the name and form and sound of these, both singly and in their combinations. So it is with calling words, or reading aggregates of numeral figures, or repeating the tabular results which we learn by rote from the multiplication table. I need not add how much of this learning is purely arbitrary. There is no process of *à priori* reasoning which could tell me that a certain shaped figure was a letter, or that it represented a certain sound, or that the something called "*C*" when in connection with a certain other letter, had a sound to which we give the name of *K*, and with another took the sound of what we call "*S*." And yet these arbitrary sounds and combinations have to be carefully and accurately taught to the child at the very outset of his school instruction. Nor is it entirely easy for even a skilled teacher to do this effectually. She has got to exercise tact and judgment and skill to adapt her instruction to the capacity of her pupil. She has not only to gain his attention, but must make what she wishes to impress upon him, intelligible to his mind. Compare for a moment the modern method of analyzing the sounds and relations of letters, by writing them before the pupil's eye on the blackboard and repeating the corresponding sound, and the former mode of having him drawl out, letter by letter, week after week, in the process of what was called "learning his letters," a mere roll-call of hard sounds and arbitrary names.

So far then as this class of subjects is concerned, the teacher should aim mainly at precise accuracy, which is only to be acquired by imitation and repetition, under a rigid observance of definite rules. But when we go beyond these, to subjects involving reason and judgment as well as memory, in the conception and enunciation of thoughts and ideas which relate to them, something more than accuracy of recitation is required. And that raises the inquiry how far it is wise or necessary to make use of text-books. The question is an interesting one, and not without its difficulty. Learning a lesson out of a text-book and reciting it *memoriter*, as is too often done, does little to enrich or invigorate the mind. A learned recitation scholar is often a learned dunce. And yet the child when set to study, needs something to keep his mind steady, to give to it an orderly direction, to help him fix his attention, and to furnish him a principle of association and ready mnemonics. If the subject of instruction be at all abstract, few children can follow the teacher in an oral statement or a general proposition. Text-books help to supply these necessities of young scholars. Let the pupil learn his prescribed lessons thoroughly and accurately, and let these be arranged in an orderly sequence, and while he is training his memory, he is preparing to receive what his teacher ought to supply from her own well stored mind. The lesson in that way serves for her text, and is to be illustrated and enlivened by such familiar examples and explanations and inquiries as will open to the mind of the pupil new thoughts, and render what he has been

studying intelligible and interesting. And a recitation of this character, instead of being, as it too often has been, a dull, sing-song, meaningless thing, becomes the pleasantest exercise of the day to both teacher and pupil. But to do this implies thought and preparation on the part of the teacher, as much as it does study on that of the pupil. And it is in return a thousand times more inspiriting to both than a round of lessons varied only by the different degrees of dullness with which they are recited, or the different intensity of stupidity with which the pupil undertakes to master the words which he is trying to repeat.

Such are some of the hints, and they are merely hints, which are suggested by an occasion when our attention is called to the aims and purposes with which a band of high-minded, hopeful young women are preparing to enter the ranks of the noble profession of teachers.

But I may be met with something like a hint in reply, that this picture of a teacher's life is anything but attractive, from its want of excitement and interest. It would certainly be unfair to deal otherwise than frankly with any one of this class, as to what she is to expect when entering upon the duties and rewards of a teacher. And I am free to confess that there is much to justify the complaint of many in the profession, that it is a life of irksome routine, and that they are in danger of losing the proper stimulus to effort, by having to do with children whose minds are so much inferior to their own. This, however, is but a one-sided view of the question. And even if it presented all its bearings, what department of labor or industry, bodily or mental, is there of which the same complaint of monotony and routine might not be equally just. It is true of the duties and cares of the family. It is true of labor upon the farm, in the workshop and the manufactory. And even in what are called the liberal professions of law and medicine, no small share of their duties are mere matters of routine.

Regarded in this light, it really seems to resolve itself into the question, which is preferable, to go through a certain round of operations upon matter, or to do the same thing with mind? The question, in such a presence, can hardly fail to answer itself. And then again as to the danger of belittling one's mind by such a pursuit. That must evidently depend upon the temperament and habits of the teacher himself. If he is of an indolent, unambitious nature, working only when he is obliged, and content in doing the least possible labor for the most he can get, it makes little difference in the end with the growth of his mind whether he cuts out shoe leather by a pattern, or tends a spinning-frame, or hears boys daily recite a certain number of lines or paragraphs. But if, in the intervals of his work as a teacher, he will go outside of this into the world as it lies spread out before him, and take a part in what is being done and thought and said there, he has no occasion or chance to grow stagnant and rusty, or for suffering himself to subside into the type of Ichabod Crane or Dominie Sampson. Roger Sherman and Nathaniel Greene, of Revolutionary memory, were none the less capable to guide the councils or lead the armies of the Republic because they had spent their lives in the duties and details of the shop or the routine of daily industry. They had been trained and educated while doing this to other thoughts by the influences and circumstances by which they were surrounded. Think for a moment, when you begin to distrust the dignity of the employment which you have chosen as compared with that of any of your neighbors, of what that employment consists. Instead of forcing

the reluctant earth to yield the flowers that bloom for a day, or the fruits that ripen and decay in a single summer, or spending your cunning skill to fashion of wood or metal the parts of a curious machine, you are helping to perfect an engine of power whose subtle elements no human sagacity has ever yet completely analyzed, and whose capacity no calculus has been adequate to measure. The flower which you are to cultivate, though it be cut down even in its unfolding, will be sure to bear seed in other gardens under a more skillful training. What after all is the most calculated to damp the zeal and cool the ardor with which a teacher enters upon her work, is the slow returns which come of her best directed efforts. She either grows weary in waiting for the seed she has planted to spring up, or she finds it springing up on a stony soil, or being choked by the weeds and thorns that show a ranker growth. But this impatience is neither wise nor philosophical. Who that has planted the seedling oak can measure from day to day the growth that it is making? He waits, and in a few years the sapling has begun to assume the form and proportions of the tree, and in due time it rears itself in beauty and strength, till it stands unharmed by the storms that sweep over it. To measure what she has in fact done, the teacher should contrast the child just entering upon the mystic problem of syllables and words, with the beaming face and cheerful alacrity with which he gathers up as he reads from the printed page the incidents of some tale or narrative, or the eager delight with which he listens to the simple truths of science which she unfolds to his attentive ear. Or if she would comprehend the more signal triumphs of her skill, in striking out as it were the spark of genius which may have laid dormant till some such kindly hand has awakened it to life, let her look at the men and women who are stamping the impress of their own mind upon the passing age, and reflect that the world often owes its richest treasures of intellect to some fortunate hint, some word of encouragement given by an earnest teacher to an ingenuous pupil. Nor need she stop even there. If she would take a full measure of the grandeur of that miracle which she is helping to work out in the broader field of a nation's life, let her contrast for a single moment this noble old Commonwealth of ours; with her free schools, with any of the States where slavery has been keeping the human mind locked up in ignorance and barbarism.

Nor does the position of a teacher suffer in comparison with other avocations in which men engage, in the rewards which it offers to honorable personal ambition. I say nothing of it as an avenue to wealth, but of other encouragements which it offers liberal and generous minds. If we analyze the secret springs and motives for what we call ambition, it will be found that they resolve themselves into the love of power—power it may be to do good, or power to control others; and what field is there which opens so wide a scope for an honorable ambition like this as the life and business of a teacher of the young? He may not command the wills or direct the policy of the masses by the power of eloquence, the prerogative of office, or the leadership of a party; but he does far more than this, in guiding the thoughts and directing the judgments and developing the powers of those who are so soon to constitute the living energy of a united people. And in this we should ever bear in mind there is nothing involving superiority of blood or birth. On the contrary, the chance of success in such a mission is with one who, starting in obscurity, has caught something of that spirit which spurns and soars above the accident of name or birth. Nor

is there anything of sex in this power of the teacher to achieve success. If there is, it is in favor of the more refined sensitiveness and delicacy of organization of woman, which give her a readier access to the sympathies and sensibilities of the child. But whoever is engaged in a work like this, be it man or be it woman, is doing something towards shaping the character and destiny of the nation. The great conservative principle of a free government is education and the free school. I congratulate you, Miss Johnson, and your associates, and you, young ladies, on the distinguished presence of the honored chief magistrate of our Commonwealth, and these tried and true friends of education, and the evidence it gives of their appreciation of your services in the cause. I congratulate you that by the experiment this day inaugurated your sex is at last to have one fair field in which to vindicate the confidence which the Board of Education in behalf of the State have, that in the learning and skill and patriotic sentiment of her daughters, the Commonwealth is to share an element of moral power which has never before been fully developed, and that she is in this way to gain new strength and energy to meet the growing demand for influences like hers in the life-struggle through which our country is passing. The free states of Greece did not lose their independence so much from the lack of intelligence and love of liberty in their men, as for the want of the influence, the counsel and the equal companionship of virtuous and high-minded women. The sound of war is indeed hushed, but never has there been such a necessity for wise men and trained and educated teachers as the country feels to-day. Never has the influence of Massachusetts and her schools been more needed in the conflict with ignorance and a vicious political education, in which our country is involved, than they are to-day; and never has woman been called to higher and more responsible duties than those which devolve upon her in the part which she is acting as teacher and educator of the young to whom the ark of our liberties is so soon to be confided.

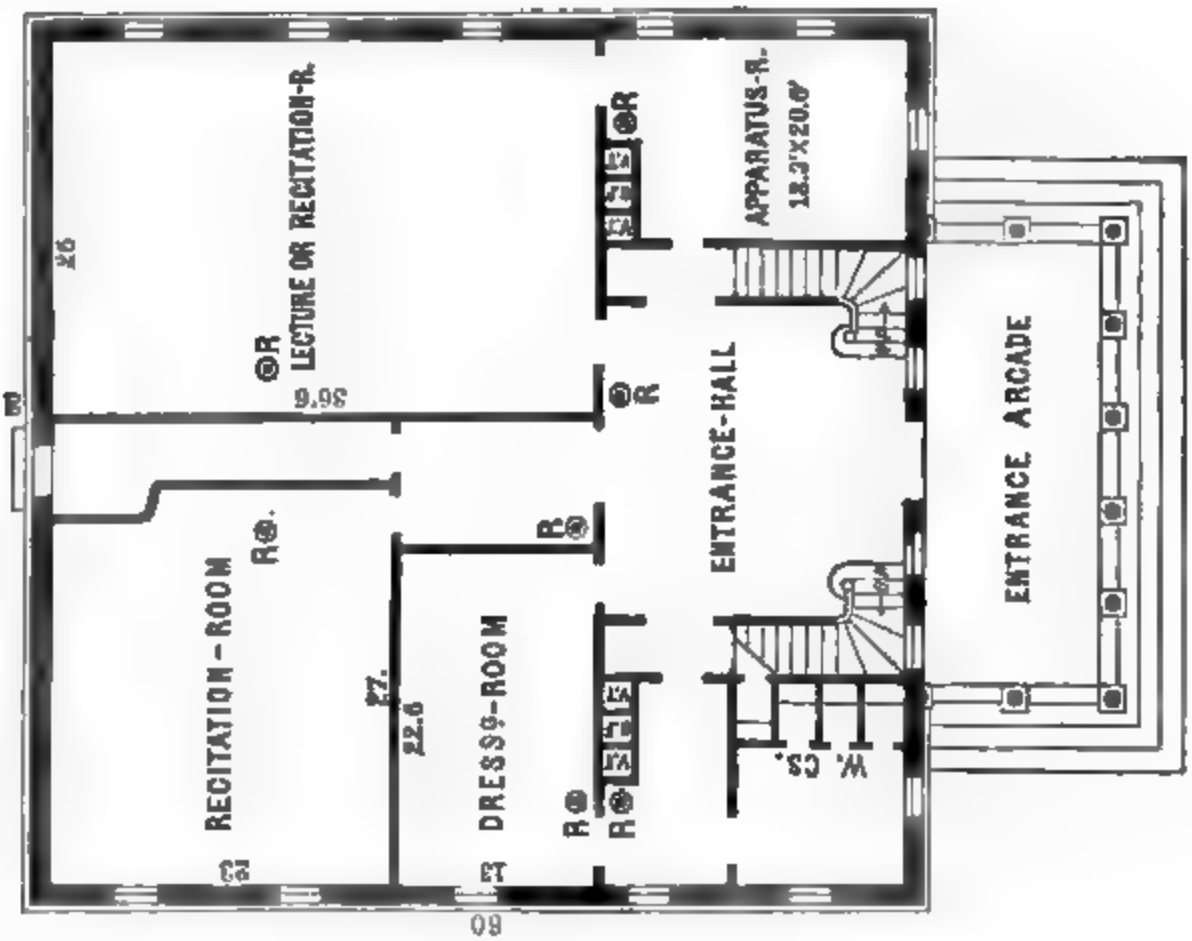
Take heart then, every one of you, teachers and pupils, while following out the mission in these halls to which they have been dedicated, in the assurance that it is to be your *privilege* to form a part of that noble army who are battling for free thought and the honor and integrity of a nation of free men.

The Special Committee of the Board of Education, in their report on the Normal School at Framingham for 1867, remark:

It is now as well settled that such a Principal and such a corps of teachers are competent to carry on and sustain such a school, as it is that such a school, under any heads, can be an efficient aid and instrumentality in the business of popular education in the State.

But if this be not an exaggeration, if the value of labor is to be judged of by the measure of its results, upon what principle of fairness and equality can we justify the scale of compensation which prevails in the State in respect to our schools? Why should one of two persons who does an important and indispensable work of precisely the same character for the public, equally well and equally acceptably, be paid in the ratio to each other of three to five, or one to two, because, in the economy of nature, one was born a woman and the other a man? It is not for the visitors of this school to engage in a discussion involving the questions now agitating the public mind in regard to the sexes. But they would be unworthy to claim a share in what are called the manly virtues, if they could see labor expended and talent employed, from term to term, and from year to year, for the best interests of the Commonwealth, without protesting that these ought to be paid by some other scale of compensation than the sex of those who perform this labor and bestow this talent.

Fig. 2.—First Floor.



V. T—Ventilating Ducts. S. F—Smoke Flue. R—Registers for Hot Air.

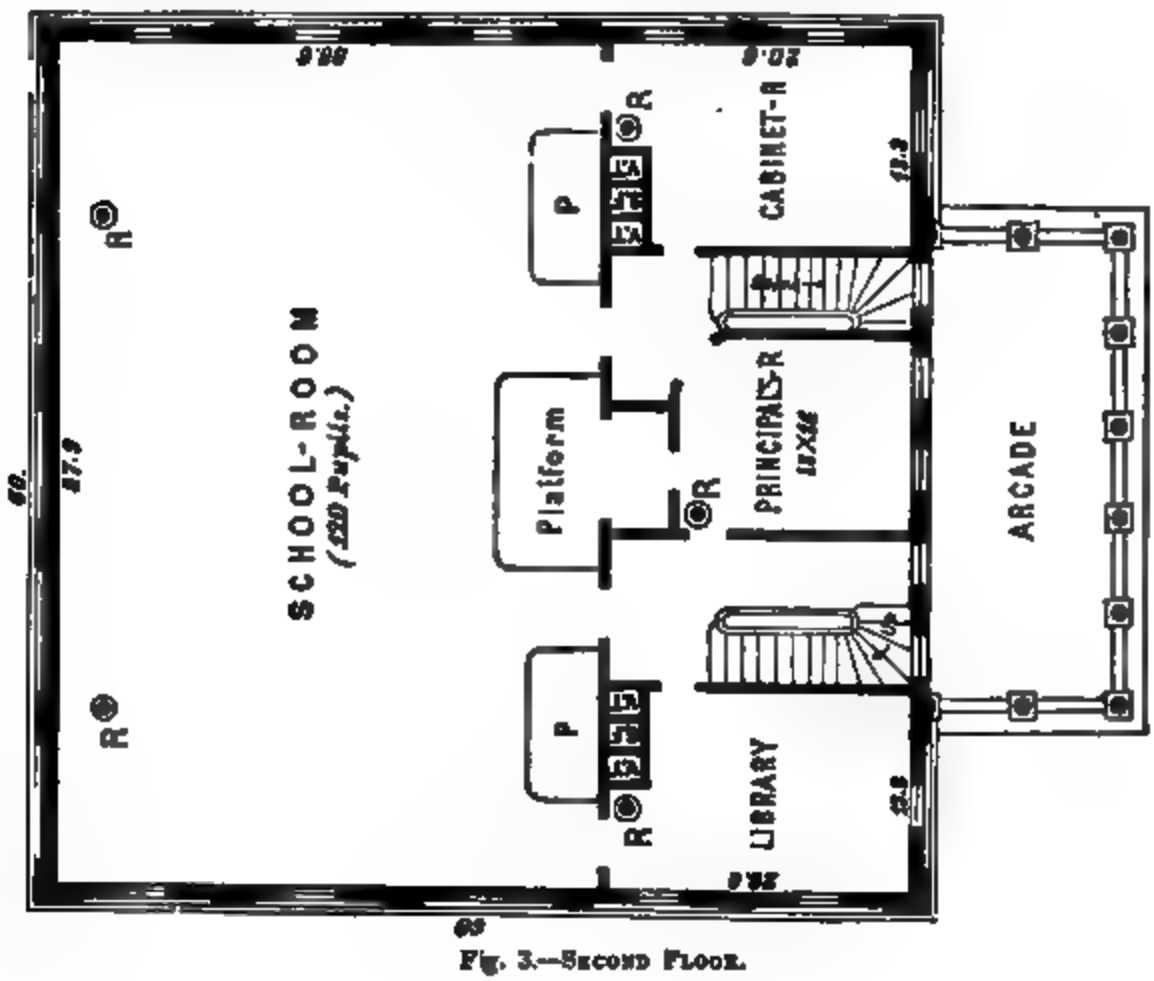


Fig. 3.—Second Floor.

THE STATE NORMAL SCHOOL AT WESTFIELD, MASS.

THE STATE NORMAL SCHOOL at Westfield, (Mass.,) was first opened at Barre, by an address from Hon. Edward Everett, on the 4th of September, 1839, and suspended in 1841, on its removal to Westfield. It was there re-opened on the 4th of September, 1844, by an address from Rev. Dr. Humphrey, President of Amherst College. In 1860 the building was enlarged by the addition of wings, and thoroughly repaired. From September, 1844, to the close of 1861, the aggregate attendance at the Westfield School was 1,633. It was under the Principalship of S. P. Newman, from September 4th, 1839, to February 10th, 1842; of E. Davis, from September 3d, 1844, to September 3d, 1846; of D. S. Rowe, from September 3d, 1846, to March, 1854; of W. H. Wells, from August 1854, to April, 1856; and of J. W. Dickinson, from April, 1856, to the present time. The following paragraphs are from the Annual Circular for 1862.

Male applicants for admission to the School must be at least seventeen years of age; female applicants, sixteen. There must be an explicit declaration that the applicant intends to become a teacher in the schools of Massachusetts. The applicant must give a pledge to remain in the School at least three terms, the first two of which shall be consecutive.

Candidates for admission must present themselves at the school-room on the first day of the term, at 9 o'clock A. M., and pass a satisfactory examination in Reading, Writing, Spelling, Defining, English Grammar, Geography, and Arithmetic. There will be an examination at no other time during the term, except for special reasons.

Each applicant must present a certificate of good intellectual and moral character, from some responsible person.

The following is the course of study, without regard to the order in which the branches will be pursued, or the length of time devoted to them:—

Geography, Physical and Political, with use of Globes and Outline Maps; Arithmetic; Grammar, and Analysis; Physiology; History of United States; General History, with Ancient Geography; Natural History; Algebra, Geometry; Natural Philosophy, with Experiments; Chemistry, with Experiments; Astronomy; History and Structure of the English Language, with Analysis of Milton and other Poets; School Laws of Massachusetts, and General Principles of Government; Theory and Art of Teaching, with Mental Philosophy; Rhetoric.

Reading, Writing, Elementary Sounds, Etymology, Spelling, Vocal Music, Composition, Recitations of Select Pieces, Extempore Speaking, Discussions, and Moral Philosophy, extend through the whole course.

Botany, Drawing, Latin, and French are optional.

The pupils have daily teaching exercises in connection with the recitations, and the members of the Senior Class devote a large portion of their time to the Theory and Art of Teaching.

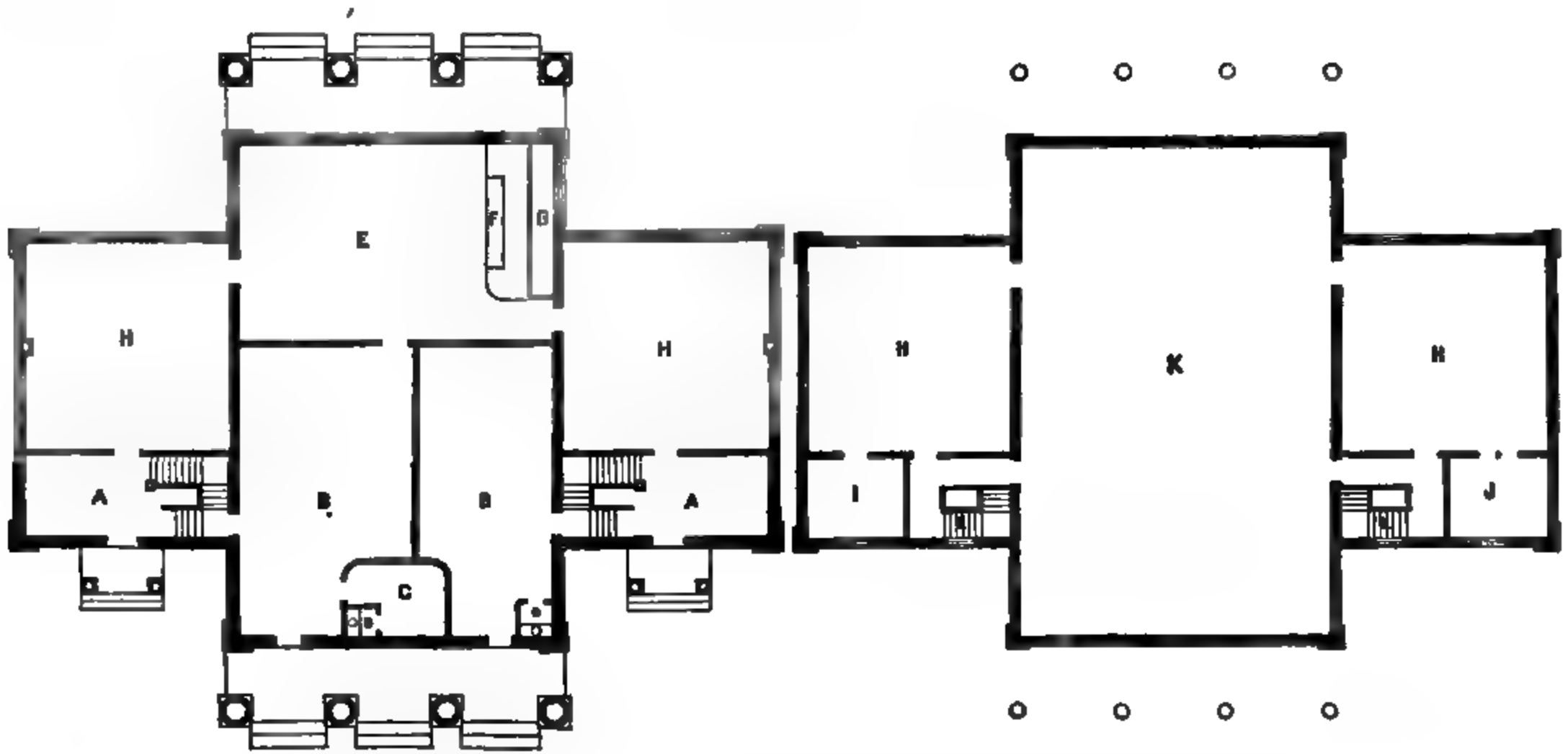
Every Wednesday afternoon is devoted to the exercises of the Lyceum conducted by the students.

Every pupil who honorably completes the Course of Study is entitled to the regular Diploma of the Institution, which does not hold itself responsible for any others, although they may have been members of the School.

There will be an advanced Class, which will enable the Graduates of the School to continue their studies beyond the prescribed course.



EXTERIOR OF THE STATE NORMAL SCHOOL, AT WESTFIELD, MASS.



PLAN OF STATE NORMAL SCHOOL AT WESTFIELD, MASS.—The main edifice is 60 by 40 feet, not including porticoes. The wings are 25 by 88 feet each.

A, A, Entrance Halls. B, B, Dressing Rooms. C, Wash Room. D, D, Closets. E, Chemical Laboratory. F, Pneumatic Cistern. G, Closet for Chemical Apparatus. H, H, H, H, Recitation Rooms. I, Teachers' Room. J, Room for Philosophical Apparatus. K, Principal School-Room. L, L, Stairs.

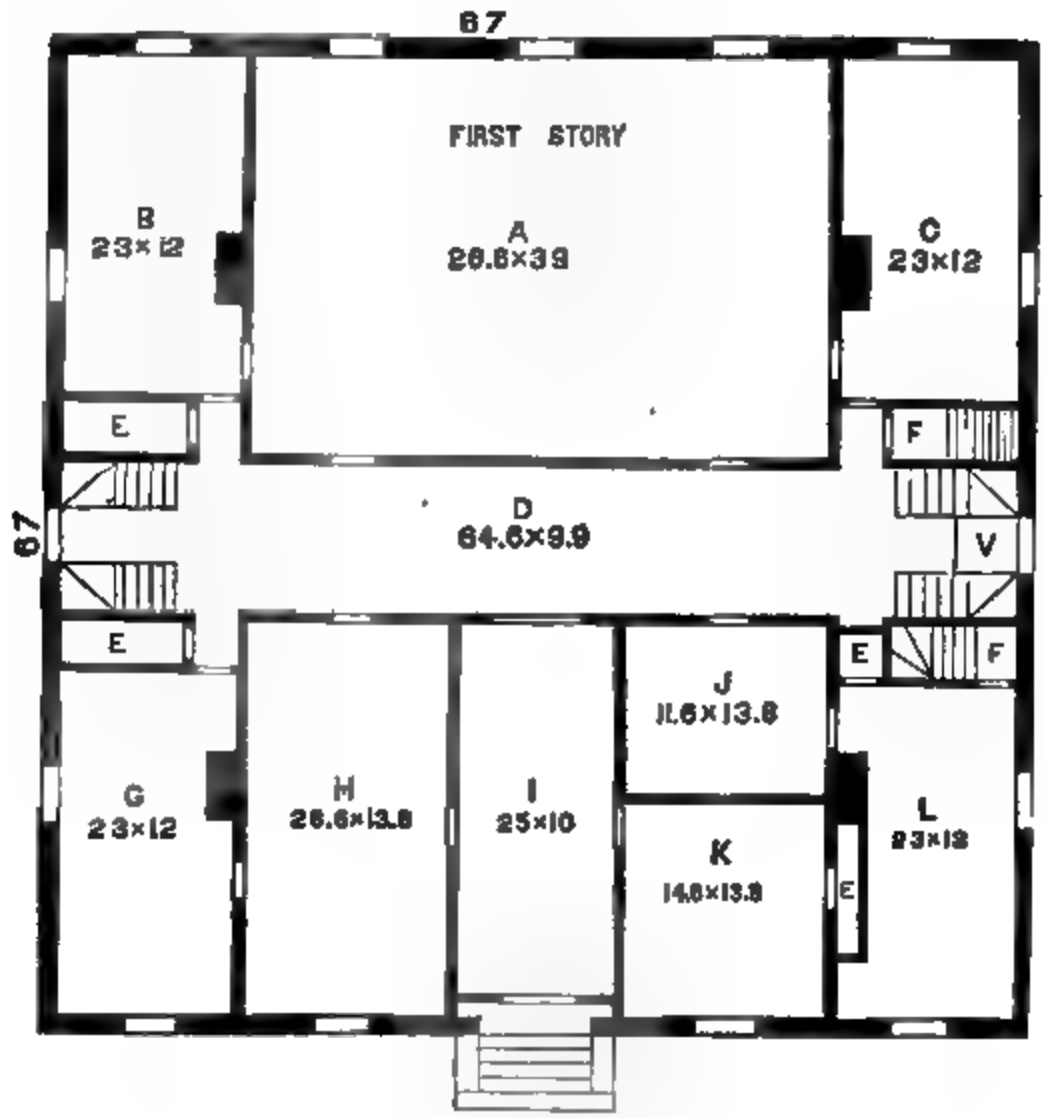


Fig. 1.—First Floor.

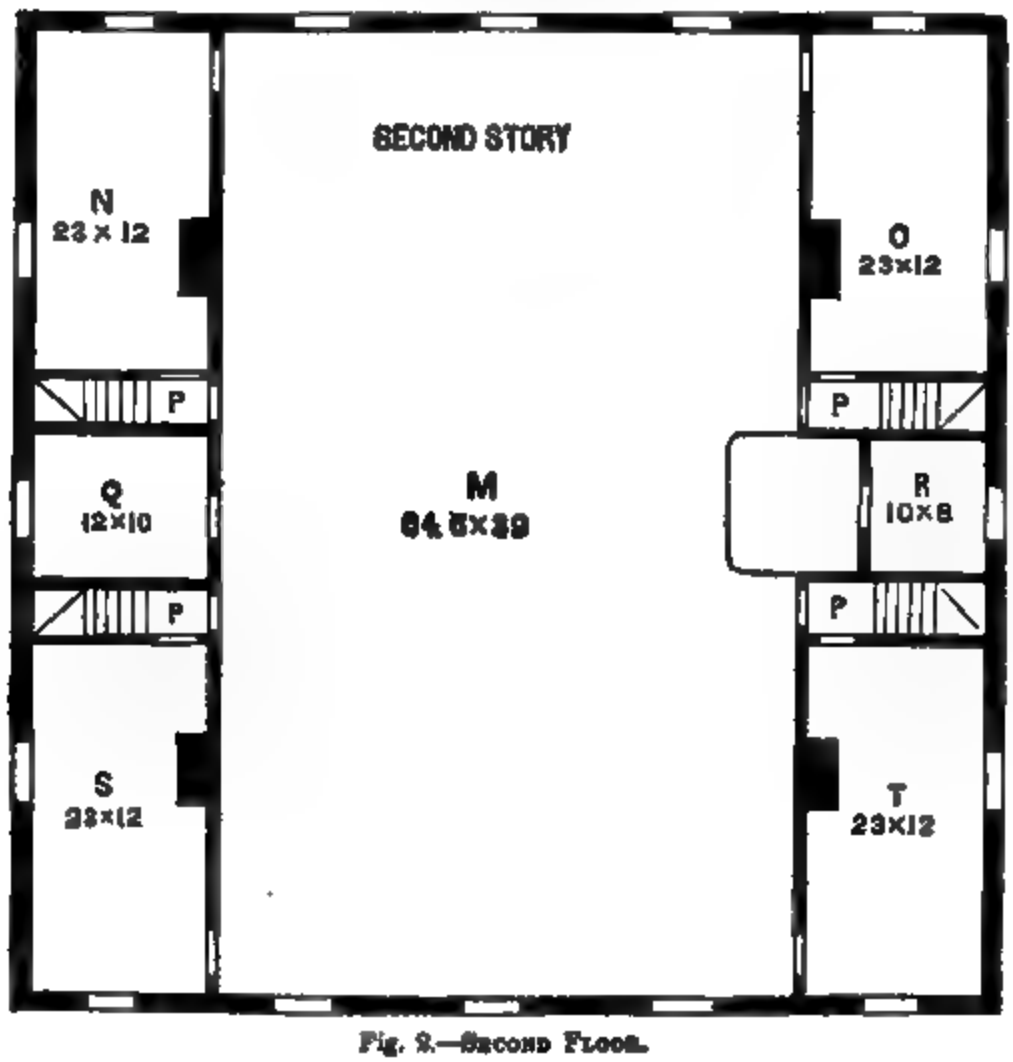


Fig. 2.—Second Floor.

THE PHILOSOPHY AND METHOD OF TEACHING

PURSUED AT THE WESTFIELD STATE NORMAL SCHOOL.

BY J. W. DICKINSON, A. M., PRINCIPAL.

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1. THE PHILOSOPHY OF TEACHING.

If the mind is led to act in accordance with the laws of its nature, it will acquire the inclination and the ability to obey these laws. That state of the mind in which it has the inclination and the ability to obey the laws of its nature, is called Education; and the mind possessing this state, is said to be educated.

This definition of Education makes it a state of the mind and not a process. There is but one process by which the mind can be changed from one state to another, and that process is found in the mind's own activity.

By mental activity, knowledge is acquired, and the knowledge in turn excites activity, but it is activity only that produces a change in the powers that act.

As knowledge is both the product and the occasion of mental activity, knowledge seems to combine with mental activity in producing the state called Education.

That which produces a thing is the cause of that thing; then the cause of education is knowledge and mental activity. The cause of education is also called Instruction.

The term Instruction is sometimes used to signify knowledge, and sometimes to signify the process by which the teacher leads his pupils to acquire knowledge.

The word Instruction means to build within, and may well be limited in its application to mental activity and knowledge, which we have shown build up to perfection the mind itself.

It is the duty of the teacher to present in a right manner to the mind, objects and subjects which he desires to be the occasion of mental activity and knowledge.

The process of presenting occasions is Teaching.

The relations that Education, Instruction, and Teaching, hold to one another, are these: Instruction is the cause of Education, and Teaching is the occasion of Instruction.

Teaching must have for its object one of two ends, Knowledge or Education.

Knowledge as an end is valueless; then, the end towards which all intelligent teaching directs its attention, is Education.

If Education is the end the teacher should lead his pupil to attain, and if mental activity is the primary cause of Education, the teacher must provide right occasions for a complete and perfect mental activity. The ability to do this implies a knowledge of the ways in which the mind acts.

The modes, or ways of mental action, are three; thinking, feeling and choosing.

The mind thinking is called the Intellect: the mind feeling is called the Sensibilities; the mind choosing is called the Will.

The activity of the sensibilities is the result of thinking; the activity of the will is the result of feeling,—therefore, the teacher turns his attention primarily to the activity of the Intellect.

Every Intellectual act is an act of comparison.

The Intellect compares for perceptions, for general notions, for judgments, and for reasoning.

The teacher must present to the minds of the pupils, as occasions for these different acts of comparison, subjects and objects, named in proper order, for a *course* of *study*.

The course of study is divided into two courses: the one being an Elementary, the other a Scientific course.

In the Elementary course, the mind is excited to activity in acquiring a knowledge of facts.

This knowledge of facts is to be used as the occasion of Scientific knowledge.

A complete and perfect course of study, will name objects and subjects sufficient in number, and of the right kind, to guide the teacher in presenting occasions to the minds of his pupils, for making all kinds of comparisons; for comparing all kinds of objects; for comparing all kinds of relations, and for making the comparisons in the order, and in the manner required by the mind, as its powers are developed.

These are the principles which constitute the philosophy of teaching.

2. MODE OF TEACHING.

There are two ways of teaching. One way consists in presenting objects and subjects first as wholes, for general knowledge, then the parts and their relations for particular knowledge. The other way consists in first presenting parts of things, and the relations of the parts, for particular knowledge, then the whole made up of these parts and of their relations, for general knowledge.

These two ways of teaching are called Modes, or Methods. The first method is called the Analytic, the second the Synthetic method.

A synthetic method of study is impossible; as a method of teaching it is faulty for two reasons:

1st. The application of the method requires the teacher to present as occasions for mental activity and knowledge, parts of wholes, not as parts, but as independent individual things, that are not seen to hold any rela-

tion to the wholes of which they are parts, until the relation has been established by the teacher.

2d. The method requires the teacher to do the work that belongs to the student.

The application of the Analytic method requires the teacher to assign lessons for study, by the use of topics made out according to the following rules:

1st. The objects and subjects to be presented for study, should be of such a kind as are adapted to call into exercise the powers of the mind in accordance with the time and order of the development of these powers.

2d. The first topics assigned should be those that lead the pupil to study for Elementary knowledge.

3d. The first topic in any study should require the pupil to search for a general knowledge of the object or subject of study.

4th. The minor topics should present the parts of objects in a natural order, and of subjects in a logical order, and require the pupil to study for particular knowledge.

5th. The topics should lead the pupil to exhaust the subject.

Language is not to be considered the primary source of knowledge, but the mind is to be made conscious of having the ideas and thoughts to be expressed by the language used, before the language is employed.

This is done by actually bringing into the presence of the mind the object of study.

It is the duty of the teacher to excite the minds of his pupils to such mental activity as will lead to the state called Education, by bringing into their presence, in a right manner, the thing to be studied, and by guiding them to a knowledge of the facts and truths he would have them know.

All lessons are to be taught orally by the teacher, in such a manner that he will do nothing except furnish an occasion for knowledge.

The pupil should acquire the knowledge by his own mental activity.

The lesson thus taught will furnish for the pupil topics properly arranged for study, and a knowledge of the topics sufficient to enable him to continue to study them intelligently and profitably.

Text-books may be put into the hands of the pupils to be used as reference books. As text-books are sometimes used, they take away the possibility of independent mental activity on the part of both teacher and pupil.

The pupil having prepared his lesson, is to recite before the class upon the topic or topics, assigned at the time by the teacher.

He is to develop, without questions by the teacher, the topics assigned him, illustrating carefully the ideas and thoughts he expresses in words, before the expressions are made, observing to follow the same Analytic method in recitation that was observed by the teacher in assigning the topics, and by himself in studying them.

Both the teacher and the class are to observe carefully the pupil reciting, with reference to his knowledge, and his mode of teaching or reciting.

After the pupil has completed his recitation, the teacher and pupils may make criticisms, for the purpose of correcting mistakes, and for calling attention to new truth.

The pupil should be permitted, and even required, to use his active powers in obtaining knowledge, as well as his passive powers in receiving it.

The teacher should be constantly aware of the nature of his work, and of the end to be secured, and of the relation the means he employs holds to that end.

Successful teaching implies the existence of a course of study that is adapted to the wants of the mind as its powers are developed. It requires the employment of the right method in applying this course, and the presence of a teacher who understands the philosophy of his work.

The teacher must be supplied with all external means necessary for his teaching, and with the cordial sympathy of all in authority over him, and then he can so apply his philosophical method as to obtain a better and higher result than the schools have yet known.

STATE NORMAL SCHOOL.

AT BRIDGEWATER, MASS.

THE NORMAL SCHOOL AT BRIDGEWATER went into operation on the 9th of September, 1840, with 28 pupils. Up to August, 1846, pupils were received for two terms, which were not necessarily successive. Since that time they have been required to remain three successive terms of fourteen weeks each. In 1855, the period of attendance at all the State Normal Schools was fixed at one year and a half. This school receives both male and female pupils.

The following communication from Prof. Marshall Conant, the present Principal, sets forth the existing regulations respecting the admission of pupils, course of study, and other particulars.

Males must be at least seventeen years of age, and females at least sixteen.

Each candidate for membership is required to present a certificate of good MORAL CHARACTER, from some responsible person; and must pass a satisfactory examination in the common branches, viz.,—Reading, Spelling, Defining, Arithmetic, Writing, Grammar and Geography.

There is also required of the candidate a pledge to remain in the institution three consecutive terms, and faithfully to observe all its rules and regulations. If, however, the candidate is found to be qualified to enter advanced classes, his connection with the institution may be for a less time; but not less than one year.

The school year is divided into two terms: one beginning on the third Wednesday of March, and continuing 19 weeks; the other on the third Wednesday of September, and continuing 21 weeks. Annual session of the school, 40 weeks.

Pupils are received at the commencement of each term.

All candidates for admission are required to present themselves at the school room at 9 o'clock, A. M., of the *first day* of the term; for only in *very special* cases is any one *entitled* to an examination for admission *after* that day.

Tuition is gratuitous to those who design to become Teachers in the Public Schools of the State. To those from *other* States, who do not become Teachers in *this*, a fee of $10 per term is charged for tuition; and the same also to those who enter the institution for the purpose of qualifying themselves to teach in Private Schools. A like amount for tuition is expected to be paid by those who fail to fulfill an expressed design to teach in the Public Schools of the State.

The State appropriates $1000 a year for each of the Normal Schools, to aid those of its own students who find it difficult to meet the expense of attending one of those institutions without assistance. This aid is not granted during the first thirteen weeks of the course. Afterward, applicants for aid may expect to receive it as follows: those who reside not over twenty miles from the school, 50 cts. per week; those residing between 20 and 30 miles, $1; and those over 30 miles, $1,50 per week. If, however, the number of applicants in any term should be greater than to allow of these rates of distribution from the regular appropriation for the term, that amount will be distributed in the *proportion* of these rates.

Board is usually $2,50 per week; exclusive of fuel and lights. And $1,50 is required of every student, at the middle of each term, to meet incidental expenses.

It is also expected that every student will furnish himself with a copy of Lippincott's Gazetteer, and with one or two other smaller works; the whole expense of which may amount to $7,00. All other text-books are furnished to the students free of charge

The following table exhibits the course of studies pursued in the school, during the required time of connection with it, viz., one year and a half.

The pupils are divided into three classes; the Junior, Middle, and Senior.

The studies for the First Term, or Junior Class, stand upon the left of the table, next to the column of Hours, &c.; those for the Second Term, or Middle Class, occupy the next column to the right; those for the Third Term, or Senior Class, are placed upon the extreme right.

The table shows at a glance what are the particular studies for any part of the course, together with the days and hours of recitation.

The arrangements of the school are such that, besides pursuing this course of studies, the pupils are employed at times in giving instruction. This affords the principal and his assistants the opportunity of rendering the pupils more efficient aid in the application of principles, and the illustration of methods.

A course of lectures on Physical Geography is annually given in the school, in the month of December, by Prof Guyot; also a course on Chemistry, by some other professor.

TABLE.—Plan of Study and Instruction in the State Normal School, at Bridgewater, Mass.

MORNING.

Hours.			Juniors.	Mid. Class.	Seniors.
MONDAY AND FRIDAY.					
9	to	9 1-4	Devotional Exercises.		
9 1-4	to	10–10	Arithmetic.	Arithmetic.	American History.
10 1-4	to	11	1st Latin.	2d Latin.	3d Latin.
11 1-4	to	12	Algebra.	Algebra.	Polit. Class Book or Const. U. S
TUESDAY AND THURSDAY.					
9	to	9 1-4	Devotional Exercises.		
9 1-4	to	10 1-2	Geometry.	Nat. Philos.	Trigonometry and Optics.
10 3-4	to	12	Arithmetic.	Arithmetic.	Astronomy.
WEDNESDAY.					
8 1-2	to	8 3-4	Devotional Exercises.		
8 3-4	to	9 1-2	Physiology.	Logic.	Rhetoric
9–35	to	10–35	Compositions		
10–45	to	12	Music.		
SATURDAY.					
8 1-2	to	8 3-4	Devotional Exercises.		
8 3-4	to	9 1-2	Physiology.	Logic.	Rhetoric.
9–35	to	10–35	Algebra.	Algebra.	Geology and Natural Hist'y
10–45	to	11–40	Grammar.	Grammar.	Grammar.
11–45	to	12	Moral Philosophy and Duties.		

AFTERNOON.

2*	to	2–10	Writing and Spelling every P. M.		
MONDAY AND THURSDAY.					
2–10	to	3	Reading.	Reading.	Book Keeping.
3–5	to	3 3-4	Grammar.	Grammar.	Grammar.
4	to	4 3-4	Geography.	Geography.	Geography or Indust. Drawing.
TUESDAY AND FRIDAY.					
2–10	to	3	Reading.	Reading.	Reading.
3–5	to	3 3-4	Ment. Arith.	Eng. Lan.	Theory of Teach. & Sch Laws.
4	to	4 3-4	Geography.	Geography.	Surveying and Drawing.
4 3-4	to	5	General Exercises every P. M.		

There have been 1035 pupils, viz., 424 males and 611 females, connected with the school since its opening; of which number, 706 have completed the course of study.

* These are the hours for the Summer Term, those for the Winter Term are a half hour earlier.

STATE NORMAL SCHOOL AT BRIDGEWATER.



In 1861 the Legislature appropriated the sum of $4,500 to the enlargement and repairs of the building. By this means the building originally 63 feet long by 41 feet wide, and two stories high, was enlarged by the addition of two wings, each 38 feet long and 24 feet wide, projecting from the center of the main edifice, and of the same height. Upon the lower floor are four convenient recitation rooms, two rooms, one for philosophical and the other for chemical apparatus, one room for mineralogical and geological specimens, and two ante-rooms for the pupils. In the second story, the whole of the original structure is devoted to a common school-room, which is 62 feet long by 40 feet wide, with a large recitation room opening from it into one of the wings, and a large library and reading room into the other wing.

By a subsequent appropriation new furniture has been supplied, the warming and ventilation of the entire building improved, and the grounds graded and securely inclosed.

The Visitors of this school in their report for 1865 report the following statistics:—

Number admitted since September 9, 1840, to September, 1865,		1,499
"	of graduates to September, 1865,	956
"	in attendance in 1864–65,	122
"	graduated in 1865,	22

The course of study now embraces four terms or two years. The Principal expresses a desire for additional assistance "that the quality of our teaching may be improved by reducing the amount, for which the teacher could make more thorough preparation."

REMARKS

AT THE DEDICATION OF THE STATE NORMAL SCHOOL-HOUSE AT BRIDGEWATER.

August 19, 1846.

THE completion of a new edifice to accommodate the State Normal School at Bridgewater was signalized by appropriate exercises, on the 19th of August, 1846. Addresses were made during the day by His Excellency, Governor Briggs, Hon. William G. Bates, of Westfield, Amasa Walker, Esq., of Brookfield, at the church, and in the new school-room. After these addresses the company partook of a collation in the Town Hall, on which occasion the health of the Secretary of the Board of Education was given by the president of the day, and received by the company with enthusiastic applause. To this sentiment Mr. Mann responded as follows, as reported in the Boston Mercantile Journal.

Mr. President: Among all the lights and shadows that have ever crossed my path, this day's radiance is the brightest. Two years ago, I would have been willing to compromise for ten years' work, as hard as any I had ever performed, to have been insured that, at the end of that period, I should see what our eyes this day behold. We now witness the completion of a new and beautiful Normal School-house for the State Normal School at Bridgewater. One fortnight from to-morrow, another house, as beautiful as this, is to be dedicated at Westfield, for the State Normal School at that place. West Newton was already provided for by private munificence. Each Normal School then will occupy a house, neat, commodious, and well adapted to its wants; and the Principals of the schools will be relieved from the annoyance of keeping a Normal School in an *ab*-Normal house.

I shall not even advert to the painful causes which have hastened this most desirable consummation,—since what was meant for evil has resulted in so much good. Let me, however, say to you, as the moral of this result, that it strengthens in my own mind what I have always felt; and I hope it will strengthen, or create, in all *your* minds, a repugnance to that sickly and cowardly sentiment of the poet, which made him long

> "For a lodge in some vast wilderness,
> Some boundless contiguity of shade,
> Where rumor of oppression and deceit,
> Of unsuccessful or successful wars,
> Might never reach him more."

There is oppression in the world which almost crushes the life out of humanity. There is deceit, which not only ensnares the unwary, but almost abolishes the security, and confidence, and delight, which rational and social beings ought to enjoy in their intercourse with each other. There are wars, and the question whether they are right or wrong tortures the good man a thousand times more than any successes or defeats of either belligerent. But the feeling which springs up spontaneously in my mind, and which I hope springs up spontaneously in your minds, my friends, in view of the errors, and calamities, and iniquities of the race, is, *not* to flee from the world, but to remain in it; *not* to hie away to forest solitudes or hermit cells, but to confront selfishness, and wickedness, and ignorance, at whatever personal peril, and to subdue and extirpate them, or to die in the attempt. Had it not been for a feeling like this among your friends, and the friends of the sacred cause of education in which you have enlisted, you well know that the Normal Schools of Massachusetts would have been put down, and that this day never would have shone to gladden our hearts and to reward our

toils and sacrifices. Let no man who knows not what has been suffered, what has been borne and forborne, to bring to pass the present event, accuse me of an extravagance of joy.

Mr. President, I consider this event as marking an era in the progress of education,—which, as we all know, is the progress of civilization,—on this western continent and throughout the world. It is the completion of the first Normal School-house ever erected in Massachusetts,—in the Union,—in this hemisphere. It belongs to that class of events which may happen once, but are incapable of being repeated.

I believe Normal Schools to be a new instrumentality in the advancement of the race. I believe that, without them, Free Schools themselves would be shorn of their strength and their healing power, and would at length become mere charity schools, and thus die out in fact and in form. Neither the art of printing, nor the trial by jury, nor a free press, nor free suffrage, can long exist, to any beneficial and salutary purpose, without schools for the training of teachers; for, if the character and qualifications of teachers be allowed to degenerate, the Free Schools will become pauper schools, and the pauper schools will produce pauper souls, and the free press will become a false and licentious press, and ignorant voters will become venal voters, and through the medium and guise of republican forms, an oligarchy of profligate and flagitious men will govern the land; nay, the universal diffusion and ultimate triumph of all-glorious Christianity itself must await the time when knowledge shall be diffused among men through the instrumentality of good schools. Coiled up in this institution, as in a spring, there is a vigor whose uncoiling may wheel the spheres.

But this occasion brings to mind the past history of these schools, not less than it awakens our hopes and convinces our judgment respecting their future success.

I hold, sir, in my hand, a paper, which contains the origin, the source, the *punctum saliens*, of the Normal Schools of Massachusetts. [Here Mr. Mann read a note from the Hon. Edmund Dwight, dated March 10th, 1838, authorizing him. Mr. Mann, to say to the Legislature, that the sum of ten thousand dollars would be given by an individual for the preparation of teachers of Common Schools, provided the Legislature would give an equal sum. The reading was received with great applause.]

It will be observed, resumed Mr. Mann, that this note refers to a conversation held on the evening previous to its date. The time, the spot, the words of that conversation can never be erased from my soul. This day, triumphant over the past, auspicious for the future, then rose to my sight. By the auroral light of hope, I saw company after company go forth from the bosom of these institutions, like angel ministers, to spread abroad, over waste spiritual realms, the power of knowledge and the delights of virtue. Thank God, the enemies who have since risen up to oppose and malign us, did not cast their hideous shadows across that beautiful scene.

The proposition made to the Legislature was accepted, almost without opposition, in both branches; and on the third day of July, 1839, the first Normal School, consisting of only *three* pupils, was opened at Lexington, under the care of a gentleman who now sits before me,—Mr. Cyrus Pierce, of Nantucket,—then of island, but now of continental fame.

[This called forth great cheering, and Mr. Mann said he should sit down to give Mr. Pierce an opportunity to respond. Mr. Pierce arose under great embarrassment; starting at the sound of his name, and half doubting whether the eloquent Secretary had not intended to name some other person. He soon recovered, however, and in a very happy manner extricated himself from the "fix" in which the Secretary had placed him. He spoke of his children, the pupils of the first Normal School, and of the honorable competition which ought to exist between the several schools; and to the surprise, as well as regret, of all who heard him, he spoke of being admonished by infirmities which he could not mistake, that it was time for him to retire from the profession. The audience felt as if, for once in his life, this excellent teacher had threatened to do wrong. He then told an amusing anecdote of a professor who retained his office too long, and was toasted by the students in the words of Dr. Watts,—"The Rev. Dr. ——, Hush, my babe, lie still and slumber." And then he sat down amidst the sincere plaudits of the company, who seemed to think he was not "so plaguy old" as he wished to appear.]

I say, said Mr. Mann, on resuming, that, though the average number of Mr. Pierce's school is now from sixty to eighty; and though this school, at the present term, consists of one hundred pupils, yet the first term of the first school opened with *three* pupils only. The truth is, though it may seem a paradox to

say so, the Norman Schools had to come to prepare a way for themselves, and to show, by practical demonstration, what they were able to accomplish. Like Christianity itself, had they waited till the world at large called for them, or was ready to receive them, they would never have come.

In September, 1839, two other Normal Schools were established: one at Barre, in the county of Worcester, since removed to Westfield, in the county of Hampden; and the other at this place, whose only removal has been a constant moving onward and upward, to higher and higher degrees of prosperity and usefulness.

In tracing down the history of these schools to the present time, I prefer to bring into view, rather the agencies that have helped, than the obstacles which have opposed them.

I say, then, that I believe Massachusetts to have been the only State in the Union where Normal Schools could have been established; or where, if established, they would have been allowed to continue. At the time they were established, five or six thousand teachers were annually engaged in our Common Schools; and probably nearly as many more were looking forward to the same occupation. These incumbents and expectants, together with their families and circles of relatives and acquaintances, would probably have constituted the greater portion of active influence on school affairs in the State; and had they, as a body, yielded to the invidious appeals that were made to them by a few agents and emissaries of evil, they might have extinguished the Normal Schools, as a whirlwind puts out a taper. I honor the great body of Common School teachers in Massachusetts for the magnanimity they have displayed on this subject. I know that many of them have said, almost in so many words, and, what is nobler, they have acted as they have said:—"We are conscious of our deficiencies; we are grateful for any means that will supply them,—nay, we are ready to retire from our places when better teachers can be found to fill them. We derive, it is true, our daily bread from school-keeping, but it is better that our bodies should be pinched with hunger than that the souls of children should starve for want of mental nourishment; and we should be unworthy of the husks which the swine do eat, if we could prefer our own emolument or comfort to the intellectual and moral culture of the rising generation. We give you our hand and our heart for the glorious work of improving the schools of Massachusetts, while we scorn the baseness of the men who would appeal to our love of gain, or of ease, to seduce us from the path of duty." This statement does no more than justice to the noble conduct of the great body of teachers in Massachusetts. To be sure, there always have been some who have opposed the Normal Schools, and who will, probably, continue to oppose them as long as they live, lest they themselves should be superseded by a class of competent teachers. These are they who would arrest education where it is; because they cannot keep up with it, or overtake it in its onward progress. But the wheels of education are rolling on, and they who will not go with them must go under them.

The Normal Schools were supposed by some to stand in an antagonistic relation to academies and select schools; and some teachers of academies and select schools have opposed them. They declare that they can make as good teachers as Normal Schools can. But, sir, academies and select schools have existed in this State, in great numbers, for more than half a century. A generation of school-teachers does not last, at the extent, more than three or four years; so that a dozen generations of teachers have passed through our Public Schools within the last fifty years. Now, if the academies and high schools can supply an adequate number of school-teachers, why have they not done it? We have waited half a century for them. Let them not complain of us, because we are unwilling to wait half a century more. Academies are good in their place; colleges are good in their place. Both have done invaluable service to the cause of education. The standard of intelligence is vastly higher now than it would have been without their aid; but they have not provided a sufficiency of competent teachers; and if they perform their appropriate duties hereafter, as they have done heretofore, they cannot supply them; and I cannot forbear, Mr. President, to express my firm conviction, that if the work is to be left in their hands, we never can have a supply of competent teachers for our Common Schools, without a perpetual Pentecost of miraculous endowments.

But if any teacher of an academy had a right to be jealous of the Normal Schools, it was a gentleman now before me, who, at the time when the Bridgewater Normal School came into his town, and planted itself by the path which led to his door, and offered to teach gratuitously such of the young men and women attending his school, as had proposed to become teachers of Common Schools, instead of opposing it, acted with a high and magnanimous regard to the great interests of humanity. So far from opposing, he gave his voice, his vote, and his purse, for the establishment of the school, whose benefits, you, my young friends, have since enjoyed. (Great applause.) Don't applaud yet, said Mr. Mann, for I have better things to tell of him than this. In the winter session of the Legislature of 1840, it is well known that a powerful attack was made, in the House of Representatives, upon the Board of Education, the Normal Schools, and all the improvements which had then been commenced, and which have since produced such beneficent and abundant fruits. It was proposed to abolish the Board of Education, and to go back to the condition of things in 1837. It was proposed to abolish the Normal Schools, and to throw back with indignity, into the hands of Mr. Dwight, the money he had given for their support.

