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The History of Bridgewater Normal School

Arthur C. Boyden

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THE HISTORY OF BRIDGEWATER NORMAL SCHOOL
THE HISTORY OF BRIDGEWATER NORMAL SCHOOL

By

ARTHUR C. BOYDEN, A.M., L.H.D., Ed.D.

BRIDGEWATER, MASSACHUSETTS
BRIDGEWATER NORMAL ALUMNI ASSOCIATION
1933
FOREWORD

With great satisfaction does the State Department of Education view the publication, by the Alumni Association of the State Teachers College at Bridgewater, of a memorial volume, the manuscript for which was prepared by the late Arthur Clarke Boyden, teacher, principal, and president. This volume will serve as a complete history to date of the State Normal School, now State Teachers College, at Bridgewater, as it approaches its centennial. It places in vivid and compact form a wealth of new and interesting material concerning the institution to which the author so completely dedicated his life. With unusual clarity of thought Dr. Boyden has set forth, in seventeen chapters, both the life of the institution that has played so important a part in the development of teacher training in the State and Nation, and the educational philosophy underlying the growth of professional schools for the preparation of teachers.

PAYSON SMITH
Commissioner of Education
INTRODUCTORY NOTE

The manuscript which Dr. Boyden left was not entirely finished. He had been working on his book for several years, but had not brought it quite to the point where it was ready for the press. Undoubtedly some revisions would have been made if Dr. Boyden himself had been able to prepare the final copy for the printer. Indeed, there are several indications in the manuscript that changes were contemplated. The Committee, however, has published the manuscript without attempting to change its form or substance in any material way, feeling that no hand other than Dr. Boyden's was competent to make alterations.

Grateful acknowledgment is made of the services of Professor Charles Swain Thomas of Harvard, who gave the Committee substantial advice and aid, and of the work of Miss Florence W. Graves, who helped prepare the manuscript for publication and who read the proof.

Committee on Publication.
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INTRODUCTION

The real history of any institution is an interpretation of its spirit, its peculiar personnel, and its vital contributions to the field of which it is a part.

The Bridgewater State Normal School spans the whole history of Normal Schools in America. Its life spirit has gone out in numberless channels. A whole group of Normal Schools inherited this particular spirit, and again sent it forth to be intensified in new environments, even to a third generation. The purpose of this volume is to analyze this spirit as it appears in the achievements of the Schools to one who has personally known most of the leading actors in the drama.

Other publications of the School which give details are now available only in certain educational libraries. These include History and Alumni Record by Albert G. Boyden, 1876; Semi-Centennial Exercises by Arthur C. Boyden, 1890; Alumni Records 1900, 1906, 1915; Memorial Volume of Albert G. Boyden by Arthur C. Boyden, 1919.

Only a few books on the early Normal-School movement are available. A volume of excerpts on Normal Schools from Barnard's Journal of Education has been prepared by the Colorado State Teachers College. The annual reports of the Massachusetts Board of Education are an invaluable source of material. The First State Normal School in America, Norton, Harvard University Press, 1926, gives a vivid picture of the early struggles. The American Normal School, Mangun, Warwick and York, 1928, is a compendium of interesting data.

Arthur C. Boyden.
The History of Bridgewater Normal School

CHAPTER I

THE BRIDGEWATER PERSPECTIVE

The Teaching Normal School, 1840-60
The Psychological Normal School, 1860-90
The "Modern" Normal School, 1890-1909
The Professional Normal School, 1909-

The Bridgewater School is one of a small group of Normal Schools that has had a continuous policy from its inception. Each principal was the "heir on the spot" of a well-understood policy; this unbroken line of succession led to an unusual continuity of development.

Mr. Tillinghast, the first principal (1840-53), laid a West Point foundation as applied to teaching. Mr. Conant, the second principal (1853-60), by his personal association with Mr. Tillinghast, and by his allied training in mathematics and science, was able not only to carry on the plans to a measurable degree, but to add a valuable increment.

Mr. Albert G. Boyden, the third principal (1860-1906), was a student and assistant under Mr. Tillinghast, and, after an interim of teaching in Salem and Boston, an assistant with Mr. Conant. He was appointed principal at the time when the philosophy of Sir William Hamilton was making its profound impression on the educational world; thus it became his opportunity to incorporate the psychological element into the training of teachers. Through his long term of office he developed this factor to a high degree of efficiency.

Mr. Arthur C. Boyden, the fourth principal (1906-33), was a graduate of the School, and associated with his father as teacher in different departments for a long period before his appointment as principal. During this period the "modern" development of educational content and method was making rapid strides.

In 1909, with the reorganization of the Department of Education, the individualistic Normal Schools were merged into the Massachusetts system of State Normal Schools under the direct supervision of a Commissioner of Education.
At this time there began the gradual differentiation of curricula and the development of professional and cultural courses leading to a degree (1921). The School thus became a part of a national movement under which Normal Schools became Teachers Colleges.

All through the early years, even beyond 1900, the Normal Schools of the State had been individualistic, directed by strong personalities that worked out the distinctive features of each School. The stated policy of the Board of Education in the earlier years was to select a strong person as principal and give him freedom to develop the institution according to his ability, under the general supervision of "Visitors." This plan produced John W. Dickinson at Westfield, Ellen Hyde at Framingham, Daniel B. Hagar at Salem, E. Harlow Russell at Worcester, and Albert G. Boyden at Bridgewater.

Bridgewater did not go through a series of radical changes due to abrupt changes in principals, but one stage of development merged almost imperceptibly into the next one. It is only in perspective that one can distinguish the real periods of advance. The evolution of the School has been a lengthening and expanding line of growth along certain well-defined principles of educational activity.

Professional Inception of Normal Schools.—Massachusetts organized her Normal Schools on a specific principle. She did not use her large group of academies as the basis for teacher-training institutions as some other States were doing. Dr. A. E. Winship makes this emphatic statement:

The Normal School was a great innovation proposed by James G. Carter, the most far-sighted man of that wonderful educational period. The academies which came in with the close of the Revolutionary War were to all intents and purposes the Normal Schools for half a century. In 1824-5 Carter claimed that the first step toward reform in our system of popular education is the scientific preparation of teachers for the free schools. The only measure that will insure to the public the attainment of this object is to establish an institution for the very purpose.

Two important reports on European progress in elementary education influenced those leaders in Massachusetts who were agitating the establishment of schools for the training of better teachers. Calvin E. Stone was commissioned by the
Ohio legislature to visit the elementary schools of Europe and report concerning them. His report, in 1837, emphasized the great value of the Prussian Teachers' Seminaries established by the government. This report was reprinted and circulated at State expense in a number of the States. At about the same time a similar report by Victor Cousin of France on the schools of Prussia came, in English, into the hands of the promoters of the movement in Massachusetts—Carter, Brooks, Mann, and others. This report had exerted great influence in France, where it brought about, in 1833, the beginnings of the first national elementary-school system, which included thirty schools for the training of teachers, patterned after the Prussian models. Such schools the French called normal schools (écoles normales).

These reports showed the advantages of the policy of having the State train the teachers for the elementary schools. To the influence of these reports was added the educational campaign of Rev. Charles Brooks of Hingham, Massachusetts. In 1834 he was in Europe and became well acquainted with the Normal-School movement, and in 1835 he began his campaign, through articles in the press, circulars, and addresses at public conventions all over the State. In 1837 the State Board of Education was established, with Horace Mann as its executive secretary. In 1838, under the leadership of Mann and the financial assistance ($10,000) of a Boston merchant, Edmund Dwight, who was a member of the Board of Education, the movement for State Normal Schools was successfully launched as an “experiment” for three years’ trial.

Notwithstanding the opposition of the academies, a specific type of professional school was settled upon, and the Massachusetts schools were organized on the new basis. At the meeting of the Board on June 1, 1838, the term “Normal School” was adopted. In 1845 the Legislature adopted the name “State Normal Schools.”

Bridgewater a Permanent Location.—Plymouth County became the most active advocate of Normal Schools because

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The full account of this agitation is given in Norton's *The First Normal School in America*, Harvard University Press, and in Mangun's *The American Normal School*, Warwick and York.
of the intense earnestness of Rev. Charles Brooks of Hingham. On his return from Europe in 1835, he began his campaign through the towns of the County, preparing the people for active coöperation at the proper moment. In the years 1838, 1839, and 1840, events moved rapidly, but it was not until September of the last year that the culmination came for Bridgewater.