That attack combined all the elements of opposition which selfishness and intolerance had created,—whether latent or patent. It availed itself of the argument of expense. It appealed invidiously to the pride of teachers. It menaced Prussian despotism as the natural consequence of imitating Prussia in preparing teachers for schools. It fomented political partisanship. It invoked religious bigotry. It united them all into one phalanx, animated by various motives, but intent upon a single object. The gentleman to whom I have referred was then a member of the House of Representatives, and Chairman of the Committee on Education, and he, in company with Mr. Thomas A. Greene, of New Bedford, made a minority report, and during the debate which followed, he defended the Board of Education so ably, and vindicated the necessity of Normal Schools and other improvements so convincingly, that their adversaries were foiled, and these institutions were saved. The gentleman to whom I refer is the Hon. JOHN A. SHAW, now Superintendent of schools in New Orleans.

[Prolonged cheers;—and the pause made by Mr. Mann, afforded an opportunity to Mr. Shaw, in his modest and unpretending manner, to disclaim the active and efficient agency which he had had in rescuing the Normal Schools from destruction before they had had an opportunity to commend themselves to the public by their works;—but all this only increased the animation of the company, who appeared never before to have had a chance to pay off any portion of their debt of gratitude. After silence was restored, Mr. Shaw said that every passing year enforced upon him the lesson of the importance and value of experience in school-keeping. Long as he had taught, he felt himself improved by the teachings of observation and practice; and he must therefore express his joy and gratitude at the establishment and the prosperity of the school at that place, whatever might be the personal consequences to himself.]

Nor, continued Mr. Mann, is this the only instance of noble and generous conduct which we are bound this day to acknowledge. I see before me a gentleman who, though occupying a station in the educational world far above any of the calamities or the vicissitudes that can befall the Common Schools,—though, pecuniarily considered, it is a matter of entire indifference to him whether the Common Schools flourish or decline,—yet, from the beginning, and especially in the crisis to which I have just adverted, came to our rescue, and gave all his influence, as a citizen and as a teacher, to the promotion of our cause; and whom those who may resort hither, from year to year, so long as this building shall stand, will have occasion to remember, not only with warm emotions of the heart, but, during the wintry season of the year, with warm sensations of the body also.* I refer to Mr. GEO. B. EMERSON.

[Mr. Emerson was now warmly cheered, until he rose, and in a heartfelt address of a few moments, expressed his interest in the school, and in the cause of education, which he begged the young teachers not to consider as limited to this imperfect stage of our being.]

These, said Mr. Mann, are some of the incidents of our early history. The late events which have resulted in the generous donations of individuals, and in the patronage of the Legislature, for the erection of this, and another edifice at Westfield, as a residence and a home for the Normal Schools,—these events, I shall

* Mr. Emerson has furnished, at his own expense, the furnace by which the new school-house is to be warmed.

consult my own feelings, and perhaps I may add, the dignity and forbearance which belong to a day of triumph, in passing by without remark.

[This part of the history, however, was not allowed to be lost. As soon as the Secretary had taken his seat, the Rev. Mr. Waterston, who had been instrumental in getting up the subscription to erect the two school-houses, arose, and eloquently completed the history. He stated, in brief, that the idea of providing suitable buildings for the Normal Schools originated with some thirty or forty friends of popular education, who, without distinction of sect or party, had met, in Boston, in the winter of 1844–5, to express their sympathy with Mr. Mann in the vexatious conflict which he had so successfully maintained; and who desired, in some suitable way, to express their approbation of his course in the conduct of the great and difficult work of reforming our Common Schools. At this meeting, it was at first proposed to bestow upon Mr. Mann some token evincive of the personal and public regard of its members; but, at a subsequent meeting, it was suggested that it would be far more grateful and acceptable to him to furnish some substantial and efficient aid in carrying forward the great work in which he had engaged, and in removing those obstacles and hinderances both to his own success and to the progress of the cause, which nothing but an expenditure of money could effect. No way seemed so well adapted to this purpose as the placing of the Normal Schools upon a firm and lasting basis, by furnishing them with suitable and permanent buildings; and the persons present thereupon pledged themselves to furnish $5000, and to ask the Legislature to furnish a like sum for this important purpose. The grant was cheerfully made by the Legislature, whose good-will has since been further expressed by a liberal grant, to meet the expenses of those temporary Normal Schools, called Teachers' Institutes. Mr. Mann, who had not yet taken his seat, then continued as follows:]

I have, my young friends, former and present pupils of the school, but a single word more to say to you on this occasion. It is a word of caution and admonition. You have enjoyed, or are enjoying, advantages superior to most of those engaged in our Common Schools. Never pride yourselves upon these advantages. Think of them often, but always as motives to greater diligence and exertion, not as points of superiority. As you go forth, after having enjoyed the bounty of the State, you will probably be subjected to a rigid examination. Submit to it without complaint. More will sometimes be demanded of you than is reasonable. Bear it meekly, and exhaust your time and strength in performing your duties, rather than in vindicating your rights. Be silent, even when you are misrepresented. Turn aside when opposed, rather than confront opposition with resistance. Bear and forbear, not defending yourselves, so much as trusting to your works to defend you. Yet, in counseling you thus, I would not be understood to be a total non-resistant,—a perfectly passive, non-elastic sandbag, in society; but I would not have you resist until the blow be aimed, not so much at you, as, through you, at the sacred cause of human improvement, in which you are engaged,—a point at which forbearance would be allied to crime.

To the young ladies who are here—teachers and those who are preparing themselves to become teachers,—I would say, that, if there be any human being whom I ever envied, it is they. As I have seen them go, day after day, and month after month, with inexhaustible cheerfulness and gentleness, to their obscure, unobserved, and I might almost say, unrequited labors, I have thought that I would rather fill their place, than be one in the proudest triumphal procession that ever received the acclamations of a city, though I myself were the crowned victor of the ceremonies. May heaven forgive them for the only sin which, as I hope, they ever commit,—that of tempting me to break the commandment, by coveting the blissfulness and purity of their quiet and secluded virtues.

STATE NORMAL SCHOOL

AT SALEM, MASS.

HISTORY.

On account of an earnest demand made by the people in the northeastern part of the State in 1853, the Board of Education recommended to the Legislature the establishment of a fourth Normal School, to be located in Essex County. In accordance with the recommendation, an appropriation of $6,000 was promptly made. The advantages presented by the city of Salem for the accommodation of a State School were so manifest, and the liberality which the city extended to the school was so satisfactory, that the Board of Education determined to locate a Normal School for female teachers at Salem. The authorities of the city furnished a suitable lot of land, and erected thereon an acceptable and properly furnished building, at an expense of $12,000 beyond the 6,000 appropriated by the State, and $2,000 contributed to the enterprise by the Eastern Railroad Company. The building was dedicated with appropriate ceremonies, Sept. 14, 1854. Governor Washburn presided on the occasion, and a formal Address was delivered by Ex-Governor Geo. L. Boutwell.

The school opened under favorable auspices; sixty-two young ladies were admitted on the first day, and thirteen afterwards joined the class.

ORGANIZATION AND INSTRUCTION.

Candidates for admission must be at least sixteen years of age; must present a satisfactory certificate of good moral character; must declare their full intention of faithfully observing the regulations of the school, during their connection with it, and of afterwards teaching in the public schools of Massachusetts; and must pass a satisfactory examination in Geography, the History of the United States, and Algebra (through Equations of the First Degree with one unknown quantity).

Pupils are admitted from any State without charge for tuition, in case they declare their purpose to teach in the public schools of Massachusetts. Young ladies who intend to teach in private schools, or in other States, are allowed the privileges of the school on paying a tuition fee of $30.00 a year.

To all pupils who propose to teach in the public schools of the State, tuition is free; and to all the members of the school, the requisite text-books are, with few exceptions, furnished gratuitously. To defray incidental expenses, $2.00 a term is paid by each pupil.

For the assistance of those who would find even the moderate expenses of the school burdensome, the Commonwealth makes an annual appro-

priation of a thousand dollars. One half of this amount is distributed at the close of each term, among pupils from Massachusetts who may merit and need the aid, in sums varying according to the distance of their residence from Salem, and their necessary expenses in attending the school, but not exceeding in any case $1.50 per week. In this distribution, the first term of the pupil's connection with the school is not reckoned, unless she enters prepared to complete the prescribed course of study in less than two years.

Aid is also rendered, in case of special merit and need, from the income of a fund of five thousand dollars, for which the school is indebted to the munificent bequest of Nathaniel I. Bowditch, Esq., of Brookline.

School Terms—Studies.

The regular course of study, from the organization of the school down to 1865, occupied three terms of twenty weeks each, the terms at first beginning respectively, on the second Wednesday of March and the second Wednesday of September.

Commencing with 1865, the regular course of study has occupied two years, or four terms, each of twenty weeks. This change was made for the purpose of allowing more ample time for thorough instruction and training in the various subjects taught.

Advanced Class.

Ladies who have successfully completed the regular course of study, are allowed to remain in school and pursue a higher course. Former studies are carried on to a greater extent, and new studies, such as belong to a High School course, are introduced. Three terms were assigned to the course until 1866, when it was reduced to two terms.

Course of Study.

Some studies are attended to through the entire course, viz: Reading, Spelling, Etymologies, Rhetoric, English Composition, Mental Arithmetic, Drawing, (including pencil, crayon, and black-board drawing), Vocal Music, and Physical Culture.

In addition to the foregoing, the studies pursued during the successive terms, are as follows:

First Term. Arithmetic, Algebra, English Grammar, Geography of the Western Continent, History of the United States, Writing, (with especial reference to the way of teaching it), Anatomy and Physiology, and Chemistry.

Second Term. Arithmetic, Algebra, Geometry, English Language, (its History and Construction), Geography of the Eastern Continent, and Botany.

Third Term. Arithmetic, Algebra, Natural Philosophy, Mental Philosophy, English Literature, General History.

Fourth Term. Astronomy, Geology, Physical Geography, Mental Philosophy, Logic, Constitution of the United States, School Laws of

Massachusetts, and Principles and Methods of Teaching, and of School Management.

Optional Studies.

Soon after the commencement of each term, pupils who are able to do more than the work assigned in the regular course, are formed into special classes, in the French and Latin languages, attention being chiefly given to the modes of teaching those languages.

Advanced Course.

Graduates of the regular course are permitted to remain in the school one additional year. During this time they attend to the Higher Mathematics, (including Plane and Spherical Trigonometry), English Literature, Latin and French, and pursue to a greater extent some of the studies of the undergraduate course, especially Natural Philosophy and Chemistry.

Aims and Methods of Study and Training.

The ends aimed at in this school are chiefly two, viz: The acquisition of the necessary knowledge, and art of teaching.

From the beginning to the end of the course, all studies are conducted with especial reference to the best ways of teaching them. Recitations alone, however excellent, are not satisfactory, unless every pupil is able to teach others that which she has herself learned. In every study, the pupils in turn occupy temporarily the place of teacher of their classmates, and are subjected to their criticisms as well as those of the regular teacher. Teaching exercises of various kinds form a large and important part of the school work. During the Senior term, object lessons are daily given to classes of children from an adjacent primary school, so that every pupil obtains, before graduating, considerable experience in teaching young children to observe, think and give expression to thought.

Nearly all the studies are conducted upon the topical plan. Text-books are used chiefly as books of reference. Topics are assigned from day to day by the teacher, and the scholars are required to obtain the requisite knowledge from the various sources at command. The committing of text-books to memory is avoided as far as possible, the scholars being trained to depend upon thoughts rather than words.

The great object of the school is to make the pupils investigate, think and speak for themselves; to make them independent, self-reliant, and ready to meet whatever difficulties may arise.

Discipline.

The discipline of the school is made as simple as possible. Pupils are expected to govern themselves; to do without compulsion what is required, and to refrain voluntarily from all improprieties. Those who are unwilling to conform cheerfully to the known wishes of the Principal and his Assistants, are presumed to be unfit to become teachers.

It is not deemed necessary to awaken a feeling of emulation in order to induce the scholars to perform their duties faithfully. The ranking of

scholars according to their comparative success in studies, is not here allowed. Faithful attention to duty is encouraged for its own sake, not for the purpose of obtaining certain marks of credit.

Promotions and Graduations.

Promotions from one class to another are made by means of an elaborate written examination at the close of each term. These examinations cover every study pursued during the term, and the result in each study must be satisfactory, to entitle the pupil to advance to the study next in order. A general failure on the part of a pupil compels her to retake the entire work of the term. In case of a partial failure, reëxaminations are allowed.

In the Senior term, a special examination is had in all the branches taught in the common schools, and only those who pass it successfully are permitted to graduate.

Number of Pupils. Graduates.

The whole number of pupils in the School from its establishment in September, 1854, to July 1, 1867, is 1041. The whole number of graduates to the same date, is 453. The number present during the term ending at the latter date, was 149, the largest number present during any term.

PRINCIPALS

On the opening of the Normal School in 1854, Richard Edwards was appointed Principal. He resigned in 1854, to accept an appointment to the charge of the City Normal School of St. Louis. He left the latter place in 1862, to accept the Presidency of the Illinois Normal University. Alpheus Crosby, formerly Professor in Dartmouth College, was appointed Principal in 1857, and entered upon the duties in the school in October of that year. Prof. Crosby resigned in 1865, and Daniel P. Hagar, Principal of the High School in Jamaica Plains, was appointed his successor.

EXTRACT FROM AN ADDRESS

BY EX-GOVERNOR GEORGE S. BOUTWELL,

AT THE DEDICATION OF THE STATE NORMAL SCHOOL AT SALEM,

August 19*th*, 1854.

THE house you have erected is not so much dedicated to the School as to the public; the institution here set up is not so much for the benefit of the young men and women who may become pupils, as for the benefit of the public which they represent. The appeal is, therefore, to the public to furnish such pupils, in number and character, that the institution may soon successfully enter upon the work for which it is properly designed. But the character and value of this school depend on the quality of its teachers more than on all things else. They should be thoroughly instructed, not only in the branches taught, but in the art of teaching them. The teacher ought to have attained much that the pupil is yet to learn; if he has not, he can not utter words of encouragement, nor estimate the chances of success. It is not enough to know what is contained in the text-book; the pupil should know that at least; the teacher should know a great deal more. A person is not qualified for the office of teacher when he has mastered the contents of a book; and has, in fact, no right to instruct others until he has mastered the subject." Here then seems to be the gist of the whole matter. We in Maine have at length an opportunity to do something which may be made of great benefit to the public schools of the State, and, through them, to the cause of general good learning. This is to be done through the instrumentality of an institution—the Normal School. Very largely is this trust committed to the hands of the educational men of the present day among us. Future generations will hold us responsible for a right discharge of our duties. Let us not prove recreant to our sacred trust.

When that great educator, who has left a bright and ineffaceable record upon the annals of the present age, heard of his election as master of the School at Rugby, he wrote to Dr. Hawkins, whose recommendation, in which he expressed his belief that Arnold would revolutionize the system of public instruction in Europe—had done most towards securing his appointment, in the following touching words:

"I need not tell you how unexpected this result [my election] has been to me, and I hope I need not say also what a solemn and overwhelming responsibility is imposed upon me. I would hope to have the prayers of my friends, together with my own, for a supply of that true wisdom which is required for such a business." The position of a Normal School teacher is one of "solemn and overwhelming responsibility," and the person occupying it needs a wisdom that comes through communion with the Divine One. This institution, like the noble, the lamented Arnold, is nothing less than revolutionary in its relationship to the Common Schools. It will fail to accomplish its mission, or it will regenerate. It will give life, or it itself will die.

It remains to be said—if indeed that be necessary—that I believe with De Gasparin and De Tocqueville, that in the universality of common instruction is the true superiority of Americans: that I believe, with the leading patriots of my country, that republican institutions can not exist for any length of time except they be enshrined in the hearts of an intelligent, liberty-loving people; that to retain the true superiority of which we, as a nation, are acknowledged to be possessed, we must retain and improve its cause—the public school system; that I believe, with the lamented Mann and Page, the living Barnard, the patriotic and eloquent Everett, and a host of other eminent educators, that the Normal School is a necessity—a *sine qua non*—for the perfection of a system of instruction for the people; and lastly, and consequently, that I would give to

the Normal School its right to rank among the institutions which, as an harmonious whole, work for the preservation of American Freedom.

Let it not be thought, my friends, that I am an enthusiast in respect to the position which the Normal and the public school hold among the institutions of our nation, and the consequent glory of the profession of the popular educator. Here is a cause in which, surrounded by the safeguards of the Christian religion, one need not fear to be enthusiastic.

THE OFFICE OF THE PUBLIC SCHOOL TEACHER.

Before the public school teachers of this nation, there is opening a future, which, like every other prospective view in the time in which we live, is at once solemn and cheering. It is cheering to believe that we may live to see the day when education for the people shall be as much prized in the South as in the North; that from the "one true seed of freedom" which the Pilgrims of 1620 were commissioned of the Almighty to plant upon these then benighted shores, has grown the Tree of Life, whose leaves are for the healing of the nation. But it is solemn—O, is it not intensely solemn!—to reflect that upon our shoulders is to be thrown so great responsibility; that not alone upon the field of battle, but more certainly upon the field of moral thought, are to be laid the firm foundations of a regenerated republican liberty! American citizenship is, and is to be a grander, loftier thing in the future than it has been in the past. Our baptism of blood is to do its work of purification; and, thus, looking with the vision of a poet of the motherland, we discerned through the gloomy days of battle, through the fierce conflict of our nation's heroic period, the dawn-breaking of a more comprehensive, more brilliant social illumination. We said with Tennyson:

> "Tho' many a light shall darken, and many shall weep
> For those that are crushed in the clash of jarring claims,
> Yet God's just wrath shall be wreaked on a giant liar;
> And many a darkness into the light shall leap,
> And shine in the sudden making of splendid names,
> And noble thought be freer under the sun,
> And the heart of a people beat with one desire."
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> * * * * * * * *
>
> "Let it flame or fade, and the war roll down like a wind,
> We have proved we have hearts in a cause; we are noble still,
> And all have awaked, as it seems, to the better mind;
> It is better to fight for the good than to rail at the ill."

The end of our conflict was not, when, with ringing of bells, with roar of deep-mouthed cannon, with bonfires and illuminations, with notes of praise, and with voice of silver-toned oratory, we celebrated the restoration of peace and union. For then came the necessity for the highest qualities of statesmanship, in State legislatures and a national Congress. And again, the end is not when the counsels of the statesman, under the blessings of Divine Providence, shall have settled the most complicated problems growing out of the present disjointed condition of our affairs. After all that, in the dim distant future, when you and I shall have acted well or ill our part upon the stage of life and shall sleep with the fathers of the Republic, the generations that will come will find a work high and glorious, made doubly sacred by the blood and prayers and tears of their predecessors.

The American citizen is to act a part in all this, and the American citizen is to be taught in youth in the public school. Will any one say that the position of a common school teacher is one of small account—will any gainsay his claim to a preparation for his professional duties at the expense of that people to whom his service is so important? True it is, as some one has said, "Let a people treat with scorn the defenders of its liberties, and invest them with the symbols of degradation, and it will soon have none to defend them." There is no more sure defense to republican liberty than the public school; there is no truer personal defender of American institutions than the schoolmaster. Treat him with scorn, invest him with the symbols of degradation if you dare. God may give him grace still to labor on, but it will be with a saddened heart—a life without an earthly ambition.

NEW YORK STATE NORMAL SCHOOL

AT ALBANY.



The Normal School for the state of New York, was established by an act of the Legislature in 1844, "for the instruction and practice of Teachers of Common Schools, in the science of Education and the art of Teaching." It was first established for five years, as an experiment, and went into operation on the 18th of December, 1844, in a building provided gratuitously by the city of Albany, and temporarily fitted up for that purpose. In 1848, an act was passed by the Legislature "for the permanent establishment of the State Normal School," appropriating $15,000 toward the erection of a suitable building. The following year an additional appropriation of $10,000 was made for its completion. A large and commodious edifice, (*See* Fig. 1, 2, 3, 4, 5, 6,) containing a dwelling-house for the Principal, has accordingly been erected on the corner of Lodge and Howard streets, adjoining the State Geological and Agricultural Rooms. To this building the school was removed on the 31st of July, 1849. At the expiration of the term of five years for which this institution was originally established, and in connection with the closing exercises of the Summer

Session ending September 27, 1849, Samuel S. Randall, Esq., Deputy Superintendent of Common Schools, pronounced an address in which the origin and progress of the Normal School is thus graphically set forth:

For several years prior to 1844, the attention of the friends of Common School education in this state had been strongly directed to the inadequacy of the existing agencies for the preparation of duly qualified teachers for our elementary institutions of learning. Liberal endowments had, from time to time, during a long series of years, been bestowed upon the academies in different sections of the state, with a view to the attainment of this object; but the practical inability of these institutions to supply the demand thus made upon them with all the resources at their command, soon became obvious and undeniable. The establishment of Normal Schools for this special and exclusive purpose in various portions of Europe, where popular education was most flourishing, and in the adjoining state of Massachusetts, long and honorably distinguished for her superior public and private schools, and the manifest tendency of these institutions to elevate and improve the qualifications and character of teachers, had begun to attract the regard of many of our most distinguished statesmen.

On a winter's afternoon, early in the year 1844, in a retired apartment of one of the public buildings in this city, might have been seen, in earnest and prolonged consultation, several eminent individuals whose names and services in the cause of education are now universally acknowledged. The elder of them was a man of striking and venerable appearance—of commanding intellect and benignant mien. By his side sat one in the prime and vigor of manhood, whose mental faculties had long been disciplined in the school of virtuous activity, and in every lineament of whose countenance appeared that resolute determination and moral power, which seldom fails to exert a wide influence upon the opinions and actions of men. The third in the group was a young man of slight frame and pale, thoughtful visage; upon whose delicate and slender form premature debility had palpably set its seal; yet whose opinions seemed to be listened to by his associates with the utmost deference and regard. The remaining figure was that of a well-known scholar and divine, whose potent and beneficial influence had long been felt in every department of the cause of popular education, and whose energy, activity and zeal had already accomplished many salutary and much needed reforms in our system of public instruction.

The subject of their consultation was the expediency and practicability of incorporating upon the Common School system of this state an efficient instrumentality for the education of teachers. The utility of such a measure, and its importance to the present and prospective interests of education, admitted, in the minds of these distinguished men, of no doubt. The sole question was whether the public mind was sufficiently prepared for its reception and adoption: whether an innovation so great and striking, and involving as it necessarily must a heavy and continued expenditure of the public money, might not be strenuously and successfully resisted: and whether a premature and unsuccessful attempt then to carry into execution a measure of such vital importance, might not be attended with a disastrous influence upon the future prospects of the cause of education. These considerations after being duly weighed, were unanimously set aside by the intrepid spirits then in council; and it was determined that, backed by the strong and decided recommendation of the head of the Common School Department, immediate measures should be forthwith adopted for the establishment of a STATE NORMAL SCHOOL. The men who thus gave the first decided impetus to the great enterprise, whose gratifying results are now before us, were SAMUEL YOUNG, CALVIN T. HULBURD, FRANCIS DWIGHT, and ALONZO POTTER.

Mr. Hulburd, the able and enlightened Chairman of the Committee on Colleges, Academies and Common Schools, of the Assembly, visited the Normal Schools of Massachusetts, and after a thorough examination of their merits and practical operations, submitted an elaborate and eloquent report to the House, in favor of the immediate adoption of this principle in our system of public instruction. The bill introduced by him, and sustained in all its stages by his powerful influence and indefatigable exertions, and the coöperation of the most zealous friends of education throughout the state, became a law, and appropriated the sum of $10,000 annually for five successive years, for the purpose of establishing and maintaining a State Normal School in this city. The general control of the Institution was committed to the Regents of the University, by whom an Executive Committee, consisting of five persons, one of whom was to be the Superintendent of Common Schools, was to be appointed, upon whom the direct management, discipline and course of instruction should devolve.

In pursuance of this provision, the Board of Regents, in June, 1844, appointed a Committee comprising the Hon. SAMUEL YOUNG, then Superintendent of Common Schools, the Rev. ALONZO POTTER, Rev. WM. H. CAMPBELL, Hon. GIDEON HAWLEY, and FRANCIS DWIGHT, Esq. This committee forthwith entered upon the execution of their responsible duties; procured on very liberal and favorable terms from the city of Albany the lease for five years of the spacious building in State street, recently occupied by the Institution; prescribed the necessary rules and regulations for the instruction, government and discipline of the school, the course of study to be pursued, the appointment and selection of the pupils, &c., and procured the services of the late lamented and distinguished Principal, then of Newburyport, Massachusetts, together with his colleague, Prof. Perkins, of Utica, the present Principal, as teachers. On the 18th day of December, 1844, the school was opened in the presence of a large concourse of citizens and strangers, by an eloquent address from Col. YOUNG, and by other appropriate and suitable exercises. Twenty-nine pupils, thirteen males and sixteen females, representing fourteen counties only, of both sexes were in attendance, who, after listening to a brief but clear and explicit declaration from Mr. PAGE, of his objects, views and wishes in the management and direction of the high duties devolved upon him, entered at once upon the course of studies prescribed for the school. Before the close of the first term on the 11th of March, 1845, the number of pupils had increased to ninety-eight, comprising about an equal number of each sex, and representing forty of the fifty-nine counties of the state. During this term the musical department of the school was placed under the charge of Prof. ILSLEY, of this city, and instruction in drawing was imparted by Prof. J. B. HOWARD, of Rensselaer.

On the commencement of the second term, on the 9th of April, 1845, 170 pupils were in attendance, comprising a nearly equal proportion of males and females, and representing every county in the state, with a single exception. Of these pupils about nine-tenths had been previously engaged in teaching during a longer or shorter period. The term closed on the 28th of August, with a public examination and other suitable exercises, and thirty-four of the students received the certificate of the Executive Committee and Board of Instruction, as in their judgment well qualified in all essential respects, to teach any of the Common Schools of the state.

On the 15th of October succeeding, the school re-opened with 180 pupils, which was increased during the progress of the term to 198 from every county in the state but one. The death of Mr. DWIGHT, which took place on the 15th of December, and the transfer of the Rev. Dr. POTTER to the Episcopal Diocese of Pennsylvania, created vacancies in

the Executive Committee, which were supplied by the appointment of the Hon. HARMANUS BLEECKER, and the Hon. SAMUEL YOUNG, the latter gentleman having been succeeded in the office of Superintendent of Common Schools by the Hon. N. S. BENTON, of Herkimer. The sudden death of Mr. Dwight, who had taken a deep interest in the prosperity and success of the Institution, and had given to its minutest details the benefits of his supervision and constant attention, cast a deep gloom upon the inmates; and the peculiar circumstances under which it took place were strikingly indicative of the vain and illusory nature of all human expectations. For several weeks previous to his death, Mr. Dwight had manifested much interest in devising appropriate means for the celebration of the opening of the school, on the 18th of December. Alas! how little could he imagine that the long line of Normal pupils, with the children of the various public schools of the city, to whom also he had been a signal benefactor, and hundreds of his fellow-citizens should, on that day, follow his lifeless remains to their long home!

At the close of the third term, March 18, 1846, a public examination was held, which continued during four successive days, and convinced all who felt an interest in the Institution, that the work of preparation for the teacher's life was, in all respects, thorough and complete. The diploma of the Institution was conferred on forty-seven graduates. During this and the preceding term a valuable addition had been made to the Board of Instruction, by promoting to the charge of several of the principal departments, those graduates of the Institution who now so ably and successfully preside over these departments. The Experimental School, organized at the commencement of the second term, was placed under the general supervision of its present teacher, and has proved an exceedingly valuable auxiliary in the practical preparation of the pupils of the principal school for the discharge of their duty as teachers. Two hundred and five pupils were in attendance at the commencement of the fourth term, on the first Monday of May, 1846, of whom sixty-three received a diploma at its close in September following. During the fifth term, commencing on the second of November, one hundred and seventy-eight pupils only appeared, forty-six of whom graduated in March, 1847. At the commencement, however, of the sixth term in May subsequently, two hundred and twenty-one pupils were in attendance, of whom sixty-four received the diploma of the Institution in September; and at the reopening of the school in November, two hundred and five pupils appeared. Up to this period the number of names entered on the Register of the school as pupils, including those in attendance at the commencement of the seventh term, was seven hundred and thirty-seven. Of these two hundred and fifty-four had received their diploma as graduates, of which number two hundred and twenty-two were actually engaged in teaching in the Common Schools of the state; and the residue, with few exceptions, in the different academies or in private schools. Of those who had left the school without graduating, nearly all were engaged during a longer or shorter period in teaching in the several Common Schools.

And now came that dark and gloomy period when the hitherto brilliant prospects of the Institution were overcast with deep clouds of melancholy and despondency—when that noble form and towering intellect which, from the commencement of the great experiment in progress, had assiduously presided over and watched its development, was suddenly struck down by the relentless hand of the great destroyer—when the bereaved and stricken flock, deprived of their revered and beloved guide, teacher, friend, mournfully assembled in their accustomed halls on that dreary and desolate January day at the commencement of the year 1848, to pay the last sad obsequies to the remains of their departed Principal. In the prime and vigor of his high faculties—in the meridian brightness of his

lofty and noble career—in the maturity of his well-earned fame as "first among the foremost" of the teachers of America, he passed away from among us, and sought his eternal reward in that better land where the ills and the obstructions of mortality are forever unknown; where the emancipated spirit, freed from the clogs which here fetter its high action and retard its noblest development, expands its illimitable energies in the congenial atmosphere of infinite knowledge and infinite love. It is not for me, on the present occasion, to pronounce his eulogy, although I knew and loved him well. That has already been done by an abler hand, and it only remains to say that the impress which his masterly and well-trained mind left upon the Institution, the child of his most sanguine hopes and earnest efforts, and upon the interests of education generally throughout the state, of which he was the indefatigable promoter, has been of the most marked character, and will long consecrate his name and memory.

Since this period the progress of the Institution, under the auspices of its present enlightened Principal, and his devoted corps of assistants, has been uniformly onward and upward. At the close of the seventh term fifty pupils were graduated, and the eighth term opened with two hundred and eight, of whom forty-six received their diploma at its close. The ninth term opened on the first day of November last with one hundred and seventy-five pupils, and at its close forty-three were graduated; and the tenth term, which has now just closed, opened with upward of two hundred pupils, of whom thirty-six are now about to graduate.

The following account of the State Normal School is copied from the Annual Circular of the Executive Committee, for 1850:

"Each county in the state is entitled to send to the school a number of pupils, (either male or female,) equal to twice the number of members of the Assembly in such county. The pupils are appointed by the county and town superintendents at a meeting called by the county superintendent for that purpose. This meeting should be held and the appointment made at least two weeks before the commencement of each term. or as soon as information is received as to the number of vacancies. A list of the vacancies for each term will be published in the District School Journal, as early as the number of such vacancies can be ascertained, usually before the close of the former term.

Pupils once admitted to the school will have the right to remain until they graduate; unless they forfeit that right by voluntarily vacating their place, or by improper conduct.

Persons failing to receive appointments from their respective counties, should. after obtaining testimonials of a good moral character, present themselves the first day of the term, for examination by the Faculty. If such examination is satisfactory, they will receive an appointment from the Executive Committee, without regard to the particular county, provided any vacancies exist. In such case the pupil will receive mileage.

By an act of the Legislature, passed April 11, 1849, "every teacher shall be deemed a qualified teacher, who shall have in possession a Diploma from the State Normal School."

QUALIFICATION OF APPLICANTS. Females sent to the school must be sixteen years of age, and males eighteen.

The superintendents, in making their appointments, are urged to pay no regard to the political opinions of applicants. The selections should be made with reference to the *moral worth* and abilities of the candidates. Decided preference ought to be given to those, who, in the judgment of the superintendents, give the highest promise of becoming the most efficient teachers of common schools. It is also desirable that those only

should be appointed who have already a good knowledge of the common branches of study, and *who intend to remain in the school until they graduate.*

ENTRANCE. All the pupils, on entering the school, are required to sign the following declaration:

'*We the subscribers hereby* DECLARE, *that it is our intention to devote ourselves to the business of teaching district schools, and that our sole object in resorting to this Normal School is the better to prepare ourselves for that important duty.*'

As this should be signed in good faith on the part of the pupils, they should be made acquainted with its import before they are appointed. It is expected of the superintendents, that they shall select such as will sacredly fulfill their engagements in this particular.

Pupils on entering the school are subjected to a thorough examination, and are classified according to their previous attainments. The time required to accomplish the course will depend upon the attainments and talents of the pupil, varying from *one* to *four* terms. *Very few*, however, can expect to graduate in one term.

PRIVILEGES OF THE PUPILS. All pupils receive their tuition free. They are also furnished with the use of text-books without charge; though if they already own the books of the course, they would do well to bring them, together with such other books for reference as they may possess. Moreover, they draw a small sum from the fund for the support of the school, to defray in part their expenses.

It is proposed to apportion the sum of $1,700 among the 256 pupils who may compose the school during the next term. 1. Each pupil shall receive three cents a mile on the distance from his county town to the city of Albany. 2. The remainder of the $1,700 shall then be divided equally among the students in attendance.

The following list will show how much a student of each county will receive, during the ensuing term:

Albany, $2.41; Allegany, $10.09; Broome, $6.76; Cattaraugus, $11.17; Cayuga, $7.09; Chautauque, $12.49; Chemung, $8.35; Chenango, $5.41; Clinton, $7.27; Columbia, $3.28; Cortland, $6.67; Delaware, $4.72; Dutchess, $4.66; Erie, $10.93; Essex, $6.19; Franklin, $8.77; Fulton, $3.76; Genesee, $9.73; Greene, $3.43; Hamilton, $4.87, Herkimer, $4.81; Jefferson, $7.21; Kings, $6.97; Lewis, $6.28; Livingston, $9.19; Madison, $5.44; Monroe, $8.98; Montgomery. $3.61; New-York, $6.85; Niagara, $10.72; Oneida, $5.29; Onondaga, $6.40; Ontario, $8.26; Orange, $5.44; Orleans, $10.12; Oswego, $7.21; Otsego, $4.39; Putnam, $5.59; Queens, $7.63; Rensselaer, $2.59; Richmond, $7.32; Rockland, $6.07; Saratoga, $4.78; Schenectady, $2.86; Schoharie, $3.07; Seneca, $7.54; St. Lawrence, $8.59; Steuben, $8.89; Suffolk, $9.16; Sullivan, $5.80; Tioga, $7.42; Tompkins, $7.31; Ulster, $4.15 Warren, $4.27; Washington. $3.85; Wayne, $7.84; Westchester, $6.46, Wyoming, $9.85; Yates, $7.96.

It is proper to state, that if the number of pupils is less than 256, the sum to be received will be proportionately increased. The above schedule shows, therefore, the minimum sum to be received by each pupil. His apportionment cannot be less than as above stated, and it may be more.

This money will be paid at the *close of the term.*

APPARATUS. A well assorted apparatus has been procured, sufficiently extensive to illustrate all the important principles in Natural Philosophy, Chemistry, and Human Physiology. Extraordinary facilities for the study of Physiology are afforded by the Museum of the Medical College, which is open at all hours for visiters.

LIBRARY. Besides an abundant supply of text-books upon all the branches of the course of study, a well selected miscellaneous library has been procured, to which all the pupils may have access free of charge. In the selection of this library, particular care has been exercised to procure most of the recent works upon Education, as well as several valuable standard works upon the Natural Sciences, History, Mathematics, &c. The State library is also freely accessible to all.

TERMS AND VACATIONS. The year is divided into two terms, so as to bring the vacations into April and October, the months for holding the Teachers' Institutes. This also enables the pupils to take advantage of the cheapness of traveling by the various means of water communication in the State, in going to and from the school.

The SUMMER TERM commences on the FIRST MONDAY IN MAY, and continues TWENTY WEEKS, with an intermission of one week from the first of July.

The WINTER TERM commences on the FIRST MONDAY IN NOVEMBER, and continues TWENTY-TWO WEEKS, with an intermission from Christmas to New Year's day inclusive.

PROMPT ATTENDANCE. As the school will open on Monday, it would be for the advantage of the pupils, if they should reach Albany by the Thursday or Friday preceding the day of opening. The Faculty can then aid them im securing suitable places for boarding.

As the examinations of the pupils preparatory for classification will commence on the first day of the term, it is exceedingly important that all the pupils should report themselves on the first morning. Those who arrive a day after the time, will subject not only the teachers to much trouble, but themselves also to the rigors of a private examination. After the first week, no student, except for the strongest reasons, shall be allowed to enter the school.

PRICE OF BOARD. The price of board in respectable families, varies from $1.50 to $2.00, exclusive of washing. Young gentlemen by taking a room and boarding themselves, have sustained themselves at a lower rate. This can better be done in the summer term.

The ladies and gentlemen are not allowed to board in the same families. Particular care is taken to be assured of the respectability of the families who propose to take boarders, before they are recommended to the pupils.

EXPERIMENTAL SCHOOL. Two spacious rooms in the building are appropriated to the accommodation of the two departments of this school. These two departments are under the immediate supervision of the Permanent Teacher, who is a graduate of the Normal School.

The object of this school is to afford each Normal Pupil an opportunity of practising the methods of instruction and discipline inculcated at the Normal School, as well as to ascertain his 'aptness to teach,' and to discharge the various other duties pertaining to the teacher's responsible office. Each member of the graduating class is required to spend at least two weeks in this department

In the experimental School there are ninety-three pupils between the ages of six and sixteen years. FIFTY-EIGHT of these are free pupils. The free seats will be hereafter given exclusively to fatherless children, residing in the city of Albany. This is in consideration of an appropriation by the city to defray in part the expense of fitting up one of the rooms of the school. The remaining THIRTY-FIVE pupils are charged $20 per year for tuition and use of books. This charge is made merely to defray the expense of sustaining the school."

1848 TO 1863.

On the first of January, 1848, Prof. George R. Perkins, was appointed Principal of the New York State Normal School, to fill the vacancy occasioned by the death of the lamented Page, who, in his eminent success and early death, had realized either alternative of the injunction to "succor or die," laid upon him by his friend Horace Mann, when he assumed the charge of the school. Prof. Perkins had been connected with the school since its organization. He was familiar with its workings, and the plans of Mr. Page, and his success in his department had evinced his fitness to carry the experiment of the State Normal School to a successful termination. The winter of 1852, was a crisis in its history. The appropriations for its support were made by the Legislature, annually. An occasion was thus furnished for narrow minded men to attack the system of Normal Schools, charging against it that it was unable to supply teachers to the State to such an extent as to warrant its continuance on grounds of public policy. So far were these attacks carried that formal notice was given in the Legislature of an intention to introduce a bill to repeal the law establishing the school. This, with the exception of a feeble opposition on the part of a single senator in the winter of 1853, was the last exhibition of legislative hostility. Some dissensions among the Faculty, greatly magnified, led to the appointment of a committee of inquiry in the Legislature to examine into its internal arrangements, and the general mode in which it was conducted. It was gratifying to the friends of the school that these movements failed to impair public confidence. This is clearly shown by the fact that the term which immediately succeeded them, had a larger attendance than any previous one. The severe and devoted labors of the Principal, in connection with the movements above alluded to, acting upon a constitution naturally sensitive, had so impaired his health, as to render his resignation necessary, to the deep regret of the friends of the school. The Executive Committee in their Annual Report to the Legislature, bear full testimony to his private worth and public services.

During the period of more than four years in which Prof. Perkins continued its Principal, the school enjoyed a good measure of success. The average number in attendance for each term was 216, and the whole number of graduates was 309, of whom, 146 were males, and 163 were females.

On the 20th of September, 1852, the position left vacant by the resignation of Prof. Perkins, was filled by the appointment of Samuel B. Woolworth, who for a period of twenty-two years, had been the honored Principal of one of the largest and most important Academies in the State. In this position he had fully earned the reputation of being one of the most popular, thorough, and successful educators in the country. In almost every state were men occupying high social and civil positions to whom he had given their early instructions and impulses, and whose success in life was in a great measure due to his influence. When therefore

the Executive Committee of the Normal School desired to make a selection of Principal for their Institution, they could not have labored under much embarrassment in making choice of the proper person. Upon the accession of Prof. Woolworth, some important changes were made in the organization of the school. The policy adopted soon after its commencement was to supply its teachers from among its graduates. While this policy contributed to give effect to the early plans on which the instruction was based, it failed to bring into its faculty the enlarged and liberal culture of minds trained under more rigid discipline and a wider range of study. To correct this defect, the Executive Committee resolved to establish the following professorships:

The English Language and Literature,
The Natural Sciences, and
Mathematics, pure and applied.

It was intended that those appointed to these Professorships should be thoroughly educated men, and that so far as practicable, the positions should be permanent. The influence of this plan has been most salutary. The appointments of subordinate teachers whose positions are regarded as less permanent, are still made from the graduates, so that incitements to effort for higher attainments and marked distinction, are presented to the pupils of the school.

During Dr. Woolworth's Principalship, the school seems to have been in the full tide of its prosperity. For the first time in its history, it was found necessary to dismiss those who had been appointed by the Executive Committee to fill vacancies to give room for those who had received regular appointments. The average number in attendance for each term, was 255, and the whole number of graduates was 288, of whom 193 were females, and 95 were males. In February, 1856, Dr. Woolworth resigned the position which he had held for three and one-half years, with much credit to himself and usefulness to the State, and accepted the place vacated by the death of Dr. T. Romeyn Beck. He is now the efficient Secretary of the Board of Regents of the University.

On the resignation of Dr. Woolworth, the Executive Committee appointed as his successor David H. Cochran, who was at the time occupying the position of Professor of Natural Sciences in the Institution. Previous to his connection with the Normal School, Prof. Cochran had been favorably known as Principal of an important Institution in the western part of the State. He was familiar with the management of the School, and possessed the entire confidence of its pupils, officers, and friends. Since his accession no material changes have been made in its organization. The requirements for admission have been raised, thus shortening the time previously allotted to some of the more strictly academical studies, and lengthening that assigned to the theory and practice of teaching. In addition to the Experimental School of Practice, a Model Primary School has been organized for the purpose of more thoroughly acquainting the graduates of the Normal School with the practical details

of primary teaching. This department is now in a flourishing condition. During the period that the school has been under the control of Dr. Cochran, the average number in attendance for each term has been 233, and the whole number of graduates 411, of whom 157 were males, and 254 were females.

The Normal School has now been in operation nearly nineteen years. Its present condition and the more apparent results of its working, may be gathered from the following extract from the last Annual Report of the State Superintendent of Public Instruction for the State of New York.

"During the past year, (1862,) two hundred and twenty-five applicants for admission were examined, of whom one hundred and ninety were admitted. The whole number in attendance has been two hundred and ninety-three, and of these, ninety-nine were males, and one hundred and ninety-four were females. The average age of these pupils was nineteen years and seven months: and the average period during which they had been engaged in teaching prior to their admission into the Normal School, was six months. All the counties of the State, with the exception of four, have been represented in the school."

"Since the establishment, one thousand three hundred and thirteen have enjoyed its advantages for a longer or shorter period."

"The graduates and under-graduates are represented by local school officers to be doing valuable service, not only in the schools in which they are employed, but as zealous workers, imparting their knowledge of the proper modes of instruction to their associates in teachers institutes and associations, who in turn apply the same to the schools under their charge, and thus the influence of this school is diffused."

During the first years of the existence of the school, as has been remarked, it encountered the most bitter opposition, and attempts were made to reduce the appropriation, and also to discontinue it altogether. So little were its aims and the importance of its work understood that it was deemed necessary to offer pecuniary inducements in order to secure pupils from the more remote counties of the State.

At the present time it has surmounted all opposition. In the character and work of its graduates, it has become favorably known in all counties of the State, which are now constantly represented in the school. The appropriation has been increased from $10,000 to $12,000, and each year the Superintendent of Public Instruction recommends the establishment of another similar Institution. In the language of his Report of 1862, "the permanence of this Institution may now be regarded as established, not only by legislative recognition and endowment, but also in the confidence and regards of the people."

As an evidence of this confidence, it may be mentioned here, that the Legislature in 1863, recognized the City Normal School of Oswego, as a State institution, and made an appropriation for its support.

STATE NORMAL AND TRAINING SCHOOL

AT OSWEGO, NEW YORK.

THE NORMAL AND TRAINING SCHOOL grew out of the necessities of the Oswego Schools. From the time of their organization in the summer of 1853 regular Saturday Institutes were held, which all teachers were required to attend for the purpose of receiving instruction in methods of teaching the various branches, and giving unity and efficiency to the organization, discipline, and teaching in the several departments of the schools.

These weekly meetings served their purpose very well, but as new teachers were continually coming in who required careful training in methods, it was found impracticable to keep all properly qualified for their work under this arrangement. It seemed very desirable that this special preparation should be completed before the teachers were employed in the schools.

This necessity was more strongly felt when, in the Fall of 1859, the present methods of "Object Teaching" were introduced into all the lower grades. This made it absolutely indispensable that all should have special and careful training in the new methods.

During the first year the Superintendent continued to meet the primary teachers every Saturday for the purpose of imparting the necessary instruction, and giving illustrations of the new methods with classes of children. As this process required to be continually repeated, and as at best it could be but imperfectly done, the Board resolved to establish a school for the practical training of teachers. To carry out this design more effectively, and especially in view of the new methods introduced, the Board resolved to secure the services of a teacher from one of the best Training Schools of Great Britain, where these methods were practiced. They accordingly entered into negotiations with Miss M. E. M. Jones, a woman eminently qualified for her work; and who had been for fifteen years exclusively engaged in training primary teachers in the Home and Colonial Training Institution of London. Her engagement with the Board was but for one year. At their urgent request she was persuaded to remain three months longer.

Aside from the regular members of the Training Class, the teachers in the primary departments of all the public schools received a full course of instruction under Miss Jones. No pupils were admitted into the class

who had not previously completed a thorough academic course equivalent to that pursued in the Oswego High School.

A number of active, intelligent teachers from abroad joined the class. These ladies are now occupying important positions in different sections of the country, several of them in Training Schools which have since been established.

The school soon gained an enviable reputation not only for its methods of *teaching*, but for its methods of *training*. As the number of foreign pupils rapidly increased, and as there was evident demand for increased facilities for the professional education of teachers in the State, in the winter of 1862–3 the Legislature made an appropriation of $3,000 annually for two years, conditional on the attendance of fifty pupils, and the privilege of sending to the school two pupils from each Senatorial District free of charge for tuition.

In the spring of 1865 this appropriation was increased to $6,000, without imposing any conditions as to attendance, except that each Assembly District should be entitled to send one pupil to the school, but requiring the Board of Education or citizens of Oswego to provide suitable buildings and grounds for the accommodation of the school.

These conditions have been complied with in the purchase and enlargement of a building located in the most delightful part of the city, on high and commanding grounds, overlooking the entire town, the lake and the surrounding country. The frontispiece gives a view of this building in perspective. Its entire length in front is 153 feet and in depth 180 feet. The center or main part is built of a beautiful gray limestone found on the shores of Lake Ontario. The wings are of wood. It is designed to accommodate 300 pupils in the Normal Department, and 600 children in the Model and Practicing Schools.

Hitherto the course of instruction in the school has been confined to *methods* of teaching, and particularly to methods of primary instruction.

The class is divided into two sections. One section receives instruction in methods in the morning while the other is teaching in the Practicing School. In the afternoon the divisions alternate, the section that received instruction in the morning practice, and vice versa. In the instruction the teacher illustrates every point by a lesson with the children. The pupil-teachers are then called upon in turn to prepare a written sketch of a similar lesson, to be presented to the teacher on the succeeding day, when some member of the class is called upon to work out her sketch with the children, under the criticism of the class and teacher.

At the end of each month these divisions interchange. The division that taught in the morning teach in the afternoon, and receive instruction in methods in the morning and vice versa. By this arrangement each teacher instructs a class in a given grade one month in the morning session, and one month in the afternoon, and then changes grades. This affords each pupil-teacher an opportunity of teaching all the subjects of each grade for one month.

On changing from one grade to another, the pupils observe the teaching of the critics for two days, and for one day the teacher whom they are to succeed in their practice. The teaching is all done under the careful supervision and criticism of the most capable teachers, selected with special reference to their adaptation to their work. After the close of the public schools at 3½ o'clock, both divisions of the Training Class meet an hour and a half for instruction in methods.

A criticism lesson is given every Monday at 3½ o'clock. At this exercise some member of the class previously appointed gives a lesson with the children on some subject assigned. At the close of the exercise the members of the class are called on in turn to criticise the teaching both as to the character and arrangement of the matter and method.

At the close of the exercise, in a kind of summary, the Principal criticises both teacher and critics.

The course of training embraces one year, one-half of the time being devoted to instruction in method and the philosophy of education, and the other half to teaching under criticism.

The Oswego Board of Education are the Executive Committee, to act under the advice and general direction of the State Superintendent of Public Instruction.

The Secretary of the Board, E. A. Sheldon, has acted as Principal of the school since the time Miss Jones returned to London.

The following extracts from a Circular of the State Superintendent of Public Instruction (Hon. Victor M. Rice) presents the conditions of admission, and the Course of Instruction for 1866:—

Each county is entitled to as many pupil-teachers in the Oswego Normal and Training School as it has representatives in the Assembly, and other qualified applicants are received until the accommodations are exhausted.

To gain admission to the school pupils must possess good health, good moral character, and average abilities. They must be able to pass a fair examination in Spelling, Reading, Geography, and Arithmetic, (as far as the roots;) also to analyze and parse simple sentences. Ladies must be at least sixteen and gentlemen eighteen years of age. Those who shall have passed the examination will receive a formal appointment from the Superintendent of Public Instruction, and be admitted to all the privileges of the school.

COURSE OF INSTRUCTION.

Elementary Preparatory Course.

This course is limited to one term of twenty weeks, which is devoted chiefly to instruction in Spelling, Reading, Writing, Book-keeping, (single entry,) Linear and Object Drawing, Geography, (physical and political,) Arithmetic, (oral and written,) History, Grammar, Analysis of Words, to Exercises in Impromptu Composition, and to Weekly Essays.

It is desirable that all pupils, on entering the school, be thoroughly qualified in these common English branches. Those not found so qualified will be required to pass through this course under thorough instruction before entering upon the Training Course.

Elementary Training Course

This course is limited to one year of two terms, each twenty weeks; and includes instruction in methods of teaching the branches named in the Elementary

Preparatory Course, and of miscellaneous subjects calculated to cultivate the perceptive faculties. Special attention will be directed to objective teaching, and to the philosophical yet simple methods of primary instruction.

B CLASS.—Methods of teaching the subjects comprised in the Elementary Preparatory Course; also instruction in the Philosophy of Education, School Economy, Physiology, Zoölogy, Botany, and Mineralogy, and Impromptu Composition, (oral and written.) Criticism lessons and essays weekly.

A CLASS.—The time of this class will be devoted to observation in the Model Schools, and teaching in the Practicing Schools, under the supervision of competent critics. Two hours, each day, will be devoted to Impromptu Composition, and to methods of teaching Form, Size, Measure, Color, Weight, Sounds, Objects, Animals, Plants, and giving Moral Instruction. Criticism lessons and essays weekly.

Students having satisfactorily completed the preceding courses will receive a diploma, signed by the Superintendent of Public Instruction, the Superintendent of the School, the Head Master, and the Officers of the Board of Education of the city of Oswego.

This diploma will serve as a certificate of qualification to teach common schools.

Advanced Preparatory Course.

Students to be admitted to this course must pass a satisfactory examination in the studies of the Elementary Preparatory Course; one much more critical than for admission to the Elementary Training Course.

As familiarity with any subject is essential to a consideration of the best methods of teaching it, no pupil will be admitted to the Advanced Training Class until properly prepared in all the subjects of this course. Those familiar with none of the branches herein named will require a full year and a half to complete the course; others, who have mastered a portion of them, may complete it in less time.

The students of this division may be arranged in three classes, according to their acquirements. Those conversant with some of the studies of each class may take up such studies as they need to pursue, in order to pass the required examination for the "Advanced Training Course."

SUBJECTS OF C CLASS.—Higher Arithmetic, Algebra, Grammatical Analysis, Rhetoric, English Literature, Book-keeping, (double entry,) Linear and Object Drawing. Botany, and Impromptu Composition. Rhetorical Exercises and Essays weekly.

SUBJECTS OF B CLASS.—Algebra continued, Geometry, History, Natural Philosophy, Perspective Drawing, Chemistry, and Impromptu Composition. Rhetorical Exercises and Essays weekly.

SUBJECTS OF A CLASS.—Astronomy, Algebra completed, Trigonometry, Surveying and Mensuration, Mental and Moral Philosophy, Geology and Mineralogy, and Impromptu Composition. Rhetorical Exercises and Essays weekly.

Advanced Training Course.

This course will occupy one term of twenty weeks, and will be devoted to instruction and practice in the best methods of teaching the branches named in the Advanced Preparatory Course.

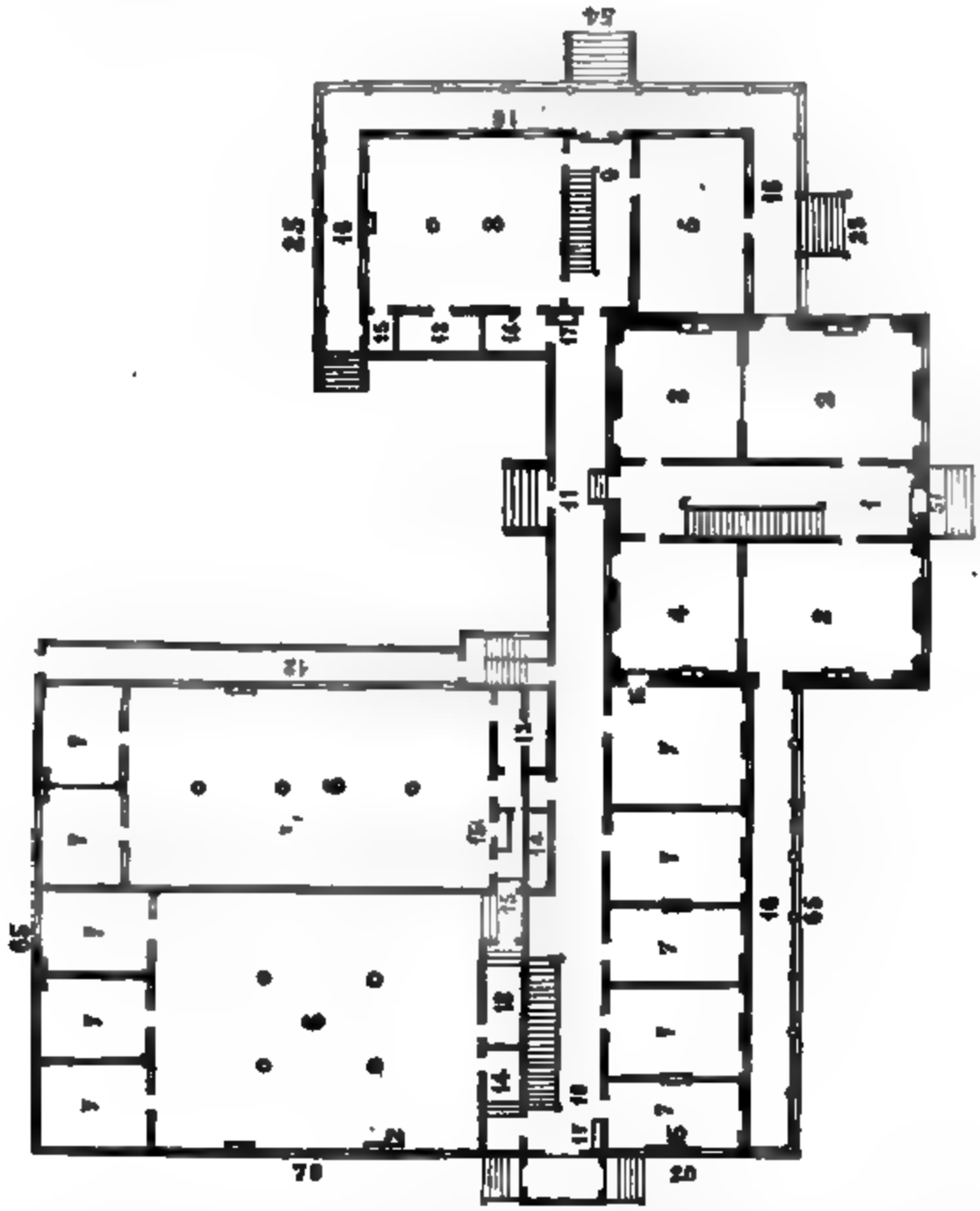
In this course special attention will be directed to the Philosophy of Education, School History, School Law, Science of Government, School Organization, and Discipline; to the Theory and Practice of Teaching and School Economy generally. There will be frequent Criticism Lessons and Compositions.