In March, 1838, Edmund Dwight offered $10,000, provided the Legislature would appropriate the same amount, and on April 19, 1838, the Legislature passed resolves accepting the proposition upon which the Board decided to establish three schools in different parts of the State, each to be continued three years, as an experiment.

On May 30, 1838, a committee from Plymouth County presented its petition to the Board, which voted to establish a Normal School in the County of Plymouth as soon as suitable buildings and means of carrying on the School, exclusive of the compensation of teachers, should be placed under the control of the Board.

At Hanover, on September 4, an historic educational convention was held to comply with the conditions of the Board. Stirring addresses were made by Horace Mann, John Quincy Adams, Daniel Webster, and others. As a result an association was formed for raising the funds, and was incorporated by the Legislature of 1839. Hon. Artemas Hale of Bridgewater was President of the Corporation.

The trustees held meetings in the towns, and five of the towns pledged amounts to $8,000. It was agreed that the town in which the School should be located should pay the additional $2,000. The location was left to three disinterested men, and a public hearing was held at Bridgewater on March 26, 1840. The principal competition was between Plymouth, Middleboro, and Bridgewater. The decision was in favor of Bridgewater. At this stage some of the towns refused to pay their pledges, and the financial agreements became null and void. To prevent failure of the enterprise application was made to the Board to know on what terms they would establish the School at Bridgewater; the conditions were met (1) by the granting
of the use of the old Town House, on which $250 was spent in fitting it up, (2) by payment of $500 for library and apparatus, (3) by building a Model School house at an expense of $500. Meantime satisfactory offers had been made and accepted for the other two Schools, and Lexington was opened July 3, 1839, and Barre September 4, 1839, while Bridgewater was delayed till September 9, 1840.

It will thus be seen that the people of Plymouth County were foremost in their endeavor to open a Normal School, that they proposed to raise a fund sufficient to give it a permanent home at the outset, and for nearly two years the friends of the movement made every possible effort to accomplish the desired object. The time for so large an outlay had not come, the Normal School in Massachusetts was an untried experiment, and it had to be content with a humble beginning. This prolonged effort to provide good buildings at the start made this the last of the first group of Normal Schools of the State to be opened, but it was so firmly planted in Bridgewater by these efforts that it has never changed its location. Horace Mann said, in 1846, "Its only removal has been a constant moving onward and upward, to higher and higher degrees of prosperity and usefulness."

While Lexington and Barre had interruptions and removals, the established location of the Bridgewater School became an important factor in developing a definite policy that markedly increased its influence in the early years of its life. Furthermore, it escaped the storm of opposition raised against these Schools in the Legislature of 1840. ²

²For details, see Mangun, Chapter VIII.
CHAPTER II

PROFESSIONAL FOUNDATIONS

Tillinghast's Administration—1840-53.
 September 9, 1840—Normal School opened with 28 pupils.
 May, 1845—Board decided on Bridgewater as location for a new building.
 May, 1846—One-year continuous course established.
 August, 1846—Dedication of first State Normal School Building in America.
 March, 1850—Model School closed.
 July, 1853—Resignation of Mr. Tillinghast, due to ill health.
 April, 1856—Death of Mr. Tillinghast.

Conant's Administration—1853-60.
 August, 1853—Marshall Conant entered on his duties.
 March, 1855—Course lengthened to one and one-half years, two terms per year.
 July, 1860—Resignation of Mr. Conant, due to ill health.

The Struggle for Public Recognition.—The generosity of the Town of Bridgewater had given the School a location, yet the great problem was ahead; the State and its people must be convinced of the necessity and efficiency of such an institution. The established and traditional institutions were in control of the schools, and the enthusiastic reformers were eager to see the results of their new experiment.

Horace Mann gave much attention to the Normal Schools, notably to the one at Lexington. He was greatly annoyed at the criticisms which were heard on every hand. In the nature of the case the talent which applied for training was not always the best; the course was all too brief; the equipment too limited. There were many academies that offered better opportunities for scholarship, and these institutions were not friendly. The teachers already at work were inclined to interpret every argument for trained teachers as a reflection on themselves. In Horace Mann's Seventh Annual Report, he criticized our schools in the light of his studies of European schools. He said: "I do not hesitate to say that there are many things abroad which we, at home, should do well to imitate. If the Prussian schoolmaster has better methods of teaching reading, writ-
ing, grammar, geography, and arithmetic, so that, in half the time, he produces greater and better results, surely we may copy his modes of teaching these elements."

Not every "Normalite" succeeded as a teacher, in the judgment of the local authorities. The ideal Normal School was far removed from the real School, and no one appreciated this more than Mr. Mann, whose heart failed him many times in the first years of the Schools. Here are sample sentences from persons of educational influence: "Too much is claimed for the Normal Schools in their infant state." "The principals are comparatively inexperienced in public-school keeping." "The experience of a graduate of a Normal School, through the Model School, is less than two weeks."

The general prospect for Normal Schools was not promising, and while the other two Schools changed from town to town, or even passed through a period of interruption, Bridge-water struggled on till it worked out a public place for itself. The story of this struggle reveals the earliest reason for the prominent place which the School was able to attain. The old Town Hall, which was to be discarded for a new and capacious building, was only a protecting shell for some personality large enough to build up a real training school for teachers. The Hall was in a one-story wooden building, forty by fifty, standing on a brick basement which was occupied as a dwelling. The interior was a large room divided by a matched board partition, without paint, extending through the middle lengthwise, and so constructed that the lower half could be raised and the whole school be in one room, or this could be lowered, thus leaving the entering class with the assistant in one room, and the second-term pupils with the principal in the other. A small room for apparatus, and another for a dressing room for the ladies, completed the suite of rooms occupied by the School. The schoolroom was furnished with the primitive style of furniture, a pine board seat with a straight back attached to the desk behind. A high platform on three sides of the room brought the teachers prominently into view before the pupils. "Here, in this simple laboratory, by the sheer skill and genius of its principal, the experiment of a State Normal School in the Old Colony was successfully performed."
Personality of Nicholas Tillinghast.—The choice of Mr. Tillinghast as the principal was a stroke of great wisdom on the part of Horace Mann. It was only after serious consideration and with great reluctance that he finally accepted the post. It was the unusual personality of this man that met the problem and solved it, even at the expense of his life blood. It was he that opened up the line of development that has given Bridgewater its place. “The true secret of his power over his pupils lay in his personal character, in that quiet but unflinching devotion to principle, that heroic and real abnegation of self, which to those who knew him intimately appeared as the ruling trait of his moral nature. His pupils were fully persuaded of the soundness of his judgment, his unswerving integrity of purpose, his perfect sincerity and scrupulous justice.” (Richard Edwards, ’46)

The first crisis in the struggle came at the end of five years. Two hundred twenty-nine different persons had attended the School, but the attendance was very irregular; pupils would attend one term of fourteen weeks, then remain out and teach one or more terms before returning. Some terms the School would be composed almost entirely of different pupils from those of the previous term. During this period the principal had four different assistants from time to time, none remaining over nine months, and with only a total service of nineteen months.

Among the pupils there were some who were very much in earnest and who became leaders in the profession, while others came for the novelty of the experiment or for other reasons. Of the two hundred twenty-nine different pupils one hundred sixteen taught only one year or did not teach at all. The teachers who went out from the Normal Schools were often looked upon askance by many towns; some of the teachers succeeded and brought high credit to the Schools, some failed and some showed no particular skill in teaching. This condition is reflected in a statement in the catalogue published in 1844:

It seems to be a prevalent error in the community that attendance at Normal Schools will surely make good teachers—that any one ought to become an efficient instructor by remaining at these schools for a few
months. This institution does not boast of any such powers; but, on the other hand, all it claims to do, and all it can effect, is to afford aid and encouragement to those faithfully striving to learn their duty. Such, only, are wanted at this School. It should be distinctly understood that this School has no power to make good teachers of the dull, the idle, and those wholly wanting in enthusiasm, or even in interest for the young. A teacher must educate himself; the Normal School will assist him.