A course of lectures will be given on Zoölogy, Physiology, and Hygiene, to be accompanied by reading on the part of the class. A portion of the time will be devoted to observation and practice in teaching under criticism.

To those who satisfactorily complete the course a diploma will be given, signed by the Superintendent of Public Instruction, the Superintendent of the School, the Head Master, and the Officers of the Local Board, certifying that the graduate therein named is "deemed qualified to teach the English branches usually pursued in the High Schools and Academies of the State."

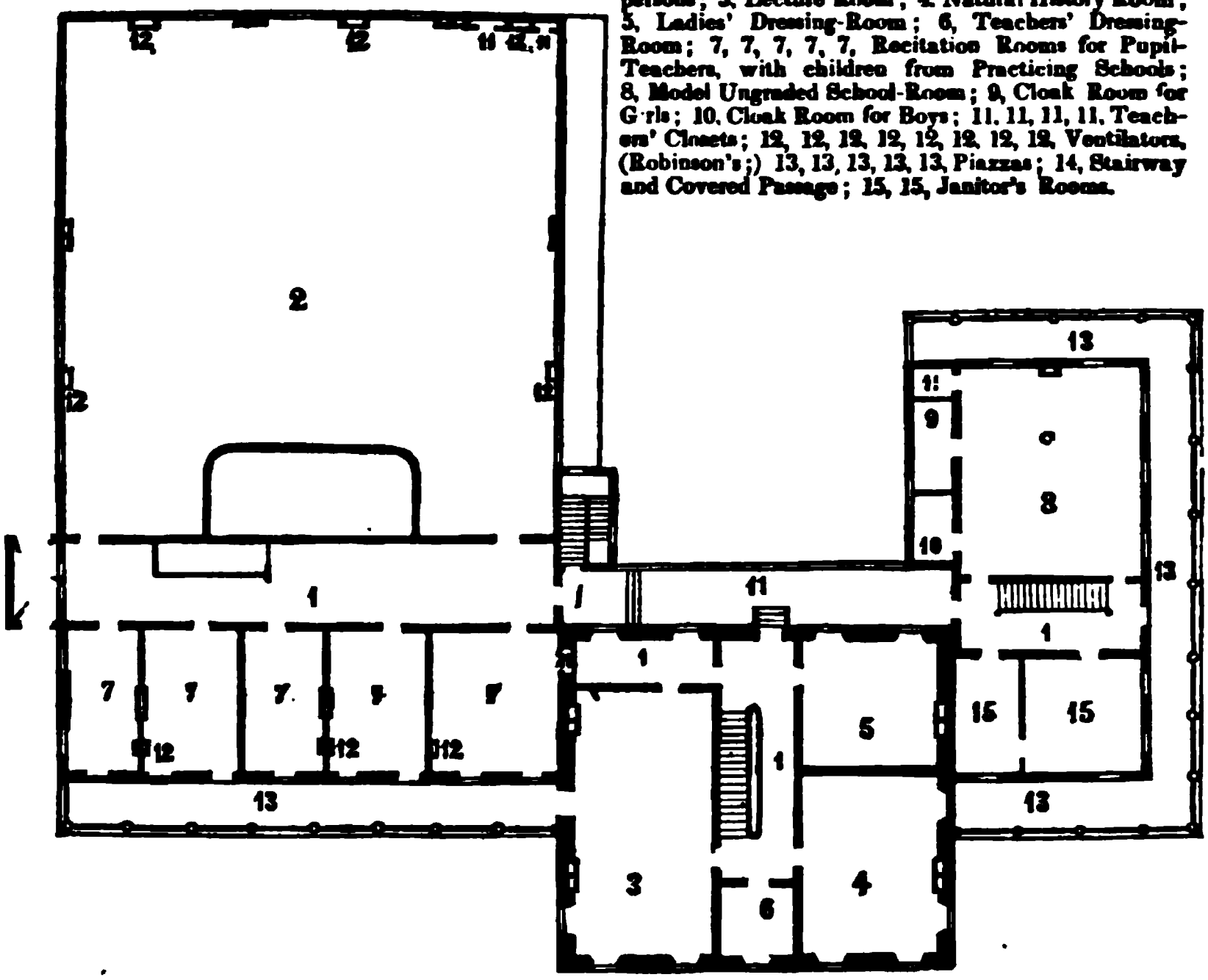
Plans and Descriptions of the State Normal and Training School at Oswego, New York.

The accommodation provided for the Normal and Training School at Oswego, New York, is a large and commodious building, with ample grounds, located in a pleasant section of the city, and commanding a fine view of the town, lake, and surrounding country. The entire front is 153 feet, and its depth 180 feet, with ample accommodation for 600 pupils in the Model and Practicing Schools, and 300 in the Normal Department.

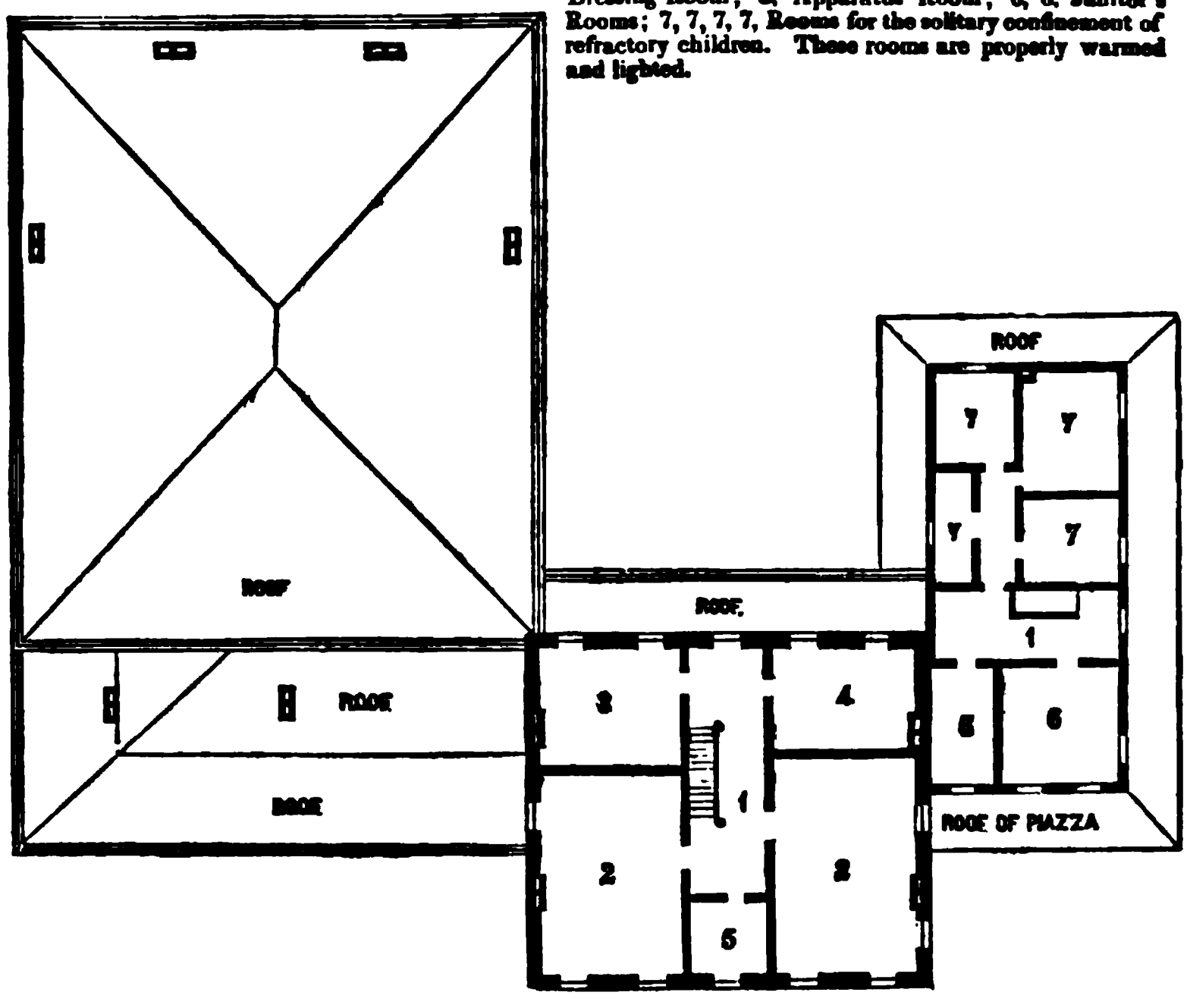


First Floor.—1, Hall and Main Entrance to Normal School; 2, 2, Recitation Rooms for Normal School; 3, Laboratory and Chemical Apparatus; 4, Philosophical Apparatus and Cabinet; (Between rooms 2 and 3, and 2 and 4, are sliding doors so that two rooms can be thrown into one when required;) 5, Office; 6, 6, Assembly Rooms for Practicing Schools; 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, Recitation Rooms for Pupil-Teachers; 8, Model Graded School-Room; 9, Girls' Hall and Main Entrance to Model and Practicing Schools; 10, Boys' Hall and Main Entrance to Model and Practicing Schools; 11, Entrance from Court-Yard; 12, Covered Passage Way to Water Closets; 13, 13, 13, Girls' Cloak Rooms; 14, 14, 14, Boys' Cloak Rooms; 15, 15, 15, 15, 15, Teachers' Closets; 16, 16, 16, 16, Piazzas; 17, 17, Sinks for soft water.

SECOND FLOOR.—1, 1, 1, 1, 1, Halls; 2, Assembly Room and Hall, capable of seating from 800 to 1,000 persons; 3, Lecture Room; 4, Natural History Room; 5, Ladies' Dressing-Room; 6, Teachers' Dressing-Room; 7, 7, 7, 7, 7, Recitation Rooms for Pupil-Teachers, with children from Practicing Schools; 8, Model Ungraded School-Room; 9, Cloak Room for Girls; 10, Cloak Room for Boys; 11, 11, 11, 11, Teachers' Closets; 12, 12, 12, 12, 12, 12, 12, 12, Ventilators, (Robinson's;) 13, 13, 13, 13, 13, Piazzas; 14, Stairway and Covered Passage; 15, 15, Janitor's Rooms.



THIRD FLOOR.—1, 1, Halls; 2, 2, Recitation Rooms; 3, Library and Reading Room; 4, Gentlemen's Dressing-Room; 5, Apparatus Room; 6, 6, Janitor's Rooms; 7, 7, 7, 7, Rooms for the solitary confinement of refractory children. These rooms are properly warmed and lighted.



MICHIGAN STATE NORMAL SCHOOL

AT YPSILANTI.

HISTORICAL DEVELOPMENT.

THE importance of making early and efficient provision for a sufficient number of well qualified teachers, for the public schools of Michigan, was pointed out by the Superintendent of Public Instruction, Hon. John D. Pierce, in his first Report, dated December 27th, 1836, in which he remarks that "The most perfect organization of the entire system of schools in all the varied departments of instruction, must fail of securing the desired results without a sufficient number of competent teachers. Whatever system may be adopted and however perfect in form, it will prove itself essentially defective, unless it provides a sufficient number of teachers well educated and learned in the profession, men qualified and competent, men who can elevate and leave their mark upon their pupils. And such teachers may be had—efficient measures will soon furnish us with a full supply unless indeed intellect degenerates in this Western world. Such schools for the education of teachers as exist in Prussia and New York will furnish them." In the same Report, the Superintendent recommends that in "each county of a sufficient number of inhabitants, a school or branch of the University. be established, with a department for the education of teachers for primary schools, and a course of instruction be provided for the same, which would occupy three years." Several of these departments were established, and Mr. Pierce in his report for 1838, recommends that more ample means be set apart for sustaining them on account of their importance to the success of primary schools, "being as they are, the sole means of obtaining a full supply of competent teachers." And again, in 1841, in alluding to these departments, he says: "We can look to no other source for educated, well qualified, and competent teachers."

His successor, Francis Sawyer, Jr., in his report for 1842, reiterates the importance of these departments, and also recommends that a regular school for teachers, with a model school connected, be established.

The successor of Mr. Sawyer, Hon. C. C. Comstock, in his report for 1853, refers to this subject, and recommends the establishment of Normal and Model Schools. Hon. Ira Mayhew, Superintendent in 1843, in his annual report, says: "Normal Schools, designed expressly for the education of professional teachers, are indispensable to the perfection of any system of national education." In subsequent reports he still further recommends the establishment of a Normal School.

After the presentation of this subject in official documents and in other ways, for twelve years, the Legislature in 1849, passed an act establishing a State Normal School.

This act provided that the Normal School should be under the direction of a Board of Education appointed by the Governor, by and with the advice and consent of the Senate. The Board were to procure a site and erect buildings, appoint teachers, and make all the regulations and by-laws necessary for the government and management of the school. Ten sections of salt-spring lands were appropriated for the purposes of a building fund, aud fifteen sections for an endowment fund.

In accordance with this act, a Board of Education was appointed, which held its first meeting in the city of Detroit, in May, 1849. Provision was made for locating the lands granted, and for securing a site and the necessary buildings. At the next meeting of the Board in September, propositions were received from the citizens of Ypsilanti, Jackson, Marshall, and some other places; each tendering to the State a site for the buildings, together with subscriptions in money. After a full consideration of the liberal offers, the Board decided to locate the institution at Ypsilanti, the citizens of that place having tendered a suitable plat of ground for a site, and a cash subscription of $13,500. The citizens also engaged to give the use of temporary buildings for the Normal and Model Schools, until a suitable building could be provided, and to pay the salary of the teacher of the Model School for five years.

The site consisted of four acres, beautifully situated upon the high grounds on the border of the village—now city—of Ypsilanti.

By an act of the Legislature of 1850, the ten sections of land appropriated for a building fund were consolidated with the other fifteen sections, to be denominated the Normal School Endowment Fund, and made inalienable except so much of the same, not exceeding ten thousand dollars, as might be required to complete the buildings, purchase necessary books, apparatus, &c., after exhausting the amount of donations.

The minimum price of the lands was fixed at four dollars per acre; but the Commissioner of the Land Office was required to procure an appraisal below which none could be sold. An appraisal was made in 1850. A large portion was appraised below the minimum price. Some were valued as low as $1.50 per acre. These, of course, must remain unsold until they rose in value, or till the minimum price should be reduced.

In the same year, the Board added four acres more of land to the site for the buildings, and contracted for their erection for the sum of $15,200, of which $12,000 was to be paid by the citizens of Ypsilanti.

An act was passed by the Legislature of 1853, appropriating to the Endowment Fund the moneys arising from the Swamp Lands previously sold by the General Government, not exceeding $30,000. From this the school receives no benefit.

The Legislature of 1853 also appropriated $2,000, annually, for two years, from the State Treasury, to the Endowment Fund, and $3,000 to

the same, to be applied to the purchase of books, apparatus, and improvements upon the grounds.

But the income of the Normal School Fund, notwithstanding these appropriations, was inadequate to the wants of the institution. At the beginning of the year, 1855, it had exhausted its funds, and had contracted a debt of $2,000. In this embarrassment, it encountered the evils that have attended the first years of every State institution, of whatever kind, from the organization of the State. It was found that the School must have further aid, or its usefulness would be so circumscribed that it could not accomplish half its work.

The Legislature of 1855, appropriated $7,700 for that year, and $6,000 for 1856. This gave relief for those two years; and in 1857, upon the recommendation of the Superintendent of Public Instruction, the same sums were appropriated for 1857 and 1858.

The income from the Endowment Fund has increased so as to amount to a little more than $4,000 annually, and the appropriation from the State Treasury is $7,500, making an aggregate income of $11,500.

The original building for the Normal School was of brick, three stories in height, with rooms for the Normal and Model Schools. It was dedicated October 5th, 1852, when addresses were made by Hon. John D. Pierce, the first Superintendent of Public Instruction, Hon. Isaac E. Crary, Hon. C. Joslin, and Hon. Ross Wilkins. The dedicatory exercises were followed by the holding of a State Teachers' Institute for three weeks. This Institute was attended by two hundred and fifty teachers, and was organized and conducted as a temporary Normal School. The regular opening of the Normal School took place in the spring of 1853. In October, 1859, the Normal School building was destroyed by fire, but it was rebuilt and enlarged, and re-opened with appropriate exercises in April, 1860.

The cost of rebuilding, with the exception of the alterations and additions, was covered by the amount received from the Insurance Company. The furniture and ventilating apparatus were not included in the insurance, and were replaced from the funds of the institution.

On the first organization of the Normal School, in 1852, A. S. Welch was appointed Principal. He continued in charge until 1865, when he was compelled to resign on account of ill health. D. P. Mayhew, for many years a Professor in the school, was appointed to succeed him.

PRESENT CONDITION.

Admission.

The ages at which applicants may be admitted to the Normal School proper, are, for gentlemen, eighteen, and for ladies, sixteen years.

It is, however, in the discretion of the Principal to suspend the rule in favor of applicants under the required ages, if they manifest sufficient maturity of mind or advancement in study.

Those intending to finish the course before teaching are also received at an earlier age.

All pupils, on their admission, will be required to sign a declaration of intention to teach in the schools of this State, as follows:

We the subscribers, do hereby declare that it is our intention to devote ourselves to the business of teaching in the Schools of this State, and that our object in resorting to this Normal School is the better to prepare ourselves for the discharge of this important duty.

Members of the B class are further required to sign an agreement to attend the Normal School two terms before teaching in the schools of this State. These terms need not be consecutive.

All candidates for admission must pass a thorough examination in the following studies, viz: Reading, Spelling, Penmanship, Elementary Grammar, Local Geography, and Arithmetic through Compound Numbers and Vulgar Fractions. Students may enter an advanced class by passing an examination in all the preceding studies of the course.

Examinations for admission will be held on the Monday previous to the opening of each term, commencing at 9 A. M., at which time all persons desiring to be members of the school during the ensuing term, are required to be present.

Attendance and Expenses.

Applicants for admission are not received for less than an entire term, nor after its commencement, unless they have been detained by sickness or actual service as teachers.

Those desiring to enter the school are required to present themselves for examination one day before the opening of the term.

Every student pays two dollars at the beginning of the summer term, and three dollars at the beginning of the winter term, as an entrance fee.

Board and rooms can be obtained in the city at reasonable rates.

Many students hire rooms and furnish their own board, thus reducing their entire expenses; but students of different sexes, who are members of different families, will not be permitted to occupy rooms in the same house.

The school has a small, though well selected library, to which its members have access.

The books are intended mainly for reference, as the regular studies of the course give little time for general reading.

Terms and Vacations.

The terms of the Normal School commence, respectively, on the second Tuesday of April, and the first Tuesday of October, and continue, the former sixteeen weeks, and the latter twenty-four weeks.

A vacation of three weeks follows the winter term, and one of nine weeks the summer term. The exercises of the school are suspended during the winter holidays.

The last week of each term is devoted to the public examination of classes.

The regular exercises of graduation take place at the close of the winter term, on the third Tuesday of March.

THE EXPERIMENTAL DEPARTMENT.

The Board of Education, in establishing the Model or Experimental School, had in view two prominent objects, viz: to give to advanced classes in the Normal School, practice in actual teaching, and to furnish a course of study preparatory to the regular course.

To attain the first object, each student in every E class is required to take charge of one daily recitation throughout an entire term, under a system of careful supervision and weekly reports. It is found that teachers who have been disciplined by several years training in the Normal department, are well qualified for the work of instruction in the Model School. The greater number of classes, however, are instructed by thorough and competent teachers, who are regularly employed for the purpose, or by members of the Normal School Faculty.

COURSE OF STUDY.

Previous to 1863, the course of study embraced the ordinary branches taught in Normal Schools, with professional instruction illustrating the method of teaching the elementary English branches; lectures on different topics relating to education, the organization and management of schools; and practice in teaching in the Model School.

In 1863, the Board of Education made some modifications in both the Normal and Model Departments, so that the programme of instruction in the Normal School was made to comprise two courses of study, and the Model or Experimental School was graded in four distinct Departments.

The course of study pursued in the Normal School is as follows:

Normal Training Course.

First Term.—A Class.

1. Concrete Arithmetic; Mental and Practical Arithmetic.
2. Object Lessons in Geography; Synthetical Geography and Map Drawing.
3. Drawing of Lines, Plane and Solid Geometrical Figures and Leaf Forms.
4. Reading, Spelling by object lessons, Penmanship, Composition by object lessons, Elementary Philosophy.

Second Term.—B Class.

1. Higher Arithmetic, Method of Teaching Arithmetic.
2. Synthetical Grammar, Composition.
3. Drawing of Fruits, Flowers and Animals.
4. Elocution, Vocal Music, with method of Teaching it.

Third Term.—C Class.

1. Analytical Grammar, with method of Teaching.
2. Physical Geography, with method of Teaching.
3. Object Lessons in Common Things, Colors, Geometrical Figures, Botany, Zoology and Properties of Bodies. Lectures on Primary Teaching.
4. Attendance and Practice in Experimental School.

The Higher Normal Course.

Algebra, Geometry, Natural Philosophy, Botany, Chemistry; Latin and Greek (for young men), Latin and German or French (for young ladies), Intellectual Philosophy and Vocal Music, Lectures on the numerous topics embraced under the Laws of Development, the Philosophy of Instruction, and the Organization and Management of Graded Schools.

COURSE OF STUDY IN EXPERIMENTAL DEPARTMENT.

Primary Department.

First Grade. Facts in Natural Science; Primary Colors; Botany—Trees, Shrubs, Bushes, Vines, Flowers, Grains, Vegetables, Fruits, Nuts, Seeds; Physiology—Human Body; Natural Philosophy—Air, Water, Rain, Snow, Hail, Vapor, Steam, Dew, Fog, Cloud, Sun, Moon, Stars; Mathematics—Counting by Objects, Time Table, Drawing Straight Lines; Language—Words, Things before Names, Moral Stories, Concert Verses, Gymnastics and Singing.

Second Grade. Botany Continued—Simple Leaf Forms and Flower Forms; Trees and Wood; Zoology—Animal, Mammals; 1, Two Handed; 2, Four Handed; 3, Flesh-Eating; 4, Cud-Chewing; 5, Thick-Skinned; 6, Gnawers; Color, Form, Size, Habits, Food, Uses and Speed of Domestic Animals; Natural Philosophy—Color, Scale of Tints and Shades of Primary Simple Properties of Matter; Mathematics—Counting by Objects, Addition, Long Measure by Objects, Drawing Angles and Plane Figures; Language—Webb's Primary Reader, Sounds of Vowels, Combination with Consonants, Moral Stories, Concert Verses, Maxims, &c., Singing and Gymnastics.

Third Grade. Botany Continued—Leaf and Flower Forms, Compound Leaves, Parts of the Flower, Root Forms; Zoology—Birds—1, Flesh-Eaters, 2, Perchers; 3, Climbers; 4, Scratchers; 5, Waders; 6, Swimmers; Natural Philosophy—Simple Experiments, Secondary Colors; Mathematics—Subtraction, Multiplication, and Division Tables by Objects, Analysis of Numbers, Drawing Plane Figures, Table of Miscellaneous Things; Language—Webb's First Reader finished, Spelling by Sound, Concert Verses, Singing.

Intermediate.

First Grade. Robinson's Rudiments to Fractions; Natural Philosophy by Objects; Second Reader, 45 pages; Spelling and Definitions; Elementary Geography begun; Singing.

Second Grade. Robinson's Rudiments finished; Swift's Natural Philosophy entire; Geography continued; Second Reader; Spelling and Definitions.

Third Grade. Davies' Arithmetic to Decimals; Wood's Object Lessons; Botany, Elementary Geography finished; Third Reader, Spelling, Singing, &c.

Grammar School.

First Grade. Sill's Synthesis, Davies' Arithmetic continued, Fourth Reader, Spelling, Composition, Declamation, Penmanship, Book-keeping, Drawing, Vocal Music, Physical Geography.

Second Grade. Analysis, Arithmetic finished, Zoology, Reading, Spelling, Composition, Declamation, Penmanship, Book-keeping, Vocal Music, Physical Geography.

Third Grade. History, Entomology, Algrebra begun, Latin or German, Composition, Map Drawing, with Geography.

High School.

First Grade. Algebra finished, Latin, German or French, Botany (summer term), Physical Geography.

Second Grade. Physiology and Astronomy, Geometry begun, Latin, German or French, Composition.

Third Grade. Chemistry, Geometry, Rhetoric, Latin, German or French.

There are Teachers' Classes connected with many of the Union schools and academies of Michigan, in which teachers are educated for the schools in the vicinity of these institutions.

RESULTS.

The whole number of graduates from the organization of the school until 1867, was 192, of whom 82 per cent. had taught one year or more, 74 per cent. two years or more, and 68 per cent. most of the time since graduating. The average length of time those had taught who graduated before 1863, and were teaching in 1866, was eight years. Forty-seven per cent. of the graduates were still teaching in 1866. The State Board of Education, in one of their last reports, say:

"The Normal School continues in its course of eminent usefulness and success. The value of this school to the State cannot be easily estimated. Besides all it accomplishes in the matter of training teachers for the public schools, the good it does by the exhibition it affords of a school almost perfect in its organization and work, and the general stimulation it lends to the general study of educational science and art are producing marked and valuable results throughout our entire school system."

NORMAL SCHOOLS IN IOWA.

NORMAL DEPARTMENT IN STATE UNIVERSITY.

HISTORICAL DEVELOPMENT.

In 1849, while Iowa was a territory, a law was enacted, establishing three Normal Schools, one at Andrews, Jackson County, one at Oskaloosa, Mahaska County, and the third at Mt. Pleasant, Henry County. There was an appropriation of five hundred dollars per annum to each, to be paid from the income of the University fund, which at that time scarcely had more than a nominal existence. Buildings were erected and schools opened at Andrews and Oskaloosa, but they failed to receive the expected assistance from the University fund. The schools languished, died, and in 1855, the appropriation was withdrawn. No effort has since been made to revive them.

On the admission of Iowa into the Union, Congress donated seventy-two sections of land to aid in the establishment of a State University. The law under which the University was subsequently organized, contained a provision that it should annually educate fifty common school teachers; in subsequent acts, this was changed so as to require merely a Normal Department, which is now the law.

The Normal, in common with other departments of the University, opened on the third Wednesday of September, 1855. During the first year, the Normal Department was under the care and instruction of J. Van Valkenburg, Esq., and during that year, there were about seventy different students in attendance; many of whom, however, were quite young and elementary, giving it more the character of a primary, than of a professional school.

In June, 1856, D. Franklin Wells was appointed Mr. Valkenburg's successor, and in September, assumed control of the department. All students not prepared to enter upon a professional course for want of age or attainments, were excluded. After applying this sifting process, only three students were left who entered on the first day of the term. The number gradually increased, and by the close of the year reached forty.

The first class of five graduated June, 1858.

From 1858 to 1860, all the departments of the University were closed except the Normal. For several years it had its own corps of teachers, and was for all practical purposes a Normal School. Those are considered the most successful years of the Normal department. After 1860, the classes of this department were gradually combined with classes in the University when pursuing the same study.

From 1858 to 1864 inclusive, the Normal department included more

than half of the students in the University. In the latter year, the Normal students numbered 257. In the same year, the first year of the Normal course was transferred to the Preparatory department, which changed the relative numbers.

From its organization to 1867, upwards of 1,000 teachers received a full or partial course of study and training in the Normal department.

In 1866, after *ten years* of service, Mr. Wells retired from control of this department, and in 1867, Prof. S. N. Fellows was elected to the place.

In the spring of 1857, a Model School was opened in connection with the department, which was continued until 1866, when it was abolished. It was always very successful, and for the last two years of its existence had two departments and two *permanent* teachers, one of whom was from the Oswego Training School. In 1865 and '66, the attendance was 190.

The suspension of the Model School, in the opinion of the ablest educators of the State, very seriously impaired the usefulness of the Normal department. Practical training in the art of teaching and governing a school, is considered indispensable to the highest efficiency of Normal instruction in Iowa.

ADMISSION OF STUDENTS.

The requirements for admission, are, that young men must have attained the age of seventeen years, and young ladies that of fifteen years, and all must sustain a satisfactory examination in Reading, Writing, Orthography, English Grammar, Geography, and Practical Arithmetic through fractions. All students are required, on their admission, to give a declaration of their intention to engage in the business of teaching, as follows:

"We, the undersigned, hereby declare that it is our intention to engage in the business of teaching in the schools of Iowa, and that our object in resorting to the Normal Department of the State University, is the better to prepare ourselves for the discharge of this important duty."

Two students from each county, when recommended by the County Superintendent, are received free of charge. Others will be received upon the payment of the incidental fee of five dollars per term.

COURSE OF STUDY.

The course of study includes the common and higher branches of liberal English education, together with lectures on the theory and practice of teaching, method of instruction and graded schools, an examination of the school system of Iowa, and preparation and practice in the use of object lessons.

The members of this department, when pursuing studies taught in other departments of the University, are combined with the classes in those departments. They also share all the advantages of the library, cabinet and apparatus, which are enjoyed by students of the classical and scientific courses.

The following general courses of lectures are open to students in the Normal Department:

English Literature, Intellectual and Moral Philosophy.—President.
Greek and Roman Literature.—Prof. Currier.
Modern Literature and Political Economy.—Prof. Eggert.
Astronomy and Mathematics.—Prof. Leonard.
History of Physics and Chemistry.—Prof. Heinricks.
Geology, Botany and Zoology.—Prof. Parvin.

The course of instruction occupies two years. A diploma is awarded to those students who complete the required course of study and training, and give satisfactory evidence of the proper qualifications for teaching.

The whole number of students in 1866–7, was:
Seniors: Ladies, 17; Gentlemen, 8—total, 25.
Juniors: Ladies, 27; Gentlemen, 10—total, 37.
Graduates: Ladies, 13; Gentlemen, 6—total, 19.

RESULTS.

The results of Normal instruction have been very satisfactory, and it is believed that the Normal department of the University has been an important instrumentality in improving the schools of Iowa. The State Teachers' Association, at its annual meeting in 1867, passed a resolution recommending the establishment of a Normal School in each congressional district.

A committee was also appointed to memorialize the Legislature, and to adopt measures to secure the object contemplated by this resolution.

The chairman of this committee, J. Piper, Superintendent of Schools in Manchester, Iowa, in January, 1868, issued a circular for the purpose of gaining information on the importance of Normal Schools, and their relation to a public school sys

OTHER MEANS FOR EDUCATING TEACHERS.

Iowa College at Grinnell, has an English and Normal Department for preparing teachers for the public schools of the State. Students in this department can recite with classes in other departments by permission of the faculty.

The course of study includes Elocution, Arithmetic, Modern Geography, Ancient and Physical Geography, Grammar, Algebra, Astronomy, Natural Philosophy, Physiology, American and Ancient History, Theory and Practice of Teaching, School Laws of Iowa, and Natural History.

Familiar lectures on the best methods of teaching and school government are delivered by members of the faculty.

The Ladies' Department of this College is under the immediate supervision of a Female Principal, and under the general direction of the faculty. The course of study is designed not only for thorough mental culture, but also for preparing young ladies to teach. The members of this department recite with classes in other departments, when the studies are the same, and have the privilege of attending the lectures.

Training Schools have been established by several of the cities of Iowa.

Though these schools were designed primarily to educate and train teachers for the cities in which they are located, they have exerted an important influence upon the schools of other places, and have to a certain extent supplied the place of State Normal Schools.

The school at Davenport, which is one of the oldest and most efficient Training School in the Western States, receives all applicants who are able to pass a creditable examination before the county superintendent. The teachers trained in this school have gone out to other places in the State, and have introduced improved methods of instruction in many towns and districts which have not been supplied with teachers from the Normal School.

A similar work is performed by Training Schools more recently organized in other parts of the State.

Teachers' Institutes have been very successfully maintained in Iowa, and have been so organized and conducted as to afford to young teachers the advantages of a temporary Normal School.

NEW JERSEY STATE NORMAL SCHOOL.

HISTORICAL DEVELOPMENT.

THE teachers and educators of New Jersey were among the earliest and most earnest to proclaim the necessity of special preparation for the office of teaching and training the young. Prior to 1825, Philip Lindsley, D. D., before he removed to Tennessee, and while tutor and acting President of the College of New Jersey, in an address delivered at Princeton, anticipated the utterance which he subsequently repeated in his inauguration as President of the University of Nashville: "Our country needs Seminaries purposely to train up and qualify young men for the profession of teaching. We have our theological seminaries, our medical and law schools, which receive the graduates of our colleges and fit them for their respective professions. And whenever the *profession of teaching* shall be duly honored and appreciated, it is not doubted but that it will receive similar attention and be favored with equal advantages." In the inaugural address in 1825, also referred to, Dr. Lindsley adds:

"Though the idea perhaps may be novel to some persons, yet the propriety and importance of such a provision will scarcely be questioned by any competent judges. The Seminarium Philologicum of the late celebrated Heyne, at Gôttingen, though a private institution in the midst of a great university, furnished to the continent of Europe during a period of nearly half a century, many of its most eminent and successful classical professors and teachers." * * *

"At present, the great mass of our teachers are mere adventurers—either young men who are looking forward to some less laborious and more respectable vocation, and who, of course, have no ambition to excel in the business of teaching, and no motive to exertion but immediate and temporary relief from pecuniary embarrassment; or men who despair of doing better, or who have failed in other pursuits, or who are wandering from place to place, teaching a year here and a year there, and gathering up what they can from the ignorance and credulity of their employers. That there are many worthy exceptions to this sweeping sentence is cheerfully admitted. That we have some well qualified and most deserving instructors we are proud to acknowledge—and as large a proportion probably in this section of our country as in the older States. Still the number is comparatively small; and the whole subject demands the most serious attention of the good people of this community."

In a lecture on the school system of New Jersey, delivered January 23, 1828, in the Chapel of Nassau Hall, Prof. John MacLean (afterwards President) recommended "the establishment of an institution to educate young men for the business of teaching," and in a note examines and refutes the objections to such action on the part of the State.

In 1847, Prof. E. C. Wines, then of Burlington, in behalf of a special committee of a Convention of the Friends of Education held at Mount Holly on the 17th of November of that year, prepared a "Report on Normal Schools," which was printed by order of the Convention, and widely circulated. This document contains letters from Gov. Seward, Rev. Dr.

Campbell, Bishop Alonzo Potter, Horace Mann, Edward Everett, Prof. Palfrey, Prof. D. P. Page, and John A. Dix, strongly commending the establishment of special schools for teachers on general principles, and on the results of actual experience at home and abroad. The committee add: "So deeply was Mr. Cousin, the eminent French philosopher and educationist, impressed with this truth, (that good schools could not exist without qualified teachers, and that teachers could only become qualified by previous training, or actual experience)—that he declares it as his opinion that the State has done nothing for popular education, if it does not provide that those who devote themselves to teaching be well prepared. This, in the opinion of the committee, is one of the first duties of a State with regard to schools." "The most efficacious means of securing well qualified teachers is to be found in Seminaries, where a number of young men or women, intending to become teachers, are collected together, receive a common instruction in the subjects required for the schools in which they propose to teach, have lessons given them in the science and art of teaching, and practice the art under intelligent supervision. In this way, will the occupation of teaching be raised to the dignity of a profession. The teacher's respectability will then be secured, by the considerable attainments exacted of him. A strong *esprit de corps* will be produced among masters, which cannot fail to interest them powerfully in their profession, to attach them to it, in their eyes, and to stimulate them to continued efforts at self-improvement. Thus also will a standard of examination in the theory and practice of education be furnished for all candidates who have chosen a difficult access to the profession.

In 1855, Mr. John T. Clark, Principal of the Public School of New Brunswick, read an essay before the State Teachers' Association held at Trenton, (Jan. 18 and 19,) on the "Necessity and means of advancing the interests of common school education in New Jersey," in which he advocates "the establishment of a State Normal School with a Model School attached, wherein our young men and women shall be fitted for teaching, in the same manner as persons are fitted for other vocations—by an apprenticeship, as a business for life;" and in this connection the encouragement of Teachers' Institutes.

The same general views were presented by other parties, at the County Teachers' Institutes, Educational Conventions and Associations, and in the reports of the State Superintendent. In 1853–4–5, Henry Barnard, of Connecticut, presented the subject of the professional training and improvement of teachers, at Institutes held in different parts of the State, and particularly in the State House at Trenton, before the State Teachers' Association, on the 18th of January, 1855, in which the experience of the principal States of Europe and of several of the United States in this direction was set forth. In that year the State Normal School was established by the appropriation of $10,000 annually for its current expenses, leaving it to the town where the school should be located, to provide suitable buildings and outfit in consideration of its local advantages.

The Normal School of New Jersey was opened in rooms temporarily provided in the city of Trenton, on the first of October, 1855, with fifteen pupils. The number was increased during the first term to forty-four. A new building, erected by private enterprise, was completed ready for use on the opening of the second term, and was occupied by the school the 17th of March, 1856. The Model School was opened at the same time in rooms prepared for it in the normal building. The prosperity and success of both schools soon made it necessary that additional room should be provided for the model department.

Through the liberality of an association of gentlemen of Trenton, a lot adjoining the Normal School was procured, and a Model School building erected and completed in 1857. This was rented to the Trustees of the Normal School for a term of years. The Trustees continued to hire the buildings occupied by the Normal and Model schools until 1865, when the Legislature passed an act authorizing their purchase.

As the effect of this act and the contract with the Normal and Model School Associations, the buildings, fixtures, library, apparatus and grounds of both schools, became the property of the State. The lot includes over four acres of ground, and with the buildings and fixtures, is valued at $120,000.

The difficulty of obtaining board for the students at reasonable rates, led to the purchase and fitting up of a building which would accommodate the female pupils and teachers who had not homes in the city. By means of this arrangement a considerable reduction was made in the cost of board to the students, and they were brought together near the school under the eye of the teachers. The cost of the boarding houses, which are the property of the State, was $30,000.

Besides the Normal and Model departments at Trenton, there is an auxiliary school at Beverly, known as the Farnum Preparatory School. This was founded in 1856, by the munificence of Paul Farnum, Esq., of Beverly, who gave the house and grounds, valued at $50,000, and $20,000 additional in cash, on condition that the school should receive from the State a small subsidiary grant. The Principal of the Normal School is *ex-officio* Principal of the Farnum Preparatory School. The total amount of property in grounds and buildings used by the Normal School and its auxiliaries, belonging to the State, is $200,000. If to this is added the $20,000 in bonds, the gift of Mr. Farnum, the income of which is for the support of the school, the total is $220,000.

The school is under the direction of a Board of Trustees, appointed by the Governor by and with the advice and consent of the Senate. There are two Trustees for each Congressional District, so that all parts of the State and both political parties are equally represented. This intention has been faithfully observed in the appointment of Trustees, there being five from each political party.

The Trustees appoint the teachers, have a general oversight of the school, and make an annual report to the Legislature.

Mr. Wm. F. Phelps, who had been for some years connected with the State Normal School of New York, was appointed the first Principal of the Normal School of New Jersey, and continued in charge from its organization until 1864, when he resigned to take charge of the Normal School in Winona, Minnesota.

John S. Hart, LL. D., who had for eighteen months been Principal of the Model School, was unanimously chosen his successor.

CONDITIONS OF ADMISSION.

The general conditions of admission and the regulations for the students, are:—

Applicants must be at least sixteen years of age, and of unquestionable moral character. They must be in sound bodily health, and able to sustain a good examination in Spelling, Reading, Arithmetic, Geography and Grammar. They must declare their intention to teach in the public schools of this State for at least two years.

The candidate must present a certificate to the following effect from the Superintendent, the School Committee, or the Board of Education, of his township or city:

This is to certify that ———, of the township (or city) of ———, county of ———, New Jersey, aged —— years, desires to obtain admission as a pupil in the State Normal School, and has given to me a declaration of —— intention to engage in the employment of a common school teacher in this State, for at least two years, and being satisfied that —— is of good health, and proper moral qualifications, I do recommend —— as a person suitable by age, character, talents, and attainments, to be received as a pupil of the Normal School.

By the terms of the act establishing the State Normal School, "each county is entitled to fill three times as many seats in the school as it has representatives in the Legislature." In case any county is not fully represented, additional candidates may be admitted from other counties, on sustaining the requisite examination, and producing a proper certificate as above.

The candidates, on their admission, are required to sign the following Declaration and Agreement, which document is a permanent record with the Institution:

"The undersigned, having received certificates of admission as pupils in the New Jersey State Normal School, hereby declare that it is their intention to engage in the employment of teachers in the common schools of this State, for at least two years, and that their object in resorting to this school is the better to qualify themselves for that responsible duty. The undersigned also hereby agree to report themselves semi-annually, in writing, for the aforesaid period of two years, to the Principal of the State Normal School, in case they enjoy its privileges for one term or more."

Candidates are examined by the Faculty immediately on the presentation of the certificate before mentioned. This examination is confined to the topics named above, namely, Spelling, Reading, Arithmetic, Geography, and Grammar. Those wishing to be admitted to an advanced class, are likewise examined upon all the studies which have been attended to by the class to which they wish to be admitted.

COURSE OF STUDY.

The school is divided for recitations into four classes, all of which have Composition, Elocution, Drawing, Penmanship, and Vocal Music. The other studies of the D. class, are Geography, Arithmetic, Grammar, and

History of the United States.—Of the C. class, Geography, Intellectual Arithmetic, Grammar, Constitution of the United States, Botany, and General History.—Of the B. class, Algebra, Physiology, Natural Philosophy, Rhetoric, and English Literature.—Of the A. class, Geometry, Trigonometry, Natural Philosophy, Chemistry, Geology, Mental Philosophy, English Literature, American Literature, and Theory and Practice of Teaching.

Much attention is given in all the exercises to the cultivation of the power of expression. This is made a prominent object, not only by lectures and lessons upon this point, but by constant attention in every exercise. The student is taught to select the best language to give expression to his ideas, and to illustrate whenever necessary or practicable, by the use of the black-board and crayon.

The teacher of a class, after hearing part of a lesson, often calls upon a pupil without any previous notice, to take up a portion of the subject and examine his classmates upon it, neither he nor they having any book to refer to. Another practice which has been found quite successful, is that of frequent reviews. One lesson in the week in each branch, or every fifth recitation, is devoted to a review of the four preceding lessons, and on this review day, each pupil is subjected to a test so that his proficiency and power of expression may be ascertained and marked. The teacher never stops in the midst of a lesson to mark a pupil, but at its close marks those who have left upon his mind a distinct impression of their proficiency, or the reverse. By these various means, the daily recitations are made to contribute powerfully towards begetting in the pupils a habit of readiness and self-reliance, and a facility for verbal expression.

PRACTICE TEACHING.

Practice in teaching is secured in two ways—first, by members of the Normal School taking classes in the Model School, and giving instruction in assigned subjects, to these classes, under the general supervision of one of the teachers of this department; and second, by having practice teaching in the Normal School itself, one of the students taking a class in this school on certain designated days, and in subjects assigned by the Principal of the school.

To secure the best results in the employment of the latter method, the Principal, once a week, makes out a programme of exercises, with the names of those who are to teach during the following week, and the classes and lessons for each. This enables the pupil teachers to prepare themselves fully for the exercise. It is an indispensable condition in all these exercises that the lesson be given without the use of the book. When the pupil enters the room to teach an assigned lesson, he brings with him only a crayon and a pointer; he takes the entire charge of the class, maintaining order, questions the members of the class, corrects mistakes, illustrates the subject if necessary by diagrams or experiments, and in all respects acts as if he was the regular teacher.

During the exercise, the regular teacher sits by, observing in silence, and at the close of the day enters in a book prepared for that purpose, a full and detailed criticism of the work of the pupil teacher, giving an average mark for the same, the maximum being 100. These criticisms, together with the teaching average, are read to the pupil the next day by the Principal, in the presence of the class, and additional comments are made on any methods or principles of teaching involved in the criticisms.

The following notes on this method of practice teaching, are from the report of the Principal for 1868, and serve to give a good idea of the work:

NOTES ON PRACTICE TEACHING.

Miss —— gave the C class a lesson in Elocution. She was animated and energetic in giving the vocal exercises, but she pitched her voice too high. The same shrill tone characterized the Concert reading. Many of the criticisms given by pupils were not loud enough to be heard by the whole class. One of the ladies, in giving a sketch of Shakspeare, said, "his principal work *was* Much Ado About Nothing, Merchant of Venice, &c.;" but the error passed unnoticed by pupils and teacher. Miss —— herself said "Hamlet thought it wasn't *him*." She marked the pupils too high—the worst readers in the class receiving 8 and 9. Teaching average, 85. E.

Miss —— gave the D class a lesson in History. She was well prepared with the history lesson; but she allowed the pupils too long a time to think and *guess*. A Chronology lesson is dry and uninteresting; and unless the teacher calls upon the pupils in *rapid* succession, thus keeping them wide awake, the interest will flag, and even good pupils will be inattentive. Miss —— marked the pupils very judiciously. Teaching average, 90. E.

Miss —— gave the D class a lesson in Arithmetic. She assisted the pupils too much. She did not require them to be accurate enough in answering questions; otherwise she taught very well, the subject being rather a difficult one. Miss —— marked the pupils judiciously. Teaching average, 85. M.

Miss —— gave the C class a lesson on the Constitution. She was quick in conducting the recitation. The entire period was spent in repeating mere words of the book; but once or twice the lady asked for the explanation of clauses, and then the answers given were neither full nor satisfactory, yet the lady ventured no comment of her own. Many practical questions might have been given by the teacher respecting the executive departments, ambassadors, consuls, treaties, and impeachments. The lesson contained many subjects of interest sufficient to occupy more than the allotted time. Teachers should call more frequently for definitions, and always take it for granted that their pupils are ignorant of the meaning of even the simplest words. I venture to assert that more than one-third of the class left the room without knowing the difference between a *reprieve* and a *pardon*. Teaching average, 80. E.

Miss —— gave the D class a lesson in Grammar. She has improved since teaching for me before, but she still lacks energy and decision. She gave the pupil who was reciting all her attention; thus allowing an opportunity to some, (who took advantage of it,) to assume lounging positions in which to wait lazily for their turn to recite. Some remained wide awake, and embarrassed Miss —— by speaking at any time, even interrupting her in the middle of a sentence to ask questions. Teaching average, 87. H.

Miss —— gave the D class a lesson in Elocution. She cannot become a successful teacher until she studies the pronunciation of words. Not only did she permit mistakes made by the pupils to pass unnoticed, but she mispronounced many words herself; as, hos-pit'-a-ble, for hos'-pit-a-ble, in'-tense for in-tense', etc.—the errors consisted chiefly in changing the accented syllable. In the word *machination*, however, though the accent was correctly marked, she taught the class to call it "mash-in-a-tion." There can be no possible excuse

for such carelessness, or rather ignorance, since the lady had three days for the preparation of the lesson. The dictionary should be kept in constant use by pupils and teachers. Teaching average, 65. E.

Miss —— gave the C class a lesson in Elocution. She gave a very short vocal exercise and omitted the Concert reading. During the recitation she read *remarkably* well; her voice was clear and full, her emphases and inflections were correct, and her whole manner free from embarrassment. The entrance of three or four visitors did not in the least disconcert her; for her calmness and dignity she deserves much commendation. Teaching average, 95. E.

Miss —— gave the C class a lesson in Ancient History. She was sprightly and animated. She spoke in a clear, decided tone; but she pursued no regular plan in conducting the recitation. Events in Egyptian and Assyrian history were indiscriminately mixed; the pupils became confused, and the lady herself was somewhat bewildered. Teaching average, 88. E.

Miss —— gave the B class a lesson in Physiology. She evinced perfect familiarity with the subject of the lessons. She did not confine herself to the text-book, but asked many good, general questions. One of the pupils did not understand a portion of the lesson which was to be explained by a diagram. Miss ——endeavored to make the matter clear by an explanation which was very good, still the pupils did not see it clearly. I think the teacher would have succeeded in clearing the difficulty if she had used the *pointer* instead of designating certain points by letters. She spoke a little too low. Teaching average, 96. M.

Miss —— gave the A class a lesson in English Literature. She did not spend enough time upon the lesson for the day, and consumed too much of the period in reviewing the old lessons. She was not careful in examining the blackboards; lbs. was permitted to stand as the abbreviation of pounds sterling, and whimsicalities was spelled with two l's. The lady made no deduction for errors, all the pupils, with but one exception, received 10. She deserves commendation for speaking in a loud, clear tone. Teaching average, 88. E.

Miss —— gave the A class a lesson in Elocution. She displayed the tact and skill of an experienced teacher. She assumed full authority over the pupils, (though they were her classmates,) and her whole manner was such that a visitor entering the room would have supposed she was the permanent teacher. One secret of her success was that she had given the reading lesson much home practice and preparation. Teaching average, 100. E.

Miss —— taught the A class in Literature. She taught well. Though rather quiet, she succeeded in awakening the interest of her pupils, and the entire recitation was very animated. The class is a good one, and the pupils deserve as much commendation as the teacher. Teaching average, 96. E.

Miss —— gave the B class a lesson in Elocution. She is a good teacher, and reads very well. She maintained her dignity and composure during the entire recitation, though several visitors were present. Nothing tends to embarrass a teacher so much as the entrance of strangers; the lady's calmness and self-possession then, are worthy of much commendation. Teaching average, 100. E.

Miss —— gave the A class a lesson in Literature. She evinced thorough preparation, and displayed considerable tact in conducting the recitation. Every pupil was called on and compelled to recite or confess ignorance. Teaching average, 98. E.

Miss —— gave the D class a lesson in History. She is one of the best teachers in her class. She is sprightly, animated, and critical. The lesson was well taught; a map having been neatly drawn on the board, the teacher required the most important places referred to in the lesson to be pointed out upon it. Teaching average, 100. M.

EXAMINATIONS.

Written examinations take place at the end of each term, and also at the end of every six or seven weeks, in all the studies of the school.

In order to secure entire fairness in the examinations, and to prevent improprieties of any kind, a card is placed in the hands of each pupil, containing the following directions:

1. On the day before the examination begins, take home all your books; see that nothing whatever is left in your desk except this card and your slate; that your desk is cleaned out and free from bits of paper and rubbish of every kind; that the ink well is in good order, and supplied with fresh ink; and that your slate is thoroughly cleaned.

2. Observe the same rule every day before leaving the examination room.

3. Come each day provided with pens, pen-holder, and pencil.

4. Write your name and the subject of examination distinctly at the top of each page.

5. You need not copy the questions upon the paper, but be careful to number each answer to correspond with the question.

6. If unable to answer any question, write its proper number, and opposite the same, write, "I cannot answer."

7. In answering questions in Arithmetic, Algebra, &c., give the work as well as the answer.

8. After beginning a set of questions, do not leave the room without the permission of the teacher in charge, until that exercise is completed.

9. When under examination, avoid with the utmost strictness all communication with others, whether by talking, notes, signs, or otherwise; and do not look over the answers of others lying on the adjoining desks, or allow others in this manner to overlook your answers. Any violation of this rule will cause your exercise to be rejected.

10. Referring to text books, or to written or printed abstracts, or memoranda of any kind connected with the subject of examination, or having such book, abstract, or memorandum, in your desk, or about your person, will cause your exercise to be rejected.

In order to induce not only correctness as to the substance of the answers given, but a habit of carefulness as to the manner of expression, the teachers, in marking the examination papers, note minutely on the face of each paper every thing that is considered faulty. This is done by simply writing the figures 1, 2, 3, 4, &c., on the margin of the sheet, opposite any fault that may be noticed. Figure 1 indicates some fault in the heading, or in the general arrangement of the matter in the sheet; 2 indicates want of neatness; 3 indicates letters written indistinctly, or words not properly spaced; 4, spelling wrong; 5, punctuation wrong; 6, capitals neglected, or used improperly; 7, mistake in grammar; 8, sentences not complete; 9, answer not as full as it should be; 10, answer incorrect.

The object of this scheme of notation is simply to enable the teacher, with the least expenditure of time and labor, to indicate the various faults which mar the appearance and lessen the value of an examination paper. A small printed card, containing this scheme of notation, is placed in the hands of each teacher as a guide in marking the papers, and also in the hands of each pupil while writing his answers. The consequence is that the usually slovenly, careless, illegible, and unworkmanlike style of writing and expression is entirely broken up, and the pupils get unconsciously into the habit of expressing themselves upon paper in a manner that is agreeable to the eye and that is almost entirely free from the minor blemishes of composition.

When the examination papers have been marked and the faults noted with a pencil upon each paper, according to the scheme just explained, the papers are returned to the pupils, and with these papers before them, and with the aid of their books and of the explanations given by the teachers, they are required to write out a second complete set of answers. This exercise is not counted as a part of the examination, but it takes the place of an ordinary recitation. Its object is to fix in the minds of the pupils, while the matter is still fresh, all the corrections which have been pointed out. This revision of the work of examination has a most admirable effect. The questions are usually of a searching character, and reveal to pupils deficiencies in their knowledge, of which they had not been aware. Going over the ground a second time, while this impression is fresh.

BOARDING ARRANGEMENTS.

Although the tuition of the Normal School is free, it was found that the main item of expense, the board, had increased until it threatened seriously to embarrass the operations of the institution. Accordingly in September, 1864, a suitable building was secured and fitted up as a boarding-house for the use of the female pupils and teachers. By having a considerable number together, it was found that the expense to each student could be considerably reduced. The first experiment was so successful that the house was enlarged in 1865 so as to accommodate ninety boarders. The building, as thus enlarged, is 135 feet long by 37½ feet wide, and three stories high. It is planned with a special view to the wants of such an establishment, and is particularly convenient and attractive. The rooms are of good size, each suited to the accommodation of two pupils; they are neatly carpeted, and supplied with the necessary furniture, with one double bed, and with two large deep closets, one for the exclusive use of each occupant. The beds are furnished with mattresses, but not with pillows or bedding, each boarder being required to furnish these articles for herself.

One of the leading Professors, with his family, lives in the building, and he and his wife have the charge of the establishment. The arrangement altogether is giving the greatest satisfaction to the patrons of the school. Such an establishment was particularly needed for female pupils. Young ladies away from home, and boarding promiscuously through a large town, are exposed to social temptations, and they often lose much time in consequence, even when they do not form undesirable acquaintances, or fall into worse evils. Parents are reluctant to send their daughters to a distant town to attend school, where there can be, from the nature of the case, no adequate guaranty for an efficient supervision and protection out of school-hours. Besides these grave considerations, there is the important matter of economy, the cost of attendance at school having been reduced almost one-half.

The large boarding-house being entirely filled, and there being numerous applicants for admission, who could not be accommodated, the Trustees, in the summer vacation of 1867, took another large building adjoining the former, and fitted it up in similar style for the accommodation of forty additional boarders. This building also was immediately filled.

The resident Professor and his family, in consideration of their services in the management of the household, live in the house entirely free of cost. A charge of one dollar a week is made to each pupil, for rent and fuel. Under "fuel" is included all that is needed for cooking and washing, and for heating every part of the establishment; and under "rent" is included all that is necessary to pay interest, taxes and insurance on the cost of house, furniture and grounds.

The Trustees assume that an assessment of $1 a week on each boarder will cover these items. This sum is a regular and fixed charge. Beyond that, the pupils are charged the actual cost of their living, and this

fact constitutes a very important feature of the plan. The actual cost of the remaining items has been maintained now for more than three years at $2.50 a week, with a variation of only 25 cents for a single term, and the accommodations, both as to quantity and quality, have been such as to give entire satisfaction. But were the Trustees to undertake to board the pupils outright for this sum, there would be less care in regard to waste and breakage, and a more ready disposition to find fault and be discontented. Having paid a fixed sum, the boarders would feel like consuming the full worth of their money. On the contrary, the sum being contingent, they are more ready to acquiesce in any little economies which are to keep their expenses within bounds.

The boarding arrangements which have been described, are exclusively for the use of the female pupils and teachers. A similar establishment for the accommodation of gentlemen is imperatively needed, and is in contemplation.

FARNUM PREPARATORY SCHOOL.

The Farnum Preparatory School at Beverly was established and endowed by the liberality of Paul Farnum, Esq., and opened for the reception of pupils, on the 8th of October, 1856. It has a Board of Trustees of its own, but is designed as an auxiliary of the State Normal School, and an appropriation is made by the Legislature towards its support. As indicated by its name the course of study is preparatory, and has special reference to the more thorough and professional course of the Normal School. A large proportion of the pupils are from Beverly and the vicinity, but those qualified are admitted to the classes in the Normal School at Trenton, on successfully passing the required examination. One hundred and forty pupils were admitted the first term. This number has been increased successive years, and in 1867 amounted to two hundred and eighty.