A Prescribed Course of One Year.—The climax came in August, 1845. On the ninth of that month, Mr. Tillinghast sent his resignation to Horace Mann, with the following reasons for his action:

I had the honor, some time since, to lay before the Board of Education my opinion of the extreme disadvantage to the cause of Normal Schools of the rule by which a pupil is allowed to remain here one term, to return at some future, indefinite time; and offered my advice, founded on my experience here, that scholars should be received for no time less than a year. I feel it to be impossible for me to carry on the School effectively in the fluctuations to which it is subject, and therefore feel impelled, for the good of the School, to withdraw from my present situation.

This final action of the principal brought matters to a head; the resignation was not accepted, and in May, 1846, the Board passed an order requiring pupils to remain in the School for three consecutive terms, which was the year’s course. This might seem to be a small matter, but it really was the turning point in the history of the Normal School. It meant a definite professional standard for the preparation of teachers, and broke away from the traditional habit in the academies of intermittent attendance. This was the second great step toward the making of teaching a profession, the first being the establishment of separate schools for the specific purpose, unrelated to the academies. This change made possible the organization of a definite course of preparation which should be adapted to one great end.

The First Normal School Building in America.—The final step toward recognition came with the new building erected for its specific purpose. The first three years of experiment had passed; the Schools must now be made permanent State institutions by the erection of buildings under State auspices. This action came about through the desire of a large number of the
friends of Horace Mann to express in tangible form their appreciation of his great services in reforming the common schools. In the winter of 1844-5 forty of these friends pledged themselves to furnish $5,000, provided the State would furnish a like sum. The legislature appropriated the sum, and Charles Sumner gave his bond for the sum pledged by the memorialists.

This action opened up again the old struggle of location and of local contributions. The contest this time came between Plymouth and Bridgewater, and was decided in favor of the latter town because of her previous contributions and interest.

The inadequacy of the funds called for the continued generosity of the friends of the School. Col. Abram Washburn gave a lot of land of one and one-fourth acres, which became the nucleus of the twenty-seven acres now occupied by the School. George B. Emerson of Boston, always a warm friend of the School, gave the furnace for heating the building. The building deficiency was met by gifts from Hon. Artemas Hale of Bridgewater, always an ardent supporter of the School, and by money advanced by Horace Mann. For the first time in American history a State building was erected specifically adapted to Normal-School work. A new building at Westfield immediately followed this one.

The building was of classic plainness, a wooden structure, sixty-four feet by forty-two feet, and two stories in height. Its picture has figured in many Histories of Education as the first State Normal School building in America. The upper story was divided into a large schoolroom and two recitation rooms. The lower story was divided into a Model School room, a chemical room, and two anterooms. Here was the basal idea upon which have been built typical normal schools. The interior was far different from the traditional schools; blackboards extended entirely around each of the schoolrooms, and the new type of furniture replaced the old style. It is not strange that Horace Mann thrilled with joy as he said at the dedication, “Among all the lights and shadows that ever crossed my path, this day’s radiance is the brightest.” The significance of the event was as clear as day to him, “I consider this
event as marking an era in the progress of education. It is the
completion of the first Normal School house ever erected in
Massachusetts, in the Union, in this hemisphere.” As he
looked down into the future he uttered words which were truly
prophetic, “Coiled up in this institution, as in a spring, there is
a vigor whose uncoiling may wheel the spheres.”

Here was the great opportunity for Principal Tillinghast to
develop his ideal of a Normal School, which was very clear in
his mind. The external conditions had been established—

(1) a State School with a professional purpose,
(2) a definite continuous course of one year,
(3) a building adapted to professional work.

The course of instruction during the early years was or­
ganized in three groups: (1) a thorough review of elementary
subjects; (2) those branches of knowledge which may be con­
sidered as an expansion of the elementary subjects—mathe­
matical, philosophical, and literary; (3) the art of teaching,
which included instruction in the philosophy of teaching and
discipline, as drawn from the nature and condition of the juve­
nile mind, and as much exercise in teaching under constant
supervision as the circumstances and interests of the Model
Schools would allow.

A Teaching Institution.—The Normal School as organized
by Mr. Tillinghast was of a distinctive type: it was based on
the fine art of teaching, not on the “lecture-examination” plan
nor on the “recitation-examination” plan. Mr. Tillinghast was
a graduate of West Point, a professional school with a dis­
tinctive purpose, and he had taught in that school at two dif­
f erent periods. His additional experience in the English High
School at Boston, as well as his six months of work with Pro­
fessor Newman at the Barre Normal, gave him a well-rounded
point of view regarding the work of a teacher. He believed
that an art was to be practised only by those who had in some
way studied its principles. Subject matter was to be arranged
according to the character and wants of the mind to be in­
structed; every point was to be understood rationally and in
its relations. His thinking and his teachings were thorough
and logical. “The mind of Tillinghast was not only mathemati-
cal but logical." His great weapon was the asking of questions; these questions were so framed as to ascertain what the pupil knew and how he knew it. He had rare skill in arranging his questions so as to expose every logical conclusion. The most noticeable thing about his recitations was their tendency to awaken thought in the pupil. Every individual was to stand upon his own feet before his class and state his own perception of the truth.

Mr. Tillinghast organized no classes in methods by which pupils were to be trained into particular processes, as was the case in some of the later Normal Schools. "It seems to me that each well-instructed mind will arrive at a method of imparting." "I have tried to bring my pupils to get at results for themselves and to show them how, that they may feel confident of the truth of their results." He worked out very careful plans for conducting his classes—pupils were called upon to present their work at the blackboard before the whole class, and all work was freely criticized. Often he called upon members of the classes to hear recitations and on others to criticize; or they were called upon to make up "general exercises" and deliver them. All this reveals the manner in which he built up the "teaching" type of the Normal School in distinction from the "academic" type and the "method" type.

Mr. Tillinghast did not confine the scope of the course to the common-school subjects which the graduates would be called upon to teach; instead he added advanced and enriching subjects with what we should call a definite professional aim. "My idea of a Normal School is, that it should have a term of four years; that those studies should be pursued that will lay a foundation on which to build an education. I mean, for example, that algebra should be thoroughly studied as a foundation for arithmetic; that geometry and trigonometry should be studied, by which, with algebra, to study natural philosophy, etc." It is clear, then, that the Bridgewater School was built on two foundation stones—the power of a great personality, and the art of skillful teaching.

What It Cost to Establish a Normal School.—Mr. Tillinghast entered this public field when the skies were dark, when
the star of hope, though scarcely risen, was obscured by the cloud of adverse public sentiment. The Normal Schools were, even by their friends, considered as an experiment, and one that, in the opinion of many experienced and able men, would prove an entire failure. They were regarded as an undemocratic importation from abroad. It was to this cause, thus unpromising, that he gave the whole energy of his soul. With an untiring industry, he devoted his days and his nights to his School. During the larger part of the first year, and all of the third year, he conducted the School without any assistant. He spent all the school hours in teaching and worked far into the night to prepare for his daily exercises. Courses of study must be wrought out, the subject matter and methods of teaching must be carefully considered, for he was teaching teachers and his work must be a model for them. The lack of apparatus and of assistants must be supplied by increased skill and effort on the part of the principal.

In addition to all this exacting toil, he was called upon to make pecuniary sacrifice as well. In 1844 the Board reduced his salary from $1400 to $1200, on account of insufficient appropriations by the Legislature. From this reduced salary he paid $100 a year toward the salary of the principal of the Model School. During the later years of his teaching, his health had become so impaired by his unceasing toil that he was obliged to hire extra assistants and pay them from his own salary, though he was constantly at his post, with the exception of a part of one term, till the time of his resignation. After his death in 1856, the Legislature of that year appropriated $1810.82 for his wife and son, thus recognizing the justness of his claims for the deficiency in his salary and the amounts which he had paid out. He literally gave his life that the foundation for the "Mother of Normal Schools" might be securely laid.

Personnel of the Early Student Body.—A detailed study of the members of the School during its early years reveals some interesting points in the development of the new profession of teaching. This was a slow process; the traditional ways of school keeping had a long history and a firm
hold on the schools. The old methods were formal and mechanical. The memorization of facts, the cut-and-dried question-and-answer type of catechism study, and the dictated sums in the complicated arithmetic of weights and measures or money exchange, dominated the business of school keeping. A few of the better teachers had been agitating a study of teaching from a higher standpoint for nearly twenty years before the Normal-School movement really started. Various expedients in academy attachments had been tried, but the real experiment began with the State Normal Schools.