Plans and Description of the State Normal School of New Jersey.

The buildings occupied by the State Normal School of New Jersey, are two in number, one of which is occupied exclusively by the Normal School proper, and the other by both the Normal School and its adjunct, the Model School, but principally by the latter. The two were built and furnished at an expense of about $55,000.

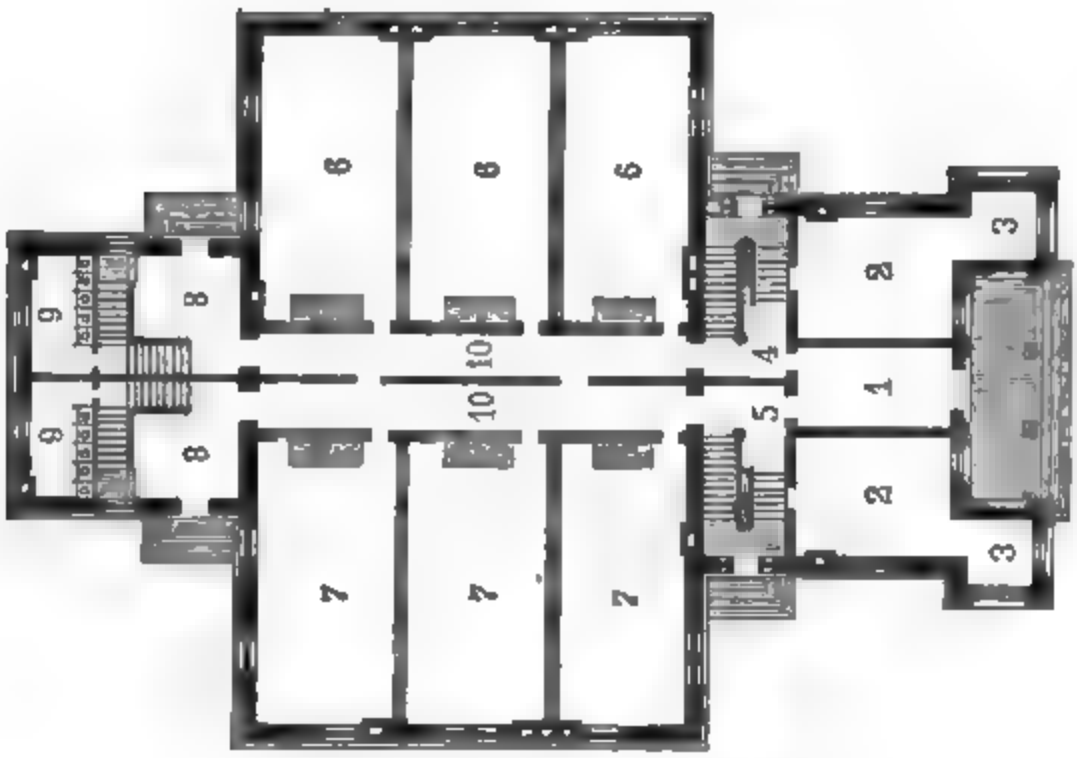
The plans are drawn on a scale of thirty-two feet to the inch. Each building is in the form of a Greek Cross, the main edifice running nearly north and south with wings or projections on the east and west. The front wing of the Normal School on the east, terminates in two towers, 10 by 10 feet.

The great objects secured in the adoption of these plans, are the highest degree of convenience and adaptation to the purposes of a school for both sexes, symmetry, tastefulness, economy in cost of construction, with ample facilities for lighting and ventilation, the ingress and egress of pupils, together with a full supply of water in the proper place, and for every desirable purpose.

The rooms are all large, airy, and commodious. The uses of each apartment will be understood by reference to the numbers indicated on the diagrams, and the accompanying explanation. Each building is heated by four of Boynton's first class furnaces, and ventilated by means of air passages leading from each room to a large chamber for the purpose in the attic, under the ventilator. These air chambers are heated by stoves, thus creating a forced draught from each apartment to the ventilator.

The furniture is of the latest and most approved character, and there are in the two buildings, fifteen hundred feet of the best Vermont and Lehigh wall slates

Fig. 2.—First Story.

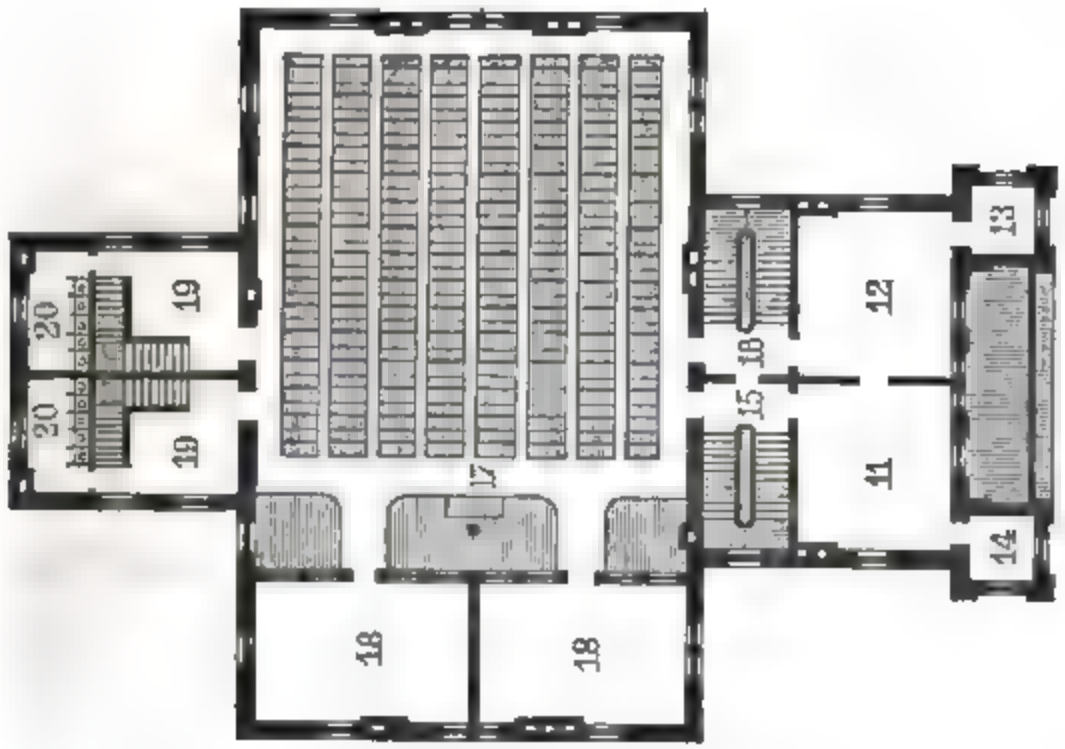


1, Main entrance and Hall. 2, 2, Cloak Rooms for each sex. 3, 3, Toilet Rooms for each sex. 4, 5, Halls and entrances. 6, 6, 6, and 7, 7, 7, Recitation Rooms. 8, 8, Extra Cloak Rooms. 9, 9, Privies. 10, 10, Halls for each sex



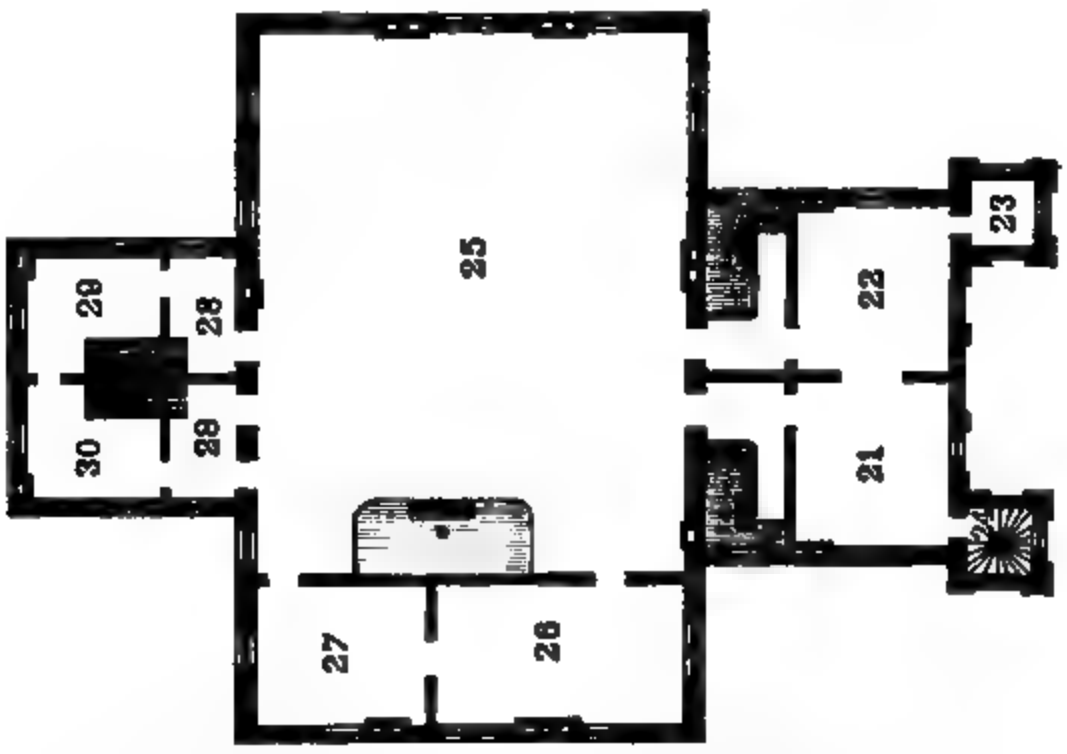
Fig. 1.—STATE NORMAL SCHOOL—NEW JERSEY.

Fig. 3. Second Story.



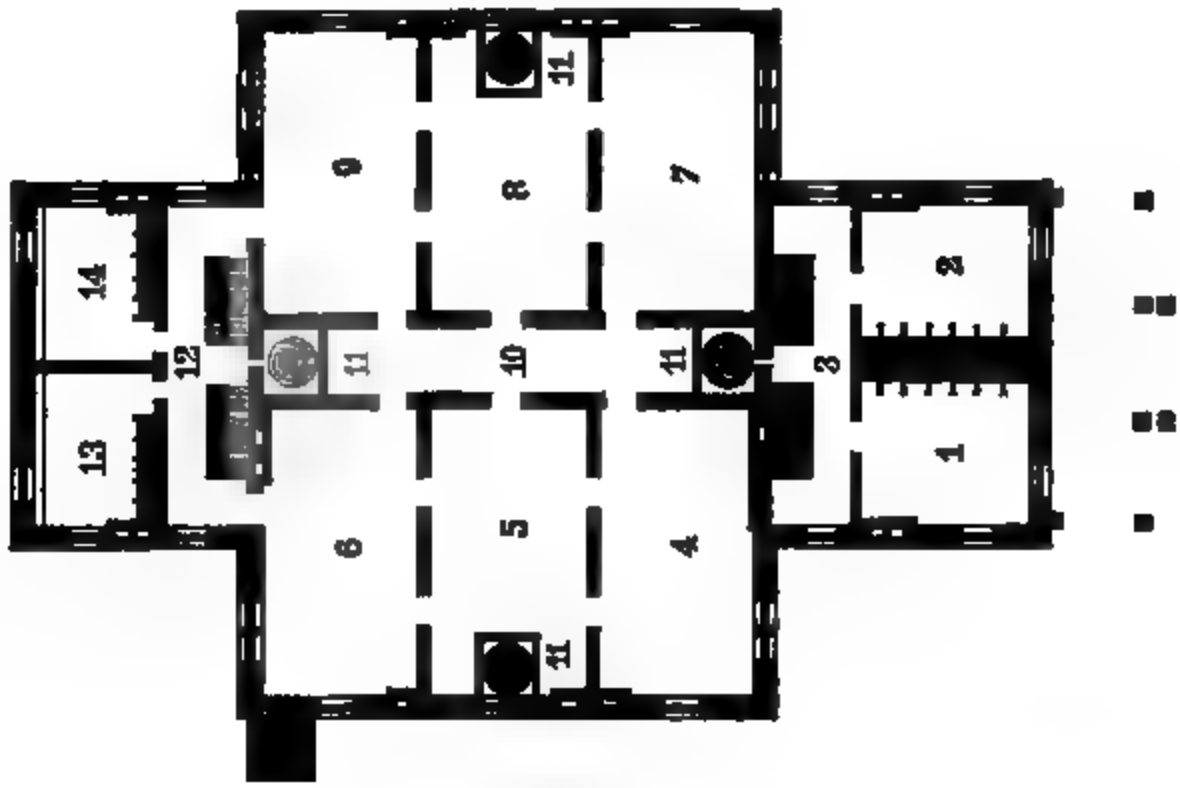
11, Reception Room. 12, Library. 13, 14, Teachers' Toilet Rooms. 15, 16, Halls and Stairways, each sex. 17, Assembly Room seated for 240. 18, 18, Recitation Rooms. 19, 19, Extra Cloak Rooms. 20, 20, Privies

Fig. 4. Third Story.



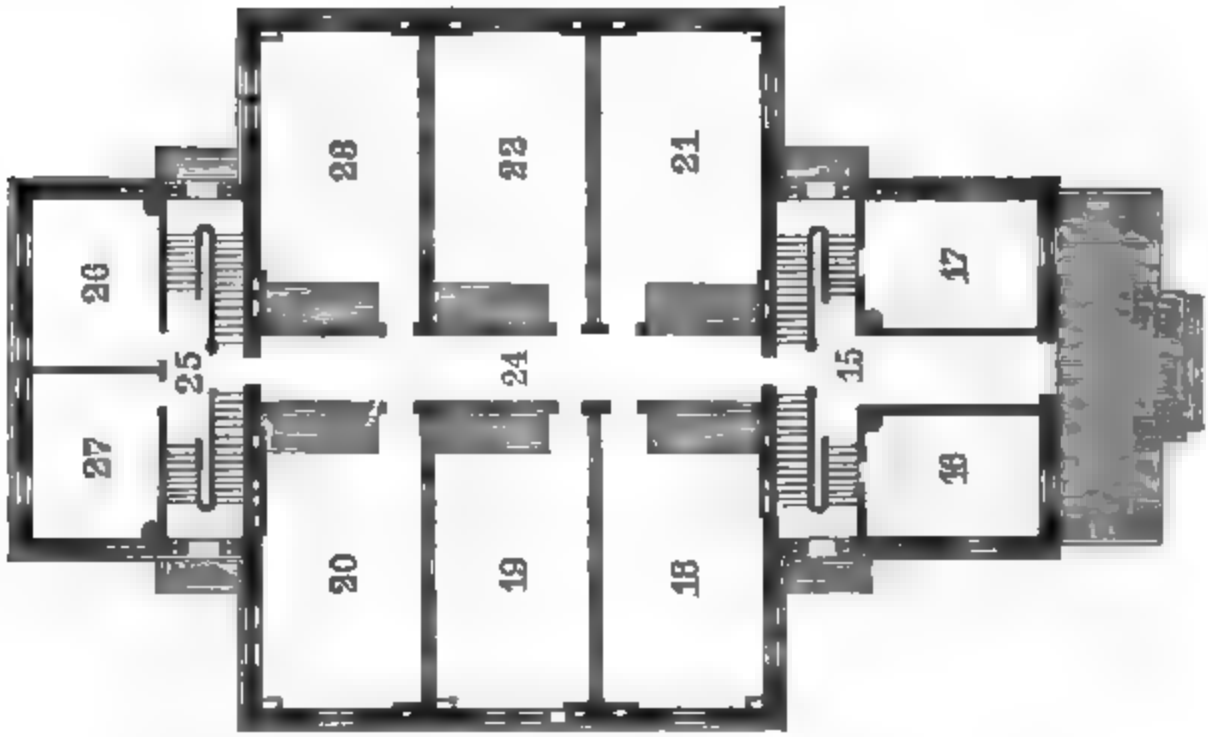
21, 22, Drawing Room and Models. 23, Bell Ringer's Room. 24, Passage to Observatory. 25, Lecture Room. 26, Recitation Room. 27, Room for Mechanical Drawing. 28, 28. Rear Halls. 29, 30, Apparatus Rooms.

Fig. 5. Basement of Model School.



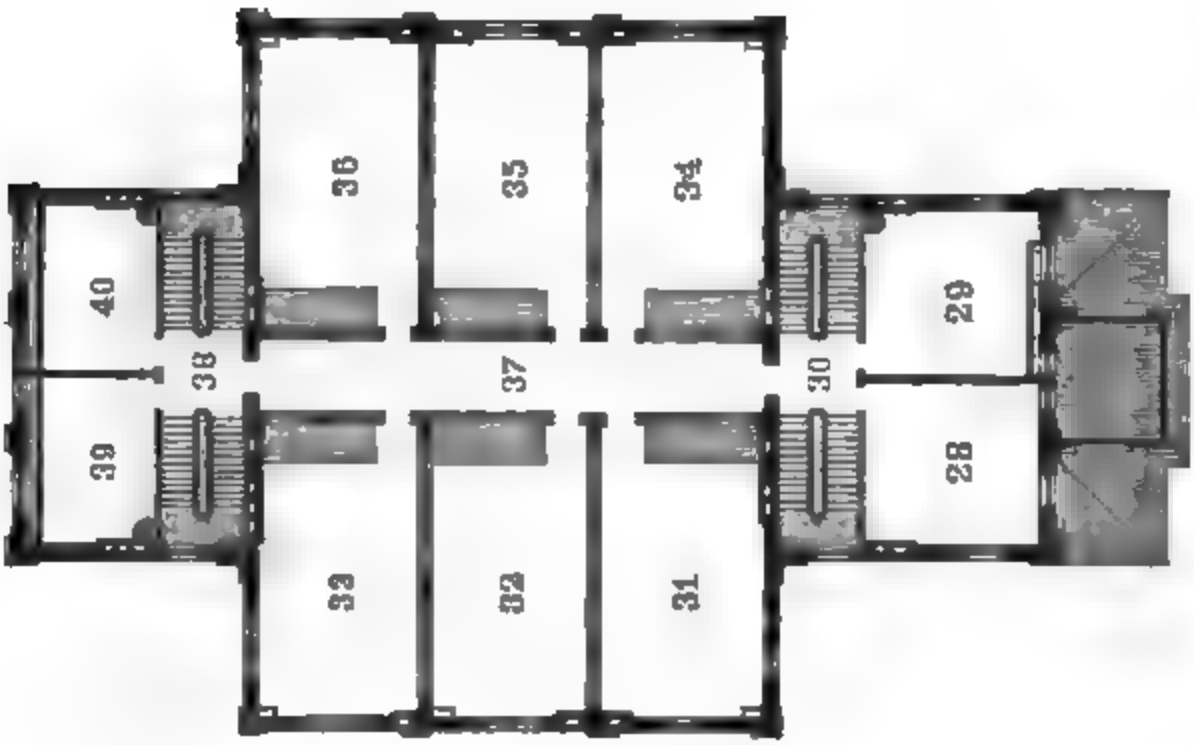
1, 2, Privies for Girls. 3, Halls to Privies for Girls. 4, 5, 6, &c., &c. Cellars and Furnaces. 13, 14, Privies for Boys. 12, Halls to Privies for Boys.

Fig. 6. First Story.—Model School.



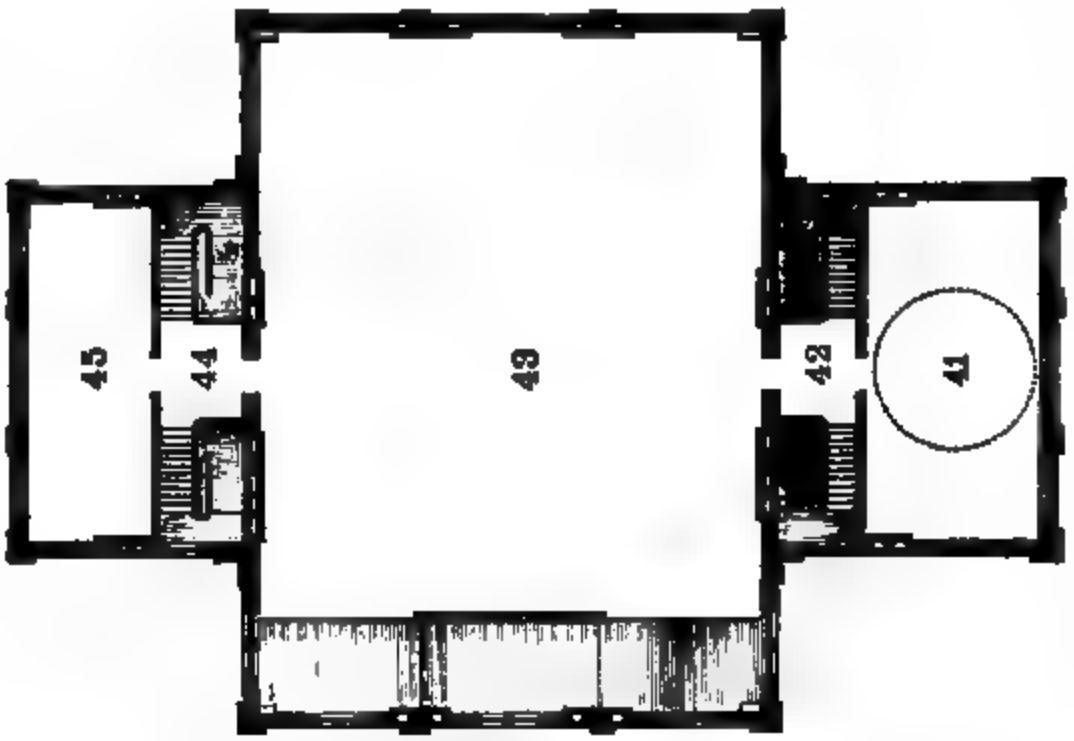
15, Halls, Girls' entrance, and main entrance. 16, 17, Girls' Cloak Rooms. 18, 19, 20, 21, 22, 23, School. 24, Hall, rooms graded, 40 pupils each. 25. Boys' Hall. 26, 27, Boys' Cloak Rooms.

Fig. 7. Second Story.—Model School.



28, Girls' Cloak Room. 29, Library. 30, Girls' Hall and Stairways. 31, 32, 33, &c., &c., School Rooms, graded, 40 pupils each. 37, Hall. 38, Boys' Hall and Stairways. 39, 40, Boys' Cloak Rooms.

Fig. 8. Third Story.—Model School.



41, Room for Drawing, lighted from the Dome. 42, Hall and Stairways. 43, Great Lecture Room of the Normal School establishment, 56 by 75 feet. 44, Hall. 45, Laboratory.

STATE NORMAL UNIVERSITY, BLOOMINGTON, ILLINOIS.



ILLINOIS STATE NORMAL UNIVERSITY

AT NORMAL, MACLEAN COUNTY.

The State Normal University owes its existence to a deep-seated conviction of the want of more well-instructed teachers for the free schools of Illinois. The question of establishing a school of some kind to supply this want, had been discussed by the leading educators of the State for several years; but the project of establishing a distinct and separate Normal School, first assumed a definite form at the annual meeting of the State Teachers' Association, at Chicago, in Dec. 1856.

After a protracted debate, a resolution unanimously prevailed, asking the Legislature to make an appropriation for the establishment and maintenance of a Normal School, and Messrs. WRIGHT, WILKINS and ESTABROOK were directed to lay the subject before the Legislature, on behalf of the Association. The late Superintendent of Public Instruction, Hon. N. W. Edwards, in his Report to the Legislature for 1856, recommended the establishment of such a school, and aided the project by his presence and influence. HON. WILLIAM A. POWELL, the new Superintendent, labored heartily for the enterprise. These gentlemen were met by a liberal spirit on the part of both Houses, especially the Educational Committees, and an act was drafted, discussed and passed, establishing and endowing a NORMAL UNIVERSITY, and creating a State Board of Education, under whose control it should go into operation.

The act provides that the avails of the Seminary and University funds, ($300,000) shall be appropriated for the *support* of the Institution, but no part thereof can be used in purchasing a site or erecting buildings. The Board were instructed to locate the University in that city or town, accessible, and not otherwise objectionable, which should offer the greatest donation. It was understood that the central portions of the State were "accessible," and there competition ran high. At first almost every enterprising town in the interior took the initiatory steps toward making a bid; but some time before the day for opening the proposals, it was whispered round that Bloomington and Peoria were ahead of all competitors. Most of the smaller towns declined to submit their proposals, and the contest virtually lay between the two cities. The Board of Education, in a body, visited these points and examined the sites offered. The site at Bloomington consisted in two tracts of rolling prairie, one of 56, the other of 104 acres, connected by a narrow neck and lying about a mile and a half north of the city, near the junction of the railroads. The site at Peoria consisted of fifteen acres of land lying on the bluff, just back of and overlooking the city, and affording, doubtless, the most varied prospect in the State.

Upon opening the bids, it was found that Peoria had offered in the aggregate, including the estimated value of the site, over $80,000; and

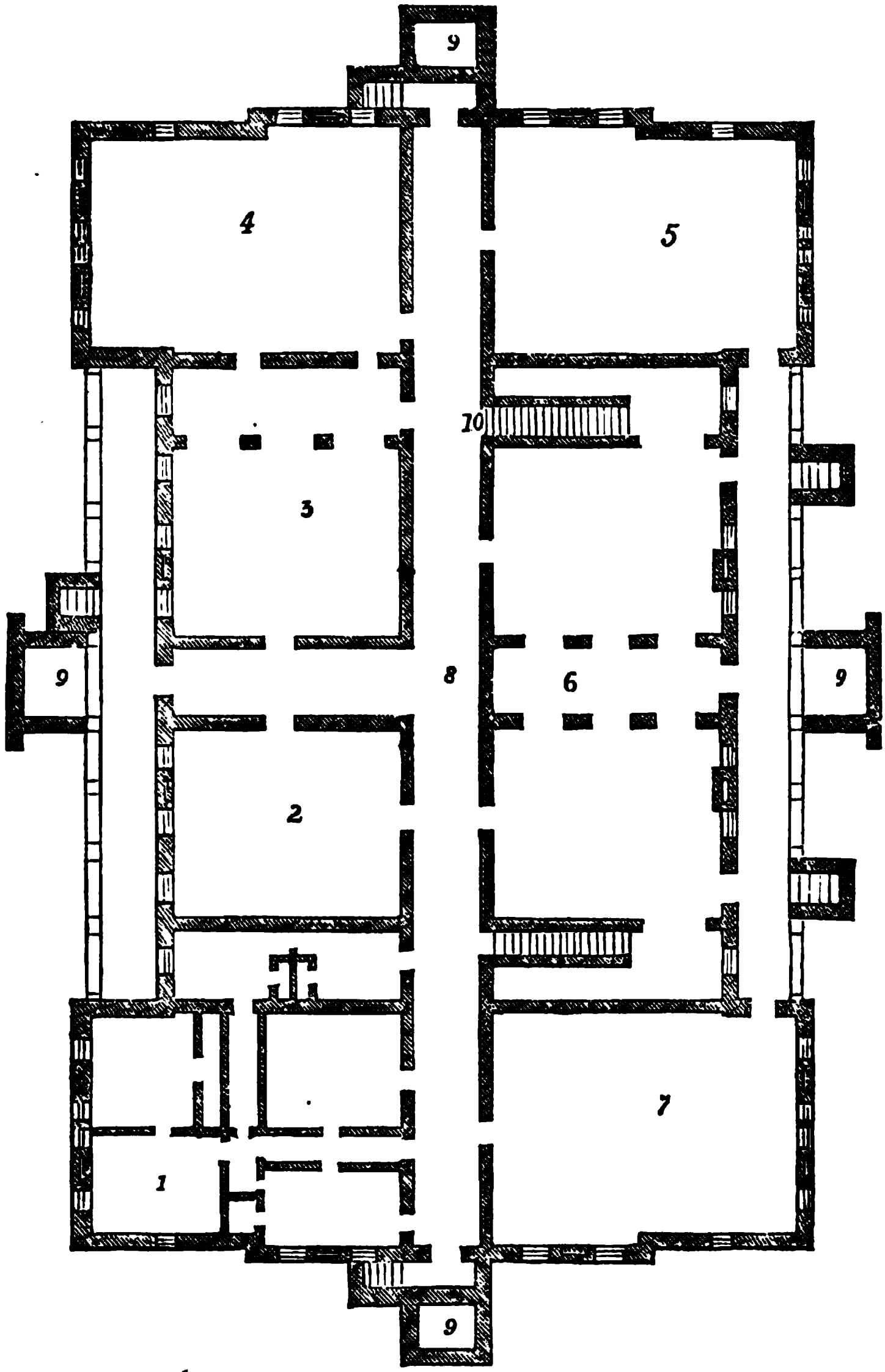


Fig. 2. PLAN OF BASEMENT.

In this story, (*Fig.* 2,) are the Janitor's House, (1,) consisting of a parlor, kitchen, cellar, three bedrooms, etc.; storage room, (2); laboratory, (3); chemical-lecture room (4); boys' play-room for Model School (5); boiler or furnace rooms (6); girls' play-room for Model School (7); corridor (8); filtering cisterns (9); and stairways (10).

that Bloomington had offered in the aggregate, including the estimated value of the site, over $140,000. McLean county, by an appropriation

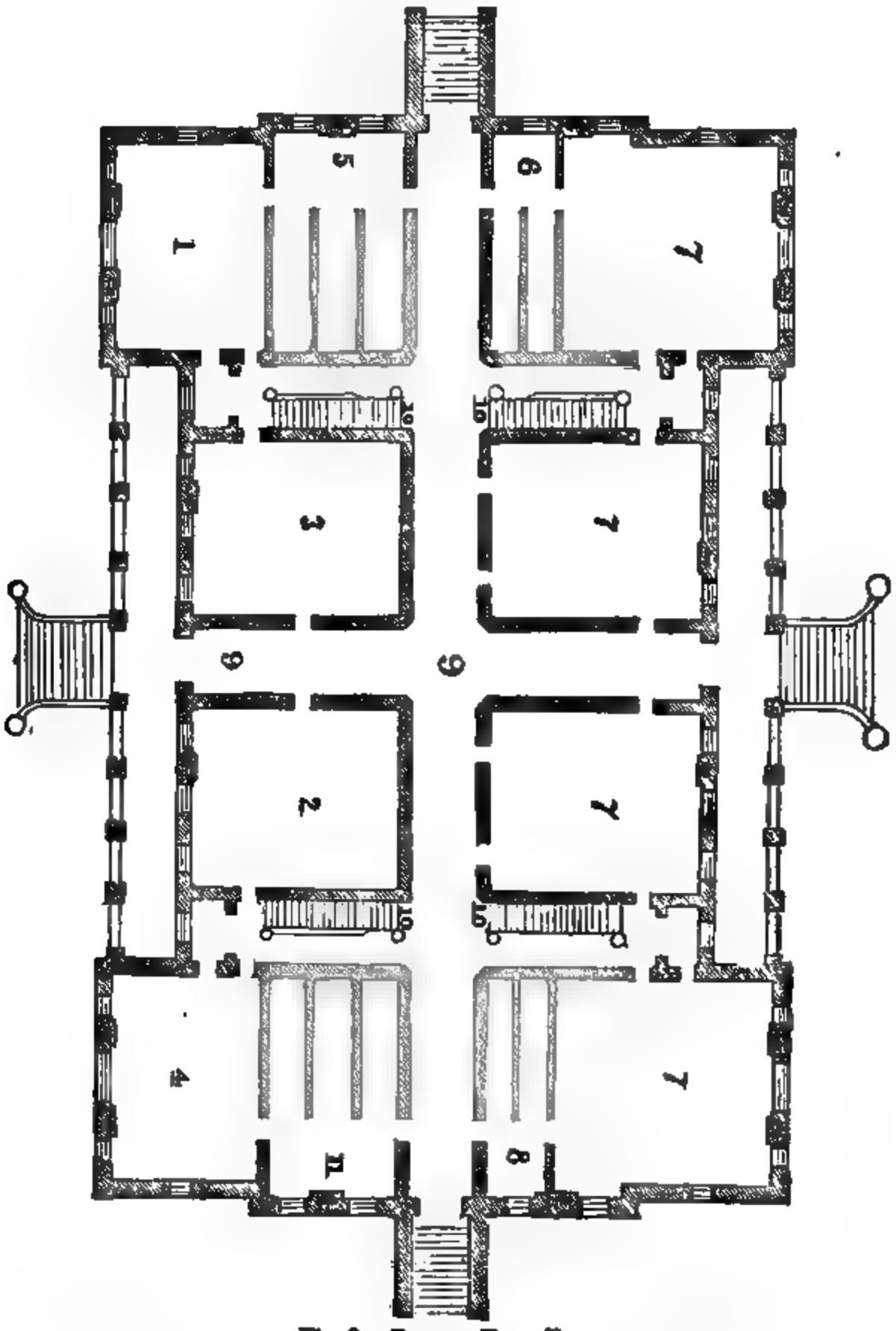


Fig. 3. Plan of First Floor.

In the principal story, (*Fig.* 3) 15 feet high in the clear, are the Principal's room, 30ft. ×22ft. 6in. (1); the reception room, 31ft. 6in.×27ft. (2); book and apparatus room, 31ft. 6in.×27ft. (3); teachers' retiring room, 30ft.×22ft. 6in. (4); gentlemen's wardrobe, 32ft.×19ft. 9in. (5); masters' wardrobe for Model School, 32ft.×10ft. 2in. (6); Model-School rooms, 32×32ft. and 25ft. 6in.+37ft. 6in. (7); misses' wardrobe for Model School, 32ft.×10ft. 2in. (8); corridors (9); and the stairways (10).

of $70,000 from her swamp-land fund, enabled Bloomington thus to outstrip her rival.

We know of nothing more honorable than this competition between the different towns of Illinois, for the advantages which must flow from an institution of this kind rightly managed, in all future time.

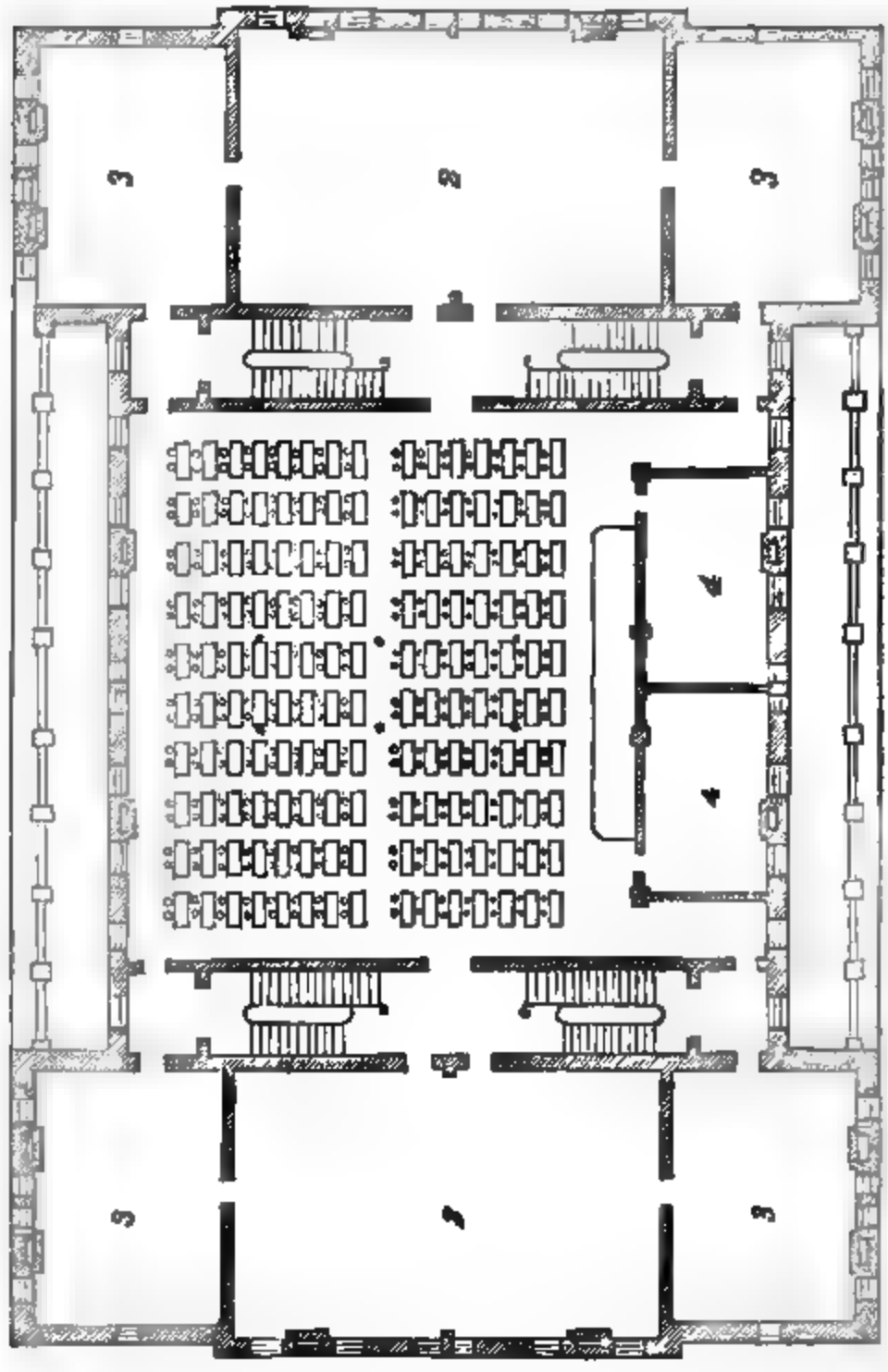


Fig. 4. Plan of Second Floor.

In the second story, (*Fig.* 4,) 16 feet high in the clear, are the Normal School room, 60×66ft. (1); two lecture rooms, 51×32ft. (2); four class rooms, 30×23ft. (3) two class rooms, 27×15ft. (4); and the stairways (5).

The Board of Education elected Prof. C. E. Hovey, (Principal of the Union School of Peoria,) Principal, and adopted, on his recommendation and that of G. P. Randall, Architect, of Chicago, the plan of a building to accommodate three hundred normal pupils, and two hundred model school pupils, and to be erected at a cost of $80,000. The exterior and internal arrangements of the building, are represented in the diagrams: 1, 2, 3, 4, 5.

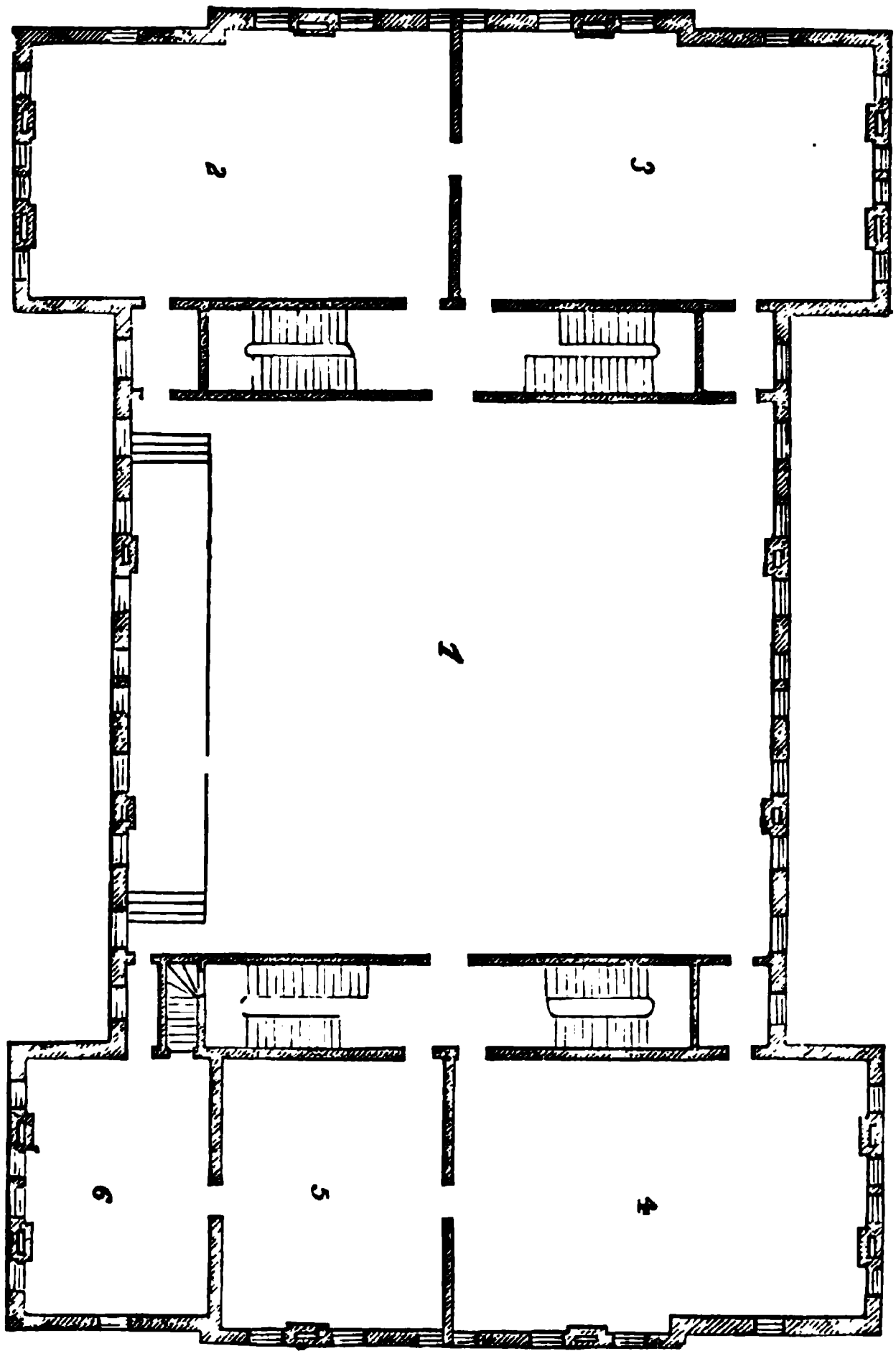


Fig. 5. PLAN OF THIRD FLOOR.

In the third story (*Fig.* 5,) 20 feet high in the clear, are the Normal Hall, 65×75 ft. (1); library, 32ft. 4in.×48ft. 6in. (2); museum, 32ft. 4in.×48ft. 6in. (3); gallery of painting and statuary, 32ft. 4in.×48ft. 6in. (4); music room, 32×25ft. (5); and an ante room, 32ft. 4in.×22ft. 4 in. (6).

The building is warmed by steam, and the ventilation of each room is secured by a separate flue properly constructed for this purpose.

The seats and desks are manufactured by Joseph L. Ross, Boston, after the most approved patterns.

ORGANIZATION.

The building was substantially completed in 1860, and the classes were removed to it from the temporary quarters occupied in Bloomington. The University is provided with philosophical and chemical apparatus, and with books of reference. The museum and library of the Illinois Natural History Society are located in the University building.

President Hovey, the first Principal, remained in charge of the institution until 1862, when he resigned, and Richard Edwards, Principal of the St. Louis Normal School, was appointed to succeed him.

The University is under the control and supervision of the State Board of Education, which consists of the Governor of the State, Superintendent of Public Instruction, and fourteen other persons appointed by the Governor, by and with the advice and consent of the Senate.

ADMISSION OF STUDENTS.

The requirements for admission are, that young men must be at least seventeen and young ladies sixteen years of age; all candidates must produce a certificate of good moral character, signed by some responsible person, and must also sign a declaration of their intention to devote themselves to school teaching in this State, in form as follows:—"I hereby declare my intention to become a teacher in the schools of this State; and agree that, for three years after leaving the University, I will report in writing to the Principal thereof, in June and December of each year, where I have been, and in what employment." Candidates must also pass a satisfactory examination before the proper officers in reading, spelling, writing, arithmetic, geography, and the elements of English grammar, in pursuance of the Normal University Act.

Each County within the State shall be entitled to gratuitous instruction for two pupils in said Normal University, and each Representative District shall be entitled to gratuitous instruction for a number of pupils equal to the number of representatives in said district, to be chosen in the following manner: The School Superintendent in each county shall receive and register the names of all applicants for admission to said Normal University, and shall present the same to the County Court, or in counties acting under township organization to the Board of Supervisors; which said County Court or Board of Supervisors, as the case may be, shall, together with the School Superintendent, examine the applicants so presented, in such manner as the Board of Education may direct, and from the number of such as shall be found to possess the requisite qualifications, such pupils shall be selected by lot; and in representative districts composed of more than one county, the School Superintendent and County Judge, or the School Superintendent and Chairman of the Board of Supervisors in counties acting under township organization, as the case may be, of the several counties composing such representative district, shall meet at the clerk's office of the County Court of the oldest county, and from the applicants so presented to the County Court or Board of Supervisors of the several counties represented, and found to possess the requisite qualifications, shall select by lot the number of pupils to which said district is entitled. The Board of Education shall have discretionary power, if any candidate does not sign and file with the Secretary of the Board a declaration that he or she will teach in the public schools within this State, in case that engagement can be secured by reasonable efforts, to require such candidate to provide for the payment of such fees for tuition as the Board may prescribe.

If any county or representative district neglects to make appointments, the President of the University is, by a resolution adopted by the Board of Education, authorized to fill the vacancy by appointing any person of proper age and qualification. Every such person must pass, before the President, an examination similar to that required before the county superintendent in other cases.

COURSE OF STUDY.

The course of study occupies three years. Each year is divided into three terms, the first of fifteen, the second thirteen, and the third twelve weeks in length. The studies pursued are reading, spelling, English grammar and literature, rhetoric, criticism, arithmetic, algebra, geometry, trigonometry, geography; history, ancient and modern; natural philosophy, chemistry, astronomy, botany, physiology, book-keeping, writing, drawing, vocal music, metaphysics; and professional studies, including history and methods of education, school laws of Illinois, and the Constitution of the United States and of Illinois. The following are optional: Latin, Greek, algebra, trigonometry, analytical geometry, calculus, and zoölogy.

BOARDING ARRANGEMENTS.

The Superintendent of Public Instruction and the Principal of the University have recommended the erection of a boarding-house for the accommodation of students. Board can be obtained in good families for about four dollars a week, exclusive of fuel, lights, and washing. A portion of the students board in clubs, and thus reduce the expense nearly one-half.

MODEL SCHOOL.

The Model School, which is in the same building with the Normal School, is furnished with all the appliances necessary for giving a thorough education, either as a preparation for college or for business. It has four grades, each under the charge of a separate, permanent teacher. Instruction is given in the elementary and higher English branches, and in Latin, Greek, French and German. Physical exercises are daily practiced by the entire school. The only requisites for admission are a small fee and good character. Pupils on being examined are classified according to their attainments.

The students of the Normal School, after attending two terms, have classes assigned them in the Model School. These classes have recitations at hours which do not interfere with the recitations in the Normal Department, so that the pupil-teachers do not lose their recitations in the Normal School while teaching in the Model School. The Model School is thought to be of important advantage to the Normal School. The connection has been mutually advantageous.

The number of students in the University in 1866–67 was as follows: —In the Normal Department: Senior class—Ladies 7, gentleman 6, total 18. Middle class—Ladies 32, gentlemen 26, total 58. Junior class—Ladies 167, gentlemen 89, total 256. Total in Normal Department, 327.

PENNSYLVANIA STATE NORMAL SCHOOLS.

THE Normal School Law of Pennsylvania divides the State into twelve districts, in each of which a State Normal School may be established whenever private contributions make it practicable.

NORMAL SCHOOL IN THE SECOND DISTRICT.

AT MILLERSVILLE.

The school in the second district, at Millersville, was recognized as a State institution in 1859, and it has since received 3,754 students, of whom 2,490 were males, and 1,264 females. Seventy-two have graduated in the elementary course, twenty-two in the scientific course, and two in the classical course. In 1867, there were six hundred and fifty-two students in the Normal department, and one hundred and sixty in the Model school. The buildings and other property of the school cost over $70,000.

One-half of the members of the graduating class teach in the Model school during the fall and winter terms, and the others in the spring and summer terms. Those who are thus engaged in the Model school meet the principal upon two evenings each week for special instruction in the theory of teaching. At these meetings the principal reads from notes that he has taken while in the school during the day, comments upon them, and commends or disapproves as he thinks the circumstances require. The students state any difficulties that may have arisen during the day. These, and the remedies, are freely discussed by teachers and students. The superintendent of the Model school also meets this class for a similar exercise one evening in each week.

The principal gives instruction to two classes each day in the "Theory of Teaching." These classes use a text-book. Besides this, many of the members of the graduating class recite daily in mental science, in which recitation the proper methods of cultivating the faculties are familiarly discussed.

Of those who expect to receive aid from the State, but about one-half are especially interested in the theory and practice of teaching.

The school during the past year (1867) was prosperous. The graduating class consisted of twenty members, and passed a satisfactory examination. All the members are engaged in teaching, excepting two, and some of them are occupying positions of responsibility and honor.

The results of the system of training adopted are more than satisfactory—they are subjects for congratulation and pride. The pupils of this institution are among the most successful teachers in the State. They are sought after wherever good teaching can be appreciated or remunerated. They are found in common schools and high schools, as principals

of academies and seminaries, professors in normal schools and colleges, and as energetic and successful county superintendents. In whatever position they labor, they distinguish themselves as faithful and skillful workers. They seem to be imbued with the true spirit of the educator; earnest, devoted, self-sacrificing, laboring for the success of the cause. They are punctual in their attendance upon educational meetings, ready to aid at institutes and associations, and are becoming an educational power in the commonwealth. These facts indicate the success of the system, and demonstrate the value of Normal schools to the State.

NORMAL SCHOOL IN THE TWELFTH DISTRICT.

AT EDINBORO.

The school in the twelfth district at Edinboro, was first chartered as an academy in 1856, then changed to a Normal school and recognized as a State institution in 1861. It has land, buildings, furniture, library, apparatus, and other property, valued at $36,750. The whole number of students received is 1,444, of whom 775 were males, and 669 females. Thirty have graduated. There were 425 in the Normal department in 1867, and 188 in the Model department.

In this school the instruction on the subject of professional knowledge, skill and experience in teaching, is communicated to the graduating class as well as to those who are receiving State aid, by lectures by the principal. The members of the graduating class hear lessons in the public school, which is taught in the Model school rooms, but which has no connection whatever with the institution.

NORMAL SCHOOL IN THE FIFTH DISTRICT.

AT MANSFIELD.

The Normal school in the fifth district, at Mansfield, was first organized in 1854 as a Classical seminary, under the charge and patronage of the Methodist Episcopal church, but its founders, with a large liberality, offered it as a State Normal school, and it was accepted in December, 1862. The buildings, furniture, library, apparatus and other property, are valued at $49,000.

This institution is divided into two departments. One is called the Normal, or Teachers', and the other the Academic, or Business department. It not unfrequently happens that a large proportion of those entering the academic, or business course, change their minds, and commence making preparation for teaching.

The direct means employed in training teachers is, first, the regular daily drills upon the *subject matter* of teaching. In these exercises, no instruction in the branches is attempted to be given. Each pupil has a text-book upon the subject of teaching, and topics are assigned for the consideration of the class. The *theoretical* and *practical*, the *possibles* and *impossibles*, are here presented. The experiences and opinions of those who have taught are placed side by side with those who have not.

The failures of youthful indiscretion are compared with more mature reflections of age.

The senior, or graduating class, in addition to the studies of the course, take up the theory of teaching as a study, and practice teaching in the Normal school forty-five minutes a day for one-half of the school year. This class meets twice a week with the principal, or some of the faculty, and the principal of the Model school, where the work of the experimental class is discussed, failures and success pointed out, and words of approval and encouragement given when and where needed.

The whole number of students received is 1,290, of whom 555 were males, and 735 females. Thirty-seven have graduated. There were 282 in the Normal department in 1867, and 123 in the Model school.

NORMAL SCHOOL IN THE THIRD DISTRICT.

AT KUTZTOWN.

The Keystone Normal school in the third district, at Kutztown, originated in the demand for better teachers and in the conviction that a Normal school was necessary to supply that want. Its buildings, furniture, library, apparatus, and other property, are valued at $55,000, of which $20,000 was contributed by the citizens of Kutztown and Maxatawny townships. The school was recognized by the State superintendent as a State institution, on the 13th September, 1866, and the building was formally dedicated on the 15th of the same month.

The faculty of instruction includes eleven professors and tutors, a larger number of gentlemen than either of the other Normal schools; but the number of female instructors is less, it being but two in this school, and it is five or seven in the other schools. The Model school is under the superintendency of an experienced teacher who is employed by the Board of Trustees, and the teaching is principally done by students from the Normal school. These students first pass a year in studying the theory of teaching by means of text-books and lectures in the Normal school, and then practice at least three-fourths of an hour daily in teaching pupils in the classes of the Model school.

The number of students received the first year was 343, of whom 266 were males, and 77 females, being a larger proportion of male students than is reported from any other Normal school in this country.

WISCONSIN STATE NORMAL SCHOOLS.

HISTORICAL.

In 1857, an act was passed by the Legislature of Wisconsin appropriating twenty-five per cent. of the income arising from swamp and overflowed lands, for Normal School purposes, and creating a Board of Regents to regulate its distribution. This Board did not consider itself authorized under that act to establish a Normal School, and the income from the first year was applied to the aid of Colleges and Academies which organized and instructed normal cl:sses.

In August, 1858, Henry Barnard became Agent of the Normal Regents, and organized a system of oral and written examinations of the Normal Classes in the Colleges, Academies and High Schools of the State, as a basis of the distribution of the income of the Normal Fund, and commenced in 1859 a series of Teachers' Institutes in the different counties and of Educational addresses in the principal towns of the State. By these examinations, Institutes and professional gatherings of teachers in Town and County associations, he was able to reach in a single year, (1860) three fourths of all the teachers in the State—both those who entered on their work for the first time, as well as those more experienced. His plan of operations in 1861, embraced besides an Institute of four weeks at Madison as the nucleus of a Normal Department in the University, a series of special classes, at different parts of the State, viz.: for Teachers and such as proposed to teach; 1, The ungraded District Schools; 2, Primary Schools, and home classes of little children; 3, Intermediate and Grammar Schools and the largest or central district schools; 4, High Schools and Academies; 5, Normal Schools and Classes; 6, Colleges and all higher institutions which have a common curriculum. He had received from the most accomplished teachers in the State such pledges of co-operation in their respective fields of labor, that he anticipated larger professional gatherings and more systematic professional instruction than had ever been given elsewhere. This plan of Institutes was to be crowned by the establishment of at least three State Normal Schools, (of which one was to be a Special School of the University at Madison,) and a training or practicing school in connection with the High School in each large city.

Connected with an account of these County Institutes, and the names, residence, previous opportunities of professional instruction, and experience in teaching of each member, Mr. Barnard projected in 1859 the publication of a series of papers, selected from the American Journal of Education, on the organization, instruction and discipline of schools. In pursuance of this plan, four volumes were issued with the title of Papers

for the Teacher, and more than one thousand copies of each were distributed among the teachers of the State. The entire series embraced twenty treatises, and would have constituted the most comprehensive Library of Education yet issued in this country.*

The Superintendent of Public Instruction, (J. L. Pickard,) in his Report for 1863, remarks: "These Normal departments of Colleges, Academies, and High Schools, have not satisfactorily met the necessity. They are almost always subordinate departments; nor will the aid furnished warrant giving them a prominent place. Much good has been accomplished by these agencies, but they are at present inadequate to the demand. Permanent Normal Schools are needed, whose sole business shall be the training of teachers."

The Normal department in the State University was opened in 1863, and the attendance was for a time quite large.

In 1865, the Legislature passed an act to dispose of the swamp and overflowed lands, and the proceeds were appropriated to the Normal School fund. This act provides that the income of the Normal School fund shall be applied to establishing, supporting and maintaining Normal Schools under the direction and management of the Board of Regents of such schools, *provided*, that twenty-five per cent. of said income shall be annually transferred to the school fund income, until that shall reach the sum of two hundred thousand dollars.

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* These plans, as agent of the Normal Regents, as well as his larger plans as Chancellor, for the development of the State University, and of schools and education generally in Wisconsin, were crippled from the start by inadequate resources, (at least one half less than was promised before he accepted the responsible position, both from the University Fund, and the Normal School Fund.) and were finely relinquished in consequence of severe illness, which was followed by a prolonged physical prostration from which he did not recover for two years. His plans for the University embraced,

1. General co-operation with the State Superintendent of Public Instruction in developing a system of elementary instruction, and in establishing in every city and large village a Public High School, open to both sexes, and with a scheme of studies equal to the most advanced school of this grade in any part of the country.

Into this class of schools were to be merged the incorporated Academies, with their endowments as far as practicable pledged to support such studies as the majority of citizens might not appreciate sufficiently to maintain by public tax—and with them was to be established a system of university scholarships. These Public High Schools were to be developed as the natural reliance of the State University for students and into them were to be absorbed the studies then constituting the first year of a college course.

(2.) The discontinuance of the Preparatory Department, or Grammar Schools in the University, and its re-establishment as part of the City High School of Madison, as a model school of its grade, in which the classical department was to be under the care of the Chancellor.

(3.) The reorganization of the University on the basis of a General Course of two years which was to be an extension of the studies of the Public High School, and in which proficiency in the English language and its literature, as well as in the German, was to count as high in the distribution of College honors, as either the Latin or Greek, and on the completion of this course (six years on the elementary course,) the first Academic degree was to be awarded.

(4.) To the General Course was to be added Special Schools, devoted to Education, Law, Medicine, Agriculture, Mining, Engineering, Commerce, and the other industries of the State.

(5.) As the crowning feature of a State system of professional training of teachers, there was to be a Normal Department open to both sexes, in which the course of instruction should be liberal, as well as special—and embrace Ethics, Metaphysics, and logic,—physiology and hygiene, the constitution of the United States, and of Wisconsin, the law of the citizen and the man of business, the principles of public economy, and the history and principles of Art.

The Normal School fund amounted in 1867 to $600,000 already invested and paying seven per cent. interest, and 750,000 acres of land yet to be sold and the avails added to the fund, which will thus be increased, it is supposed, to amount to a million and a half of dollars.

The Normal department of the University has been reorganized under the law of 1867, and is now practically a college course for young women. Students in this department may also attend all the University lectures, and may, in addition to the course of study prescribed for graduation, elect any study in the College of Arts and Letters.

Five Normal Schools have already been located—one at Platteville, Grant County; one at Whitewater, Walworth County; one at Oshkosh, Winnebago County; one at Sheboygan, Sheboygan County; and one at Stoughton, Dane County. These schools are under the immediate supervision of the Board of Normal School Regents appointed by the Governor and confirmed by the Senate. There is also an Examining Committee appointed annually to visit and examine the Normal Schools. Hon. John G. McMynn, in his report for 1866, says:

"The development of our Normal School system is the most difficult educational problem that presents itself for solution at the present time. To make these schools promote the interests of public education, to so conduct them as to secure for them the confidence of the people, to so manage them as to train teachers in them for the common schools, to guard against the tendency to convert them into academies or high schools, to render them so attractive and so efficient as to bring large numbers of teachers under their influence, and to carry them on with such economy as to keep their expenses within the income provided for their support, will demand the watchful care of the people, the heartiest coöperation of the Legislature, and the greatest discretion and wisdom of the Board appointed to manage them.

They may be well attended, the discipline may be excellent, and their teachers well qualified; classes may graduate with honor, and the people may cherish a just pride in the attainments of those who have pursued their course of study; in fact they may be excellent colleges, but if they are not *training schools for teachers*, and if every thing else be not kept subordinate to the specific object for which they were founded, the result will be disastrous, not only to these schools, but to our whole educational system. The success of Normal Schools in other States—while it has been such as to warrant a hope that the policy we have inaugurated may be successfully carried out—has not been so marked and so uniform as to assure us that we shall not encounter difficulties that prudence, forecast and energy alone will enable us to overcome."

STATE NORMAL SCHOOL AT PLATTEVILLE.

The State Normal School at Platteville was opened October 9th, 1866. It occupies, for the present, the building formerly known as the Platteville Academy, which cost about $20,000. Adjoining buildings are now in process of erection which will be ready for occupancy in 1868, and will cost $15,000 or more.

The Faculty of Instruction already appointed includes three gentlemen and two ladies. Charles H. Allen is Principal.

ADMISSION OF STUDENTS.

The Board of Regents of Normal Schools has adopted the following regulations for the admission of students to any State Normal School:

1. Each Assembly district in the State shall be entitled to six representatives in the Normal Schools, and in case vacancies exist in the representation to which any Assembly district is entitled, such vacancies may be filled by the President and Secretary of the Board of Regents.

2. Candidates for admission shall be nominated by the County Superintendent of the county, (or if the County Superintendent has not jurisdiction, then the nomination shall be made by the City Superintendent of the city,) in which such candidates may reside, and they shall be at least sixteen years of age, of sound bodily health, and good moral character. Each person so nominated, shall receive a certificate setting forth his name, age, health and character, and a duplicate of such certificate shall be immediately sent by mail by the Superintendent to the Secretary of the Board.

3. Upon the presentation of such certificate to the Principal of the State Normal School, the candidate shall be examined under the direction of the Principal of said school, in the branches required by law for a third grade certificate, except History and Theory and Practice of Teaching, and if found qualified to enter the Normal School in respect to learning, he may be admitted, after furnishing such evidence as the said Principal may require, of good health and good moral character, and after subscribing the following declaration:

"I ——— do hereby declare that my purpose in entering the State Normal School is to fit myself for the profession of teaching, and that it is my intention to engage in teaching in the schools of this State."

4. No person shall be entitled to a diploma, who has not been a member of the school in which such diploma is granted, at least one year, nor who is less than nineteen years of age; and a certificate of attendance may be granted by the Principal of a Normal School to any person who has been a member of such school for one term, provided, that in his judgment such certificate is deserved.

COURSE OF STUDY.

The instruction is adaped to those who design to teach, and hence is thorough and comprehensive. The discipline is such as to secure self-control, and to promote respect for law and order. Certificates of attendance will be given to those who attend the school for at least one term, and to those who shall attend at least one year and pass an examination, a diploma will be granted. Section 13 of chapter 116 of the general Laws of 1866, provides that "After any person has graduated at the State Normal School, and has taught a public school in this State one year, the Sperintendent of Public Instruction shall have authority to countersign the diploma of such teacher, after such examination, as to moral character, learning, and ability to teach, as to the said Superintendent may seem proper and reasonable."

Section 14 provides, that "Any person holding a diploma granted by the Board of Regents of Normal Schools, certifying that the person holding the same is a graduate of a State Normal School, and that he is qualified to teach a common school, shall, after the same has been countersigned by the Superintendent of Public Instruction, as provided in section 13 of this act, be deemed

qualified, and such diploma shall be a certificate of qualification, to teach in any common school of this State, and as such shall have the full force and effect of a first grade certificate, until annulled by the Superintendent of public Instruction."

The Board is authorized by section 12 of chapter 116, to provide lectures on Chemistry, Anatomy, Physiology, Astronomy, the Mechanic Arts, Agriculture, and on any other science or branch of literature that shall be deemed proper, and it is the design to afford such facilities for acquiring knowledge as will enable those who wish to fit themselves to teach, to save both money and time by availing themselves of the advantages of a Normal School. All students will be taught *how to teach*, by being required to *do* in the experimental school, what they must afterwards do in the public school.

In professional training, lectures are given daily in some one of the following subjects, viz: proper course of study and training in public schools; methods of instruction and school government; and the students prepare essays and reviews of these lectures.

There is a Model School connected with the Normal School, in which the Normal students practice teaching during the last year of the course.

The Scholastic year is divided into three terms: the first to commence on the first Tuesday of September, and to consist of sixteen weeks; the second to commence on the Tuesday succeeding New Year's day, and to consist of fourteen weeks; and the third to consist of ten weeks and to end on the last day of June.

Students nominated by County or City Superintendents will be admitted at any time during the term.

To all persons, residents of this State, if found qualified to enter a State Normal School, tuition is free. Board may be obtained at reasonable rates—from $2.25 to $3.25 per week. A small charge, of from 75 cents to $1.25 per term, is made for the use of text books.

It is expected that, for the present, the Normal Schools of Wisconsin will do most of their work upon the State at large, through under-graduates. Teachers of some experience will come up and stay one, two, or three terms, to attend the lectures on teaching, and to be present at and receive the training of the classes.



STATE NORMAL SCHOOL, WINONA, MINNESOTA.

MINNESOTA STATE NORMAL SCHOOL,

AT WINONA.

HISTORY.

THE Legislature of Minnesota, in 1858, passed an act directing the Governor to appoint a Normal Board of Instruction, consisting of a Director in each of the six Judicial Districts of the State, to whom was intrusted, under certain restrictions, the establishment of three State Normal Schools. The statute provides that, "There shall be established within five years after the passage of this act, an institution to educate and prepare teachers for teaching in the Common Schools of the State, to be called a State Normal School, and also within ten years, a second Normal School, and within fifteen years, a third, provided that there shall be no obligation to establish either of the three schools, until the sum of five thousand dollars is donated to the State in money and lands, or in money alone, for the erection of necessary buildings and for the support of the professors or teachers in such institutions; but when such sum is donated for such purpose, a like sum of five thousand dollars is appropriated by the State, for the use and benefit of such institutions."

The Normal Board at its first meeting in the capital, August 16th, 1859, formed the six Judicial Districts of the State into three Normal Districts.

The citizens of Winona, having offered a subscription of seven thousand dollars on condition that one of the schools should be located there, the offer was accepted by the Board and the first State Normal School of Minnesota was established at Winona.

This school was organized in September 1860, and continued in operation until the Spring of 1862, when it was suspended owing to the embarrassments growing out of the war and no appropriations for its support were made for the two years ending with 1863.

At the session of the Legislature for 1864, a permanent annual appropriation was made for its support as follows: $3000 for the year 1864, $4000 for 1865, and $5000 annually thereafter. The school was reorganized and reopened under the direction of the present Principal on the first of November 1864, since which time it has steadily increased in prosperity and influence. It is now exerting a powerful influence upon the cause of public education throughout the State. In the year 1866, an appropriation of $10,000 was made toward the erection of a suitable building. In the winter of 1867, a second appropriation of $50,000 was made for the building. In addition to this sum, the city of Winona has already appropriated and pledged $25,000 for the same object. One of the finest Normal School edifices in this country is now (1867,) in progress

for the use of the school. Its extreme dimensions are about 85 by 166 feet, and it is four stories high including a high basement. The building includes all the apartments and accommodations necessary for a first class training school for teachers, and it is expected to be completed in the year 1869.

John Ogden was the first principal. He remained in charge of the school until its suspension in 1862. On its reorganization in 1864, Prof. W. F. Phelps, for many years at the head of the Normal School of New Jersey, was appointed principal.

CONDITIONS OF ADMISSION.

1. Applicants must be at least 16 years of age, and must present to the principal satisfactory evidence of good moral character, of sound bodily health and of special adaptation to the office of teacher.
2. They are expected to sustain a fair examination in Reading, Spelling, Writing, Geography, Arithmetic and the elements of English Grammar.
3. They must be willing, if admitted, to declare in writing, their intention to teach in the Common Schools of this State, for at least two years, and sign an agreement to report themselves to the principal semi-annually, by letter, for the aforesaid period of two years, after having left the Institution.
4. At least three pupils will be received from each senatorial district, as now existing under the laws of the State. The number will be limited only by the capacity of the school to accommodate students. In case there should be vacancies in any of the districts, they may be filled by applicants from other districts, provided such applicants present themselves within ten days from and after the opening of a term.
5. Candidates are required to be present promptly at the opening of the term. They will not be received for less than one term, and once admitted, they will be entitled to the privileges of the school, until honorably discharged, or until their rights shall have been forfeited by unauthorized absence or other misconduct.

The examinations for admission are conducted by the principal and his assistants.

COURSE OF STUDY.

The studies indicated are arranged as far as possible according to their natural affinities, and not according to the order in which they will be prosecuted by the student.

English Language—Elementary sounds of the language; pronunciation; spelling; analysis and definition of words; reading and elocution; grammar, including the analysis, synthesis and classification of sentences; composition; rhetoric and criticism; English literature; *the best method of teaching the above.*

Mathematics.—Number, its properties and laws; intellectual and written arithmetic; form, the facts of geometry; theoretical and practical geometry; elements of algebra; book keeping; surveying and civil engineering; *best methods of teaching the above.*

Physical and Natural Sciences.—Natural philosophy; physical and political geography; chemistry; botany; natural history; human philosophy; geology; elements of agriculture; astronomy; *methods of teaching the above*

Graphics.—Principles and practice of penmanship; isometric and perspective drawing; object drawing; industrial drawing; topographical drawing; drawing applied to illustrative teaching; *best methods of teaching drawing.*

Political Economy.—Science of Government; Constitution of the United States and of Minnesota; lectures on the resources of the United States and Minnesota; history of the United States.

Theory and practice of teaching.—Intellectual and moral philosophy; lectures on the principles of education; history of education; didactic exercises or sub-lectures; observation in model school; preparation of sketches; criticism, lessons in teaching; teaching in practice school; school laws of Minnesota.

The course will require three years. It is at present only partially carried out owing to the urgent demand for qualified teachers for the district school. The average duration of the course as now pursued is two years. The school is divided into four classes designated A, B, C, and D, and to each class are assigned four exercises per day besides the lesson in vocal music and the "criticism teaching exercise." Each class has one study hour during the daily session, and every student is required systematically to arrange his hours out of school and make weekly reports to the principal.

The most careful and constant attention is given to the development of clear ideas, methodical habits of thought and exact expression, and to the cultivation of those traits of character essential to success in teaching. The special object of the school is ever kept prominently before its pupils.

The plan of the institution comprises both a graded model and a graded practice school of not less than four departments each. This plan cannot be fully carried out until the new buildings are complete. There is at present a model school of three grades, primary, intermediate and grammar, each under a permanent teacher. Each of these departments accommodates 40 pupils who pay a quarterly tuition fee of $7.50, seven dollars and fifty cents. From these tuition fees the model school is supported, being no charge whatever upon the State.

Into these model schools the pupil-teachers of the Normal School are sent carefully to observe and take note of the discipline and methods of instruction, and are afterwards critically examined upon the subject. Classes from the Model Schools are also daily brought before the Normal School to receive criticism lessons at the hands of the pupil-teachers of the latter.

These Model Schools are entirely under the control of the Normal School and are an integral part of it. They are entirely independent of the local school system. The precise amount of observation and practice to be obtained by the pupil-teachers is not yet fully determined, but they are part of the daily work throughout the entire course.

The number of pupils in the Normal School is at present limited by the narrow accommodations afforded the institution. The total number instructed last year was 80. Of these 13 were males and 67 females. In the Model Schools there were during the year 164. Two classes were graduated last year, numbering 16 and 14 persons respectively.

BOARDING ARRANGEMENTS.

No special arrangements have yet been provided for boarding the pupils. They are now accommodated in private families where they enjoy all the comforts and influences of the family relation, at a cost of from $3.50 to $4.50 per week. Special arrangements however are under consideration by which the expenses of the student will be much reduced.

EXAMINATIONS.

Monthly written examinations of the classes are held, to determine the progress and standing of each student. These examinations are a review of the subjects passed over during the month.

The final examinations are held during the week preceding the last week of a semi-annual session, and they determine the *status* of the student in respect either to graduation or to his classification during the succeeding term.

The public examinations are held during the last week of each semi-annual session, and their sole object is to keep alive public interest in respect to the claims of true education. The public are cordially invited to attend these examinations, as well as to visit the school at all times.

PRIVILEGES OF STUDENTS.

Students completing in a satisfactory manner the prescribed course of study and training, receive a diploma entitling them to teach for a period of five years in this State, without examination by the local school officers.

There is no charge for tuition.

All necessary books and stationery are supplied to the student on payment by him of five dollars for each semi-annual session.

Such miscellaneous and reference books as belong to the library of the institution are loaned to the student under proper restrictions.

The Normal School is well supplied with maps and geological charts.

Considerable progress has also been made in the collection of minerals and fossils illustrating the geology and paleontology of Minnesota.

Sufficient chemical apparatus also for the illustration of the course in that department has been secured. To all these important aids, the students have free access.

GRADUATING THESES.

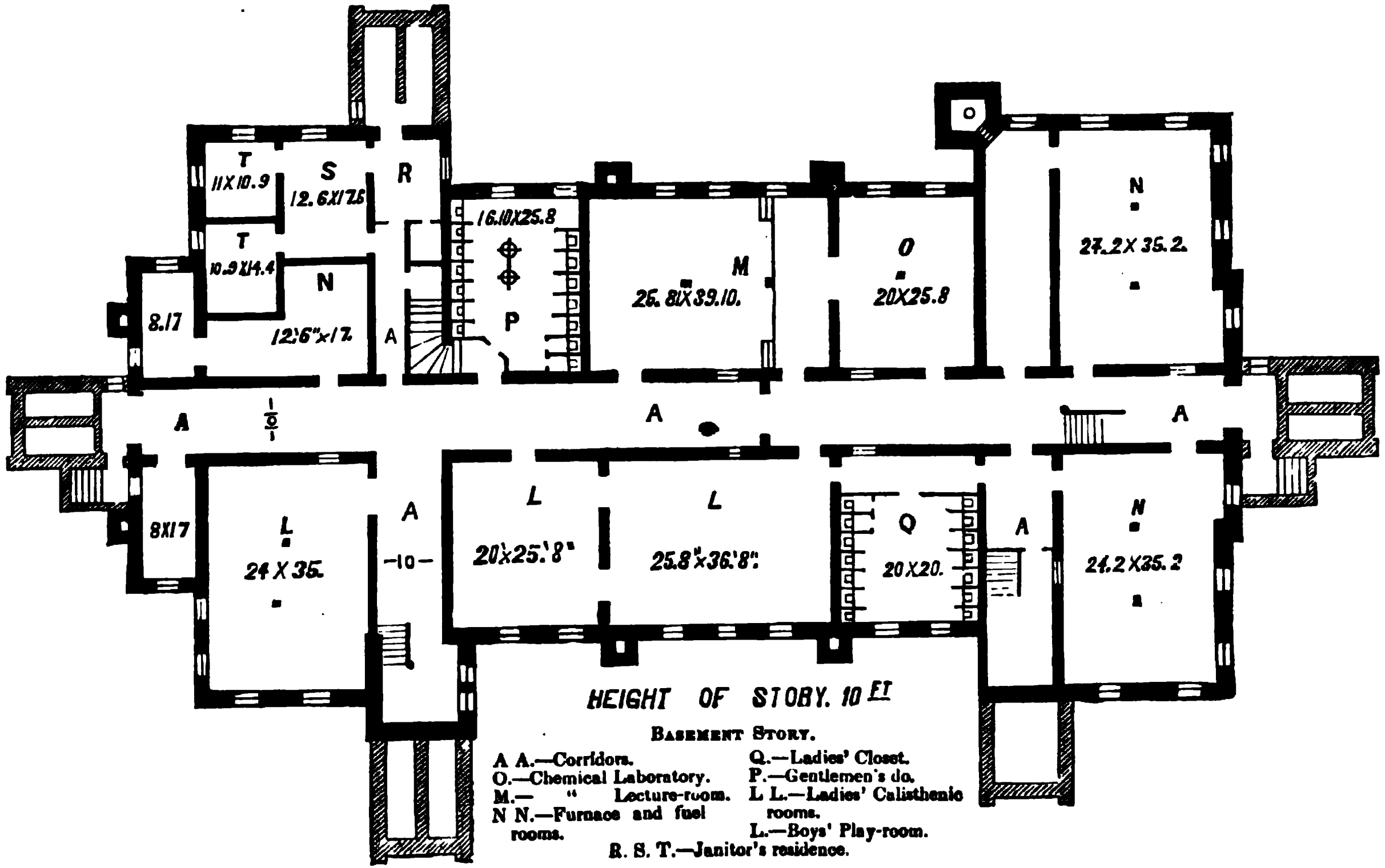
All candidates for graduation are required to prepare and defend a Thesis upon some subject assigned by the Principal, which has an immediate relation to the studies and exercises of the course.

It must be fully elaborated in accordance with instructions given for the purpose, and, when the subject admits of it, must be accompanied by the necessary illustrative or working models and designs, suitable to its clear and forcible elucidation.

The Theses, with the accompanying drawings, models, etc., are deposited for permanent preservation among the archives of the school.

The results of the final examinations, together with those of the record of daily attendance, are published in the annual reports to the Legislature, for the purpose of exhibiting to the people the standing of each student in respect to deportment, scholarship, and professional capacity.

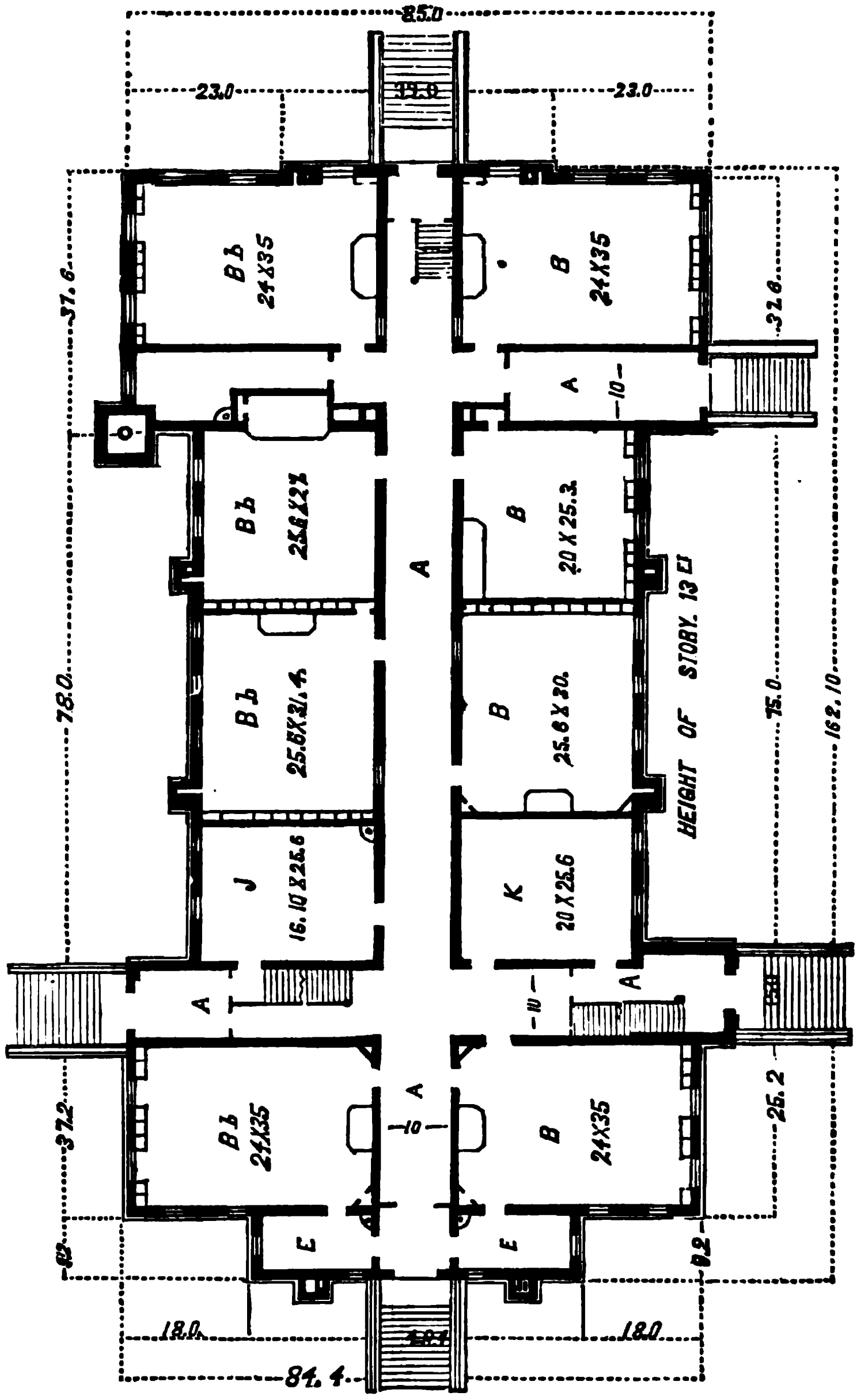
No student who fails to pass the prescribed examination at the close of a semi-annual session is allowed to advance with his class, but is required to review the studies in which he is deficient, in case he remains in the school.



HEIGHT OF STORY. 10 FT

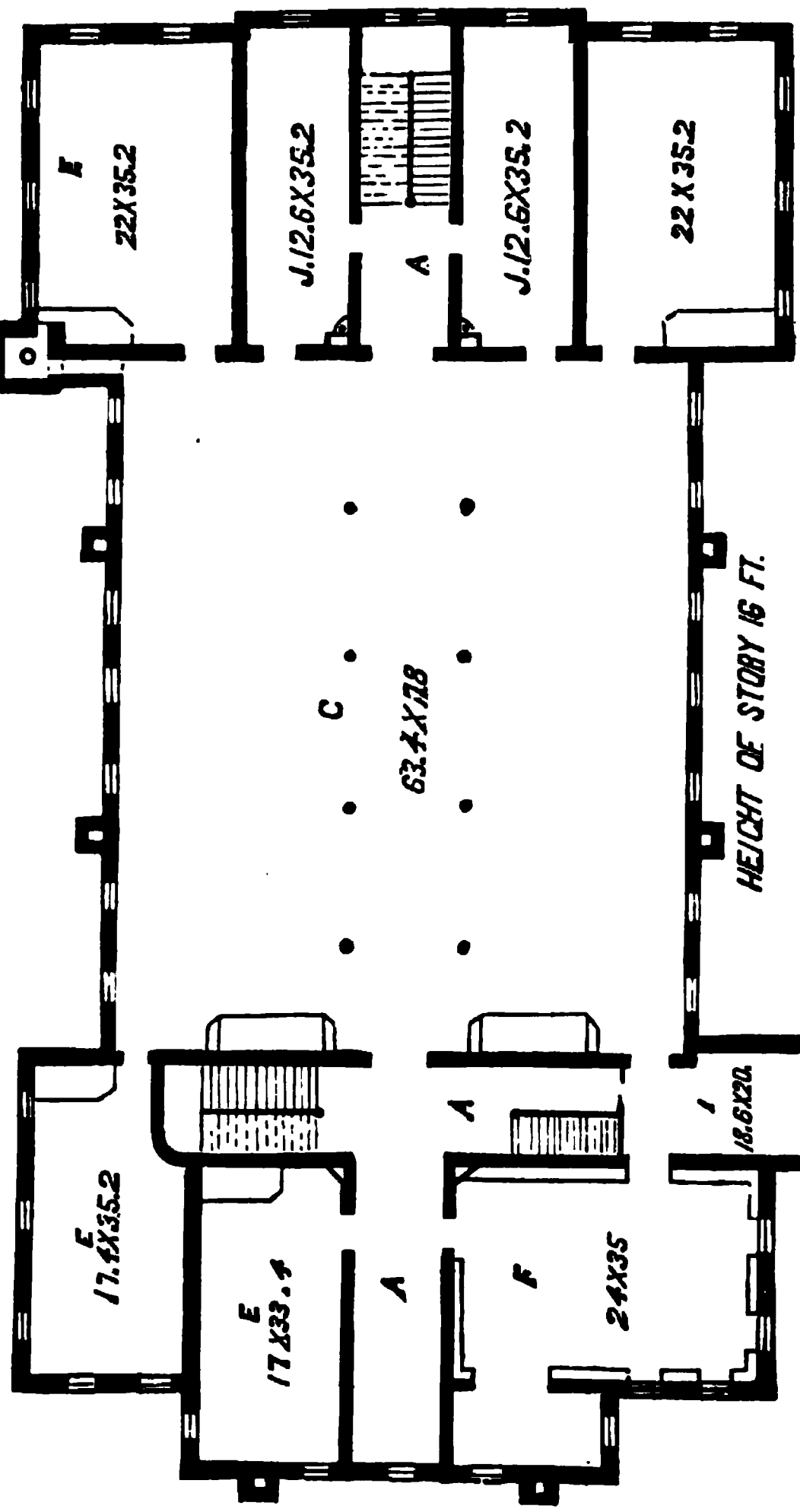
BASEMENT STORY.

A A.—Corridors.
O.—Chemical Laboratory.
M.— " Lecture-room.
N N.—Furnace and fuel rooms.
Q.—Ladies' Closet.
P.—Gentlemen's do.
L L.—Ladies' Calisthenic rooms.
L.—Boys' Play-room.
R. S. T.—Janitor's residence.



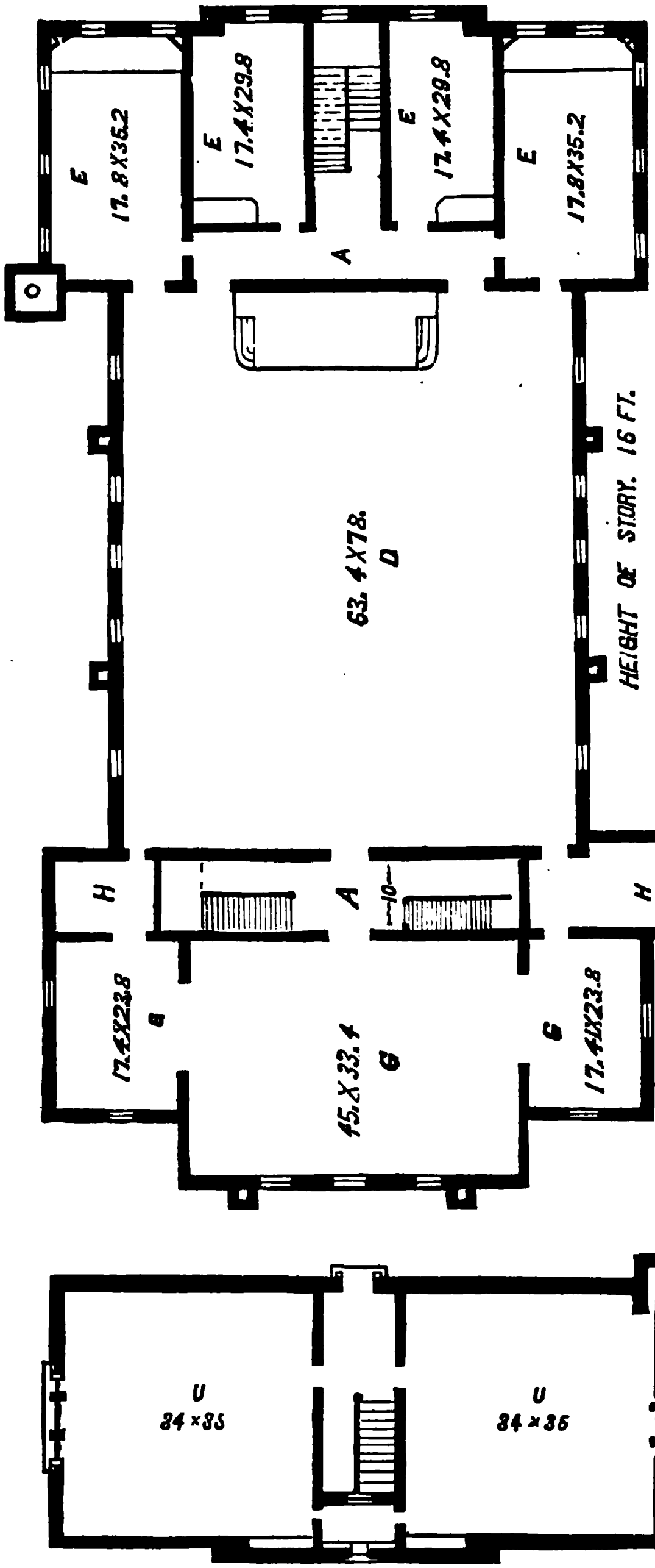
FIRST STORY.

A A, &c.—Corridors.
K.—Reception-room.
B B, &c.—Model School-rooms.
J.—Gents' Cloak-room.
B b B b, &c.—Practice School-rooms.
E E.—Wash-rooms.



Second Story.

C.—Normal Assembly-room. E E.—Class-rooms.
L—Principal's office (main tower.) J J.—Ladies' Wardrobe-rooms.
A A.—Corridors.
F.—Library.



THIRD STORY.

A A.—Corridors. D.—Normal Hall.
E E, &c.—Class-rooms. G G, H H, &c.—Natural History rooms.

FOURTH STORY, (WEST WING)

W W.—Drawing-room and Art Gallery.

CALIFORNIA STATE NORMAL SCHOOL.

THE foundation of the Public School System of California was laid in 1849. Ten years after, the Superintendent, Hon. Andrew J. Moulder, recommended among other measures of improvement, the establishment of a State Normal School. He still further urged this measure in 1860, and in 1861 asked for a direct State appropriation of five thousand dollars for such school.

In 1862, the Legislature passed an act establishing a State Normal School in the city of San Francisco, and made an appropriation for that purpose of $3,000. The appropriation for 1863–64 was $6,000, and for 1864–65, $8,000.

The Normal School was opened in a class-room of the San Francisco High School building, on the 23d day of July, 1862, under the superintendence of Mr. Ahiru Holmes, who continued Principal until July, 1865. Mr. George W. Minns was elected Principal in June, 1865, and took charge of the school on the 10th of July, following.

The general character of this school and the aim of its officers may be seen by the following extract from the first report of Mr. Minns to the Trustees in 1866. He says:

> Normal Schools are not high schools or academies, established for the purpose of enabling a certain number to pursue the higher branches of learning; but their object is direct, plain, and practical; it is to benefit the people at large, by providing for the common schools a class of well trained teachers. The course of study is therefore at present almost entirely restricted to those branches which are taught in the common schools. And this is, in my opinion, as it ought to be. The Normal School was never intended to attempt to give an extended course of instruction in the arts and sciences, or in the languages; but its purpose is—by rendering its pupils thoroughly acquainted with the fundamental branches of a good English education, by familiarity with the best methods of teaching, by a knowledge of the principles and methods of human culture, and of the true order of study, by endeavoring to give them an insight into human nature, so as to enable them to perceive the best methods of government and discipline, and, lastly, by their applying what they learn in the actual teaching and governing of classes in the training school—its purpose is, by these means, to send into the common schools throughout the State a class of teachers whose excellence, ability, and aptitude for teaching will be at once felt and acknowledged. I have no doubt, also, that the Normal School, as it increases the number of its pupils, will, in course of time, cultivate an *esprit de corps* among its members which will be beneficial alike to teachers and to the community. No one can fail to see the advantages that will result to the cause of education from having dispersed over the State teachers who are mostly graduates of one institution, and therefore feel a friendly interest in one another's success and welfare, who would often correspond and interchange opinions concerning the best methods of advancing the cause in which they were all engaged.

It must not be forgotten, moreover, that our State Normal School is and will be the principal means of enabling our own citizens, who design to become teachers, to compete with the graduates of Eastern Normal Schools.

In September, 1865, the Normal School was removed to a building which is occupied entirely by the different departments of the school.

The upper part of this building is occupied by the Normal School, and the lower by the Training School, of four classes, directed by Mrs. C W. Stout and Miss H. M. Clark. Four pupils of the Normal School are detailed in turn every week to instruct and govern these classes, under the supervision and with the assistance of these experienced and accomplished teachers. The Normal School now possesses greater advantages in this respect than it ever did before. The practice in teaching, which members of the school will have in the course of a year, will be of incalculable benefit to them.

Upon the organization of the school in July, 1865, forty-one pupils in all were admitted to the different classes, making the whole number in the school eighty-five.

Since the establishment of the school there have been entered upon the register two hundred and sixty-two names. These represent nearly every county in the State. The majority have not remained long enough in the school to obtain a diploma. This is owing to various causes, the principal of which is, the want of means to defray the expenses of board and lodging while attending the school. Young men and women have told me of their earnest desire to continue longer in the school, but have stated that it was absolutely necessary for them to do something to support themselves, and have left to take positions as teachers; others enter merely to become acquainted with a certain branch, and, as soon as their object is accomplished, leave, never having been candidates for a diploma; while still others change their plans in life, and engage in some other occupation.

All pupils, before being permitted to join the school, are required to subscribe to the following:

"We hereby declare that our purpose, in entering the State Normal School, is to fit ourselves for the profession of teaching, and that it is our intention to engage in teaching in the public schools of California."

KANSAS STATE NORMAL SCHOOL

AT EMPORIA.

HISTORY AND ORGANIZATION.

PRELIMINARY steps for the organization of a Normal School in Kansas were taken by the Legislature of 1863; the location of the School was fixed upon, and it received an endowment of thirty thousand three hun- and eighty acres of salt lands, but as these lands were not sold, the School received no income from them.

The Superintendent of Public Instruction, Hon. Isaac T. Goodnow, in his report for 1863, recommended the full equipment of the School. He says: "Hitherto most of our teachers have only taught as a temporary employment—as a mere stepping stone to something that *pays better*. Whatever education they may have received was not with special reference to teaching.—As a general thing, teaching is a failure. For preparation for the specific business of teaching, we look to the Normal School."

The subject was discussed by the friends of education in various ways, and the institution was finally established by the Legislature, and located at Emporia in 1864, but was not fully organized till the fifteenth day of February, 1865, when eighteen students were gathered in a room belonging to the district-school of Emporia, with a single teacher, to commence the work of Normal Instruction in this State. The number increased till forty-two were enrolled before the close of the term in June. The Board of Visitors, of which Judge L. D. Bailey, of the Supreme Court, was chairman, presented an able report to the Legislature, which did much toward confirming public opinion in favor of the School.

The second term began in September with sixty students. There were eighty-five students in attendance during the first year. The School, though opened as an experiment, was demonstrated an entire success before the close of the first year. The closing exercises were fully attended by distinguished educational men from different parts of the State, and an account of these exercises published in most of the Kansas papers.

In 1865, by reason of the increasing number of students, making the apartments then in use entirely inadequate to the wants of the School, it was decided to ask the State for an appropriation to construct a building which, answering the purpose of the school for a few years, might then be set apart for the use of the Model School department without loss to the State. The Legislature very willingly acceded to the request, and authorized the Board of Directors to construct a suitable edifice at the State's expense. The building is arranged with special reference to the wants of a teachers' school, and will prove well adapted to the pur-

poses for which it was designed. Utility and economy of construction were before the minds of the Board of Directors, rather than beauty and architectural finish, but still the latter were not ignored.

The cost of the building and equipments was $18,000. It was dedicated January 2d, 1867. The following passage is taken from the address of President Horner, of Baker University, at the dedication :—

> In the erection of these massive walls, in the completion of this fair fabric—this ornate temple of learning, the intelligence of our people and the wisdom of our legislators have forged another and the brightest link in our educational system. Intimately connected as it is with the welfare and success of our common schools, the grand basis upon which rests the superstructure of our educational system, and the crowning glory of our civilization, it is and must ever continue to be the pride and glory of our people. Already is it infusing into our common schools the healthful, invigorating influence of its teaching. It will elevate the teacher's humble calling to its proper place in the ranks of the learned professions. Its mission is to supply skillful, trained, disciplined, *professional* teachers for the thousand schools of the State. We only need these to develop in our State a system of education that shall reflect immortal honor upon its founders.

The Normal School is under the supervision of a Board of Directors which consists of nine persons—the Governor, State Treasurer, State Superintendent of Public Instruction, and six other persons appointed by the Governor for a term of three years.

The appropriations to the school in 1866 were $14,000, to finish the building, and for current expenses. From $5,000 to $6,000 were required in 1867.

The school has some thirty-eight thousand acres of valuable land, known as the "salt lands," lying principally in the Western part of the State, for an endowment. The interest of the principal arising from the sale of this land is to be used for the maintenance of the school from year to year. At present the land is not available in this way. Nor will it be advisable to sell it too soon. Being near the line of the Pacific railroad, and containing, as it is confidently believed, valuable mineral deposits, it may be made a source of no small revenue to the school, if a favorable time be chosen for its sale, and judicious contracts made. Until this sale is effected and the proceeds carefully invested, the support of the institution will be due to the annual appropriations made by the Legislature. That these will be in keeping with the requirements of the school, there is every reason to believe, judging from the past action of that honorable assembly, the growing popular sentiment in its favor, and the general fact that Normal Schools have been adjudged necessary to the highest efficiency of the free school system with which Kansas, in common with other States, is favored.

The Faculty of Instruction at present comprises a Principal, Associate Principal, and one lady teacher. L. B. Kellogg is Principal.

ADMISSION OF STUDENTS.

The terms of admission are given in the following extract from the Organic Act, Sec. 9 :—

That each representative district in this State shall be entitled to send one pupil each term of said school, said pupil to be recommended by the representative of the district to the Board of Directors; the person thus recommended shall be admitted free of tuition. *Provided*, the applicant shall be of good moral character and shall sustain a satisfactory examination, and sign a declaration of intention to follow the business of teaching common schools in this State, (as long as he or she shall remain in the school as a student.) *And provided further*, That pupils may be admitted without signing such declaration of intention, on such terms as the Board of Directors may prescribe.

Students are required to be, if males, seventeen, and if females, sixteen years of age. This rule may be suspended in favor of pupils who intend to complete the course of study before teaching, and manifest sufficient maturity of mind.

This rule has been suspended in a few instances, but never in such a way as to reduce the average age of the students below the maximum.

It was foreseen by the Board of Directors that, at the first, there would be many districts unrepresented. To meet this condition of affairs and enable the school to commence educating a fair number of teachers, it was decided that, for the present, "All students who pledge themselves to become teachers, will be admitted free of tuition: *Provided*, the whole number so admitted does not exceed the number of representative districts in the State; *And provided*, that a small entrance fee be required of each at the beginning of every term." Pupils admitted to the school are entitled to its privileges until they graduate, unless they forfeit this right by voluntary absence, by improper conduct, or by failing to exhibit evidences of scholarship and fair promise of success as teachers. The pledge above referred to is here given:—

TEACHER'S PLEDGE.—I hereby declare that it is my intention to become a teacher in the schools of this State, and that my object in attending the Normal School is the better to prepare myself for this important work.

The construction put upon the pledge is this: that the student is to teach as long as he studies in the school; that is, if he enjoys the benefits of the school the full three years required to take all the studies, he must teach three years. After this, the teaching is voluntary. For shorter times, in the same way.

COURSE OF STUDY.

The Course of Study has been adjusted so as to include, as it is believed, all the studies to which teachers of our public schools most need to direct their attention. Arithmetic, algebra, geometry, trigonometry, astronomy and natural philosophy, reading, spelling, writing, grammar, rhetoric, composition and literature, geography and history, chemistry, physiology, botany, geology and zoölogy, singing and drawing, with *theory and art of teaching*, constitute the studies.

Six terms are occupied with the study of the science, method and history of education. The course takes a somewhat wide range, and includes: 1. The organization and classification of schools. Programme of daily exercises. The recitation. School government. Motives. The incentives which a teacher may allow to act upon himself or his pupils. The conscience—how it should be educated. 2. The order, in time, of the development of the mental faculties, and the exercises best adapted to encourage their growth. The special purpose of each faculty, and the means to train it. Laws of bodily health: Ventilation, posture, gymnastics. Formation of courses of study. Mental philosophy precedes and is made the basis of instruction in this part of the course. 3. History of systems and methods of education. Biographies of eminent teachers. 4. Primary instruction. Object teaching. Grading of schools. Drill exercises in teaching. Observation and practice in the Model School. 5. The Constitutions of the United States and of the State of Kansas. Duties of teachers as citizens. 6. The school laws of Kansas. School supervision and school man-

agement. School-house architecture. Practice in the Model School. General teaching exercises in the Normal School.

As the course is arranged, it will be necessary for students of average ability and industry to remain in the Normal School three years before graduation. The diploma of the institution is granted only to those students who complete the full course of study and training, and give evidence of fitness to teach. It is very desirable that students remain in the school until they graduate; but pupils are received for shorter times; none, however, for less than one term. Tuition is free.

Students are admitted only at the beginning of each term, unless there be special reason why the rule should be departed from.

A contingent fee of five dollars a year is required of each student, to meet incidental expenses.

The Model Department is established in order to give the Normal students an opportunity to witness the actual working of a school conducted in accordance with those principles which enlightened experience has shown to be best for the education of boys and girls, and also to give them practice in actual teaching under the supervision of the instructors of the Normal School. It is the design to make the school in every way a *model* for teachers.

The number of students in the Model School will be limited to thirty. They will be of two grades, viz.: students nearly old enough and not quite sufficiently advanced to enter the Normal School; and, second, boys and girls of from ten to thirteen years of age, who have had fair opportunities for education. Students will be received from all parts of the State. Obligation to teach is not made a condition of admittance. Tuition at the rate of $6,00 a term will be charged. This school will be under the direct supervision of the Principal.

Thus far board has been obtained in private families at about $4,00 per week, exclusive of lights, fuel and washing; or in clubs, or self-management, at lower rates.

One of the serious hindrances to the progress of the school has been found in the high prices paid by the students for board, to which should be added the difficulty of obtaining board at any price. To supply students with the privileges of a home at reduced cost, a joint stock company, known as the Normal School Boarding House Association, has been incorporated, whose purpose is the construction of a commodious edifice to be used by Normal students as a boarding-house. Stock to the amount of some eight thousand dollars has been taken, and the building commenced. The result of having such a house can not be otherwise than beneficial to the school. The credit of originating this enterprise, and prosecuting it thus far, is due, in great measure, to the Rev. G. C. Morse, the authorized agent of the Association.

The number of students the last year was 130. Whole number, 250.

Number of graduates 2. Number in Model School, 27.

Nearly all the text-books used by the pupils are supplied by the State.

Any pupil who has contracted vicious habits, or who does not cheerfully comply with the requirements of the school, will not be allowed to remain in it as a member.

Connected with the school there is a well-conducted Literary Society, which gives opportunity for social and refined culture.

A Bible Class, conducted by a member of the Faculty, is sustained by the students.

Physical exercises are taken daily.

Students who wish, have opportunity to take music lessons.

MAINE STATE NORMAL SCHOOLS.

HISTORICAL DEVELOPMENT.

THE Legislature of Maine, by an act passed July 27th, 1846, constituted a Board of Education composed of twelve members.

This Board, at its first meeting in December, 1846, appointed its Secretary, and also a committee on the qualification and education of teachers. The Board and its Secretary in their first report recommend the adoption of measures which should help to secure better qualified teachers. The committee of the Board appointed to examine the subject advised that the State be enlightened by public addresses and lectures, and say that "when these measures have done their work upon the public mind, it may be hoped the time will have arrived when a State institution for the qualification of teachers may be established and amply endowed. The Secretary of the Board, W. G. Crosby, in his report for 1849, asked for an appropriation from the income of the permanent school fund for the support of Normal Schools.

In 1854, a law was passed, providing for the appointment of a Superintendent of Common Schools. This officer, Hon. C. A. Lord, in his first report, dated December, 1854, advised the establishment of Normal Schools as the only permanent remedy for incompetent teachers. His successors, Hon. Mark H. Dunnell in 1855, 1857, 1858 and 1859, and Hon. J. P. Craig in 1856, in their annual reports presented urgent reasons for the organization of a Normal School for the State. Mr. Dunnell in one of his reports gave a history of Normal Schools in other States and countries, and pointed out their influence upon public schools, and the satisfactory results which had already been obtained. Teachers' Institutes had been held for several years, but though accomplishing much in the improvement of teachers, "they had proved inadequate to meet the demand for higher qualifications and that thorough preparation deemed essential to the prosperity of Common Schools."

To meet this increasing demand, the Committee on Education, in 1860, reported a bill providing for the education of teachers in eighteen different academies. This bill was passed by the Legislature, and eighteen hundred dollars appropriated at once, and thirty-six hundred dollars, annually thereafter, to carry out the provisions of the act.

Sixteen academies accepted the provisions of the bill, and provided for distinctive Normal instruction. Five hundred and sixty-six young

ladies and gentlemen received the advantages of this normal arrangement in the Autumn of 1860, two hundred and sixty-four in the Spring, and five hundred and eighty-five in the Autumn of 1861. This plan of educating teachers was not thought successful, and in 1861, the Superintendent of Common Schools, Hon. E. P. Weston, recommended to the Legislature the repeal of the law, and the establishment of Normal Schools. The system was accordingly abolished in 1862, and an act passed to carry out the recommendation of the Superintendent.

The act provided for two Normal Schools, one in the Eastern and one in the Western part of the State. These schools were "to be thoroughly devoted to the work of training teachers for their professional labors," "including the best methods of government and instruction."

Three Commissioners were appointed by the Governor to locate the proposed schools. Propositions were received from the Trustees of Academies, and from citizens, offering to furnish the necessary accommodations. The Commissioners, after visiting the localities from which these propositions were received, and comparing their specific advantages, decided to locate the Western Normal School at Farmington, and the second or Eastern Normal School at Castine.

The advantages expected to be derived from Normal instruction are thus set forth by the Superintendent, Rev. Edward Ballard:—

The opinion has been but too prevalent, that a High School or Academy can qualify teachers as well for their work as the institutions specially established for this purpose. But it is to the credit of the Normal methods, that in some of our higher literary institutions, classes have been formed with distinct reference to this plan. It is also to the credit of the intelligent perception of their value, that these methods are thus made a part of the instruction. Doubtless too in the ordinary use of High and Academic instruction, and with a Normal class added to the whole order, very large substantial benefits have been received for educational use. But it must be a fallacious supposition to consider, that the discipline in either of these cases can be equal to the regular, systematic and thorough drill of the full proposed Normal course.

It would be more than well if all the pupils admitted to our Normal Schools could have the preparation acquired in our best High Schools; so that here there would be only the unfolding and application of the Normal principle, and a shorter stay required under this tuition. But as we can not exact this condition for entrance, until the schools in the State are raised to a much higher grade than at present, the Normal School must teach, first the lessons to be taught in the way of a thorough review, and then teach how they are to be taught; or, in other words, knowledge and the methods of imparting it.

The usual length of the course in our country is two years. The second is the one most profitable for the future teacher. As there still seems to be a want of information in some parts of the State on the design of these institutions, it may be proper to place on these pages some of the purposes to be reached, in coming to the great object proposed.

1. The increase of the pupil's power to teach, in whatever branch of common school study he is hereafter to be employed. The training is designed to make him thorough in the knowledge of his department. It is not merely to acquire information that he is enrolled as a student; but he is expected, under the discipline, to master the separate subjects, so as to be able without confusion of thought or perplexity of manner, to transmit to others what he knows and as he knows it. Hence great care is taken that in description, direction or explanation, right words shall be used, and none superfluous, to convey the exact idea.

2. To place education in the teacher's mind, on a scientific basis. No subject can be well taught without the adoption of certain principles, that will be the

same to direct, whenever the same subject comes up again. These principles will mark out the line of his procedure. He will know what to do and why he does it. Rules will grow up spontaneously for his own use; and in their influence, will enter the minds of his future pupils, even without the written formula.

3. Hence, too, will come *methods* of teaching, which are derived from the wisdom and experience of the best teachers, here brought together, to save the labor of learning through years of toil by the like experience. One of the great excellences of the Normal School is this collection of practical wisdom. These methods will be adapted to the various ages of the scholars in the Primary, and so upward, through the Intermediate and Grammar to the High Schools.

4. And as the result of these combined influences, the adaptation of mind and manner to the actual work of the school-room. The common modes of teaching in our schools and academies have had reference mainly to the acquisition of facts, principles and rules; the study of lessons, their recitations, and where teachers have been prepared for the purpose, the illustration of the lesson by pertinent explanations. When the pupils have gone out as teachers, they carry the methods taught. In too many instances they have perpetuated the insufficient habits of several generations. It is chiefly because the improved modes, proceeding from the Normal Schools of New England, have largely entered into the instruction, that better methods have been partially introduced. How much better will it be, when the skill of every teacher, in the application of his knowledge to practice, shall have been attained by a course of study and discipline specially suited to the right accomplishment of his work. With some Normal Schools a Model School is connected, taken from the neighborhood of its location, where the Normal pupils become teachers, under the guidance of their instructors. In others the like benefit is gained in a different way; where the pupils in rotation take the position of the teacher of their own class.

STATE NORMAL SCHOOL AT FARMINGTON.

The buildings prepared for the Normal School at Farmington consist of a substantial brick edifice, sixty feet long, forty feet wide, and two stories high, with a tower, and the original academy building, which now forms a rear extension. There are accommodations for three hundred students, furnishing suitable assembly-rooms, class-rooms and halls. George M. Gage is Principal.

This school was opened on the 24th of August, 1864, in a hall prepared for its temporary accommodation. There were thirty students present at the beginning of the school; this number was increased to fifty-nine, before the close of the term.

CONDITIONS OF ADMISSION.

The "students are required to be at least sixteen years old, if females; and seventeen, if males."

All applicants must pledge themselves to render service to the State by teaching one year at least, if opportunity offers; and for two years after graduating, in case they complete the full term of study.

All candidates for admission must be prepared to sustain a creditable examination in reading, writing, arithmetic, grammar, geography and history of the United States, and must produce satisfactory evidence of good moral character.

The course of study is prescribed for two years, as follows:

First Year.—Spelling, oral, phonetic and written. Reading, with careful training in the analysis of sounds, enunciation and expression. Arithmetic, mental and written, analytic and formulary. Geography, physical and political,

with map drawing and use of the globes. History, American and foreign, so far as is consistent with other studies. English Grammar, including the analysis and composition of the language. Natural philosophy and physiology. The Constitution of Maine, the school laws, and good manners.

Second Year.—Algebra, book-keeping, English literature, chemistry, astronomy, geometry, rhetoric, intellectual and moral philosophy, the theory and art of teaching, and the Constitution of the United States. The Latin and French languages are allowed as optional studies, if students have already made the requisite previous attainments. Students in the first year, as well as those in the second, will receive constant instruction in methods of teaching and school government; and those in the second year will spend more or less time in reviewing the elementary branches of the first year, as circumstances may require.

GENERAL EXERCISES in gymnastics, singing, public speaking and composition, will receive their appropriate attention. The reporting and analysis of lectures delivered to the classes, and the preparation of criticisms, will occupy a portion of the student's time. A voluntary, literary association, with its usual variety of exercises,—a kind of Normal Lyceum,—is already in successful operation.

Every pupil who shall complete the course of study with satisfaction to the faculty and examiners, and who shall exhibit skill in imparting instruction and fair promise of success in school management, will receive a Diploma, certifying his attainments, and signed by the Principal, Superintendent, and Governor of the State; and it is expected that such Diploma will be made a State certificate, exempting the holder for a term of years from the necessity of examination by town committees.

The object of the Normal or training school is to prepare teachers for their very important work; to give them the aid of skillful instructors, in acquiring a careful knowledge of the branches to be taught, and of the best methods of imparting that knowledge to others; to give them opportunities within their own classes, or in experimental schools, to practice the art under the eye of teachers, who will constantly point out their failures and suggest the means of overcoming difficulties.

In the Normal School the whole intent of the instruction is to give and receive correct ideas, fresh impulses and new enthusiasm upon all subjects of school management, including instruction and discipline. With such an aim it would be strange, indeed, if no more were gained toward the professional qualification of its students, than in an institution whose objects are miscellaneous, and whose efforts must consequently be divided.

RESULTS.

The school has been prosperous and its results gratifying. The number of pupils connected with the school during the Winter of 1866–67 was seventy-five; in the Spring term of 1867, one hundred and thirty-nine; in the Autumn term of the same year, one hundred and seventeen. At the close of the Spring term, thirty-two graduated.

STATE NORMAL SCHOOL AT CASTINE.

This Normal School was opened the first of September, 1867, in a building well constructed and arranged for the purposes of the school. G. T. Fletcher was appointed Principal. The school is under the same general supervision as the one at Farmington.

The conditions of admission for students, and the course of studies, are also the same as in that school. Thirteen students were registered the first term; this number was increased the second term, commencing in December, 1867, to twenty-five.

As the design of the school and its advantages to teachers become known in the Eastern part of the State, it is believed that its numbers will be largely increased.

MARYLAND STATE NORMAL SCHOOL

AT BALTIMORE.

HISTORY.

The State Normal School of Maryland was established by the Board of Education in pursuance of the following provisions of the School Code of 1865:—

There shall be located in the city of Baltimore, until the Board of Education shall otherwise direct, a State Normal School for the instruction and practice of teachers of public schools in the science of education, and the art of teaching and the mode of governing schools.