There was a large group of young men and women, especially in the local neighborhood, who were attracted to the School as a new institution for education; many of them soon found that teaching had no appeal to them or that they were unfitted for it; they remained only a short time and never graduated. This fact was one of the discouraging features that Mr. Tillinghast had to contend with, and finally led to more difficult entrance examinations. Nevertheless, this group of temporary members continued, but added little to the teaching profession.

There was another large group that taught a very short time, using this occupation as a stepping stone to medicine, law, ministry, or business, as was a common practice in the early days. In the case of the women, a short period of teaching preceded their marriage. The two groups above mentioned constituted three sevenths of all the membership from 1840-53.

There were, however, a few able minds in each class who took teaching seriously and went out as pioneers into the new field. They became leaders in new normal schools, in the English high schools which were coming into prominence, as masters of city grammar schools, as proprietors of large private schools which were superseding some of the old academies, as grammar-school assistants, and in primary schools. The spirit of educational adventure was very marked in this group, and both the men and women graduates went all over the country, even to California. The short course in the Normal School gave some of the graduates an inspiration to enter colleges and technical institutes.
The large number of able men in this last group was the determining factor in the spread of the new ideas of teaching; in those days the leading positions were open to men almost exclusively. As the movement spread, the able women found important positions as assistants in the larger schools, and their influence became another vital element in the success of Normal graduates. It thus appears that the coeducational feature of the School was of the greatest importance in giving it such a wide influence. The academies had already opened up this feature of higher education, although the colleges in the East were slow in incorporating this plan of education.

Beginnings of a Faculty.—The faculty of the School had to be recruited from its own graduates, but the salaries paid by the State were so low that changes were very frequent. Yet the School had the benefit of a number of young men who later became principals of similar schools in other States—Dana P. Colburn and Joshua Kendall in Rhode Island; Richard Edwards and Edwin C. Hewett in Normal, Illinois; and Albert G. Boyden.

To show how transitory the faculty service was, the following table is illuminating.

<table>
<thead>
<tr>
<th>Term of Service</th>
<th>Number of Faculty Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one year</td>
<td>10</td>
</tr>
<tr>
<td>One year</td>
<td>2</td>
</tr>
<tr>
<td>Two years</td>
<td>3</td>
</tr>
<tr>
<td>Three years</td>
<td>4</td>
</tr>
<tr>
<td>Five years</td>
<td>1</td>
</tr>
</tbody>
</table>

It is evident that the burden of the School was on the principal. His salary was a fluctuating one—$1400, $1200, $1300, and finally $1500. The munificent salary of the principal of the Model School was $250. The Board appropriated $600 a year for an assistant, until 1849, when two assistants were allowed $400 each. In 1851, the first assistant was given $700 and the second assistant $400. Mr. A. G. Boyden began his services as assistant at $300 per year. These facts are given to emphasize the struggle that was necessary to get the School
on its feet and to do even moderate work. It is no wonder that the principal broke under the unusual strain.

*Pioneer Spirits.*—Every progressive movement attracts to itself some able minds who catch the vision and are eager to go forth and spread the movement. After the School got started many ambitious young men and women were drawn toward it and became deeply impressed with the spirit of true teaching under Principal Tillinghast. For the first time in their lives many of these young people came under the influence of a trained mind, and they felt the influence profoundly. He demanded of them exact thinking, he tolerated no guessing. He expected persistent application, and he got it; they respected, admired, and imitated him. He impressed them on the moral side; he had taught ethics at West Point, though it was not of the doctrinaire sort, for what he believed and taught he lived. The field was open; these young leaders quickly grasped the opportunities. Some of them had been both students and teachers under this beloved principal; they carried his spirit and thorough mastery of the art of teaching all over the country, especially into the States that were ready to take up teacher training. The idea of a “teaching institution” developed in many centers.

These young leaders fell into certain rather distinct groups according to the field that appealed to them. New types of schools were slowly developing from the older ones. The graded system of schools was being organized, including primary, English grammar, and English high schools. These grammar schools were in charge of masters, ushers, and female assistants. Into this new field the graduates of the Normal School entered with the newer methods of teaching. It is interesting to note the coincidence of these facts; the field was ready and the teachers were prepared. Also, a new type of day and boarding private school was appearing—the Allen Brothers at Newton organized one of these noted schools, also Joshua Kendall in Cambridge.