The sessions of the State Normal School shall be held in such suitable building as may be provided by the Mayor and City Council of Baltimore, or they declining to do so, in such building as the State Superintendent may select, the rent being charged among the incidental expenses.

The annual sum of $8,000 is hereby appropriated for the support of the State Normal School, and beside, $2,000 for equipment, and the cost of text-books, stationery, fuel, and other incidental expenses.

The State Superintendent shall prescribe the course of study, and make provision for model, primary and grammar schools, under permanent and highly qualified teachers, in which model schools, the Normal pupils shall have opportunity to practice the modes of instruction and discipline inculcated in the Normal School. The salaries of the teachers of the model school are to be borne in part, at least, by the tuition of the pupils of such model school.

In the Summer of 1865, Prof. M. A. Newell, at the time at the head of one of the best schools of Baltimore, was elected Principal, and before drawing up a plan for the Normal School, visited the principal institutions of this class in other States, and submitted a valuable report on the history and organization of these schools, their methods of instruction, &c., which is published in the *First Report of the State Superintendent* (Rev. L. Van Bokkelen, LL. D.,) Dec. 30, 1865.

The school was opened on the 15th of January, 1866, in a rented hall in Baltimore, the Mayor and City Council having failed to provide the suitable building contemplated by the act of 1865. There were present eleven students and one teacher. Prof. Newell, in a letter written February, 1868, remarks: "The first term opened with eleven students and closed with forty-eight; the second term commenced with forty-eight and closed with seventy-one; the third term opened with seventy, and closed with ninety-three; the fourth term opened with seventy and closed with ninety-four; and now (fifth term) there are one hundred and ten pupils in daily attendance, with four permanent teachers, and three who are employed portions of each day in giving instruction in music, drawing, and calisthenics. We have graduated fifty-six teachers, who are now teaching in the public schools of the State." In his report to the Superintendent in December, 1867, he adds:—

Two years ago this Normal School was started as an experiment. To-day it

is an accomplished fact. Without the patronage of any sect, or the encouragement of any party, it has won its way to popular favor. No similar institution in the country has achieved a similar success as permanent as it has been rapid. It remains for the Legislature to determine whether by a liberal and judicious support of the Normal School, they will provide Maryland teachers for Maryland schools; or whether they will make it necessary for young persons to go to other States for the requisite professional instruction. Normal School teaching the people will have: the only question is, Shall it be obtained within the State or outside of it? In the Spring of 1866 there were more Maryland students in the Normal Schools of Pennsylvania and New Jersey than in our own Normal School. The case is altered now; and I hope the time will never come when Maryland shall be compelled to send to other States for a supply of teachers, or to send her youth beyond her own limits for professional instruction, or (what is still more to be deprecated) to employ inexperienced and unskillful teachers.

PRESENT ORGANIZATION.

The State Normal School is open to students who may be found on examination qualified, and will sign a written pledge to teach in the public schools, from any part of the State—each county and the city of Baltimore being first entitled to seats according to the number of their representatives respectively, in the Legislature.

COURSE OF INSTRUCTION.

The subjects embraced in the more strictly professional part of the course are the History of Public Schools and Popular Education; the Philosophy of Mind, so far as it furnishes the foundation of Educational Theories; Education, as a Positive Science; Teaching, as an Art; Methods of Instruction, Classification and Government; the School Law of Maryland in its relation to Citizens, Teachers, and School Officers; the Duties and Qualifications of Public School Teachers.

The Course of Instruction is in theory strictly professional, but in practice it has been found necessary to give the term "professional" a liberal construction. It is believed, however, that before long it will be practicable, if not to dispense with academic instruction, at least to draw a well defined line between those who are studying geography, grammar, &c., and those who are studying the art and science of teaching.

The graduates are of two grades; teachers of primary schools, and teachers of grammar schools. It is proposed to add as soon as circumstances warrant, a third grade; teachers of high schools.

MODEL SCHOOL.

In September, 1866, a Model School was established in connection with the Normal School, and as an integral part of it. The Model School contains an average of seventy-five pupils, who are taught by two permanent teachers, assisted by members of the graduating class detailed from time to time for that purpose. It is made a condition of graduation that the candidate shall have taught with acceptance one term either in the Model School or some other school of the State. The expenses of the Model School are paid in part by the fees of the scholars.

INDIANA STATE NORMAL SCHOOL,

AT TERRE HAUTE.

HISTORY.

An Act approved December 26, 1865, provides for the establishment of a State Normal School, through a Board of Trustees consisting of four members, under the following conditions:—

The Board are required to open books to receive proposals for donations of grounds and buildings, or funds for the same. They were required further to locate the school at that place which should make the largest donation, provided, (1,) that said donation should not be less in cash value than fifty thousand dollars; and provided, (2,) that said place should possess reasonable facilities for the success of the school.

The opportunity for proposals being given as required, the city of Terre Haute, in its corporate capacity, proposed a donation in currency of fifty thousand dollars, ($50,000,) and has in good faith given her obligation for the same. Added to this, the Trustees of the Public Schools of Terre Haute donated two and three-fifths acres of ground lying within the corporate limits of the city, estimated to be worth twenty-five thousand dollars, ($25,000.) The title to this lot has been properly transferred to the Normal School corporation. No other places made proposals, hence the location was declared to Terre Haute. As soon after the location as possible, the Board proceeded to estimate the supposed wants of the school, and to prepare a plan of building in conformity to these wants. This plan contemples provisions for a Model Primary Training School, a Model High School, and Normal School proper.

The Model Primary Training School is a school of young pupils from the city of Terre Haute. In this school, the advanced pupils of the Normal School are to teach under the eye of the Principal, or of one of the Professors of the Normal School; and thus be *trained* in teaching, in the organization, and in the management of schools. Thus this department becomes as its name indicates, a "training school."

The High School is not intended for a training school, but simply a "model school," in which the pupils of the Normal School are to be shown model methods of teaching. By means of these methods, it is believed the Normal pupil will, in a great degree, be able to correct his erroneous theories, and confirm his correct ones.

The pupils of this school will come from the city of Terre Haute; the teachers will also be paid by the city, and be elected by the Trustees of

the city schools, subject to approval by the Normal School Board. A current expenses of this school are to be paid by the city of Terre Haute. This school is to cost the Normal School Board nothing, save the expense of providing rooms sufficient for its use.

The Normal School proper is, as is generally understood, a school in which pupils are taught, so nearly as may be, the philosophy and methods of education. Incidental to this, they will be taught the subject matter of the sciences, or branches of learning under consideration.

PLAN OF BUILDING.

Such being substantially the proposed organization of the school, a plan of building has been adopted, conforming as nearly as practicable, to such proposed organization; and in its interior arrangement it is intended to be second to no educational structure of the kind in America.

As an institution designed to educate teachers for our common schools, it is intended to be complete in its character.

One important feature of the plan is the facility which it affords the Normal School or teacher-pupil to combine acquired theory with practice. One entire story of the building is designed to accommodate the *Model* and *Training* Departments, which are in their organization separate and distinct branches of the school, and each designed to accomplish a specific purpose in the course of training to teachership.

ARRANGEMENT OF ROOMS, STYLE, ETC.

The arrangement of the first floor consists, first, of a large session room 60×70, four recitation rooms $21 \times 22\frac{1}{2}$, and two reference libraries 13×13. for the Model High School; second, of one room, $22\frac{1}{2} \times 30$, and another $22\frac{1}{2} \times 40$ for the Model Intermediate School; third, of one room $22\frac{1}{2} \times 30$, and one room $22\frac{1}{2} \times 40$ for the Model Primary School, each of these three classes being provided with dress rooms. The first story has, besides, a reception room 17×20, and a teachers' dressing-room of the same size All the rooms are entered from spacious halls ten and fifteen feet wide, and the three classes are so arranged as to have separate ingress and egress for the pupils. The Model Intermediate and Model Primary Schools are to be *training* schools. (The High School is *not* a *training* school.) The second story, entirely devoted to the Normal School proper, has a session room 60×70, and eight recitation rooms, varying in size from $21 \times 22\frac{1}{2}$ to $22\frac{1}{2} \times 40$, grouped on either side of the session room. Two reference libraries 13×13, and two dress rooms 11×25, a faculty room $17\frac{1}{2} \times 20$, and a reception room $17\frac{1}{2} \times 20$, complete this story.

The third story contains two Society Halls, $22\frac{1}{2} \times 34$; one Music Hall, $22\frac{1}{2} \times 30$; a Library, $22\frac{1}{2} \times 30$; a general Museum, composed of three rooms, one of $20 \times 50\frac{1}{2}$, and the other two $22\frac{1}{2} \times 40$, and a large Lecture Room, 70×85, which, through double doors, may be set open with the Museum rooms, and secure an arrangement for lecturing second to none in this country; two dressing-rooms and two store-rooms complete the third story.

The Normal School department, besides the rooms in the second and third stories, has a laboratory and recitation room on chemistry, and a gymnasium in the basement story.

The heating and ventilating of all the rooms in the entire building is aimed to be as complete and efficient as may be desired. Provision is made to set in operation as many as eight heating and ventilating apparatuses, which will all be located in the basement story, together with ample store-rooms for fuel, to which the coal will be distributed by small cars on rail.

The basement contains further, the lodging of a janitor, and two spacious rooms $22\frac{1}{2} \times 40$, to be provided with double sets of water-closets of the most

approved plan, together with artificial ventilation, and pure water supplied by a gas engine.

The ingress and egress of the school is such as the law indicates now in some States for public buildings in which large numbers of persons may assemble. Thus the first floor is provided with three large entries, while the basement has five, all accessible from the stories above. But the several entry doors answer at the same time for the perfect working of the several classes, and the large number of pupils the building will accommodate. Four flights of spacious stairways are in immediate proximity to these doorways, and by means of halls communicate to all parts of the building.

The height of the basement is ten feet in the clear; the first and second stories sixteen feet each, and the third story fourteen feet on the wings and twenty feet in the central part, containing the museum-room and the lecture-room.

The appearance of the Normal School will be one of substantial design, as its construction is aimed to be. The style may be called Gothic; as far as the pointed windows and doorways and the equilateral mediæval gables indicate, while other details and the outline of the roof would designate it to pertain to the epoch of Renuissan. But the whole design has its own peculiar style, and such a one as the plan or the internal arrangement called for—this plan being the correct requirement of what was considered the best arrangement for the Normal School. This was a form and an outline different from any building of the kind originated—broad, deep and high. To a front of one hundred and ninety feet there is a depth of one hundred and fifteen feet, while the several high stories give it such altitude as to tower far above any building in this city. The main entry, surmounted with a wheel window, lighting the second story hall, a triple window in the third story, and a gable in the roof present a height of ninety feet above the ground line. The flank entrances, North and South, and the East elevation, are surmounted with similar gables, but smaller in size than the main front gable; the whole displaying that unity in design that beautifies construction.

But what gives the appearance of the structure the most lively air, and which takes considerably from the ponderous form inevitably incident to the peculiar internal arrangement of the school, are two light, elegant towers in the front, built or growing with the structure to a height of one hundred and thirty-two feet, and the effect is completed by the transformation of the shafts at the corners of the building into ventilating minarets, and the ornation of three crests on the roof, which form unsuspected powerful ventilating ejectors into which all the ventilating ducts discharge.

CONSTRUCTION.

Beginning with the foundation, the strength of the house is made adequate to its height and proportion.

The material is hard-burned brick, laid in cement mortar, eight feet in height from the footings. A base course to all the exterior walls, nine inches thick by two feet six inches in height, of hard limestone, protects the wall at the frost line. The cement foundation of the inside walls is generally three feet nine inches in height; and the width of the foundation at the base varies from four to five feet. A few foundation walls are less, and others more, in points bearing gables and towers.

The thinnest basement walls are nine inches, and the heaviest two feet ten inches. The exterior walls are generally two feet two inches.

The first story walls are from seventeen to twenty-one inches thick, the towers two feet two inches. The inside walls in this story are generally thirteen and seventeen inches in thickness.

The second story exterior walls are generally seventeen inches, a few parts being twenty-one inches in thickness.

The inside walls are the same in thickness as in the first story.

The third story walls vary from twelve to seventeen inches in thickness up to the wall plates.

The exterior of the building is to be faced with hard-pressed smooth brick of uniform red color, laid with flat tucked joints and Boston Bond.

The stone work is of hard limestone to the basement and first story door sills, and of Elliottsville limestone to all the other parts. The whole of substantial dimensions and bold design.

The joists of the basement and first floor are of white oak; all others of poplar.

The roof is entirely of poplar, except the main post of the large trusses over the lecture-room, which is of oak. The floors are all of oak, except the third story, which is of poplar.

The wainscoting, doors and windows are of poplar. The stairs are to be of hard wood, and the steps will be covered with perforated sheet iron.

The roof is to be slated, the cornice to be of galvanized iron, and the gutters generally of copper and improved combination.

HEATING AND VENTILATING.

The importance and difficulty of comfortably heating and properly ventilating a school building of such large proportions, has not been overlooked or neglected by the Board of Trustees.

When planning the building, natural ventilation was first considered, and as a preliminary step, a height of ceiling established of sixteen feet for the first and second stories, and fourteen and twenty for the third story, the higher ceiling, in the latter, being in the lecture-room. By reference to the plans it will be seen that the building is traversed in its whole length North and South by a hall or passage ten feet in width, in the basement, first and second stories, and partly in the third story. The front hall, vestibules and staircases are in open connection with this main passage in the several stories; the arrangement giving access to the inside of the building, of air from all sides, without its passing directly through the outside windows into the school-rooms.

The front, flank and rear doors, eight in number, admit air into the halls and staircases, regulated by dumb balanced fly-doors, and by the ventilators in the ceiling of the third story hall; this causes a removal of the air of this large reservoir from which the school-rooms draw their supply through transoms $3 \times 3\frac{1}{2}$ over all doors and pivot sash windows located eight feet from the floor, all of which is accelerated by upright air ducts ejecting their contents by the ventilating crests of the roof at one hundred feet from the ground line of the building.

To illustrate the artificial heating and ventilation in this building, it will be sufficient to take as a sample the large session room on the second floor. From two furnaces located in the basement, six hot air ducts built in the walls, with an aggregate section of six hundred and sixty square inches, and carried up to the ceiling of the second story, or a vertical height of forty feet from the heating surface, discharge, through six branches six inches in diameter each, and together through thirty-six registers eight by twelve inches, located and distributed uniformly over the ceiling, the fresh, warm air. This warm air is brought downward by means of six upright ventilating ducts, of an aggregate section of about one thousand inches, opening with six branches, each six inches in diameter, provided with registers located in the floor between joists and carried up to a height of one hundred feet from the *furnaces* to *ejectors*.

Good results are expected of this arrangement of heating and ventilating.

The contractors for brick work (Mr. Thomas Miles of Laporte and Mr. J. B. Hedden of Terre Haute,) are rapidly pushing forward the work to completion, and in the best possible style of workmanship.

As a whole, the structure will be worthy the State of Indiana, and will show how important she considers the instruction and education of her people. The estimated cost of the structure is one hundred and fifty thousand dollars. Contracts actually awarded to the amount of ninety thousand dollars, present little differences with the estimates. The building will be completed in about fifteen months.

SOUTH CAROLINA STATE NORMAL SCHOOL,

AT CHARLESTON.

The State Normal School of South Carolina was established in connection with a Public High School for Girls in the city of Charleston, by act of the Legislature, passed Dec., 1857. The cost of the buildings and furniture was $30,700, of which $18,755 was paid by the State, and $11,945 was contributed by individuals, principally of Charleston.

The school was opened, May, 1859, with fifty-one pupils, and continued in successful operation except as it was affected by the War, until August, 1864. During its continuance the school was very popular, both with the people and with teachers. For five years it received an annual appropriation of five thousand dollars from the Legislature; when this appropriation was exhausted, in 1864, the condition of the country was such that it was not renewed, and the school was suspended for lack of means of support. The whole number of students connected with this Normal School during the five years of its operations was 481. The largest number in attendance at one time was 191.

The following were the requisitions for admission:

1. Applicants must be at least fifteen years of age, of unquestionable moral character, and in sound bodily health.

2. They must sustain a good examination in the following subjects, viz.:

Orthography.—Oral and written. *Reading.*—With facility, either Prose or Poetry. *Geography.*—Geographical Definitions, with Modern Geography. *Grammar.*—Definitions and Rules of Syntax, with ability to parse plain English sentences. *Arithmetic.*—Numeration, Simple and Compound Numbers, Reduction, Common and Decimal Fractions, Simple and Compound Proportion, and Computation of Interest. *History.*—Of United States, with some knowledge of General History. A legible handwriting will be required, with some practice in English Composition.

3. They must desire to qualify themselves for teaching in this State.

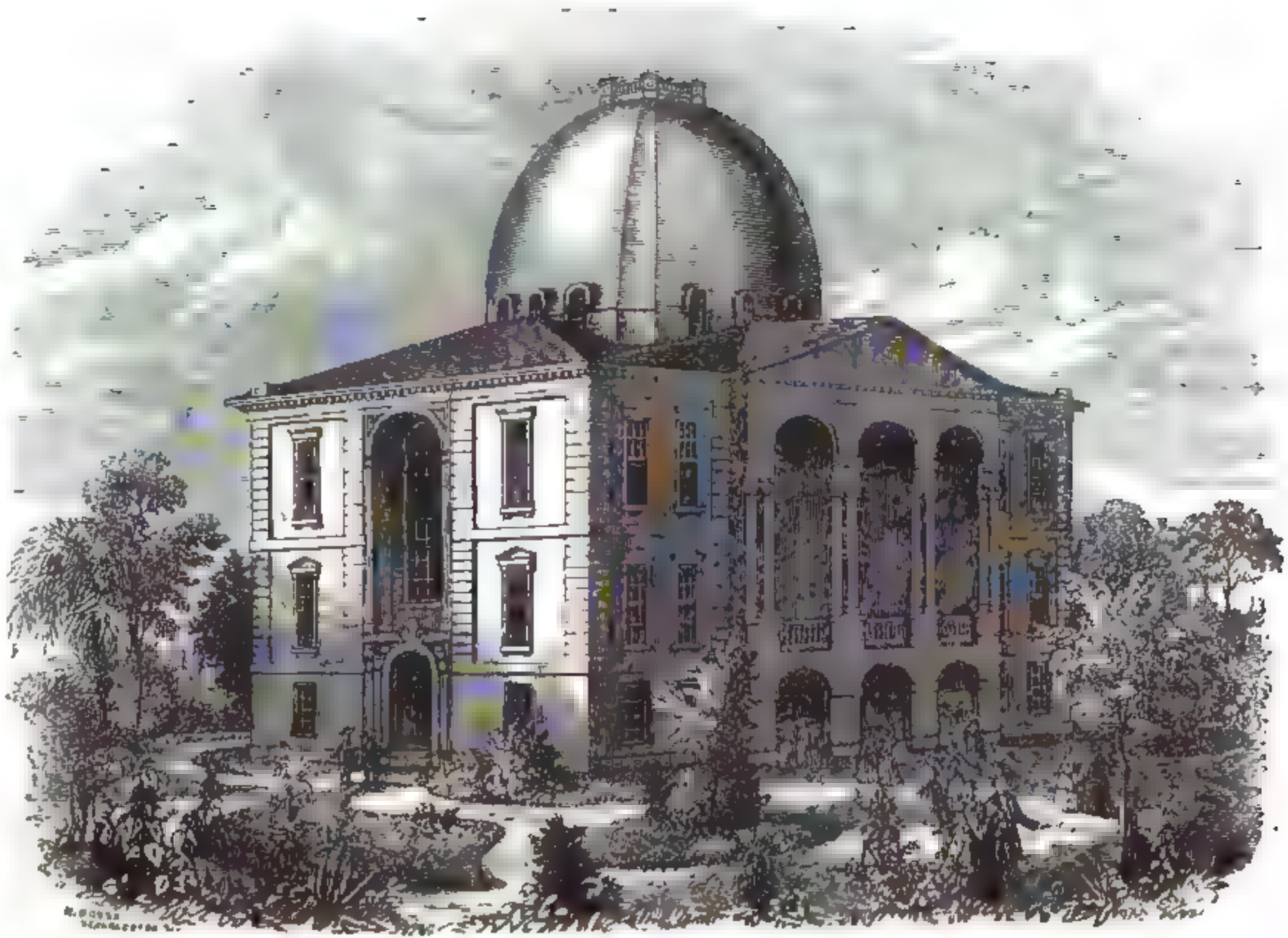
4. Each applicant shall present on the first day of the term, a certificate, signed by a majority of the delegation from the district in which she resides.

Applicants for admission to the High School Department will be excused from Provisions 3 and 4, and from examination in Simple and Compound Proportion, and Computation of Interest. In all other respects the requirements for admission to both departments are similar.

Should candidates from the different Congressional districts, out of the city of Charleston, be found incompetent to enter the Normal Department at once, they will be placed in the High School Department, provided they are qualified therefor, and comply with Provisions 3 and 4, above named.

The course extended through three years, and embraced the branches of a thorough English education, including French, Drawing, Music, the Theory and Practice of Teaching, Lectures on Education and the Details of School Management.

Measures are in progress to reopen the institution both as a High School for the city and a Normal School for the State.



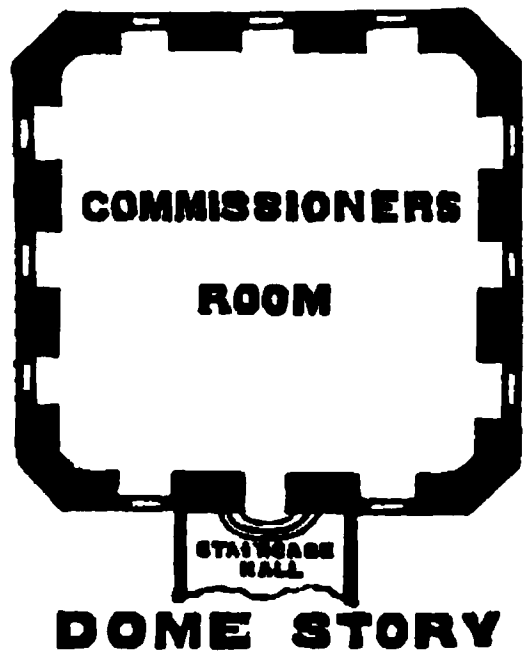
II. Girls' High and Normal School, at Charleston, S. Carolina.

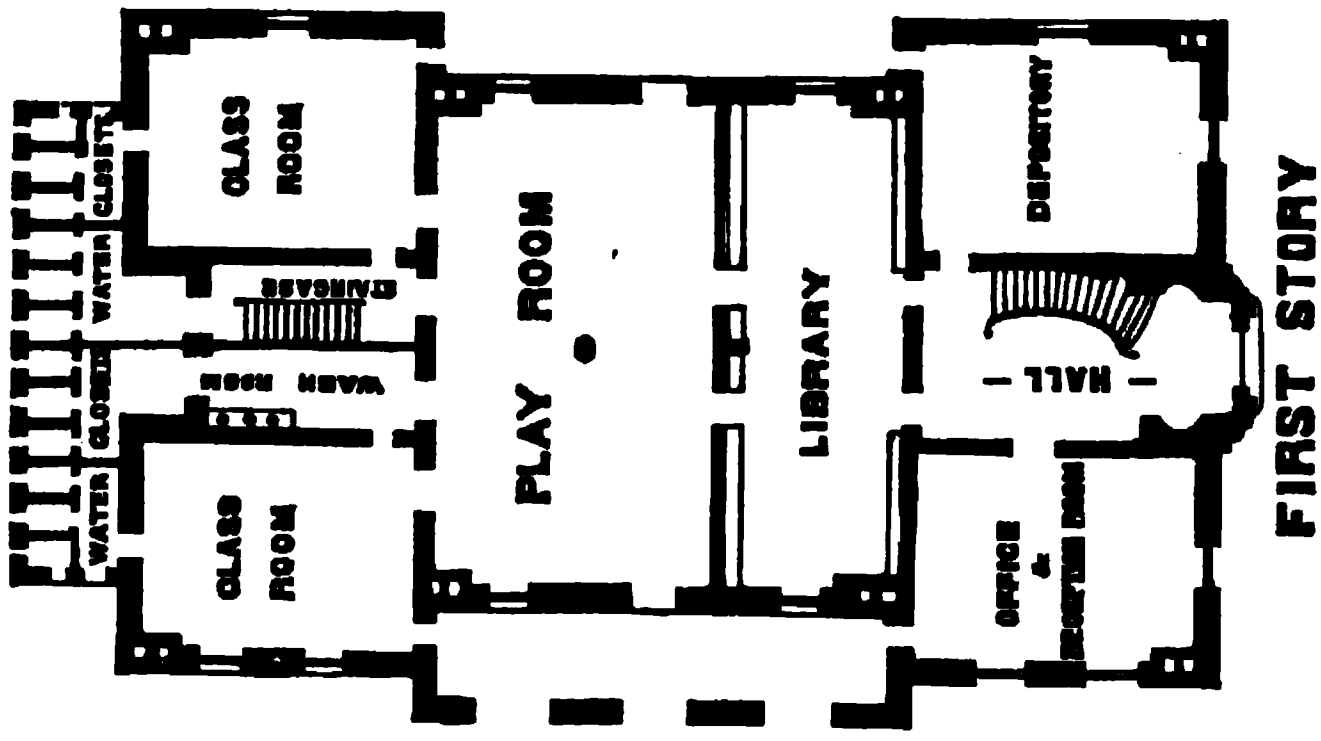
The Public High and Normal School for Girls in the City of Charleston, South Carolina, was established in 1858 and opened in the new building erected for its accommodation in 1860. The Commissioners of Free Schools, of which C. S. Memminger was chairman, thus set forth the purpose of this institution.

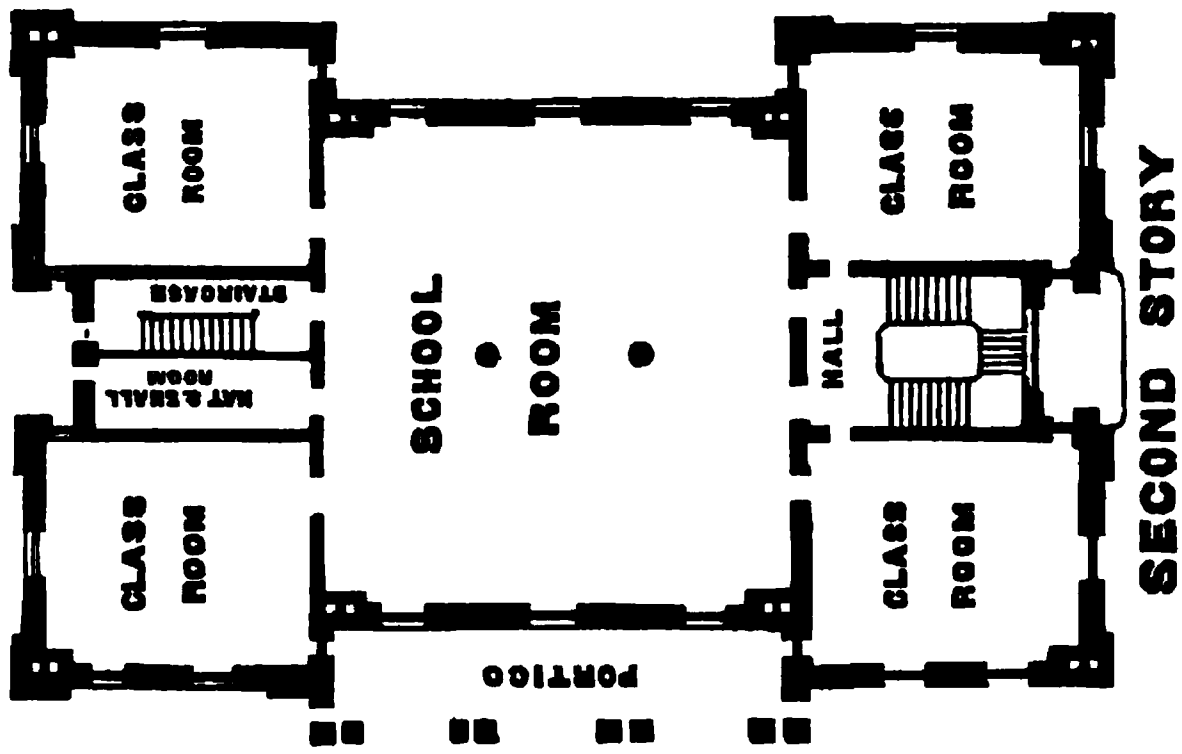
The purpose of this School is two-fold. First, it proposes to add to the advantages of primary instruction given by the various Public Schools of lower grade, all the advantages of higher education which are offered by the best schools for girls. From the great advantages which a large public school, with ample resources, can always command over private schools, it is safe to say that in all the elements necessary to insure success, this school must be without a rival in our community, in furnishing that education which cultivated parents desire for their daughters. Its second purpose is the education of young ladies for the profession of teachers. It is proposed to form into a special class all those whose purpose it is to devote themselves to this honorable work, and whose qualifications admit of their receiving the proper course of instruction, and to devote as much time and labor to such exercises as will be of value to them in their future duties. These exercises will be such as would be of high value to any pupils sufficiently advanced to engage in them—to those who propose to teach they are indispensable. The power of teaching well comes not by intuition; the *best* kind of education would probably give it to most men, but most of even the well-educated men and women are without it, though to no person of average ability is its acquisition impossible. It comes, however, only as other arts come; by special training, by well-directed efforts, and by patient labor. By no means a secondary purpose in importance is that of furnishing to our city and State a corps of well-educated and intelligent young ladies, who will train, in their turn, the minds and hearts of the thousands who will be committed to their charge. The School is supplied with teachers of tried ability and large reputation, in all its departments. The several congressional districts of the State have a right to send fifteen pupils each to this school, to enter the Normal department.

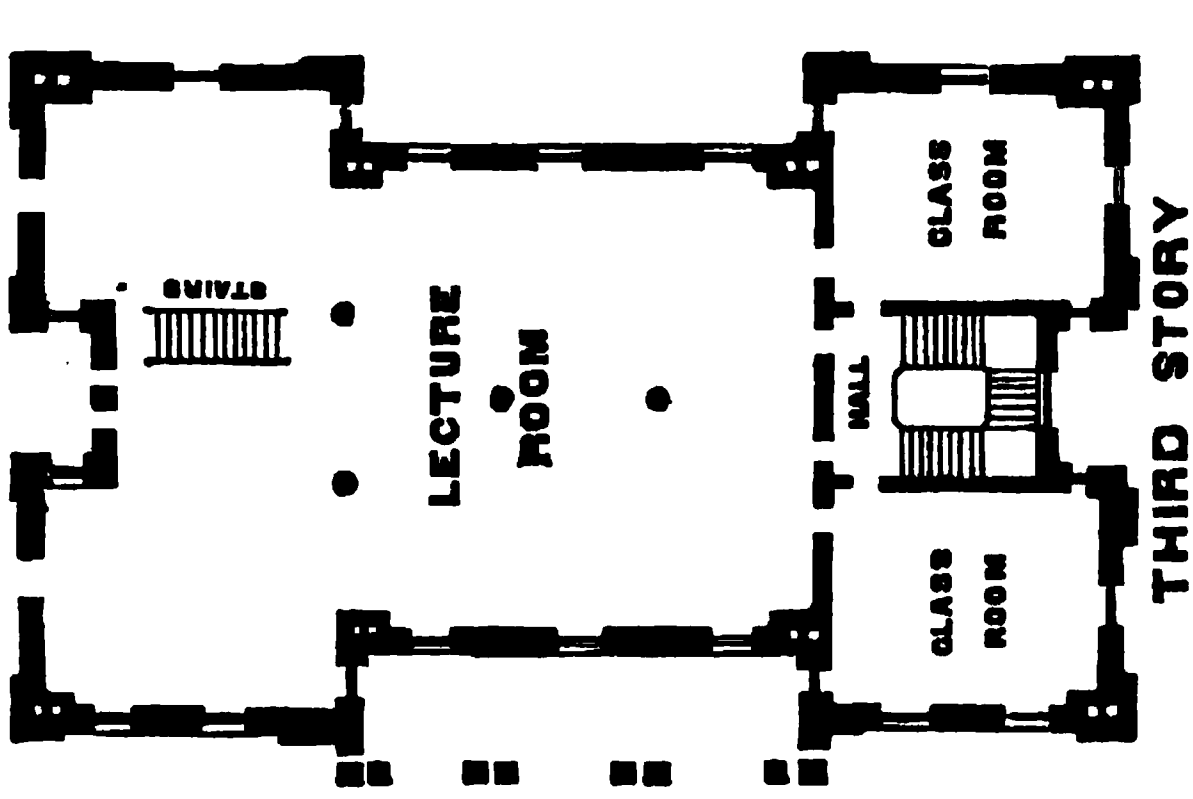
I. BUILDING AND FURNITURE.

The building erected for the accomodation of this school, of which we furnish illustrations, has one School Room on the second floor 40 by 40 feet, with four class-rooms, each 18 by 23 feet; and a large Lecture Room on the third floor 40 by 63 feet, with two class-rooms, each 18 by 28 feet; and a Play Room 25 by 40 feet and Library on the first floor, and a room for the Commissioners on the Dome floor.




CLASS ROOM
WATER CLOSET
STAIRCASE
MAT & SMALL ROOM
CLASS ROOM
PLAY ROOM
LIBRARY
DEPOSITORY
HALL
OFFICE
FIRST STORY


CLASS ROOM
STAIRCASE
MAT & SMALL ROOM
CLASS ROOM
SCHOOL ROOM
PORTICO
HALL
CLASS ROOM
CLASS ROOM
SECOND STORY


STAIRS
LECTURE ROOM
HALL
CLASS ROOM
CLASS ROOM
THIRD STORY

VERMONT STATE NORMAL SCHOOLS.

THE Board of Education of Vermont in their report to the Legislature in 1866, stated that a favorable opportunity was presented to establish a Normal school, the Trustees of Randoph Academy having offered the use of their school property for a term of years for such a purpose. The Legislature accepted the proposition, and passed an act which was approved November 16th, 1866, by which the academy known as the "Orange County Grammar School," at Randolph, was constituted and established a "Normal School for the State of Vermont," for the term of five years, and the trustees of the Grammar school and their successors were constituted trustees of the Normal School.

The State Board of Education nominate the principal, arrange the courses of study, control the examinations for admission and graduation, grant certificates of qualification, and report the conditions of the school annually, to the Legislature. One section of the act also provided that the Board might consider similar proposals from other academies in the State, and establish not exceeding one Normal School in each congressional district, and arrange courses of study, conduct examinations, nominate teachers, and generally exercise the same supervision as provided in the act for the Normal School at Randolph.

The trustees of such academies as were designated State Normal Schools, were to be respectively trustees of these schools, and have the same powers and rights as the trustees of the Normal School established by this act, provided that either or all of said Normal Schools should be established and maintained without any expense to the State excepting the payment of the Board of Education for their services.

In accordance with the provisions of the Normal School act, the Board of Education have established a Normal School in each of the three congressional districts, as follows: First District, at Castleton, in Rutland county; Second District, at Randolph, in Orange county; Third District, at Johnson, in Lamville county, with two courses of study, and the following regulations.

COURSE OF STUDY.

1*st*, *Elementary Course.* Arithmetic, Geography, History and Constitution of Vermont and the United States. Interpretation of sentences, including parsing, analysis, paraphrasing, and the definition of words; Book-keeping through single entry, and Reading. Examination to be in writing in all except reading.

2*d*, *Advanced Course.* Candidates having passed a satisfactory examination in the first course, must be examined in Book-keeping by double

entry, Algebra, Physical Geography, Physiology, Botany, Natural Philosophy, Analysis of one book of Cowper or Thompson, Exposition of Milton's Paradise Lost or Bacon's Essays, and in some two of the following: Geometry, Astronomy, Chemistry, Geology, Surveying, Zoölogy, Evidences of Christianity, Rhetoric, Intellectual and Moral Philosophy.

REGULATIONS.

Classes exhibiting the qualifications required to pass an examination for admission, may be admitted at the beginning of each spring and fall term. Individuals may be admitted at any time, upon evincing qualifications corresponding to the attainments of existing classes. Examinations of such as have completed the courses of study shall be held at the close of each spring and fall term. Candidates for graduation must be examined through the entire course in which they wish to graduate.

The certificates of graduation must be signed by the president of the Board of Trustees, the principal of the school, and by the secretary and visiting member of the Board of Education.

Pupils will not be permitted to study branches in the higher course until at least six of the subjects of the first course have been completed to the satisfaction of the teachers of the school; nor then to the neglect of the subjects not so completed. No studies not laid down in the two courses of study, shall be pursued in the Normal Schools.

STATE NORMAL SCHOOL AT RANDOLPH.

This Normal School, which is the first organized under the Statute, was formally opened on the 26th day of February, 1867. The building is well situated in a quiet community; is nearly new and well adapted to the purposes for which it is now used. The former principal of the Grammar school, Mr. Edward Conant, was appointed principal of the Normal School. The number of candidates examined for admission in the spring term of 1867, was thirty-seven, of whom thirty-two were admitted. The whole number of pupils in the summer term was one hundred, and the whole number during the year, one hundred and twenty-five. Six passed the examination for graduation.

STATE NORMAL SCHOOL AT JOHNSON.

The Normal School at Johnson was opened in 1867. The building is new and spacious, having been erected with reference to the health, convenience and comfort of those who may occupy it; the apparatus is in good condition, and well adapted to the wants of the institution; and an excellent library of valuable standard works is provided. Mr. S. H. Pearl was appointed principal of this school. Forty-three students were admitted the first or spring term, six during the summer term, and twenty-four in the autumn term; whole number connected with the school the first three terms, according to the report of the principal, eighty-seven. A class of five young ladies graduated at the close of the spring term.

NEBRASKA STATE NORMAL SCHOOL

AT PERU, NEMEHA COUNTY.

HISTORICAL DEVELOPMENT

THE friends of education in this State had for some years felt the need of an institution for the training of teachers, but no feasible plan was presented till 1867, when the trustees of the Seminary at Peru, Nemeha County, offered the Seminary building to the State for Normal School purposes. The liberal offer was accepted by the State, and the Legislature, by an act passed June, 1867, established the Normal School and located it at Peru. The School is placed under the supervision of a Board of Education which consists of the Superintendent of Public Instruction, the State Treasurer, and five other persons appointed by the Governor.

The site for the Normal School includes sixty acres of land on high rolling ground, in view of the Missouri River for sixteen miles. The building is of brick, eighty feet long, forty feet wide, and three stories high. Though not completely finished and arranged for the use of the School, it was in such a state of progress as to be occupied at the commencement of the term. The estimated value of the site and the building complete is $25,000. The Legislature at its last session appropriated three thousand dollars to aid in fitting up the building, and also twenty sections of land for an endowment fund.

Prof. J. M. McKensie was elected Principal. Two assistants were also appointed, and the School was opened Oct. 24th, 1867.

TERMS OF ADMISSION.

The Board of Education apportion two pupils from each State Senatorial District, who are permitted to attend the Normal School at half tuition, upon presenting to the Principal a certificate of their appointment by the Senator in the proper District, and conforming to the requirements of admission.

Students desiring to enter the Normal Department are required—

1st. To be, if males, not less than 17, if females, not less than 16 years of age.

2d. To give satisfactory evidence of good moral character.

3d. To sign a declaration of their intention to devote themselves to school teaching in this State, in form as follows: "I hereby declare my intention to become a teacher in the schools in this State, and agree that for three years after leaving the Normal School, I will report in writing to the Principal of said School, in June and December of each year, where I have been and how employed."

4th. To pass a satisfactory examination before the Principal, in arithmetic, through common fractions; geography, through United States and general questions; English grammar, to syntax; reading, writing and spelling.

The Institution will be open to all persons wishing to attend who will conform to the regulations adopted by the Board of Education.

Tuition in the Normal Department, $8,00, in the Model School, $6,00, and in the Seminary, $8.00 per term; Latin, extra, 2,00; Music on melodeon, $10,00; Ornamental branches at usual rates.

Room rent to those living in the building, $4,00 per scholar per term; board, $3,00 per week; books and stationery can be had in the village at reasonable rates.

Students are advised to bring such books as they may have used with them, for reference if nothing more, as Normal scholars will not be confined to any particular text-books.

A three years' course of study has been prepared by the Board, and any teacher completing it will receive a diploma as Normal graduate.

Pupils attending the Normal Department twenty-two weeks, will receive a certificate for teaching from the Principal, provided their advancement is satisfactory.

There are rooms in the Seminary building for accommodating thirty students. Others find board in the village of Peru.

NORMAL SCHOOLS IN OHIO.

HISTORY.

THE General Assembly of Ohio, in 1836, requested Prof. C. E. Stowe, who was then about to visit the countries of Europe, "to collect during his contemplated tour, such facts and information as he might deem useful to the State, in relation to the various systems of public instruction and education which had been adopted in the countries through which he might pass, and to make a report of the same, with such observations as he might offer, to a future General Assembly." In pursuance of these resolutions, Prof. Stowe examined the educational systems and institutions of England, Scotland, France, Prussia, and the States of Germany, and presented the results of his observations to the General Assembly in a report, in which he states as his belief that it was necessary for the success of the school system that teachers should have the means of acquiring the necessary qualifications, and that there must be institutions in which the business of teaching is made a systematic object of attention. He recommended the establishment of a Normal School or Model Teachers' Seminary, which should "be amply provided with all the means of study and instruction, and have connected with it schools of every grade for the practice of students.

In answer to a resolution of the General Assembly in 1838, the Superintendent of Schools, Samuel Lewis, presented an elaborate report upon the expediency of establishing a State University or Universities for the education of teachers or other students. He dwelt at some length on the following points: 1st, that there was not a sufficient number of teachers to supply the twelve thousand schools of the State; 2d, that a large number of teachers now employed were not well qualified; 3d, that no measures which had been adopted would supply the demand for well-qualified teachers; and 4th, that the establishment of an institution to be devoted especially to the preparation of teachers, would be the best means to remedy the evil. In evidence on this point, the Superintendent referred to the experience of different countries of Europe, and to those States in this country in which provision had already been made for the education of teachers. He considered it a settled question that there was something peculiar in the art of governing and teaching a school, which might be taught and learned as any other art or profession, and he recommended the establishment of a Normal School, with model and practice schools of different grades, so as to give the students attending, the advantage of observation and practice as well as instruction in principles.

In 1841, the Secretary of State, William Trevitt, in his report to the General Assembly, recommended the establishment of Normal Schools as a subject entitled to the serious consideration of the Legislature as well as the friends of education throughout the State. He quoted at

length from the report of the Board of Education in Massachusetts, and from the report of the Board of Commissioners of Common Schools in Connecticut, and also from the report of the Secretary of the Board, in support of the measures which he recommended.

The subject was referred to again by Samuel Galloway, Secretary, in his report for 1849, in which he quotes from Prof. Bache, Hon. Horace Mann and others, testimony in favor of institutions for the special education of teachers. Mr. Galloway recommended that a well-conducted Normal School be located at the seat of government, and said such a school would become a standard and model of education throughout the State and give dignity and influence to the profession of teaching.

Again in 1851, Henry W. King, the successor of Mr. Galloway, adducing the example of Massachusetts, Connecticut, New York and Michigan, States in which Normal Schools had been established, recommended that provision should be made for the establishment of as many Normal Schools as the school system of Ohio should demand.

From 1837 to 1855, nearly every educational convention or meeting held in the State urged, in some form, the establishment of institutes and professional schools for teachers. The subject was also earnestly discussed in the "Ohio School Journal" and by other school papers.

In 1855, the State Teachers' Association, despairing of legislative action, undertook the work of establishing a Normal School. Mr. M. McNeely of Hopedale proposed to donate buildings, provided the Association would maintain the institution. This proposition was accepted, and many teachers and others contributed generously to the endowment of the McNeely Normal School. Since 1857 it has been conducted as a private enterprise.

THE SOUTH-WESTERN NORMAL SCHOOL, at Lebanon, was opened in 1855. It has sent out a large number of teachers to supply the schools in the South-western part of the State. Besides providing for the training of teachers, it has a collegiate and business department.

THE WESTERN RESERVE NORMAL SCHOOL, at Milan, was opened in 1858.

At the annual meeting of the State Teachers' Association in 1864, Hon. Rufus King, President of the Cincinnati School Board, presented an able paper in which the wisdom and necessity of providing by law for the establishment and support of Normal Schools were strongly urged. The paper, which was in the form of a memorial to the General Assembly, was unanimously approved by the Association, and a committee appointed to secure, if possible, the necessary legislation. This paper was favorably received by the General Assembly, and a joint resolution was passed, instructing the Commissioner of Common Schools to investigate the subject, and report to the next General Assembly "the best plan of organizing one or more efficient Normal Schools in this State." In the discharge of this duty, the Commissioner, Hon. E. E. White, spent several weeks in visiting the Normal Schools of other States; and submitted to the General Assembly the following January (1866,) a special report, recommending a plan of organizing a system of Normal instruction in Ohio.

PROFESSIONAL TRAINING OF TEACHERS IN OHIO.

SPECIAL REPORT OF COMMISSIONER (HON. E. E. WHITE), FEB. 10TH, 1866.

The following joint resolution was passed March 13th, 1865:—

"*Resolved by the General Assembly of the State of Ohio*, That the Commissioner of Common Schools be and he hereby is authorized and requested to report to the Governor, to be by him laid before the next General Assembly, the organization and results of the best Normal Schools in this country, and so far as may be practicable, in other countries; and also the best plan of organizing one or more efficient Normal Schools in this State."

In compliance with this request of the General Assembly, I respectfully submit the following Report:

During the past summer I spent several weeks in visiting Normal Schools in other States, with a view of making myself more familiar with their organization and the practical results of their training. The following are the schools visited: New Jersey State Normal School, Connecticut State Normal School, Massachusetts State Normal Schools at Westfield and Framingham, New York State Normal School at Albany, and the Training School at Oswego. I also visited the Normal School of the city of Boston and the one at Philadelphia. I also had interviews with Mr. Richards, Principal of the Illinois State Normal University, and Mr. Wickersham, Principal of the Pennsylvania Normal School at Millersville. I had previously visited the State Normal School of Michigan, located at Ypsilanti.

In pursuing my inquiries, I also took special pains to confer with educators of large experience and observation, who are not connected with Normal Schools, either as managers or teachers. I acknowledge myself specially indebted to Hon. Henry Barnard, of Connecticut, whose familiar acquaintance with the Normal Schools of this country and Europe enabled him to put me in possession of information of great value. Through his thoughtful courtesy I had the privilege of meeting, at Boston, Rev. James Frazer, of England, who had been sent to this country by the Royal Commission on Education, to investigate our common school system. Mr. Frazer kindly favored me with a full and minute account of the Training Schools of England, and the preparation for admission to them by a system of pupil-teacher apprenticeship.*

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* The following is Mr. Frazer's account of the pupil-teacher system, as given in an address before the Ohio Teachers' Association at Cincinnati:—

"A promising pupil in an Elementary School—boy or girl, as the case may be—of not less than thirteen years of age, is taken and apprenticed to the principal-teacher for a period of five years. Such scholar is employed as a monitor under the principal-teacher, and is called a *pupil* in relation to the teacher, and a *teacher* in relation to the school, thus making up the hybrid appellative 'a pupil-teacher.' At one time the Government paid this pupil-teacher, but since the 'Revised Code,' his salary has been made to devolve upon the local managers. It would begin, perhaps, at $50 a year, and would rise at the rate of about ten dollars a year, to the end of the term. Pupil-teachers *may be* employed in any school, and *must be* employed, under pain of forfeiture, in all schools where the average attendance exceeds eighty. The school hours are generally five hours a day for five days in the week, and the principal-teacher is bound to give the pupil-teachers one hour's instruction a day out of school hours. You will at once observe that this last feature, as well as the higher rate of salary paid, and the period during which the apprenticeship continues, constitutes the characteristic of the 'pupil-teacher,' as distinguished from the 'monitor' of Bell and Lancaster. I should have added that at the close of each year of his apprenticeship, at the annual visit of the Inspector, the pupil-teacher is subjected to a progressive examination, according to a previously defined schedule of subjects, and that his salary for the past year depends upon his passing this examination.

"Well, at the end of this five years' apprenticeship, the pupil-teacher is supposed to make a

Training Schools exist in most of the Dioceses of England, and like the Elementary Schools, are in connection with some religious denomination, most of them with the Church of England. Like the Elementary Schools, they are supported by local voluntary contributions, largely supplemented by aid from the Government. The course of training is two years, the object being partly to give the students accessions of actual knowledge, and partly to familiarize them with the best methods of teaching and organizing schools.

The examination for admission, which is before a Government Inspector, lasts four days, and embraces all the subjects ordinarily taught in the Elementary Schools. At the end of each year of the training course, students have to undergo a thorough examination. If they pass the examination at the end of the second year, they are free to go out and take charge of a school, with the title of a "probationary teacher." They continue in the same school, with this title, two years, during which time they are visited twice by the Inspector. If his reports respecting their aptitude and practical skill as teachers are favorable, they then receive a graded certificate, valid for five years, subject to revision as to grade at the end of the fifth year, according to the Inspector's opinion of their progress and success as teachers.

Normal or Training Schools similar to those of England are established throughout Europe, and are regarded as an essential part of every system of public instruction. Normal Schools are also established in Nova Scotia, New Brunswick, and each of the Canadas—the one at Toronto being probably the best equipped Normal School on the continent.

In this country, Normal Schools are now established under State direction and support in *sixteen* States, as follows: Massachusetts has *four*, two opened in 1839, one in 1840, and a fourth in 1854, beside the excellent Training School sustained by the city of Boston; New York has two, one at Albany, opened in 1845, and another at Oswego, which first received State aid in 1864;* Connecticut one, opened in 1848; Michigan one, opened in 1849; Rhode Island one, opened in 1854; New Jersey one, opened in 1855; Illinois one, opened in 1857; Pennsylvania three, one first receiving State aid in 1859, another in 1861, and a third in 1862, beside the Girls' Normal School of Philadelphia; Minnesota one, opened in 1860; Iowa one, opened in 1860, (department in State University;) California one, opened in 1863; Maine two, one opened in 1864, and a second about opening; Wisconsin one, opened in 1865; Kansas one, opened in 1865; Maryland one, established by law in 1865; and Indiana one, established by an act which passed the Legislature in December, 1865. South Carolina established a Normal School before the war, but having other business than the right education of her youth to attend to, abandoned the enterprise.

It will thus be seen that of the States that have maintained for any considerable length of time a free school system, all but *three* have one or more Normal Schools established under State authority. The three exceptions are *New Hampshire*, *Vermont*,* and *Ohio*.†

In most, if not all of the States, the Normal Schools are supplemented by

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choice, whether he will follow the profession of a teacher, or abandon it for some other more inviting career. He is considered quite free to choose, as the salary he has received has been no more than adequate to the services he has rendered. If, however, he decides to adhere to the profession of which he has been serving the apprenticeship, his natural course is to enter what you call a 'Normal,' but what we generally denominate a 'Training' School."

* Vermont established a Normal School System, Nov. 17, 1866, and had two Schools in operation in 1867, with over 200 pupils in attendance. New York established in 1866–7, Normal Schools at Fredonia, Brockport, Cortland, Potsdam, Geneseo, and Buffalo—making eight in the State.

† In 1854, Cyrus McNeely, of Hopedale, Harrison county, Ohio, donated to the Ohio State Teachers' Association buildings, land and apparatus, valued at ten thousand dollars, on condition that the Association should raise an equal sum for the purpose of establishing a Normal School. The enterprise received the earnest support of the late Lorin Andrews, and several other prominent members of the Association, and was undertaken. The Normal School was opened in November, 1855, but proving too much of a financial burthen for the Association to carry, was permitted to pass into private hands. It is still in operation, and is doing a valuable service for the schools of the section of the State in which it is located.

The Southwestern Normal School at Lebanon, Ohio, was opened in 1855, under the direction of a board of trustees. Its scope is now largely widened, including a collegiate department and business institute, as well as a teachers' department. It has been attended by many hundreds of

Teachers' Institutes, supported to a greater or less extent by State aid. In New York the entire expenses of the Institutes are paid out of the State Treasury.

The plan on which most of the State Normal Schools are organized is simple. In States which have not a State Board of Education, they are established under the direction and control of a Board of Trustees, called, in some of the States, "Board of Normal Regents," who are empowered to determine the course of instruction and training, to employ teachers, etc. The current expenses, including teachers' salaries, fuel, repairs, etc., are met by State appropriations. Students pay their own board and other contingent expenses, the same as pupils do who attend any other public school. The law in Pennsylvania requires that each Normal School shall have boarding-houses capable of accommodating three hundred boarders—and board is thus furnished the pupils at a very reasonable price. In England the students at the Training Schools are expected to pay from one-fifth to one-fourth of the cost of their instruction and maintenance, the balance being defrayed from funds contributed by friends of the Training School, and by money appropriated by the Government.

The conditions of admission to the Normal Schools of this country vary in different States. In most a fair knowledge of the common branches is prescribed. In Connecticut, and I believe the same is true in New Jersey, the school authorities of the different towns select and examine candidates, and their certificate entitles the holder to a seat in the Normal School. The practical working of this plan is not satisfactory. Pupils are admitted who, from a want of scholastic attainments, are unfitted to enter upon the course of training. A want of sufficient scholarship on the part of those who seek admission to the Normal Schools is unquestionably one of the most serious defects in the American system of Normal training. In Michigan, pupils entering the Normal School have to make a pledge of intention to teach in the common schools of that State for a specified period. The same is true in some other States.

The course of instruction in most of the Normal Schools of this country is two years, with a one year's course in a few of them, for teachers of primary schools. While the one single object is to increase the teaching power of the student, the exercises have practically a four-fold aim:—

1. To impart to the student a thorough *teaching* knowledge of all the branches ordinarily taught in common schools. This includes not only a mastery of the subjects *as knowledge*, which is the first requisite for successful teaching, but also a mastery of them *as subjects to be taught to others*. This is the one distinctive idea which runs through every lesson and exercise.

2. To impart to the prospective teacher a practical knowledge of the *guiding principles* of his art, and to enable him to reduce such principles to something like a philosophical system. In other words, the second aim is to teach the *science* of education. This is usually sought to be accomplished by lectures.

3. To impart to the teacher a knowledge of the best methods of instruction and government, including the methods specially applicable to each stage of the child's progress and to each branch of knowledge. This part of the course is sometimes united with the first, each recitation being conducted with a view of unfolding the true method of teaching the topic. But in all Normal Schools where instruction in methods of teaching is made duly prominent, separate exercises are also devoted to the subject.

4. To impart to the student *skill* in the art of teaching by an application of his knowledge of principles and methods in *actual practice*. For this purpose most Normal Schools have a Model or Experimental Department, in which the students practice under the supervision and criticism of a skillful teacher. In the best Training Schools these model-lessons, as they are called, are made the basis of instruction in methods. In some Normal Schools the practice of the students is obtained by giving model-lessons to their own classes.

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teachers, and has unquestionably exerted a potent influence upon the character of the schools in that section of the State. It is now in successful operation.

The Western Reserve Normal School at Milan, Ohio, was opened in 1858, but my acquaintance with the institution is too limited to permit me to speak of its professional character or influence. It is believed to be doing a good service for the schools of its locality.

The number of teachers that have attended these different institutions, which are, of necessity, largely academic in their character, is evidence of an encouraging demand for professional training, and the good accomplished by them in their respective localities, is an assurance that the influence of a State Normal School of a high professional character would be wide and potent.

In the different Normal Schools visited, I observed a very great difference in the relative attention given to these four parts or aims of the course of training; in the majority of them, however, the first received the chief attention. In the Training Schools at Oswego and Boston, the last three made up the course—an adequate knowledge of the branches to be taught being required as a condition of admission. In the reorganization of the Oswego Training School on a wider basis, it is proposed to provide for a thorough review of the different branches as a *preparation* for the regular course of professional training.

I am strongly tempted to enter more fully into details, but as a general outline of the plan of organization and course of instruction of Normal Schools will best serve the purposes of this report, I pass to the second inquiry of the General Assembly.

RESULTS OF NORMAL SCHOOL TRAINING.

What are the practical results of Normal School training in Europe and in this country? Does the success of the Normal Schools that have been established afford substantial and conclusive proof of their value as practical agencies for the preparation of teachers? The only difficulty in answering these inquiries arises from the abundance and high character of the testimony at hand. The experiment of specially training persons for the teacher's office has been tried on a scale so wide, under such a diversity of condition, and with such a uniformity of results, that the evidence of its success is not only manifold but superabundant for citation as testimony.

The first school in Europe for the preparation of teachers was founded by the good Franké, at Halle, in Prussia, about the year 1704. The success of the experiment may be inferred from the well authenticated fact that the teachers from this school, spreading over Northern Germany, prepared the way for the great revolution in public instruction which was accomplished during the reign of Frederick William III. Since Franké's successful experiment, Normal or Training Schools for teachers have multiplied in Europe until they have become an essential part of every system of public instruction. The Training Schools connected with the Elementary Schools of Great Britain are regarded as one of the two "corner-stones" upon which the system rests. The larger the experience and the wider the observation of English educators, the more emphatic is their testimony upon this subject.

Hon. Edgerton Ryerson, Chief Superintendent of Public Instruction of Upper Canada, says:

"Wherever Normal Schools have been established, it has been found that the demand for regularly trained teachers has exceeded the supply which the Normal Schools have been able to provide. This is so in the United States and France; it is most painfully and pressingly so in England, Ireland and Scotland. I was told by the Head Masters of the Great Normal Schools in London, in Dublin, in Glasgow and Edinburgh, that such was the demand for pupils of the Normal Schools as teachers, that in many instances they found it impossible to retain them in the Normal Schools during the prescribed course, even when it was limited to a year."

The first Normal School in this country was opened in July, 1839, at Lexington, Massachusetts,—now removed to Framingham. During the same year a second Normal School was opened at Barre, now at Westfield, and during the next year a third at Bridgewater. The success of these pioneer American Normal Schools is sufficiently attested by the fact that they are still cherished by the State as the only unfailing reliance for supplying the schools with well-qualified teachers.

Horace Mann, than whom no man was a more competent witness, pronounced even the earlier success of the Normal Schools of Massachusetts a "practical demonstration" of their high value as agencies for supplying the common schools with competent teachers, and emphatically declared them "the one indispensable thing for carrying forward a system of common schools." In his eleventh annual report as Secretary of the State Board of Education, he says:

"These institutions [Normal Schools] are steadily fulfilling their great mission. They are gradually revolutionizing the methods and processes of instruction, improving its quality and enlarging its quantity throughout the State."

The highest authorities in the State, among whom are Josiah Quincy, Edward Everett, George S. Boutwell, Mark Hopkins, Barnard Sears, George B. Emerson, Joseph White, Birdsey G. Northrup, John D. Philbrick, and Governor Andrew, all concur in the opinion that they have been eminently successful and useful in preparing for the schools a superior class of teachers.

Mr. Northrup, who for nine years has been the Traveling Agent of the State Board, and who has probably seen more Normal teachers *at work in the schoolroom* than any other man in America, says:

"The more I visit schools and observe their methods and results, the stronger is my conviction of the necessity and usefulness of Normal Schools. My observations in schools and among the people assure me that our Normal Schools have widely diffused better ideas of education and awakened increased popular interest in the cause of public instruction.

"They have greatly elevated the standard of qualification for teaching, both among teachers and in the popular estimate. The Normal graduates, as a general fact, have shown greater thoroughness and skill in teaching, more system in arrangement of studies and in the programme of daily duties, more enthusiasm in their work and devotion to the profession."

But the most satisfactory evidence of the superior qualifications and success of the Normal teachers of Massachusetts as a class was called out in 1859 by an ignorant and ridiculously abortive attack upon the Normal Schools. Ex-Governor Boutwell, who was then Secretary of the Board of Education, sent circulars to all the towns [townships] in the State, soliciting from the school committees [boards of education] a full and free expression of their views as to the success or failure of Normal graduates as teachers. All but eleven of the replies received were favorable to Normal Schools. The testimony is found in the twenty-second annual report of the Board of Education. Such an indorsement of the superior success of professionally trained teachers, after twenty years' trial, by the school authorities of an *entire* State, is certainly evidence not to be gainsayed or resisted.

Equally conclusive is the testimony respecting the skill and success of the graduates of the State Normal School of Connecticut. In 1862, inconsiderate and wild charges were made against the Normal School in the General Assembly (not wilder, however, than Assemblymen had sometimes made against the entire common school system,) and the Joint Standing Committee on Education was instructed to inquire into its affairs and management. At the May session, in 1863, this committee submitted a carefully prepared report, in which they give the following emphatic testimony:—

"Testimony has been received from members of Boards of Education, District Committees, Principals of large Public Schools, and others interested in educational pursuits, from every county in the State—testimony which is confirmed by a careful investigation of all seeming opposition—that, as a class, the graduates and under-graduates of our State Normal School are more sought for as teachers, pass better examinations, are stricter disciplinarians, are more thorough and systematic in teaching, waste less time in educational experiments, are more ready to improve by suggestions, have more laudable pride in their profession, show larger results, and give to school committees, parents and guardians better satisfaction than teachers from other sources."

Of the large number of statements received from the school visitors in the towns [townships] of the State, only *one* was unfavorable to the Normal teachers.

The Board of Trustees of the State Normal School of Rhode Island, in a late report to the General Assembly, say:—

"The almost uniform testimony is in favor of the marked superiority of teachers from Normal Schools. The sentiments of the people in the localities where they have taught, ranges from the simple expression of 'favorable,' to the strongest and most enthusiastic terms of satisfaction. It is not pretended that Normal graduates never make failures. Some of those who have left Cambridge, Andover, West Point and Annapolis, have failed. Yet nobody doubts but the majority of those who have attended these institutions have become better lawyers, divines, soldiers and sailors than they would have been without the advantages offered there."

The above testimony is fully corroborated by all the information I have been able to collect upon the subject. No one who candidly considers testimony like this—and it might be increased to almost any extent, and made to include every State and country that has made the experiment—can resist the conclusion that the special professional training of teachers in Normal Schools is eminently advantageous and fruitful, largely increasing their success and usefulness. And this overwhelming evidence, be it remembered, is the result of very imperfect methods of professional training and instruction, since our Normal Schools are, as yet, by no means a full realization of what is desirable and practicable in this direction.

NECESSITY OF SPECIAL AGENCIES FOR THE TRAINING OF TEACHERS.

This leads me to a fundamental fact in the successful administration of a system of public instruction—one that lies back of and beneath all the inquiries that have been considered. The one *vital* condition of a good school is a *good teacher*. Other conditions are important; this is essential. School houses and apparatus, text-books and courses of study, classification and supervision, are indeed valuable agencies and conditions, but they are all inadequate until vitalized by the informing spirit of the teacher. Hence in a system of education the advancement of the teacher is increasing success; his want of progress, failure.

The distinguished M. Guizot, then Minister of Public Instruction in France, once said: "All the provisions hitherto described would *be of no effect* if we took no pains to secure for the public school *an able master*." Victor Cousin, another able Minister of Public Instruction in France, is still more emphatic: "The best plans of instruction can not be executed except by the instrumentality of *good teachers*, and the State has done *nothing* for popular education, if it does not watch that those who devote themselves to teaching be well prepared. I attach the greatest importance to Normal Schools, and I consider that all future success in the education of the people depends upon them." Dr. Channing, in 1837, said: "The most crying want of this Commonwealth [Massachusetts] is that of accomplished teachers. We boast of our schools, but our schools do comparatively little, for want of educated instructors. *Without good teachers, a school is but a name.*" Said Horace Mann, in alluding to the means for improving common schools: "But the great object for carrying the benign work of reform to our schools *must be the teacher himself.* No fullness in the qualifications of others can be the supplement of any material deficiency in him."

Testimony like this might be multiplied until the name of every educator who has written upon the subject is cited. Indeed, the propositions we have stated, if not self-evident, are the plain deductions of universal experience, and, as such, need no other proof. They are accepted educational axioms.

But in order that a system of common schools may be supplied with competent, efficient teachers, such teachers must be raised up and fitted for their office by special preparatory training. The emphatic testimony of educators on this point has become "like the voice of many waters." Everywhere, those whose experience and observation make them competent to decide such a question, agree that the high vocation of the teacher demands special and thorough preparation.

But, independent of all testimony of this kind, it stands to reason that he who would undertake the awakening, guiding and enlightening of the human soul, should bring to so great a task special preparatory training. In every pursuit of life, demanding any considerable degree of skill and knowledge, the universal sense of mankind demands special preliminary preparation. The artizan has his years of apprenticeship, and the legal, medical, and other professions, their schools of special training and practice. The young attorney whose only credentials are natural aptitude and a college diploma, finds himself briefless; and the quack who, without special training, has the audacity to enter the sick chamber and lay his unpracticed hands upon the human vitals, is (or ought to be) denounced as a criminal. The building of forts and monitors is not intrusted to house carpenters, and a mastery of the architectural art is the

talisman that transmutes ledges of rocks into temples of strength and beauty. Who then shall attempt to build up this immortal temple of the soul without special preparation for so great and difficult a work?

A second argument in favor of professional training for the teacher, is based upon the complex nature of the work he has to perform. If our whole theory of education is not a delusion, it is the science of sciences. As an art it has no equal, either in susceptibility of improvement or the knowledge and skill required for its successful prosecution. Every step of the teacher's work demands a knowledge of the faculties of the human mind, the order of their development, and the kind of knowledge and training required at each successive stage of such unfolding. True education is, in a word, based upon principles that go to the very core of mental and moral science, and sweep over all human knowledge and progress. Who, in view of such facts as these, will pretend that a clear and definite knowledge of the principles that underlie the work of education is not an important preparation for the teacher's high vocation? Who will claim that an examination of tuitional methods, in the light of these principles, would not greatly assist the young teacher in determining and regulating his own methods?

A third argument is the nature of the material upon which the teacher has to work. "A workman," says Mann, "should understand two things in regard to the subject matter of his work; first, its natural properties, qualities and powers; and secondly, the means of modifying and regulating them with a view to improvement." But what material workman ever yet touched, with hammer or chisel, such materials as those the teacher has to fashion into forms of power and beauty? What laws so hidden, and at the same time so essential for guidance, as those which must direct his every stroke? How often, through ignorance of the nature of the human mind, its susceptibilities and laws of growth, are a teacher's most zealous efforts wasted—that which promised to be the rich fruit of knowledge and virtue turning to ashes in his unskillful and misdirected hands!

Finally, the infinite value of the material placed in the teacher's hands renders a practical knowledge of its nature and qualities of the highest importance. The block of marble, spoiled by an unskillful blow, may be replaced; but the soul, marred and destroyed by ignorant handling, has no substitute. The gold and diamonds of earth can not replace it. Every line of deformity, every trace of the misguided chisel, is made upon it for eternity. Like the broken flower or the consumed diamond, the soul's purity and glory, when once lost, can never, save by Divine grace, be restored. Surely those who may be called to the teacher's office should bring to such a high responsibility special and thorough preparation.

It is not, of course, claimed that we can have no successful teachers without the agency of professional training. Here and there we find teachers of great natural aptitude for their work, achieving the highest success without such training. Nor is it claimed that any course of preparation can make an eminently successful teacher out of one who is seriously wanting in native teaching ability. A degree of natural aptitude is essential to the highest success of the teacher, whatever may be the advantages of training and experience; but this is equally true, as Edward Everett has remarked, in every pursuit or calling—in law, physic and divinity, in trade, manufactures and farming, and in the military art—and is never thought to militate against either the necessity or value of special preparation; since it is the function of all training, general or special, to develop and equip native powers—not to create them.

NECESSITY OF SPECIAL AGENCIES FOR THE PROFESSIONAL TRAINING OF TEACHERS IN OHIO.

In the light of the foregoing truths and experiences, it is evident that the most vital question involved in the improvement of the schools in Ohio is this: How can these schools be supplied with competent, efficient teachers? That they are not thus supplied is painfully evident. No one can question the assertion that there exists in them a wide-spread and lamentable lack of well-qualified teachers. The annual returns of the different boards of examiners

show that only about one half of the teachers certificated by them possess sufficient scholarship to secure a creditable grade of certificate—to say nothing of their lack of professional knowledge, skill and experience. It is scarcely necessary to add that this is the result of a sufficiently low standard of measurement. It is true, there are found in our schools many excellent teachers—not a few who are an honor to their calling and a blessing to the cause of education; but the general fact is lamentably true, that the great body of the teachers of the State possess exceedingly limited qualifications.

Now it is manifest that whatever else we may do, so long as this state of things exists, we shall fail to "secure a thorough and efficient system of common schools throughout the State," as is enjoined by our State Constitution. It is true that the task of supplying our schools with competent teachers is a difficult one, but we must succeed in it, or we shall surely fail to accomplish what we have undertaken in the direction of universal education. And let it be remembered, for our encouragement, that just to the extent we do succeed in this task, to that extent shall we also be successful in increasing the efficiency of our school system.

Our experience, thus far, is conclusive that we can not depend upon ordinary school agencies to raise up a supply of qualified teachers for our schools. The general improvement of the schools of the State through the introduction of the principles of classification and gradation, the establishment of high schools, etc., has unquestionably reacted upon teachers, greatly increasing their qualifications and efficiency; but all experience shows that these agencies are entirely inadequate, even in those localities in which they have been carried to their highest perfection.

Nor can we longer fold our arms and depend upon the philosophy of Dogberry to vitalize and improve our school system. Nature has an exceedingly limited supply of self-furnishing and self-guiding teaching ability; or she is very chary of it. It is sadly evident that the great majority of teachers do not come from her hands fully endowed and panoplied for their work, as Minerva is fabled to have sprung from the brain of Jupiter. The truth is, neither natural aptitude, nor experience in teaching, nor good school instruction, nor good examples of teaching, can be depended upon to provide a sufficiency of competent teachers for our schools. The first two of these agencies are fixed quantities, so far as our efforts can effect them, and the last two must be increased and widened mainly by a corresponding increase of well qualified teachers, which is not unlike the fruitless endeavor to intensify a cause by first increasing its effects!

I have thus shown the absolute necessity of well-qualified teachers in an efficient system of education; the wide spread and lamentable lack of such teachers in the schools of this State; the inability of ordinary school agencies to supply these schools with competent teachers; and the necessity and practicability of special professional training as a preparation for the teacher's office. I am carried by the force of an irresistible logic, and by the plain teachings of experience, one step farther. The State of Ohio must provide special agencies for the training of competent teachers for the schools under its control. This is the practical conclusion of the whole matter. The State, in assuming the responsibility of maintaining a system of common schools for the right education of its citizens, has also taken upon itself the consequent duty of providing these schools with capable, efficient teachers—a duty which can not be ignored, and which ought not to be longer neglected. "An adequate knowledge of the theory and practice of teaching" is now made by law an essential qualification of every common school teacher, and it is the imperative duty of the State to provide facilities for acquiring such important knowledge.

In the firm belief that the establishment of an efficient system of professional instruction and training for the teachers of the State is an essential measure for the adequate improvement and elevation of our school system, I take pleasure in commending the following plan of organizing such a system to the favorable consideration of the General Assembly:

PLAN FOR PROVIDING NORMAL INSTRUCTION IN OHIO.

A system of professional training for the teachers of this State, to be in the highest degree efficient and successful, must place such training within reach of every teacher. It must also provide facilities of a high character for the training of a superior class of teachers, whose example and influence shall vitalize the profession and lift it up to a higher standard. Without entering upon a discussion of these propositions, I will proceed to describe three agencies which, taken together, present such a system. They are: 1. County Teachers' Institutes. 2. District (Judicial) Normal Institutes. 3. State Normal School.

1. *County Teachers' Institutes.*—A well conducted Teachers' Institute, bearing directly and practically upon the duties of the school-room, is an important instrumentality for the professional instruction of teachers. Its value has been tested by more than twenty years' trial in every State blessed with a free school system.

I think I am safe in saying that no other agency has done more toward increasing the professional attainments of the great body of American teachers than this. In the State of New York, where it first originated, an Institute continuing in session two weeks, is held annually in every county. The example of other States might also be cited.

The amendatory school law of 1864 requires each applicant for a teacher's certificate to pay a fee of fifty cents as a condition of examination, and sets apart most (at least two-thirds) of the funds arising from such fees for the support of Teachers' Institutes in the several counties. In the larger counties this fund is sufficient to hold a good Institute each year, but in the smaller counties it is not adequate to meet all expenses. The new system is not yet in full operation, but it promises much for the future.

The great difficulty now to be overcome is the lack of experienced and competent institute superintendents and instructors. Very few teachers are capable of performing this important service, and those who are capable have, as a general rule, other duties which require their entire time. In several counties, arrangements for holding Institutes have had to be abandoned because the committee could secure no competent person to take charge of them. Nine pressing invitations for assistance were on my table at the same time, only three of which could possibly be responded to favorably.

What is needed is a corps of experienced Institute instructors, capable of unfolding and illustrating by practical drills and lessons, the best methods of teaching the several branches of study to classes of different and varying capacities, and able to present clearly and systematically the principles which underlie such methods, as well as those which must guide the teacher in the higher duties of moral training and government. Such a corps of instructors going through the State, organizing and conducting Institutes in the more backward counties, and lending a helping hand wherever their assistance may be needed, would make the new Institute system a powerful agency for the better preparation of teachers, and, as a consequence, for the advancement of the school system.

But in order that such a corps of instructors may be put into the field, an appropriation by the State to assist in their support, is absolutely necessary. I would most earnestly repeat the recommendation made last year, that an appropriation sufficiently large to keep at least three competent instructors in the field be made by the General Assembly. The teachers of the State are paying annually over $8,000 for the support of Institutes. Could the State pay at least half this sum, the present Teachers' Institute fund would be made fruitful as a practical means for the better qualification of teachers.

2. *District Normal Institutes.*—County Teachers' Institutes have, of necessity, too brief sessions to afford such a systematic course of professional training as all our teachers need, and as many of them are willing to receive. Even when they are continued two weeks, there is little time for model-lessons and practical drills to illustrate methods of teaching. In other words, there is little time for professional TRAINING, the brief session of the Institute being required for INSTRUCTION in the methods and principles of the art of teaching. .

To meet this growing demand for a more thorough course of instruction and training than the County Institute can furnish, temporary Normal Institutes, continuing in session from four to six weeks, have been organized. So successful have been these Normal Institutes, that they have been organized in connection with several of the Normal Schools of the country.* Eight such Institutes were held in the State during the past summer; most of them, however, partook more of the character of brief schools for the review of the common branches, than of Institutes for the professional training of teachers. What is needed is a thorough and efficient system of Normal Institutes, largely professional in their character.

The plan I would respectfully recommend is the organization of one such Normal Institute in each of the ten judicial districts of the State, a session to be held annually, at some convenient point. There will be little or no difficulty experienced in securing the use of suitable buildings and other accommodations without expense to the State. These will be gratuitously furnished by Boards of Education and the proprietors of private institutions of learning, for the purpose of securing the advantages of the Institute to their respective localities. The expense of instruction should be borne by the State, and this will require an appropriation of about $400 to each Normal Institute held, making an annual aggregate of about $4000. I know of no way in which so small an expenditure for the elevation and increased efficiency of the school system can be made with certain promise of so large a return. These Normal Institutes, held in different localities, would exert an influence which would soon permeate the entire school system.

3. *State Normal School.*—To complete the system of professional training recommended, there should be established at least one State Normal School of a high character. No system of Institutes, however complete and thorough, can alone accomplish what is needed. The length of their sessions is, at best, too limited, and the course of training too partial to raise up such a class of model teachers as are needed to lift common school instruction out of the deep ruts of routine, and to impart to it vitality and power. We need teachers trained by superior methods, that they in turn may become the teachers of teachers, and both by example and precept lift up the profession to a higher and truer standard. In short, we need a Normal School that shall be able to go beyond mere scholastic training and model examples of skillful teaching; that shall unfold thoroughly and systematically the *why* as well as the *how* of education—that shall teach its history, its philosophy, its methods.

It is true that one Normal School, however complete and thorough, will not be adequate for the accomplishment of a tithe of what is needed. But we must make a beginning, and, as all experience teaches, one thoroughly equipped Normal School will prove more efficient and valuable, even for the State at large, than two inadequately furnished for their mission, and consequently feeble and superficial in their influence and training. Besides, the complete success of one Normal School will soon prepare the way for the organization of another.

The cost of establishing a first-class Normal School in this State will depend,

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* The first Normal Institute of this character ever held in this country was convened at Hartford, Connecticut, in 1839, by Henry Barnard, then Secretary of the Board of Commissioners of Common Schools for that State, at his own expense, "to show the practicability of making some provision for the better qualification of Common School teachers." It was called a "Teachers' or Normal Class," and was so successful that Mr. Barnard, in giving an account of it in the Connecticut Common School Journal for November, 1839, used the following language:—

"We have no hesitation in saying that a judicious application of one-fifth of the sum appropriated unanimously by the House of Representatives to promote the education of teachers of Common Schools in different sections of the State, would have accomplished more for the usefulness of the coming winter schools, and the ultimate prosperity of the school system, *than the expenditure of half the avails of the School Fund in the present way.* One thousand, at least, of the eighteen hundred teachers would have enjoyed an opportunity of critically revising the studies which they will be called upon to teach, with a full explanation of all the principles involved, and with reference to the connection which one branch of knowledge bears to another, and also to the best methods of communicating each, and the adaptation of different methods to different minds. They would have become familiar with the views and methods of experienced teachers, as they are carried out in the better conducted schools than those with which they had been familiar. They would have entered upon their schools with a rich fund of practical knowledge gathered from observation, conversation and lectures, and with many of their own defective, erroneous, and perhaps mischievous, views corrected and improved."

In the fall of 1839, and the spring of 1840, Mr. Barnard held County Institutes identically the same as those held in New York in 1842.—*Ed.*

of course, upon the cost of the grounds and buildings. The experience of several other States leads me to hope that these will be given by some community as a *bonus* to secure the location of the institution. The citizens of McLean county, Illinois, subscribed one hundred and forty-three thousand dollars for the sake of getting the Normal University of that State located in the county. Hon. Josiah Quincy, Boston, purchased a building and presented it to the Normal School at West Newton, Mass., now removed to Framingham. The city of Oswego has purchased and fitted up a fine building for the State Training School of New York. Other similar instances might be named.

The annual expense of maintaining a Normal School of a high character, when once established, will be about $12,000. The current expenses of the Illinois Normal University, Michigan State Normal School, New Jersey State Normal School, and the New York State Normal School at Albany, are respectively about $12,000 a year. This sum will be needed in this State.

It will thus be seen that the actual cost to the State of maintaining the entire system of Normal and Institute instruction which I have recommended, is only about $20,000—a sum altogether insignificant when compared with the grand object it is to promote. The law making the appropriation may with propriety be entitled "An act appropriating $20,000 to keep the half of $3,000,000 from being squandered on incompetent teachers!"

Any attempt to present a complete course of study and training for the proposed Normal School, or to give the details of its organization, would carry me beyond the proper limits of this report. I would recommend that the organization and management of the entire Normal System, including the Normal School, the Normal Institutes, and the County Institutes, be intrusted to a Board of Trustees, or Regents, to consist of the Governor and Commissioner of Common Schools, as *ex officio* members, and three other persons to be appointed by the Governor, and confirmed by the Senate, the same to be known as the "State Board of Normal Regents," with full authority to appoint a general Institute superintendent, to act in conjunction with the Commissioner of Common Schools, and to employ Institute instructors—the amount expended each year being limited to the State appropriation for the purpose. In those counties which may have efficient local Institute associations, the management of the County Institutes should be left, as now, to such associations, the State instructors rendering needed assistance. But I forbear entering further into details. Should the plan recommended receive the approbation of the General Assembly, I shall be happy to render any assistance in my power in determining the practical details of the system.

It is now nearly thirty years since Hon. Samuel Lewis, then State Superintendent of Common Schools, submitted to the General Assembly of Ohio, in answer to a resolution, a "Report on State Institutions for the Training of Teachers and Others," in which he recommended the establishment of a State institution for the professional training of teachers, sustaining his recommendation by a cogency of argument worthy of the great cause he sought to promote.

Since the date of Mr. Lewis' report, which presented to Ohio the enviable opportunity of becoming the American pioneer in the professional training of teachers, Normal Schools have been established by *sixteen* States—Ohio being outstripped by States that have not a tithe of her wealth or population. Even new-born Maryland has made the Normal School an essential element of her new free-school system. Indeed, States that have been peopled since the General Assembly of Ohio passed the resolution referred to, have now their Normal Schools. Massachusetts is paying more than $22,000 annually for the support of her Normal Schools and Institutes. New York pays annually from $20,000 to $25,000* for her Normal Schools, about $17,000 for Teachers' classes in Academies, and from $10,000 to $15,000 for Institutes. Illinois, even while the late civil war was raging, appropriated, in two installments, $97,000 to pay, in part, for the magnificent building now occupied by her Normal University.

Why, in a matter so fundamental and vital as the supplying of her schools with qualified teachers, should Ohio longer fail to be the peer of her sister States? An efficient system of professional training for the teachers of the State is imperatively needed to infuse new life and vigor into the schools and elevate the standard of public instruction. I would most earnestly commend this subject to the favorable consideration of the General Assembly.

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* Increased to $60,000 in 1867.

LOUISIANA STATE NORMAL SCHOOL.

HISTORICAL SKETCH.

THE STATE NORMAL SCHOOL of Louisiana was established by an act of the Legislature passed in 1858, and modified by subsequent enactments of 1859 and 1860. It was located in New Orleans, and organized in connection with the public schools of that city. Its first session opened in 1858, and the school was continued in successful operation till April, 1862.

The Legislature in 1860 appropriated ten thousand dollars to aid in the erection of a suitable building; a similar appropriation was made the same year and for the same purpose by the common council of the city. Of these sums ten thousand dollars was received, five thousand dollars from the State and the same amount from the city for the building, when the work was stopped.

A memorial was addressed to the Legislature in 1867, asking for a new appropriation for its re-organization and support.

The school was under the charge and supervision of a Board of Directors that visited it, examined the classes, and reported annually to the State Superintendent of Public Education. It numbered more than one hundred on its register in daily attendance, and the interest in the school was annually increasing up to the time of its suspension.

It has recently been revived through the voluntary efforts of the State Superintendent and a few zealous teachers who have given their time and services to the instruction and training of the students assembled. One hundred and forty were in attendance in February, (1868). Normal classes have also been organized in some of the best schools and colleges in the State.

CITY NORMAL SCHOOL

AT ST. LOUIS, MISSOURI.

HISTORY AND ORGANIZATION.

THE St. Louis Normal School was opened in October, 1857, and placed under the charge of Richard Edwards, LL. D., now President of the Illinois Normal University. It continued under his superintendence as a distinct and separate school till the close of the year 1861, when the Board of Education, finding themselves in circumstances of great financial embarrassment, were obliged to effect a reduction in the expenses of the schools. For this reason, the Normal School was temporarily made a department of the High School, and Mr. Edwards became Principal of both, entering upon his duties as such in January, 1862. In March of the same year, Mr. Edwards resigned to take charge of the Illinois State Normal University. Mr. Thomas Metcalf then took charge of both schools till September, 1862, when they were again separated, and the Normal School was placed under the charge of one of its graduates, till January, 1863, when its present accomplished Principal, Miss Anna E. Brackett, was installed over the school.

This school is intended for the training of persons of both sexes who desire to become teachers in the public schools of the city.

The school is under the immediate supervision of a sub-committee appointed by the Board of Directors of the St. Louis Public Schools. This committee visit the Normal School, note the methods of discipline and instruction, and report at the close of each quarter, the condition and prospects of the school. The present faculty of the school consists of one Principal and two assistants, all ladies, and two part-time teachers for music and drawing.

ADMISSION OF STUDENTS.

All persons who have graduated at the High School, and other persons, residents of St. Louis, of the age of sixteen years and upwards, who pass an examination satisfactorily, in reading, writing, spelling, grammar, geography, arithmetic, algebra, history of the United States, and music, may be admitted to the school on subscribing a declaration, declaring their intention to devote themselves to the business of teaching in the public schools of St. Louis for at least two years; and pledging themselves to continue in the Normal School for at least one year.

COURSE OF STUDY.

The course of study requires two years. For the first or junior year, the studies are arithmetic, including mental and written; geography,

physical and political, with topography and the construction of maps; English grammar, composition, vocal music, drawing and penmanship, physiology, spelling and reading, with modes of teaching all.

For the second or senior year, the studies are algebra, composition, vocal music, drawing and writing, with modes of teaching these; geometry, mental philosophy, natural philosophy, history of English literature, theory and art of teaching, with teaching exercises before the whole school.

Calisthenic exercises form a part of each day's work through the course.

The members of the senior class give object-lessons to primary classes from the primary school in the same building. They also obtain practice in teaching and governing, by supplying vacancies in the public schools of the city, and reporting the work done, on their return, for discussion by the class.

The general character of the work of the Normal School may be inferred from the following extract from the last report of the Principal:

> The Normal School presents this year a graduating class of 26, with the average age of 19 9-12. The junior class numbers 29, with the average age of 18 9-12, making the whole number 55, with an average age of 19 3-12. The whole number of pupils connected with the School during the year has been 79; the largest number at any one time, 68; the average number belonging, 56.
>
> It is hoped and believed that the Board will find in the graduating class of this year faithful and efficient teachers, ready to help on the Schools of St. Louis to a higher and better standpoint than they have ever occupied. It has never been claimed by the friends of Normal Schools, that every graduate is a better teacher than any one who has not had special training; but simply that there is need of special training, and that a person with its advantages, will make a far better teacher than the same person without it.
>
> It is self-evident that the only object in establishing and sustaining a Normal School, is that the public schools may be self-supporting and improved in standard: that is, that St. Louis need not be obliged to send for teachers from other cities and States, and that the schools may grow every year better. Its object thus exists outside of itself to a greater extent than that of any other school, and every thing in its studies and management must be made to subserve this object. Its teachers should be acquainted with the wants of the city schools, with the excellences and failures of their teachers, and should bend all their energies to the cultivation of those excellences and the prevention of those failures in their pupils.
>
> Having then this special end in view, its training and management must essentially differ, in many particulars, from those of any other schools. No other can take its place or do its work, any more than a medical school can teach law, or a theological seminary, medicine. We are required not only to cultivate all womanly qualities, and to develop mental, moral, and physical powers, but beyond this, to call out and train certain qualities of mind indispensable to a good teacher; and regulations and methods are needed for this end, which would be out of place in a High or Grammar School.
>
> The great difficulty which we meet on the threshold of our undertaking, is the general low estimate of the qualifications necessary for a teacher. Judging from daily experience, it would seem as if a large number of persons believed that all which was really necessary to secure one an appointment as a teacher of children, is the attainment of the sixteenth year, and the ability to answer correctly perhaps fifty per cent. of simple questions on the common English branches. For any other business they concede that there must be some training, some apprenticeship; but "anybody" can teach. Do we want our St. Louis schools to be taught by "anybody?" Do we want them to stand still, or to improve? Shall we trust the training of the children to those who have never had a thought on what is necessary for that training, who know nothing

of methods, who have had no opportunity to profit by the experience of others, and whose only object in applying for a situation as teacher, is drawing, I will not say earning, the salary attached thereto? or shall we do what in us lies to mature those minds, to develop them, to give them the results of the work of other teachers in the form of correct principles, on which they may base their daily work, some idea of its importance, and withal a love for it? There are some who have a special talent for teaching, we grant; but even a Raphael must learn the rules, and principles, and methods of painting, these being, in the same way, only the generalized experience of all who have preceded him.

If we desire our schools to be really good, we must have really good teachers, and no amount of special training is too much to fit them properly for their work. We do not trust an inexperienced blacksmith to shoe our horses' feet, and yet are willing to trust the education of our children's minds to anybody who happens to need the salary. Against this low estimate of the necessary qualifications all teachers of Normal Schools must protest, and to mature and develop those who are under their charge, to give higher and truer views of the responsibilities of their position, they work day by day and hour by hour.

The teachers must consider always three things: first, scholarship; second, moral character; and third, aptness to teach.

Of these qualifications we must judge. And when to these questions, which are to be decided concerning every graduate, we add the doubt as to whether she can govern her school, which we can best solve by discovering whether she can govern herself, the difficulties which are our daily work may be understood. We have comparatively a short time. Two years is not long to touch all these different springs, with many others, of which we have here no time to speak. In so far as we can decide by all the tests in our power, we do so. Often, too, the decided strength of some one or two of these qualifications may fully make amends for the want of others; for example, a decided aptness to teach may more than balance a want of book scholarship.

These tests should be applied more rigorously each year, so that our standard may be rising. Where there has been found, after careful consideration, any hopeless want, by the direction of the Teachers' Committee, members of the school have been advised to leave, and to give up the idea of teaching, and have done so; while others have been obliged to review their junior year, and thereby to extend their course to three years. While we regret the pain and disappointment to the individuals, simple justice to the school and to the interests of the city schools, demands this course.

The Normal School can not always fully act up to its standard, because we do not start with as good material as we should have. If we could begin with cultured and matured minds, we could present far better results.

As the students are principally from the city, most of them board at home, and no arrangements for board are made by the institution.

The diploma given to graduates of the school entitles them to an appointment as teachers of the public schools of the city without further examination.

The number of students the last year was sixty-five.

The number of graduates, eighteen.

The whole number of graduates is one hundred and fifty-seven.

CITY TRAINING SCHOOLS IN IOWA.

DAVENPORT, IOWA.

THE schools of Davenport have a high reputation for thoroughness of instruction and for successful results. Much of the success which has attended the operations of the school system in this city is the consequence of the special arrangements which have been made for the training of skillful teachers.

The Training School of Davenport was organized in September, 1863. It is under the general supervision of the Board of Education of the city, and the special direction of the city superintendent of schools. For two years after it was established, it was no extra expense to the city, the services of the pupil-teachers in the model or practice schools more than compensating for the extra expense of securing a trained and skillful Principal who could instruct and direct the pupil-teachers.

The number in the class is not limited; any one who is able to pass a creditable examination before the county superintendent may be admitted. The course of instruction is a year, and usually a new class is received at the beginning of each year. There is a nominal tuition fee of ten dollars a year.

The school has connected with it a model and practice-school of four rooms of fifty-six pupils each. The members of the Training School receive direct instruction from the Principal, in mental science, school economy, and the science of education and methods of teaching. About one hour and a half of each day is occupied with recitations in these branches, and the remainder of the time is passed in the model and practice-schools in observation and practice.

The pupil-teachers have regular classes in the schools of practice, which are changed occasionally; in the first term once a month, and in succeeding terms more frequently, if necessary to give each student an opportunity to practice in different grades and teach different branches. The instruction is similar to that given in the elementary training course at Oswego. It includes lessons with the children in the elements of natural science, object lessons, and the usual studies of common schools. With the exception of reading, most of the instruction is oral, being given without text-books. The lessons are carefully prepared by the pupil-teachers, and kindly criticised by the Principal, the good points being noticed, while the bad are corrected. The course has been found eminently useful in giving confidence and imparting skill to young teachers, while they become better acquainted with the philosophy of mind.

The public schools of the city are supplied almost entirely from the Training School.

OTTUMWA, NAPELLO COUNTY, IOWA.

The schools of Ottumwa were reörganized in the Autumn of 1865, under the supervision of L. M. Hastings, Jr., the city superintendent.

A fine public school building was completed that year, and the superintendent and School Board sought to adopt the best system of organization and instruction for the public schools. The schools were carefully graded under the personal supervision of the superintendent, and placed under the charge of such teachers as could be obtained. But it was found difficult to secure competent teachers, and the "old methods" of instruction were unsatisfactory to the superintendent and the School Board. The greatest drawback to the success of the system was "*poor teachers.*" The superintendent gave much of his time and attention to training and instructing teachers, and some improvement was seen the second year in the methods of instruction. But other duties demanded the time of the Superintendent, and the Board, in 1867, authorized him to establish a Training School for the special preparation of teachers.

The Superintendent was successful in obtaining a competent and experienced teacher, and the Training School was opened in the Autumn of 1867. Miss Pride, the training teacher secured, was a graduate of the Normal and Training School at Oswego, N. Y. Three classes of the graded school, comprising about fifty pupils, were constituted a model and practicing-school, and placed under the charge of the training teacher.

This Normal Training School is expected to be a permanent institution, and though established primarily as a department of the schools of Ottumwa, is open to all qualified to enter. Those only are admitted who show a natural fitness for teaching, and have literary qualifications sufficient to admit them to the High School classes. Tuition is free to all students residing in the district; others pay a tuition fee of eight dollars per quarter.

The class which entered on the organization of the school, in 1867, consisted of twenty-two; five were teachers from the Ottumwa primary schools, sixteen young ladies and one young man were from the High School. Several of these High School students had taught before, and all were expecting to teach. They receive special instruction in methods of teaching the different branches taught in public schools, and then pass to the model and practice-school, where they put in practice the lessons received, conducting exercises in this department under the eye of the training teacher, who superintends the work and gives such counsel and directions as are needed.

During the last hour of the day the whole class of pupil-teachers meet for criticism lessons, and receive such suggestions and assistance from Miss Pride as are necessary to enable them to carry out the plans and employ the methods adopted.

As far as results can be estimated, they are very satisfactory. The

change for the better in the primary schools is already apparent, and the difference between the new methods and the old is already marked.

MANCHESTER, IOWA.

The Training Class at Manchester was organized in connection with the public schools in September, 1867. It was opened with two rooms, and the Superintendent, Prof. J. Piper, reports (1867) that "it bids fair to be a complete success." Though its primary object is to educate and train teachers for the public schools of that place, all candidates properly qualified are admitted so long as there is room. The teachers have an opportunity to pursue studies usually taught in public schools. Instruction is given by lessons and lectures in methods of teaching, school organization and systems of education, and the students occupy a portion of the time daily in observation and practice in the model and practice-schools. It is intended that the course of instruction and training shall be very thorough. The requisites for graduation are a good knowledge of school organization, the principles of education, and methods of instruction and training, with successful practice in all the grades of the model schools. Only skilled teachers will be approved.

CITY TRAINING SCHOOLS IN INDIANA.

INDIANAPOLIS, INDIANA.

The Training School of Indianapolis was organized March 1st, 1867, and placed under the charge of Miss Amanda F. Funnell, a graduate of the Oswego Training School, and a former teacher in that school. The design of this school is to give to those who have already completed the academic course of study, an opportunity to pursue a thorough course of training in the principles and methods of oral instruction, and in the science of education and the art of teaching and governing schools.

The school was established with especial reference to meeting the demand for teachers in the schools of Indianapolis, and to furnish these schools with a supply of trained teachers. The Training School is supported from the public funds, as the other city public schools, and is under the supervision of the city superintendent of schools. The qualifications required for the admission of students are, good sound health, good moral character, and a good knowledge of the common English branches of study. The school has two departments, one of instruction, and one of observation and practice. In the former, the course includes the study of methods of teaching, reading, spelling, number, form, size, place, color; lessons on animals, plants, and objects; inventive drawing, language and geography. In connection with the study of methods, lessons are taken in mental philosophy, school economy, zoölogy and botany.

In the department of observation and practice, there are seven rooms, including the four primary and the two intermediate grades of the city schools, and a model school. These rooms are under the charge of three efficient and experienced critics and a model teacher. Each teacher employed as critic has the supervision of two rooms in which the members of the Training Department practice. The seventh room is intended for observation only, and is under the permanent instruction of the model teacher. The class of pupil-teachers is formed into two divisions, each division passing one-half of the time in each department. The time required for the course is one year.

The number of pupils is limited to twelve.

FORT WAYNE, INDIANA.

The Fort Wayne Training School was organized in August, 1867, having for its object the training of young ladies to take positions as teachers in the city schools. The instructors appointed were Miss Mary H. Swan, *Teacher of Methods*, and Miss Mary L. Hamilton, *Critic;* both graduates of the Oswego Training School, and both experienced teachers.

The school occupies one room for the teacher of methods, and five

school or practicing rooms, in each of which are forty-eight children. Ten young ladies, most of whom were graduates of the Fort Wayne High School, entered the first term. The students are divided into two sections, one of which is in charge of the teacher of methods in the morning, while the other is teaching in the practicing rooms under direction of the critic. The sections change places in the afternoon.

The teacher of methods gives lessons and lectures on the science of teaching, methods of teaching, number, primary arithmetic, place or geography, reading and language lessons, color, form and objects. An effort is made to present each subject objectively. Small classes of children are brought into the training room, and the teacher of methods gives an illustrative or model lesson on some one of the subjects under discussion, or calls upon some one of the pupil-teachers to give one, while the others are required to criticise the method and manner of giving it.

The pupil-teachers are also required to write out model lessons, stating the subject matter of the lesson, the various points to be made, the questions they would ask to bring out these points, also the probable answers of the children, &c.

The work of the critic-teacher is indicated by the name. She goes about from room to room in the department of practice and criticises the work of the pupil-teachers, offers suggestions and gives illustrative lessons. She has the general charge and oversight of the practicing rooms. The teachers of the Training School also render valuable aid to the city Superintendent of schools, by giving model lessons to the primary-teachers in the Teachers' Institute, which is held weekly.

The Superintendent of the public schools of Fort Wayne, James H. Smart, Esq., in speaking of this school, says:

> The results of the work, so far, are very gratifying.
>
> I. It is economical, five regular school-rooms being taken care of for less money than any other five rooms in the city.
>
> II. The methods of instruction are an improvement over the old methods. We think that these rooms will, *at present*, compare quite favorably with any other rooms in the city.
>
> III. We are training up a class of *home teachers* who, being acquainted with *our system*, can take new schools as they are established and teach them with a certainty of success.

EVANSVILLE, INDIANA.

The Training School at Evansville was established by the Board of Education of the city in 1867. Its primary object is the training and preparation of teachers for the public schools of Evansville, but it is believed that its influence will extend not only to the schools of the city, but to all places where the teachers graduating from this school shall be employed. It was fully organized by the appointment of Miss Abbie A. Locke as Principal, and opened Sept. 9th, 1867.

The general course of study is similar to that adopted at Indianapolis and Fort Wayne. It includes mental philosophy, methods of teaching the ordinary school studies, philosophy of education, school government, and those branches necessary to "the cultivation of the students as teachers and members of a social and accountable race."

CITY TRAINING SCHOOL

AT NEW HAVEN, CONN.

THE Training School of New Haven originated in the effort of the Superintendent of Schools, Ariel Parish, Esq., to give to young persons who were candidates for the position of teacher, an opportunity to observe for a time the methods of teaching and discipline in daily practice in the city public schools. During the first year of the experiment, the candidates had little opportunity to teach, but the advantages derived from the process of observation were such as fully to warrant the adoption of other measures more valuable and efficient.

The opening of a new school in 1867 afforded a favorable opportunity to provide actual instruction for young teachers, and to carry out the proposed plan without additional expense to the district. The school was placed under an accomplished teacher, formerly from the State Normal School at New Britain, and four rooms were placed under her charge.

The aims and purposes of this school can be learned from the following statement of the Superintendent:—

This school has been organized on its present basis,

1. To avoid the necessity of employing, in responsible positions, young persons entirely destitute of preparation and experience, with no means of improvement, except by crude experiments on the children in their teaching and government, without any one to aid or guide them. It is believed that the instruction and practice of a single term here will better fit them for their duties as teachers, than a year's experience in the ordinary mode of guess-work teaching.

2. To save beginners from failure—disastrous to their reputation as teachers, and a very serious loss to the District in the demoralization of the school.

3. To furnish them practice in teaching while learning how to perform the duties required, under the supervision of a competent teacher, who shall be able to correct their errors, point out their defects, give advice, and render all needful assistance. Under her instruction they learn how to organize a school, to classify the pupils, and so order the daily exercises as to secure a complete systematic performance of all duties pertaining to the school.

4. Especial care is taken to present the best methods of elementary instruction, in all the branches taught, by daily practice; also, to indicate sources of information in educational publications by which the experience of others may be called into requisition.

5. Special attention is given to that most difficult of all duties, school government. While the order and discipline of the room is left in the hands of the teacher, the Principal is always ready, in cases of emergency, to advise and render assistance. The dispositions of the children, their temperaments and habits, their probable home treatment, are made prominent subjects of study; also the best method of encouraging the pupils to a cheerful observance of all requirements. Judicious modes of punishment are carefully sought for, to meet all necessary cases where other measures fail.

6. This school comprises the first four grades, properly the primary depart-

ment, of the school system, and the young teachers are confined to these in their practice; yet the instruction they receive involves general principles which are applicable to all the higher grades, and with good judgment in their application, experience will in due time enable them to take charge of higher rooms, according to their qualifications.

7. Among the gratifying results of the experiment, thus far, are the thoroughness of the instruction and the progress of the children in their studies. These are due, first, to the efficiency of the Principal, who is never satisfied with partial success, whose watchful care suffers no pupil to be neglected; and second, to the earnest desire of the young teacher to perform her work successfully, knowing that she can have no better passport to promotion. Parents who witness from time to time the exercises of the classes and the general movements of the school, can not but feel satisfied with what is done for their children.

8. In view of the results, on the whole, in providing competent teachers from the pupils as they complete their studies in our schools; in the excellent instruction the children receive; and in the economy of the arrangement, costing, as it does, less expenditure of money than would be required to conduct the school in the ordinary way, I commend this enterprise to the attention of the Board, as one of the most influential elements we possess in strengthening and perfecting the whole system of our public schools.

CITY TRAINING SCHOOLS,

SAN FRANCISCO, CALIFORNIA.

I. STATE NORMAL TRAINING SCHOOL.

THE first Training School for teachers in the public schools of San Francisco was organized, September, 1865, in the lower rooms of the building occupied by the State Normal School. Such was the popularity of the school, that additional class-rooms became necessary, and a separate building was provided by the city, in 1867, capable of accommodating two hundred and seventy-five pupils. The Superintendent of Schools in San Francisco gives the following account of this school in his Report for the year ending October 15, 1867:—

The management of the school is intrusted to one Principal, Mrs. C. H. Stout, and two assistant teachers, who are all appointed by the City Board of Education.

As its title implies, the school is designed primarily for the training of Normal School students in the art of teaching. These are deputized to teach, each for one week at a time, and twice during the term, one of the six training classes. Before assuming charge of a class, the pupil teacher is required to spend a week in special preparation for her work. This she does usually by studying the course of study prescribed for the class, by inspecting the methods of teaching pursued by other teachers already plying their task, and by receiving the suggestions of the Principal in regard to the details of school management. For each of the six grades in the school there is provided a programme of recitations, which vary in length from ten to thirty minutes. The subject of each lesson in oral instruction is assigned by the Principal, and of this lesson an abstract must be prepared by the pupil teacher and be presented to the Principal for criticism, before the same be given to the class.

The subject of each lesson, the date of the recitation, and the name of the teacher conducting it, are recorded by the Principal in a book provided for this purpose.

At the close of the week the Normal pupil makes out a report of the methods of teaching she has employed, and of the number and nature of the class exercises she has conducted, accompanying her report with such remarks pertinent to teaching as she may desire to make. To this report the principal attaches her record of credits assigned to the teacher for her performance in the Training School. The aggregate of these credits forms one-third of the maximum or standard required for graduation in the State Normal School. The Principal and her two assistants, besides exercising a constant supervision of the work and directing the unskillful efforts of the pupil teacher, themselves illustrate the principles of pedagogy by an actual application in teaching.

The fear once expressed that the primary pupils of the school would suffer from the frequent change of teachers, all of whom were to be regarded as untried and inexperienced in teaching, has proved to be groundless. Whilst there is no doubt that an incalculable advantage has accrued from this school of practice to the Normal School, it must be admitted that no disadvantage has been entailed, whilst securing this benefit, upon the children who depend upon this school for the rudiments of knowledge. In proof of this assertion, it may

suffice to state that this school has been subjected to the same examination as other schools in the city of like grade, and that it has never made less than eighty-five per cent. in the semi-annual examinations of primary schools held by the City Board of Education. This fact reveals a degree of proficiency on the part of the Training School not surpassed by any other primary school in the Department. Deprived of this experimental school, the Normal School would be wanting in one important requisite of success, and without its aid but few Normal graduates could ever aspire to any distinction as skillful instructors. To the Normal School the State even now looks for its regular supply of teachers. Should these instructors fail in any essential part of their professional duty, the children of our citizens must suffer the consequences of such failure. Upon the success of these teachers the Normal School rests its claims for public favor, whilst to the Training School, supported by the enlightened liberality of our Board of Education, must ever attach a large share of whatever honor the Normal School graduates may reflect upon their *alma mater*.

II. CITY TRAINING SCHOOL.

In 1867, the City Board of Education established a Training School for teachers in connection with the Girls' High School, under the special charge of a Principal, (Mrs. A. E. DuBois,) and an assistant. Originally there was but one model class, with forty pupils; at the close of the first three months, there was an attendance of two hundred and four primary pupils, distributed in six class-rooms, taught by members of the Normal Class of the Girls' High School, who are drafted for this purpose every week, under the direction of the Normal Principal and her assistant.

The members of the Normal Class will now pass as teachers into the public schools of the city, or elsewhere, with some experience in the instruction and management of children, and with some test of their ability to govern a school.

Replies to this Circular, endorsed *Official*, pass *free* by mail.

{SPECIAL CIRCULAR No. 12.

CIRCULAR RESPECTING INSTITUTIONS OF NATURAL SCIENCE.

U. S. DEPARTMENT OF EDUCATION,
WASHINGTON, D. C., *February*, 1868.

Schools, Societies, Museums, Academies, and other Institutions, wholly or in part devoted to the advancement of the NATURAL SCIENCES, are requested to communicate information respecting their organization, publications, collections, and other items included under the headings below, as soon as convenient.

Colleges, Scientific Schools, and similar institutions, receiving this Circular, will confer a favor by sending an account of their Natural History Department; its Collections, Library, etc.; the general course of instruction adopted; the names of the Professors, and other officers in the department; and such other matters as come under the general headings below. Historical societies will please give an account of any collection of an Archæological or Ethnological character they may possess.

HENRY BARNARD,
Commissioner of Education.

1. The name of the Institution in full.
2. Its location (street, city, county, and state).
3. Date of its organization.
4. A short account of its history.
5. The amount of property held for the benefit of the Institution.
6. The average expenses in the several departments.
7. The number of members of each class (as Resident or Active, Corresponding, Honorary, Patrons, etc.).
8. The amount of entrance fee and assessment of members.
9. The conditions for membership.
10. Meetings (their character, time and place of holding, etc.)
11. Lectures.
12. Library (its general character, number of volumes, etc.).
13. Museum (its general character and arrangement).
14. Estimated number of species in the Museum under the following general heads, if convenient:—Geology, Mineralogy, Botany, Protozoa, Radiates, Mollusks, Articulates, Vertebrates, Anatomy, Palæontology, Archæology, Ethnology. (If possible, the estimated number of species in each class of the Animal Kingdom, and notice of any special or large collection that may be in the Museum would be acceptable.)
15. The conditions under which the Museum, Library, and Meetings are open to members and others.
16. The titles of the present publications and the time of their issue.
17. A complete list of the works published, with their size, number of volumes, date of publication, present prices, and the manner in which they can be obtained.
18. How often and in what manner are the officers elected?
19. When is the regular election of officers?
20. A complete list of the present Officers and Committees.
21. What offices are paid, and what honorary?

Replies to this Circular, endorsed *Official*, pass *free* by mail.

{SPECIAL CIRCULAR, No. 12.

CIRCULAR RESPECTING ACADEMIES OF DESIGN,

GALLERIES OF ART, AND ART CULTURE

U. S. DEPARTMENT OF EDUCATION,
WASHINGTON, D. C., *January*, 1868.

The undersigned desires to obtain for this Department printed documents respecting Academies of Design, and Schools and Galleries of Art, and such other information as you may please to communicate respecting efforts which have been made in your city, or State, to promote the study of Art and its applications to Painting, Sculpture, Engraving, Architecture, Landscape Gardening, Music, &c., in any of the forms and particulars specified below.

HENRY BARNARD,
Commissioner.

1. Academies of Design—when and how established; how supported; present condition as to funds and members.
2. Schools of Art—when and by whom founded; how supported; tuition free or otherwise; number of pupils, male and female; trustees, how many and how paid.
3. Schools of Art for Women—when and by whom established; how supported; number of pupils.
4. Public Museums or Galleries for Exhibition of Works of Art—when established; how supported; character and value of the works exhibited; number of visitors, (estimated, or known by sale of tickets.)
5. Private Collections of Works of Art—their character and value; whether the productions are of foreign or native artists.
6. The study and practice of Drawing in Colleges and Schools of any grade with you, (not included above)—when first introduced—how taught—number of pupils, male or female.
7. Academies or Schools of Music—when established—how supported—present condition as to proceedings, funds, and members.
8. Music in Colleges, Academies, and Public Schools—when introduced as a regular exercise—how taught, special teacher, &c.
9. Public Parks—extent and original cost of grounds—plan and cost of improvements, and by whom designed—annual cost of improvements and superintendence—historical monuments and statues, &c.
10. Private grounds—extent, and by whom planned—on what conditions open to visitors.
11. Rural cemeteries—extent and cost of grounds—when and by whom planned—annual cost of improvements and superintendence—number of proprietors.
12. Number and character of Books on Art accessible through public libraries.
13. Native artists—living or dead, whose reputation and productions are associated with your city—any details as to special training and encouragement received by them there.
14. Any special action by the State or City, or by any institution or individual, for the advancement of Art in design, construction, or decoration of buildings and grounds, in portraits, statues, paintings, or monuments.
15. Schools or Classes (day or evening) for artizans, in any branch of decorative Art, modeling, &c.
16. Art and Æsthetic Culture generally—any suggestions as to its condition and improvement in this country.

Answers to this Circular, marked *Official*, will pass postage free, by mail.

SPECIAL CIRCULAR, No. 14.

CIRCULAR RESPECTING PUBLIC GROUNDS

AND OTHER ARRANGEMENTS FOR POPULAR RECREATION.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., 1868.

In the progress of the Science of Education, attention is more and more called to the fact that a refined development of the mental powers, unattended by a corresponding development of the physical system, necessarily results in morbid conditions which are subversive of the objects of education.

It follows that the science of education includes the science of recreation, and that elaborate arrangements for the education of a community must be regarded not only as incomplete, but as radically unsound, in which suitable provisions for physical training and recreation are not included.

A thorough consideration of the educational system of the United States can not therefore be had without an examination not only of the special methods of physical training adopted in schools, but of the usages which obtain, especially in our more important towns, with regard to public, open-air recreation.

Few communities yet possess grounds so designed as to provide, with any approach to completeness, for this purpose, but there are certain localities in and about all towns which are more or less resorted to, because of such limited advantages as they offer.

The object of the present circular is to elicit such information as may aid to establish a correct understanding of the general stage of advancement which has been reached by American towns in this particular.

HENRY BARNARD,
Commissioner of Education.

SUGGESTIONS IN MAKING RETURNS.

The following suggestions and questions are not intended to indicate the limits to which the returns should be confined, but to facilitate the adoption of a short method of supplying the more important facts desired. It is not designed that the several inquiries and suggestions shall be followed *seriatim* in all cases, but it is requested that the several divisions indicated by capital letters may each be taken up by itself, though a single sentence is only given in reply; for instance, the division "E." may be sufficiently answered in many cases as follows:

E. We have no scientific gardens, and nothing has been done for public education in the direction indicated by these inquiries; our teachers and those chiefly concerned in the management of the public schools confining their interest and labors almost exclusively within the walls of the school-houses.

A.

(*a*) When your citizens wish to take the air, without engaging in vigorous exercise; to meet their fellow town's-people, without ceremony or the necessity of engaging in conversation; or to entertain guests with a pleasant drive or walk, to what localities do they more commonly resort?

(*Note.* If a cemetery seems to be made use of as a place for pleasure promenades, the fact should not be omitted. *See Note A (a) at close.*

It should be mentioned also if the public is indebted to private enterprise and generosity for opportunities of recreation.)

(*b*) Is the custom established among your citizens of a promenade, that is to say, of a general gathering in a certain locality for the above purposes, at certain hours of the day?

(*c*) If so, what is the number of people who ordinarily engage in it under favorable conditions of weather? and

(*d*) What the extreme number under special circumstances?

(*e*) Has it been customary to provide music in the locality of the promenade on certain days?

(*f*) If so, how frequently?

(*g*) What is the expense? and

(*h*) By what arrangement defrayed?

(*i*) What are the special attractions and advantages of the localities named in answer to question *A* (*a*)?

Under this include attractions supplied by water views, landscapes, shade, fountains, and works of art, parades, spectacles and displays. See *Note A* (*i*) at close.

(*j*) State if the carriage-way used is especially adapted to pleasure driving.

(*k*) If so, what is its constructive character? See *Note A* (*k*) at close.

(*l*) Is it reserved exclusively for pleasure vehicles?

(*m*) What is the width and length of such carriage road?

(*n*) What is the limit of speed allowed, if any?

(*o*) What are the provisions for watering the road?

(*p*) State if there is a special way for saddle horses.

(*q*) If so, what is its constructive character?

(*r*) What is the width and length of such bridle-road?

(*s*) State the length of walk especially adapted to pleasure walking.

(If of variable width, the walks may be classified according to width of each, and the length of each class given.)

(*t*) What is the surface material of the walk?

(As screened gravel, powdered shell, asphalte, coal or pine-tar concrete, &c.)

B.

(*a*) To what localities are delicate children, cripples, feeble aged people, invalids and convalescents taken for sunning and airing?

(*b*) What is the means of access to this locality from the denser parts of the town?

(*c*) What accommodations required especially by delicate and feeble persons are provided in the locality?

(Such as seats and level walks sheltered from chilling winds and open to the sun; baths, warm milk, mineral waters, &c.)

(*d*) What is the usual charge for the hire of an easy carriage for a drive of an hour, on roads well adapted to the exercise of a feeble person?

C.

(*a*) To what localities do your citizens resort for open-air exercise of a more active or vigorous character than walking or driving?

(*b*) State if there are special arrangements for the enjoyment of base-ball, foot-ball, cricket, dancing, croquet, or any other recreative exercises?

If so, describe each, giving the area of ground occupied; the arrangements for spectators and for the rest and refreshment of players.

(*c*) State if rowing or skating are popular amusements, and what are the public facilities for engaging in them?

(*d*) State if there are public arrangements for gymnastic exercises, and if so, under what regulations they are used.

(*e*) To what places do young men most resort during the hours of the day when they are not engaged at their homes or in business duties?

(*f*) Are healthful and improving recreations prepared for young people, on holy-days?

If so, describe the arrangements and indicate to what extent they are availed of.

(*g*) What resources of every day amusement, entertainment or recreation are most available and most used by young men?

(*h*) Are your leading philanthropic and patriotic citizens generally warmly interested in means of instruction, encouragement and assistance to young people in the formation of habits of temperate, healthful and virtuous recreation?

(*Note.* The recklessness, unhealthful excitement and brutal indifference to the rights and feelings of the community which have been often manifested of late years, in connection with the public, athletic contests of young men, have excited much astonishment and profound anxiety, as indicating that their education was a failure in respect to the most important object of education. The symptoms referred to have been exhibited both by young men educated in the country and at common schools, and by those educated in large towns, and at the higher institutions of learning. It is questioned whether if young men did not from childhood

generally find that in the indulgence of a propensity to engage in manly recreations, they could expect neither instruction, sympathy, fellowship, nor encouragement and judicious assistance from the better part of society, they would be equally liable to fall into the excesses referred to. Any facts or observations bearing upon this question will be valuable for the purposes of this circular.)

D.

(*a*) On the occasion of a reception of public guests or other civic formalities, celebrations, exhibitions or festivities; or of demonstrations of public opinion or congratulatory meetings, too large or of an unsuitable character to be held within buildings, (as where horses are used, or fireworks exhibited,) what localities are resorted to and what is the character of the accommodations they offer, and in what respects are their surroundings suitable to be associated with such proceedings?

(*b*) On occasions of public ceremony or festivities, is it customary to call upon the public schools to take a suitable and honorable part, and are accommodations provided of such a character that children may be present, under the government of their teachers, without danger of accident or excessive fatigue?

(*c*) What public grounds are provided for the military training of citizens and for parades?

(*d*) To what localities do school children commonly resort in the largest numbers for out-of-door play?

(*e*) What is the area of ground especially prepared for them?

(*f*) What are its attractions, and what conveniences or encouragements are provided in connection with it for healthful recreation?

(*g*) If convenient, estimate the number of children who come together

(*h*) Is there a public swimming school?

(*i*) If so, under what regulations do the children use it, and how are its expenses met?

(*j*) If there is no regular swimming school, do any of your common school teachers systematically go on bathing excursions with their scholars and give instructions in swimming?

(*k*) What public conveniences or encouragements are provided to induce children to bathe and learn to swim?

E.

(*a*) Does the system of public education (of higher or lower grade) include any systematic training, or instructions in the judicious use of the physical powers?

(*b*) If so, describe the means and facilities for demonstration and practice.

(*c*) Are prizes offered for proficiency in recreative exercises, or do indolence and neglect of the requirements of health and morality in this respect, affect in any way the school standing of scholars, on the merit-roll or otherwise?

F.

(*a*) Is there any Arboretum; or Botanic, Horticultural, Geological, or other open-air Scientific Collection, to which school children are freely admitted?

If so, describe it, giving its specialty, the extent of the collection, the ground occupied, when and by whom prepared; by what arrangements maintained, and indicate to what extent it is used with direct educational intention. Indicate to what extent it is also resorted to as a place of general public recreation.

(*b*) What facilities and incentives other than those already indicated, are offered children to educate their perceptive faculties by observation of natural objects?

(*c*) Is this department of education systematically pursued, either by daily occasional rambles with or without walking lectures and demonstrations, in places adapted to favor the acquisition of a familiar knowledge of many natural objects?

(*d*) If so, describe the ground gone over.

(*e*) Have healthful holiday excursions by public conveyances to a distance been organized, by which children benefit?

(*f*) If so, describe the advantages of the localities visited, the time occupied, the expense, and the manner in which it is defrayed, the number attending such excursions, and at what intervals they occur.

NOTES.

Note A (a.)

A special schedule of inquiries has been prepared in regard to Cemeteries, which will be supplied when desired.

Note A (i.)

For concise returns, the following classifications may be observed:—

Where the promenade is an ordinary town street, with no special attractions except such as are found in unusual amplitude, gayer shops and finer buildings, it may be classed as *Urban*.

Where in an otherwise ordinary street, sufficient tree-borders have been introduced, or fine shade trees planted in such a manner that they can remain permanently in a flourishing condition without seriously interfering with the general requirements of a street, it may be classed as *Sylvan-Urban*.

A suburban or country road of the latter character, generally well shaded, although the arrangement of trees is not complete, or thoroughly well carried out, may be classed as *Sylvan Sub-Urban*. If in this case its character is changing for the worse, or if it is evident that its suburban attractions must soon give way to the demands of business or the enlargement of the town, the fact may be stated.

An urban street or a public place, not a green, decorated with objects of art, monuments, statues, fountains, vases, flower-pots, trophies, with or without screens or walls of verdure, or formal plantations, may be designated, *Urban-Architectural*.

An inclosure of ground within a town, in which the surface is mainly kept in turf, with trees planted on the border; but with walks on the border or crossing the turf, provided it is in such a manner or to so limited an extent that the general impression which an observer has of the whole space is of an unobstructed broad green field, may be termed a *Green*.

An inclosure similar to the above, but in which the turf is decorated with a few choice trees, shrubs or plants, the turf being well prepared and of fine character throughout the Summer, may be termed a *Lawn-Green*.

A large space of turf without decoration, open in all its parts to public use, (without restriction to prepared walks,) may be termed a *Common*.

An inclosure, with much ground under cultivation, and in which the attraction is mainly in the detail, requiring, to be fully appreciated, much close observation, as flowers, or shrubbery planted chiefly with regard to effects when in bloom, may be termed a *Garden*.

The term *Park* should be applied only to a pleasure ground of sufficient area to possess a landscape character within itself, and which is characterized by a large proportion of fair meadow-like surface, with low branching, umbrageous trees standing singly or loosely associated in clusters.

If within such a park there are established conveniences for and incitements to recreation of several kinds, such as a circuit drive, ride and walks; arrangements for base ball, foot ball, cricket or hockey; for skating, swimming, rowing, curling, gymnastics, dancing, archery, promenade concerts, etc.; and if it includes architectural and sculptural features of a permanent and dignified character, it may be classed as an *Urban Park*. If on the other hand it has but few obvious advantages for the recreation of great numbers of people of diverse conditions and tastes, except such as might be found in any district of fertile and well-wooded country if no part of it were divided into fields, or occupied by crops, it may be classed as a *Rural Park*.

Roads which lie mainly in the country, whether it is mostly agricultural land or of a wild character, may be designated *rural roads*.

In describing landscape attractions, the term *grand* should be reserved for scenery the elements of which are on a very large scale, as in the view from the old public garden on the bluff at Natchez; *picturesque*, for scenery the elements of which are of highly interesting and somewhat impressive character, as at the Seal-Rock end of the principal pleasure drive of San Francisco; the Wissahickon drive of Philadelphia, or the bolder parts of the rocky sea-shore of New England; the words "wild," "pastoral," "pleasing," prefixed to topographical terms, as mountain, valley, meadow, prairie, savanna, will give a sufficient indication of the character of most other scenery except when the views are very extensive and the elements diversified.

Note A (j.)

Roads of different classes may be classified in the returns as follows:—

First Class Stone Road; a road formed of stone broken to a nearly uniform size, (each piece measuring not more than three inches across the longest way,) laid to a sufficient depth to resist frost, thoroughly compacted and made smooth on the surface, properly under-drained and furnished with sufficient arrangements for the immediate removal of all surface water, and in all respects proof against injury by rain or frost; Or, a road similar to the above, except that the lower stratum consists of well compacted pavement of larger stone, on the Telford plan.

Second and Third Class Stone Roads; similar to the above, but more rudely constructed. (An earth road with stone merely strewn upon it should not be called a stone road, the stone in such cases being an injury.)

First Class Gravel Road; similar to above, but with a surface stratum three inches in depth, of well rolled, screened, hard gravel, (the best construction for a road designed for public pleasure-driving.)

Second and Third Class Gravel Roads; similar to the last, but more rudely constructed or imperfectly finished.

First Class Graveled Earth Roads; well drained and not liable to be muddy.

Second Class Graveled Earth Roads; similar to the last, but imperfectly prepared, sometimes rough and not suitable for pleasure-driving.

"Earth roads," "Belgian," "Cobble stone," "Plank," and "Patent wood-block roads," need no description.

SPECIAL SCHEDULE OF INQUIRIES IN REGARD TO RURAL CEMETERIES.

Rural Cemeteries are so generally used for public drives and promenades, and their grading, planting, memorials, and monuments are so far indicative of the public taste, as well as influential in forming it, that the following details respecting them are solicited, in the belief that when properly edited the results will prove interesting and instructive. Where the information sought has been given in printed documents, a simple reference, with a copy of the same, will be sufficient.

I. *Corporation.*

(*a*) Name, date, and circumstances of incorporation; officers for 1868.

(*b*) Basis of operations: 1, self-sustaining; 2, sustained in part by the corporation, or trustees; 3, sustained by lot-holders, income of funds, bequests, etc.

II. *Grounds.*

(*a*) Area in acres—original purchase, addititions, total.

(*b*) Distance from central portion of city or town.

(*c*) Formation: 1, surface—plain, undulating, hilly, and proportion of each; 2, soil and subsoil—clay, sand, gravel, hard-pan, rock; 3, soil, as to drainage—dry, wet, springy; 4, water—springs, rills, brooks, streams, lakes or ponds.

(*d*) Natural growth of trees and shrubs.

(*e*) Views—near and distant, hills, valley, water.

III. *Plan of Development.*

A. General plan: 1, lawn plan; 2, lot system; 3, single interments. See explanatory note at end.

B. Details.

(*a*) Entrances—number, buildings connected with each, and style of same.

(*b*) Roads—1, Proportion of all roads in length, to the acre, in the whole area; 2, width and length of principal roads; 3, width and length of section roads; 4, do. do. of service roads; 5, bridges—number, length, width and style.

For classification of roads, as to construction, see *Note A.* (*j*) in *Circular respecting Public Grounds.*

(*c*) Walks: 1, length and breadth of walks communicating with sections or divisions; 2, length and breadth of walks through ornamental grounds; 3, proportion of entire length of walks to the acre of the improved grounds.

(*d*) Section or division grounds for burial purposes: 1, total area laid out and improved in proportion to the whole area; 2, number of sections; 3, area of lots, largest, smallest, average; 4, area, on the average, in each section preserved for ornamental purposes.

(*e*) Grading of sections: 1, how far done by corporation on a general plan; 2, how far done by each individual lot owner, under the general direction of the superintendent.

(*f*) Drainage: 1, regular system; 2, local; 3, material of each; 4, length of deep drains (8 feet;) 5, length of tile drains (3 *to* 4 *feet;*) 6, length of open drains; 7, total length of drains; 8, number of sink or silt basins, and mode of construction.

(*g*) Artificial water-works—lakes, ponds, cascades, fountains, wells.

(*h*) Planting: 1, how far according to a general plan by the corporation; 2, how far according to the caprice of lot owners; 3, names of trees and shrubs which

have been found satisfactory; 4, proportion of trees and shrubs on an acre of section ground; 5, supplied from corporation-nursery, or general market.

(*i*) Size of lots: 1, largest; 2, smallest; 3, general average price per square foot.

(*j*) Names of architect, gardener, and superintendent employed in design and construction.

IV. *Memorials, Monuments, and Embellishments.*

(*a*) Memorials and monuments—whole number: 1, statues; 2, obelisk and column; 3, sarcophagus; 4, tombs; 5, statuettes and symbolic devices; 6, elaborate works of art, (*with name of artist and cost;*) 7, head and foot-stones; 8, public monuments, and how erected; 9, number or proportion of the above in granite, American marble, Italian marble, Scotch granite, Nova Scotia stone, brown stone, iron, bronze, &c.; 10, name and residence of the principal artists and artizans employed in the design and construction.

(*e*) Flower-beds, groups of roses, &c.

(*d*) Inclosed lots—number with: 1, iron fences, stone posts and rails, chains, wooden fence, evergreen hedges, curb-stones; 2, number without visible division, except corner posts, as landmarks.

V. *Expenditure.*

(*a*) Ground: 1, original and subsequent purchase for Cemetery purposes; 2, total expense for improvements; 3, annual expense for care and supervision.

(*b*) Buildings: 1, cost of chapel; 2, gate lodge; 3, receiving tomb; 4, superintendent's office or dwelling; 5, store or tool-house.

(*c*) Average expense for improving and ornamenting private lots: 1, planting; 2, grading; 3, inclosing (per foot;) 4, annual care and supervision.

(*d*) Expense of inclosing entire grounds, and how done.

VI. *Influences, etc.*

(*a*) Average number of daily visitors in Summer; in Winter; carriages; pedestrians.

(*b*) Average number of lots sold annually; 2, total amount in $—; 3, number of burials in lots; 4, Single interments.

(*c*) Charges: 1, opening and closing graves; 2, receiving tomb; 3, private vault.

(*d*) General result in respect to: 1, an increase of taste for natural scenery; 2, progress in beautifying private lots; 3, homestead embellishments, &c.

VII. *Printed Reports, Plans, Circular, &c. &c.*

1, List of all printed matter relating to the enterprise; 2, a copy of any printed document, act of incorporation, list of officers, annual report, plan of ground, illustration and description of monuments, will be thankfully received, and the courtesy reciprocated.

EXPLANATORY NOTE.

Lawn Plan; where a section or division is improved according to a general plan, without any inclosures, and where the grading, planting and grouping are in harmony with the respective lot and monument, as well as with the whole.

Lot System; where lots are laid out, inclosed and planted, without regard to other lots, but each is complete in itself.

Principal Roads; leading ways of communication between distant parts of the ground.

Section Roads; such as connect section or division grounds with principal roads.

Service Roads; such as are used by laborers and teams employed on the ground: as far as possible, they are secluded, and often temporary.

{ Special Circular,
{ No. 7.

CIRCULAR RESPECTING ELEMENTARY EDUCATION.

U. S. Department of Education,
Washington, D. C., 1867.

In reply to your inquiry "for a single document which shall set forth the characteristic features of different systems of public elementary instruction at home and abroad," the undersigned would say, that he knows of no such volume; and interesting as such a volume in some respects would be, he is not sure that it would answer your immediate purpose, "the preparation of an efficient system of common schools for a community which has not yet accepted the cardinal idea of popular education as it is understood in the Northern and Western States." Any system, to be thoroughly understood, must be studied in its details, and in reference to its historical development, and the peculiar conditions of society where it is in operation. Social life with you is peculiar, and the distribution of population has not been governed by the same laws which have effected it in other sections of the country. Your institutions of education have grown up under these conditions.

Under these and other circumstances, will it not be best first to secure the appointment of a School Board, or a single officer; or rather of a Board representing in its members different local, political and ecclesiastical interests, (but all united in the general desire to inaugurate an efficient public system,) with a Secretary, who shall devote his whole time, under their directions,

1, To ascertain the number, locality, and character of such schools as do exist, and the places where schools are needed.

2, To interest and inform parents, and the public generally, by the voice and press, as to existing wants, and the practicable remedy, in a system of public schools, (both elementary and secondary,) which shall be cheap enough for the poorest, and good enough for the richest.

3, To frame a law adapted to sparsely populated districts, as well as villages, which shall at once go into operation, where the way is prepared for it, and induce the reluctant and inimical sections to adopt it, on the ground of pecuniary interest, and after a certain period, embrace every section in its operations.

In this kind of work, the experience of the Commissioner may enable him to make suggestions of practical value, and at least to point out sources of information which will greatly help the officer charged with these duties, in the details of his labors. In the mean time, he is preparing a series of documents, which will answer your and similar questions more fully than can be done in any one general summary. Any information as to the systems referred to in the accompanying Index, (Chapters V and VI,) will be promptly and freely given.

As for European systems, there is not one of them which can not be studied with advantage, and some of the toughest problems which are now up for solution with you and in other States, have been discussed and to some extent solved under them. You will find much to interest you in that of Zurich, herewith sent, together with the views of eminent men on the relations of the State to Education.

HENRY BARNARD,
Commissioner of Education.

{ SPECIAL CIRCULAR, No. 11.

CIRCULAR RESPECTING EDUCATIONAL TRACTS.

U. S. DEPARTMENT OF EDUCATION,
Washington, D. C., 1868.

IN reply to your inquiry for copies of the Documents and other publications of this Department, and especially of any Educational Tracts on the fundamental principles of Education, the Relations of the State to schools of any kind, and particularly of a Republican government to elementary schools, the Economical and Social Arguments in favor of Public Schools, and exhaustive and practical expositions of the Organization, Studies, Management, and Internal Work generally of Elementary Schools—for general distribution, and for reproduction in still more popular form in public addresses and newspaper articles, in States where these subjects have not yet been discussed, and are not understood and appreciated, the undersigned will state:

1. The only Documents of the Department which have yet been printed are the Special Circulars, asking for information, or explaining the policy of the Department, and the Monthly Official Circulars, which, owing to the small clerical force at his command, has not yet assumed the form which the Commissioner designed, and each of which is more in the nature of a preliminary Report on the subject presented in the Special Circulars issued for the purpose of collecting information as the basis of a more elaborate treatment.

2. As the Plan of Publication projected by him, and set forth in Special Circular, No. 2, has not been presented in a formal way to secure as yet the consideration of Congress, the Commissioner has assumed the entire expense of printing these Monthly Official Circulars, except Nos. III, IV, and V, but has distributed them freely to such persons as expressed a desire to receive them, and to such as have applied for information respecting the subject of the Special Circular to which the number was devoted. Copies, both of the Monthly Circular, and of the Special Circulars, will be forwarded to you, and your coöperation in obtaining the information sought is respectfully solicited.

3. Articles, more or less exhaustive, on the several subjects specified in your letter, have been published by the undersigned, in the prosecution of his educational labors, as you will see by the Classified Index, (Chapters I, II, III,) in Monthly Circular, Number Two, any of which, so far as they can be furnished detached from bound volumes, will be sent to you without charge.

4. The publication of a series of Educational Tracts, made up partly from articles which have appeared, or which may hereafter appear in the American Journal of Education, or in the Monthly Circular, has been begun—which, as soon as arrangements can be made, will be supplied in orders for general distribution, at the cost of press-work and paper. It so happens that the first of this series is devoted to answers, by the highest authorities, to the question, *What is Education?* and the second is devoted mainly to an exposition of the American idea of Public Schools. Copies of these will be mailed to your address.

5. Many of the articles in the successive numbers of the American Journal of Education, have been struck off in pamphlet form, for wider distribution. The Commissioner has no pecuniary interest in this publicatiou, except to guarantee the Publisher against loss.

HENRY BARNARD, *Commissioner.*

WHAT IS EDUCATION?

It has been held that *education*, according to its etymology, means a *drawing out* of the faculties of the mind, not a mere accumulation of things in the memory; and this is probably substantially true; but yet the etymology of *education* is not, directly at least, *educere*, but *educare*. Again, *education* has been distinguished from *information*; which may well be done, as the word *information* is now used; but yet the word *informare*, at first, implied as fundamental an operation on the mind as *educare;* the forming and giving a defined form and scheme to a mere rude susceptibility of thought in the human mind. Again, we use the term *learn*, both of the teacher and the scholar. (Thus we have, Psalm cxix. 66 and 71, *Learn me true understanding and knowledge; and I will learn thy laws.*) But the German distinguishes these two aspects of the same fundamental notion by different forms—*lehren* and *lernen;* and in a more exact stage of English, one of these is replaced by another word, to *teach;* which, though it is not the representative of a word used in this sense in German, is connected with the German verb *zeigen*, to show, and *zeichen*, a sign or mark; and thus directs us to the French and other daughters of the Latin language, in which the same notion is expressed by *enseigner*, *insegnare*, *ensenar;* which come from the Latin *insignire*, and are connected with *signum*. W. Whewell.

Education is the process of making individual men participators in the best attainments of the human mind in general: namely, in that which is most rational, true, beautiful, and good . . . the several steps by which man is admitted, from the sphere of his narrow individuality, into the great sphere of humanity; by which, from being merely a conscious animal, he becomes conscious of rationality; by which, from being merely a creature of sense, he becomes a creature of intellect; by which, from being merely a seeker of pleasurable sensations, he becomes an admirer of what is beautiful; by which, from being merely the slave of impulse, he becomes a reverencer of what is right and good. W. Whewell.

What is a man
If his chief good and market of his time
Be but to sleep and feed?—a beast, no more.
Sure, He that made us with such large discourse.
Looking before and after, gave us not
That capability and godlike reason
To rust in us unused. Shakspeare.

In the bringing up of youth, there are three special points—truth of religion, honesty of living, and right order in learning. In which three ways, I pray God my poor children may walk.

ASCHAM. *Preface to Schoolmaster.*

Many examples may be put of the force of custom, both upon mind and body; therefore, since custom is the principal magistrate of man's life, let men by all means endeavor to obtain good customs. Certainly, custom is most perfect when it beginneth in young years; this we call education, which is, in effect, but an early custom. So we see in languages, the tone is more pliant to all expressions and sounds, the joints are more supple to all feats of activity and motions in youth than afterwards; for it is true, the late learners can not so well take up the ply, except it be in some minds that have not suffered themselves to fix, but have kept themselves open and prepared to receive continual amendment, which is exceeding rare: but the force of custom, copulate and conjoined, and collegiate, is far greater; for there example teacheth, company comforteth, emulation quickeneth, glory raiseth; so as in such places the force of custom is in his exaltation.

LORD BACON. *Essays. Custom and Education.*

I call a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war . . . inflamed with a study of learning, and the admiration of virtue; stirred up with high hopes of living to be brave men, and worthy patriots, dear to God, and famous to all ages.

JOHN MILTON.

The end of learning is to repair the ruins of our first parents, by regaining to know God aright, and out of that knowledge to love him, to imitate him, to be like him, as we may the nearest, by possessing our souls of true virtue, which being united to the heavenly grace of faith, makes up the highest perfection.

JOHN MILTON.

First, there must precede a way how to discern the natural inclinations and capacities of children. Secondly, next must ensue the culture and furnishment of the mind. Thirdly, the molding of behavior and decent forms. Fourthly, the tempering of affections. Fifthly, the quickening and exciting of observations and practical judgment. Sixthly, and the last in order, but the principal in value, being that which must knit and consolidate all the rest, is the timely instilling of conscientious principles and seeds of religion.

SIR HENRY WALTON.

How great soever a genius may be, and how much soever he may acquire new light and heat, as he proceeds in his rapid course, certain it is, that he will never shine in his full luster, nor shed the full influence he is capable of, unless to his own experience he adds of other men and other ages.

BOLINGBROKE.

We are born under a law: it is our wisdom to find it out, and our safety to comply with it. DR. WHICHCOTE.

Since the time that God did first proclaim the edicts of his law upon the world, heaven and earth have hearkened unto his voice, and their labor hath been to do his will. "He made a law for the rain;" he gave his "decree unto the sea, that the waters should not pass his commandment." Now, if nature should intermit her course, and leave altogether, though it were for a while, the observation of her own laws, if these principal and mother elements of the world, whereof all things in this lower world are made, should lose the qualities which they now have; if the frame of that heavenly arch erected over our heads, should loosen and dissolve itself; if celestial spheres should forget their wonted motions, and by irregular volubility turn themselves any way as it may happen; if the prince of the lights of heaven, which now, as a giant, doth run his unwearied course, should, as it were, through a languishing faintness, begin to stand, and to rest himself; if the moon should wander from her beaten way, the times and seasons of the year blend themselves by disordered and confused mixture, the winds breathe out their last gasp, the clouds yield no rain, the earth be defeated of her heavenly influence, the fruits of the earth pine away, as children at the withered breasts of their mother no longer able to yield them relief; what would become of man himself, whom these things do now all serve? See we not plainly, that obedience of creatures unto the law of nature is the stay of the whole world.

Of law there can be no less acknowledged, than that her seat is the bosom of God, her voice the harmony of the world; all things in heaven and earth do her homage, the very least as feeling her care, and the greatest as not exempted from her power; both angels, and men, and creatures of what condition soever, though each in different sort and manner, yet all with uniform consent, admiring her as the mother of their peace and joy. RICHARD HOOKER.

The knowledge of Languages, Sciences, Histories, &c., is not innate to us; it doth not of itself spring in our minds; it is not any ways incident by chance, or infused by grace (except rarely by miracle); common observation doth not produce it; it can not be purchased at any rate, except by that for which, it was said of old, the gods sell all things, that is, for pains; without which the best wit and the greatest capacity may not render a man learned, as the best soil will not yield good fruit or grain, if they be not planted nor sown therein. BR. BARROW.

Powers act but weakly and irregularly till they are hightened and perfected by their habits. DR. SOUTH.

As this life is a preparation for eternity, so is education a preparation for this life; and that education alone is valuable which answers these great primary objects. BISHOP SHORT.

Forasmuch as all knowledge beginneth from experience, therefore also new experience is the beginning of new knowledge, and the increase of experience the beginning of the increase of knowledge Whatsoever, therefore, happeneth new to a man, giveth him matter of hope of knowing somewhat that he knew not before. And this hope and expectation of future knowledge from any thing that happeneth new and strange, is that passion which we commonly call admiration; and the same considered as appetite, is called curiosity; which is appetite of knowledge. * * And from this beginning is derived all philosophy, as astronomy from the admiration of the course of heaven; natural philosophy from the strange effects of the elements and other bodies. And from the degrees of curiosity, proceed also the degrees of knowledge among men.

THOMAS HOBBES.

A sound mind in a sound body, is a short but full description of a happy state in this world.

Of all the men we meet with, nine parts often are what they are, good or evil, useful or not, by their education. It is that which makes the great difference in mankind. The little, or almost insensible, impressions on our tender infancies, have very important and lasting consequences: and there it is, as in the fountains of some rivers where a gentle application of the hand turns the flexible waters in channels, that make them take quite contrary courses; and by this little direction, given them at first, in the source, they receive different tendencies, and arrive at least at very remote and distant places.

That which every gentleman, that takes any care of his education, desires for his son, is contained in these four things: Virtue, Wisdom, Good-breeding and Learning. I place virtue as the first and most necessary of these endowments that belong to a man or a gentleman, as absolutely requisite to make him valued and beloved by others, acceptable or tolerable to himself. Without that, I think, he will be happy neither in this nor the other world.

It is virtue, direct virtue, which is the head and valuable part to be aimed at in education. All other considerations and accomplishments should give way, and be postponed, to this. This is the solid and substantial good, which tutors should not only read lectures, and talk of; but the labor and art of education should furnish the mind with, and fasten there, and never cease till the young man had a true relish of it, and placed his strength, his glory, and his pleasure in it.

As the strength of the body lies chiefly in being able to endure hardships, so also does that of the mind. And the great principle and foundation of all virtue and worth lies in this, that a man is able to deny himself his own desires, cross his own inclinations, and purely follow what reason directs as best, though the appetite lean the other way.

JOHN LOCKE. *Thoughts on Education.*

Tis education forms the common mind,
Just as the twig is bent the tree is inclined. POPE.

The general principles of education are the same, or nearly the same in all ages, and at all times. They are fixed unalterably in the natural and moral constitution of man. They are to be found in our affections and passions, some of which must be controlled and some cherished in every state of manners, and under every form of society. From the right apprehensions of them, we discover "the way in which a child ought to go," and by the right use of them "when he is young," we shall qualify him, "when old," for not departing from it.

In promoting the happiness of our species, much is effected by authority of legal restraint, and much by public instruction from the pulpit. But education, in its large and proper sense, [of not merely the inculcation of moral precepts and religious doctrine, but a system of discipline applied to the hearts and lives of young persons,] may boast even of superior usefulness. It comes home directly to "the bosoms and business of" young persons, it rectifies every principle and controls every action; it prevents their attention from being relaxed by amusement, dissipated by levity, or overwhelmed by vice; it preserves them from falling a prey to the wicked examples of the world when they are in company, and from becoming slaves to their own turbulent appetites when they are in solitude. It is not occasional or desultory in its operation; on the contrary, it heaps "line upon line, and precept upon precept;" it binds the commands of religion, for a "sign upon the hands of young men, and frontlets between their eyes;" it is calculated to purify their desires and to regulate their conduct, when they "sit in the house, and when they walk in the way;" when they "lie down in peace to take their rest," and when they "rise up" to "go forth to their labor." DR. PARR.

What is the education of the generality of the world? Reading a parcel of books? No. Restraint of discipline, emulation, examples of virtue and justice, form the education of the world. EDMUND BURKE.

The heart of a nation comes by priests, by lawyers, by philosophers, by schools, by education, by the nurse's care, the mother's anxiety, the father's severe brow. It comes by letters, by silence, by every art, by sculpture, painting, and poetry; by the song on war, on peace, on domestic virtue, on a beloved and magnanimous king; by the Iliad, by the Odyssey, by tragedy, by comedy. It comes by sympathy, by love, by the marriage union, by friendship, generosity, meekness, temperance; by virtue and example of virtue. It comes by sentiments of chivalry, by romance, by music, by decorations and magnificence of buildings; by the culture of the body, by comfortable clothing, by fashions in dress, by luxury and commerce. It comes by the severity, the melancholy, the benignity of countenance; by rules of politeness, ceremonies, formalities, solemnities. It comes by rights attendant on law, by religion, by the oath of office, by the venerable assembly, by the judge's procession and trumpets, by the disgrace and punishment of crimes, by public fasts, public prayer, by meditation, by the Bible, by the consecration of churches, by the sacred festival, by the cathedral's gloom and choir.

PROF. RAMSDEN

I consider a human soul without education like marble in the quarry, which shows none of its inherent beauties, until the skill of the polisher fetches out the colors, makes the surface shine, and discovers every ornamental cloud, spot, and vein, that runs through the body of it.

Education, after the same manner, when it works upon a noble mind, draws out to view every latent virtue and perfection, which, without such helps, are never able to make their appearance.

If my reader will give me leave to change the allusion so soon upon him, I shall make use of the same instance to illustrate the force of education, which Aristotle has brought to explain his doctrine of substantial forms, when he tells us that a statue lies hid in a block of marble; and that the art of the statuary only clears away superfluous matter, and removes the rubbish. The figure is in the stone, and the sculptor only finds it. What sculpture is to the block of marble, education is to a human soul. The philosopher, the saint or the hero, the wise, the good or the great man, very often lie hid and concealed in a plebeian, which a proper education might have disinterred, and have brought to light. * * Those who have had the advantages of a more liberal education, rise above one another by several different degrees of perfection. For to return to our statue in the block of marble, we see it sometimes only begun to be chipped, sometimes rough hewn, and but just sketched into a human figure; sometimes we see the man appearing distinctly in all his limbs and features; sometimes we find the figure wrought up to great elegancy, but seldom meet with any to which the hand of a Phidias or a Praxiletes could not give several nice touches and finishings.

JOSEPH ADDISON.

Nothing is more absurd than the common notion of instruction; as if science were to be poured into the mind like water into a cistern, that passively waits to receive all that comes. The growth of knowledge resembles the growth of fruit: however external causes may in some degree coöperate, it is the internal vigor and virtue of the tree that must ripen the juices to their just maturity. JAMES HARRIS. *Hermes.*

Human creatures, from the constitution of their nature, and the circumstances in which they are placed, can not but acquire habits during their childhood, by the impressions which are given them and their own customary actions; and long before they arrive at mature age these habits form a general settled character. And the observation of the text—"Train up a child in the way he should go; and when he is old he will not depart from it"—that the most early habits are generally the most lasting, is likewise every one's observation.

BISHOP BUTLER.

Organic structure, temperament, things affecting the senses or bodily functions, are as closely linked with a right play of the faculties, as the material and condition of an instrument of music with that wonderful result called melody. W. B. CLULOW.

Education does not commence with the alphabet; it begins with a mother's look, with a father's nod of approbation, or sign of reproof; with a sister's gentle pressure of the hand; a brother's noble act of forbearance; with handful of flowers in green dells, or hills, and daisy meadows; with birdsnest admired, but not touched; with creeping ants and almost imperceptible emmets; with humming bees, and glass bee-hives; with pleasant walks in shady lands, and with thoughts devoted, in sweet and kindly tones and words, to nature, to beauty, to acts of benevolence, to deeds of virtue, and to the source of all good—to God himself.

DR. RAMSDEN.

He [man] would look round upon the world without, and the thought would arise in his mind—"*Where* am I?" He would contemplate himself, his form so curious, his feelings so strange and various; he would ask—"*What* am I?" Then reflection would begin to stir within him, and reviewing the world without and within, and pondering upon the mystery of existence, he would exclaim—"*Why* am I?" And the replies to these three questions compose the entire circle of human knowledge, developed in its natural order.

W. COX. *The Advocate, his Training.*

I believe, that what it is most honorable to know, it is also most profitable to learn; and that the science which it is the highest power to possess, it is also the best exercise to acquire.

And if this be so, the question as to what should be the material of education, becomes singularly simplified. It might be matter of dispute what processes have the greatest effect in developing the intellect; but it can hardly be disputed what facts it is most advisable that a man entering into life should accurately know.

I believe, in brief, that he ought to know three things:

First. Where he is.

Secondly. Where he is going.

Thirdly. What he had best do under those circumstances.

First. Where he is.—That is to say, what sort of a world he has got into; how large it is; what kind of creatures live in it, and how; what it is made of, and what may be made of it.

Secondly. Where he is going.—That is to say, what chances or reports there are of any other world besides this; what seems to be the nature of that other world; and whether, for information respecting it, he had better consult the Bible, Koran, or Council of Trent.

Thirdly. What he had best do under those circumstances.—That is to say, what kind of faculties he possesses; what are the present state and wants of mankind; what is his place in society; and what are the readiest means in his power of attaining happiness and diffusing it. The man who knows these things, and who has had his will so subdued in the learning them, that he is ready to do what he knows he ought, I should call educated; and the man who knows them not, uneducated, though he could talk all the tongues of Babel.

RUSKIN.

Education does not mean merely reading and writing, nor any degree, however considerable, of mere intellectual instruction. It is, in its largest sense, a process which extends from the commencement to the termination of existence. A child comes into the world, and at once his education begins. Often at his birth the seeds of disease or deformity are sown in his constitution—and while he hangs at his mother's breast, he is imbibing impressions which will remain with him through life. During the first period of infancy, the physical frame expands and strengthens; but its delicate structure is influenced for good or evil by all surrounding circumstances—cleanliness, light, air, food, warmth. By and by, the young being within shows itself more. The senses become quicker. The desires and affections assume a more definite shape. Every object which gives a sensation; every desire gratified or denied; every act, word, or look of affection or of unkindness, has its effect, sometimes slight and imperceptible, sometimes obvious and permanent, in building up the human being; or, rather, in determining the direction in which it will shoot up and unfold itself. Through the different states of the infant, the child, the boy, the youth, the man, the development of his physical, intellectual, and moral nature goes on, the various circumstances of his condition incessantly acting upon him—the healthfulness or unhealthfulness of the air he breathes; the kind, and the sufficiency of his food and clothing; the degree in which his physical powers are exerted; the freedom with which his senses are allowed or encouraged to exercise themselves upon external objects; the extent to which his faculties of remembering, comparing, reasoning, are tasked; the sounds and sights of home; the moral example of parents; the discipline of school; the nature and degree of his studies, rewards and punishments; the personal qualities of his companions; the opinions and practices of the society, juvenile and advanced, in which he moves; and the character of the public institutions under which he lives. The successive operation of all these circumstances upon a human being from earliest childhood, constitutes his education;—an education which does not terminate with the arrival of manhood, but continues through life,—which is itself, upon the concurrent testimony of revelation and reason, a state of probation or education for a subsequent and more glorious existence.

JOHN LALOR. *Prize Essay.*

The appropriate and attainable ends of a good education are the possession of gentle and kindly sympathies; the sense of self-respect and of the respect of fellow-men; the free exercises of the intellectual faculties; the gratification of a curiosity that "grows by what it feeds on," and yet finds food forever; the power of regulating the habits and the business of life, so as to extract the greatest possible portion of comfort out of small means; the refining and tranquilizing enjoyment of the beautiful in nature and art, and the kindred perception of the beauty and nobility of virtue; the strengthening consciousness of duty fulfilled, and, to crown all, "the peace which passeth all understanding."

SARAH AUSTIN.

The specific signification of Education has often been defined by means of the distinction between *educere* and *educare*. But this is not a sufficient basis for a precise definition. E. M. Arndt, in his "*Fragments on Human Culture*,"* considers *educare* to signify the artistic process or art of education, and thinks that *educere* is more correctly translated by "to bring up," or "raise up;" τρέφειν. Schmidt in one place considers *educere* to be the business of the mother, because she brings forth the child.† In another place, he says it means "to bring out of the family, into a larger sphere of life—into the world;"‡ and in a third, that it means "to awaken, set in activity and develop the inner higher faculties."§ *Educare* is in the latter place taken to mean, on the contrary, "to bring the boy out of his animalized state of existence; to change the animal man into the spiritual."

Let us now consider whether German etymology may not furnish a more definite answer. *Ziehen*‖ means to remove any thing from one place to another, in such a way that the thing moved follows the power, and does it, also, in a steady manner, in contradistinction to throwing, striking, or carrying; and the thing moved is in a certain sense forced to go itself, even though it struggles not to do so. This radical word has gained a metaphorical meaning in the department discussed by this work, by its relation in meaning to the sense in which it is used to signify the gardener's production of flowers from a bulb. Thus *ziehen* describes the management of his assistants by a teacher; of his orchestra by a leader, (though the compound *heranziehen* is more precisely proper); and in these cases the meaning is still very nearly the same with that of the original word, for there is a drawing after himself by the leader, without however any reference to the means by which the influence is exerted. But when *ziehen* is used to denote the sort of training that is acquired by a wild young man who is sent to be a soldier, the most prominent idea is that of the means used; the strenuous discipline; and the design is not that he shall follow after his discipliner in any sense, but that by means of his receiving the action here denoted by *ziehen*, that is by means of the passivity into which the constraint of his discipline brings him, he shall learn a right passivity, which is the negation of his previous wrong activity; namely, by means of an obedience to persons, authorities, orders; which obedience is the negation of his own undisciplined self-will. *Aufziehen* has a definite pedagogical meaning. It is the continuation of that careful protection from dangers to life, which is given to young infants; and therefore the physical care of the child, up to the period when it can take care of itself; a duty which can after the death of the mother be performed, for instance, by a maid. Here

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* "*Fragmente über Menschenbildung.*"

† "*Outline*," &c., p. 40. "The child is brought forth into the light of day; *educitur*, as the proverb says, *educit obstetrix, educat nutrix, instituit paedagogus, docet magister.*"

‡ Ib., p. 221. § Ib., p. 223.

‖ *Ziehen* corresponds very nearly to the Latin root word of "educate," viz., *duco*, to lead, draw, &c.

the animal side of the human being is most prominent; so that the word may be used even of a calf; and when applied to persons, is usually spoken of orphaned or neglected children, who early come into the charge of strangers; and whose education is considered chiefly from the point of view of a beneficent life-sustained love. *Erziehen*, (educate,) on the contrary, according to the signification of the prefix *er* in many words, denotes the action of *ziehen* perfected; carried out to its ultimate object; as including all sides of the subjects of its action; complete within its proper scope. *Erziehen* (to educate) is therefore *ziehen* (to draw forth), and *aufziehen* (to bring up) in their metaphorical sense, but with the additional definite shade of meaning, that its action is carried out to its completed purpose, and applies to all sides of the object to be acted on. But this does not however fully express the actual extent of the idea. The best and most condensed definition that we can give is—Education is that intentional and systematic course of operations by adult persons upon the young, which is designed to raise the latter to whatever degree of individual excellence they are capable of by nature; and in whose attainment that divine purpose will be accomplished, for which every individual man is destined by God for himself and for society; and for which society also is destined in like manner.

SCHMIDT'S "*Pädagogische Encyklopädie.*"

Education is assistance directed to the fullest development of all the faculties of the man, and to an attainment the nearest possible of the end of his existence instituted by God. Thus education introduces nothing foreign into man, whereas instruction is concerned in the appropriation of a foreign material, of human knowledge generally, not the germs of which, but the capacity to make his own, lies in man.

Encyklopädie der Pädagogik.

Education is the act [i. e. the continuous and entire treatment and conduct and exertion of influence] which places a child in the condition to fulfill as nearly as possible his destiny as a mortal and immortal being. It has for its aim the development of his faculties as a man, physical, intellectual, moral, social, and religious, in such proportion that through their harmonious action he will escape the punishments which await the bad, and become worthy of the rewards reserved for virtue.

THOMAS BRAUN. *Cours de Pédagogie.*

Maintaining the health of the body; training its powers; developing and sharpening the natural understanding; enlightening ideas relative to man and the world; instructing and elevating the imagination, the sense of the beautiful, the noble, the great, the affecting, the refined, the pleasing; harmony of the bodily desires, and subjection of them to the moral laws of the reason; moderation in the enjoyment of the good things of life, and equanimity in the want of them; reference of all earthly being and action to the other side of the grave.

THE AUTHOR OF *The Impulses of Reason.*

There is within every man a divine ideal, the type after which he was created, the germs of a perfect person, and it is the office of education to favor and direct these germs. KANT.

Man is the only creature that requires to be educated: one generation educates another. The young, however, ought to be educated not in accordance with the present standard of the human race, but with a view to a future and much meliorated condition of humanity. In short, the object of education ought to be, to develop in the individual all the perfection of which he is capable. KANT.

The art of education ought to aim at a standard of elevation superior to what may happen to be the spirit of the time—for the child is to be educated not for the present merely. J. P. RICHTER.

I use this term (education) as embracing every means which can be made to act upon the vegetative, affective, and intellectual constitution of man, for the purpose of improving this his threefold nature.

Being asked what I mean by human nature? I reply, that it is not body alone, nor mind alone, nor animal propensities, affections, or passions; nor moral feelings, nor intellect; neither is it organization in general, nor any system of the body, nor any particularity whatever; but human nature, in the proper sense of the words, comprehends all the observable phenomena of life, from the moment of conception to that of death, both in the healthy and diseased state; or in short, all the manifestations both of the body and mind.

G. SPURZHEIM. *View of Education.*

Education may, in a certain sense, be said to be threefold—the education of nature, of man, and of circumstances. The internal development of our faculties and organs is the education of nature: the use which we are taught to make of this development is the education of man: and the acquisitions of our own experience respecting the objects which operate upon us is the education of circumstances. ROUSSEAU.

Education proposes to confer on man the highest improvement of which his body, his mind, and his soul, are capable, with a view to secure his well being, to fit him for society, and to prepare him for a better world. Hence, general education is divided into three branches, physical, intellectual, and moral, the latter including religious training. The first aims at health, strength and beauty; the second at mental power and the acquisition of knowledge; and the third at piety, justice, goodness, and wisdom. C. MARCEL. *Language.*

I call that education which embraces the culture of the whole man, with all his faculties—subjecting his senses, his understanding, and his passions to reason, to conscience, and to the evangelical laws of the Christian revelation. DE FELLENBURG.

The first thing to be done in conducting the understanding is precisely the same as conducting the body, to give it regular and copious supplies of food, to prevent that atrophy and marasmus of mind, which comes on from giving it no new ideas. It is a mistake equally fatal to the memory, the imagination, the powers of reasoning, and to every faculty of the mind, to think too early that we can live upon our stock of understanding—that it is time to leave off business, and make use of the acquisitions we have already made, without troubling ourselves any further to add to them. It is no more possible for an idle man to keep together a certain stock of knowledge than it is possible to keep together a stock of ice exposed to the meridian sun. Every day destroys a fact, a relation, or an inference; and the only method of preserving the bulk and value of the pile is by constantly adding to it.

The fire of our minds must act and feed—upon the pure spirit of knowledge, or upon the foul dregs of polluting passions. Therefore, when I say, love knowledge with a great love, with a vehement love, with a love coeval with life, what do I say, but love innocence—love virtue—love purity of conduct—love that which will comfort you, adorn you, never quit you;—which will open to you the kingdom of thought, and all the boundless regions of conception, as an asylum against the cruelty, the injustice, and the pain that may be your lot in the outer world—that which will make your motives habitually great and honorable, and light up in an instant a thousand noble disdains at the very thought of meanness and of fraud. SIDNEY SMITH.

There have been many men of an excellent mind and of great virtue without learning, merely by their extraordinary nature approaching to divine; but yet, when to this extraordinary nature are added the advantages of regular discipline and education, then at last something remarkably eminent and singularly great, is usually produced. CICERO.

Education in that sense in which it deserves the grave consideration and the earnest efforts of the community—is something more than the mere ability to read, write, and cipher; and something more too than what is commonly meant by moral and intellectual culture. It is the fitting the individual man for fulfilling his destiny, of attaining to the end, accomplishing the purposes for which God hath made him. It divides itself into two branches: 1. That which answers the question, what is my destiny as an individual, and fits me for attaining it? and 2dly, that which answers the question, what is the destiny of society, and fits me to coöperate in its attainment? Individual education is general and special—education as a man, and education with reference to occupation or social position. BROWNSON.

At the first it is no great matter *how much* you learn, but *how well* you learn it. ERASMUS.

It [the understanding] grows like a tree under the unseen operations of time. HORACE.

The most essential objects of education are the two following—first, to cultivate all the various principles of our nature, both speculative and active, in such a manner as to bring them to the greatest perfection of which they are susceptible; and, secondly, by watching over the impressions and associations which the mind receives in early life, to secure it against the influence of prevailing errors, and, as far as possible, engage its prepossessions on the side of truth.

To watch over the associations which they form in infancy; to give them early habits of mental activity; to rouse their curiosity, and direct it to proper objects; to exercise their ingenuity and invention; to cultivate in their minds a turn for speculation, and, at the same time, preserve their attention alive to the objects around them; to awaken their sensibilities to the beauties of nature, and to inspire them with a relish for intellectual enjoyment—these form but a part of the business of education. DUGALD STEWART.

Education is that noble art which has the charge of training the ignorance and imbecility of infancy into all the virtue, and power, and wisdom of mature manhood—of forming, of a creature, the frailest and feeblest which heaven has made, the intelligent and fearless sovereign of the whole animated creation, the interpreter and adorer, and almost the representative of the Divinity. THOMAS BROWN.

Education is a process calculated to qualify man to think, feel, and act in a manner most productive of happiness. It possesses three essentials—first, by early exercise to improve the powers and faculties, bodily and mental; secondly, to impart a knowledge of the nature and purposes of these powers and faculties; and, thirdly, to convey as extensive a knowledge as possible of the nature of external beings and things, and the relation of these to the human constitution. J. SIMPSON.

The paramount end of liberal study is the development of the student's mind, and knowledge is principally useful as a means of determining the faculties to that exercise through which this development is accomplished. Self-activity is the indispensable condition of improvement; and education is only education—that is, accomplishes its purposes, only by affording objects and supplying incitements to this spontaneous exertion. Strictly speaking, every man must educate himself.

SIR WILLIAM HAMILTON. *Metaphysics.*

The great result of schooling is a mind with just vision to discern, with free force to do; the grand schoolmaster is Practice.

The first principle of human culture, the foundation-stone of all but false imaginary culture, is that men must before every other thing, be trained to do somewhat. Thus, and others only, the living Force of a new man can be awakened, enkindled, and purified into victorious clearness! THOMAS CARLYLE. *Essays.*

"A virtuous and noble education" is whatever tends to train up to a healthy and graceful activity our mental and bodily powers, our affections, manners, and habits. It is the business, of course, of all our lives, or, more properly, of the whole duration of our being. But since impressions made early are the deepest and most lasting, that is, above all, education which tends in childhood and youth to form a manly, upright, and generous character, and thus to lay the foundation for a course of liberal and virtuous self-culture.

ALONZO POTTER. *The School and Schoolmaster.*

Costly apparatus and splendid cabinets have no magical power to make scholars. As a man is, in all circumstances under God, the master of his own fortune, so is he the maker of his own mind. The Creator has so constituted the human intellect, that it can only grow by its own action; and it will certainly and necessarily grow. Every man must therefore educate himself. His books and his teachers are but his helps; the work is his. A man is not educated until he has the ability to summon, on an emergency, his mental powers in vigorous exercise to affect his proposed object. It is not the man who has seen the most, or read the most who can do this; such an one is in danger of being borne down, like a beast of burden, by an overloaded mass of other men's thoughts. Nor is it the man who can boast merely of native vigor and capacity. The greatest of all the warriors who went to the siege of Troy, had not the preëminence because nature had given him strength, and he carried the largest bow; but because self-discipline had taught him how to bend it.

DANIEL WEBSTER.

Education is development, not instruction merely—not knowledge, facts, rules—communicated by the teacher, but it is discipline, it is a waking up of the mind, a growth of the mind—growth by a healthy assimilation of wholesome aliment. It is an inspiring of the mind with a thirst for knowledge, growth, enlargement—and then a disciplining of its powers so far that it can go on to educate itself. It is the arousing of the child's mind to think, without thinking for it; it is the awakening of its powers to observe, to remember, to reflect, to combine. It is not a cultivation of the memory to the neglect of every thing else; but is a calling forth of all the faculties into harmonious action.

DAVID PAGE. *Theory and Practice.*

Oh, woe to those who trample on the mind,
That deathless thing! They know not what they do,
Nor what they deal with. Man, perchance, may bind
The flower his step hath bruised; or light anew
The torch he quenches; or to music wind
Again the lyre-string from his touch that flew;—
But for the soul, oh, tremble, and beware
To lay rude hands upon God's mysteries there!

Anonymous.

The true end of education, is to unfold and direct aright our whole nature. Its office is to call forth power of every kind—power of thought, affection, will, and outward action; power to observe, to reason, to judge, to contrive; power to adopt good ends firmly, and to pursue them efficiently; power to govern ourselves, and to influence others; power to gain and tc spread happiness. Reading is but an instrument; education is to teach its best use. The intellect was created, not to receive passively a few words, dates, facts, but to be active for the acquisition of truth. Accordingly, education should labor to inspire a profound love of truth, and to teach the processes of investigation. A sound logic, by which we mean the science or art which instructs us in the laws of reasoning and evidence, in the true methods of inquiry, and in the sources of false judgments, is an essential part of a good education. And yet, how little is done to teach the right use of the intellect, in the common modes of training either rich or poor. As a general rule, the young are to be made, as far as possible, their own teachers—the discoverers of truth—the interpreters of nature—the framers of science. They are to be helped to help themselves. They should be taught to observe and study the world in which they live, to trace the connections of events, to rise from particular facts to general principles, and then to apply these in explaining new phenomena. Such is a rapid outline of the intellectual education, which, as far as possib'e, should be given to all human beings; and with this, moral education should go hand in hand. In proportion as the child gains knowledge, he should be taught how to use it well—how to turn it to the good of mankind. He should study the world as God's world, and as the sphere in which he is to form interesting connections with his fellow-creatures. A spirit of humanity should be breathed into him from all his studies. In teaching geography, the physical and moral condition, the wants, advantages, and striking peculiarities of different nations, and the relations of climate, seas, rivers, mountains, to their characters and pursuits, should be pointed out, so as to awaken an interest in man wherever he dwells. History should be constantly used to exercise the moral judgment of the young, to call forth sympathy with the fortunes of the human race, and to expose to indignation and abhorrence that selfish ambition, that passion for dominion, which has so long deluged the earth with blood and woe. And not only should the excitement of just moral feeling be proposed in every study, the science of morals should form an important part of every child's instruction. One branch of ethics should be particularly insisted on by the government. Every school, established by law, should be specially bound to teach the duties of the citizen to the state, to unfold the principles of free institutions, and to train the young to an enlightened patriotism.

W. E. Channing. *Christian Examiner, Nov.*, 1838.

The object of the science of education is to render the mind the fittest possible instrument for discovering, applying, or obeying the laws under which God has placed the universe. Wayland.

We regard education as the formation of the character, physical, intellectual, and moral; as the process by which our faculties are developed, cultivated, and directed, and by which we are prepared for our station and employment, for usefulness and happiness, for time and eternity.

W. C. WOODBRIDGE.

All intelligent thinkers upon the subject now utterly discard and repudiate the idea that reading and writing, with a knowledge of accounts, constitute education. The lowest claim which any intelligent man now prefers in its behalf is, that its domain extends over the threefold nature of man; over his body, training it by the systematic and intelligent observance of those benign laws which secure health, impart strength and prolong life; over his intellect, invigorating the mind, replenishing it with knowledge, and cultivating all these tastes, which are allied to virtue; and over his moral and religious susceptibilities also, dethroning selfishness, enthroning conscience, leading the affections outwardly in good-will towards man, and upward in gratitude, and reverence to God.

Far above and beyond all special qualifications for special pursuits, is the importance of forming to usefulness and honor the capacities which are common to all mankind. The endowments that belong to all, are of far greater consequences than the peculiarities of any. The practical farmer, the ingenious mechanic, the talented artist, the upright legislator or judge, the accomplished teacher, are only modifications or varieties of the original *man*. The man is the trunk; occupations and professions are only different qualities of the fruit it yields. The development of the common nature; the cultivation of the germs of intelligence, uprightness, benevolence, truth that belong to all; these are the principal, the aim, the end,—while special preparations for the field or the shop, for the forum or the desk, for the land or the sea, are but incidents.

The great necessities of a race like ours, in a world like ours, are: a Body, grown from its elemental beginning, in health; compacted with strength and vital with activity in every part; impassive to heat and cold, and victorious over the vicissitudes of seasons and zones; not crippled by disease nor stricken down by early death; not shrinking from bravest effort, but panting, like fleetest runner, less for the prize than for the joy of the race; and rejuvenant amid the frosts of age. A Mind, as strong for the immortal as is the body for the mortal life; alike enlightened by the wisdom and beaconed by the errors of the past; through intelligence of the laws of nature, guiding her elemental forces, as it directs the limbs of its own body through the nerves of motion, thus making alliance with the exhaustless forces of nature for its strength and clothing itself with her endless charms for its beauty, and, wherever it goes, carrying a sun in its hand with which to explore the realms of nature, and reveal her yet hidden truths. And then a Moral Nature, presiding like a divinity over the whole, banishing sorrow and pain, gathering in earthly joys and immortal hopes, and transfigured and rapt by the sovereign and sublime aspiration TO KNOW AND DO THE WILL OF GOD.

HORACE MANN.

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