Many of the abler graduates supplemented their Normal training by college and technical education, thus preparing themselves as leaders in higher institutions. The example of
NICHOLAS TILLINGHAST
Principal, 1840-1853

MARSHALL CONANT
Principal, 1853-1860

ALBERT G. BOYDEN
Principal, 1860-1906
the Massachusetts Normal School was followed by other States, and the Bridgewater graduates were called to these schools as principals and assistants.

In its beginnings, the Normal School at Bridgewater offered little by way of attraction to the ambitious and self-seeking. It invited both its teachers and its pupils to hard work, under conditions that were not outwardly stimulating. The little company of undeveloped aspirants for teachers' honors, who were assembled in the old Town Hall under the instruction of that modest man, was not a body to catch the gaze of the ordinary beholder. But in its results it represents altogether a different aspect. It has impressed itself upon the educational character of this whole country. Its graduates, both men and women, appear to have been wonderfully moved by its lofty spirit and its philosophic methods. (Edwards).
CHAPTER III

EARLY GRADUATES IN THE FIELD

The young men and women went out from the School full of enthusiasm for the work of teaching in the new fields that were opening up at that time. They can best be understood by grouping them in certain large classes, which will reveal the great influence of these early graduates. They were a picked body of teachers.

Normal-School Group.—As this movement spread into other States, it was natural that many of the ablest graduates should be called to be principals and assistants. It was in this manner that the Bridgewater School came to be called the “Mother of Normal Schools.”

George W. Beal ('42), after teaching ten years in grammar and high schools, was called to be principal of the new city normal school in Jersey City.

Dana P. Colburn ('44) was elected as the first principal of the Rhode Island State Normal School at Providence, in 1854. After four years of service he was accidentally killed by being thrown from his horse. “His teaching was essentially practical. He had an unusual talent for arousing enthusiasm among his students. Great inspiration came from his lectures on the theory and practice of teaching.” His textbooks, Intellectual Arithmetic and Arithmetic and Its Applications, became standards of the inductive method of teaching.

Joshua Kendall ('46) followed Mr. Colburn as the second principal of the Rhode Island Normal School from 1860-4, when he became principal of a large private school for boys in Cambridge.

Richard Edwards ('46), after teaching a year, went to the Troy Polytechnic Institute, from which he graduated in 1848. For five years he was an assistant to Mr. Tillinghast at Bridgewater (1848-53). For one year he was principal of the English High School for boys in Salem, also for a short period he served as Agent of the Board of Education. In 1854 he was appointed as principal of the new Normal School at Salem
EARLY GRADUATES IN THE FIELD

(1854-7). With him Miss Martha Kingman (1851) served as assistant in both the Salem schools.

From there he was called to establish the City Normal School in St. Louis (1857-62), and then to be president of the State Normal University of Illinois (1862-75). "The Civil War had almost emptied the University of male teachers and students. Dr. Edwards and his chief associates on the faculty—Hewitt, Metcalf, and Stetson—were all Bridgewater men. For more than thirty years these men, with young men and women trained by them, made up almost the entire staff of instructors. The School possessed a peculiar spirit; without question it was the spirit of Nicholas Tillinghast exalted and glorified by the fiery energy of Dr. Edwards." In his fourteen years at Normal, and in his later career as preacher, author, and lecturer, as state superintendent of public instruction, as president of Blackburn University, and as professor of psychology and ethics at the Wesleyan University, Dr. Edwards made a most profound impression upon the life of Illinois. His series of readers, widely adopted throughout the State, completely revolutionized the teaching of the subject. He was a public speaker of rare power, who delighted and convinced his hearers.

Richard Edwards was a remarkable teacher. He had two characteristics which he brought to Salem and the other schools of which he was head. One was his great moral zeal and earnestness, a part of which was natural and a part of which he may have caught from Horace Mann, with whom he was intimately acquainted. His power of vigorous speech carried all before him, but the great skill of Mr. Edwards was that of teaching. Here he was a master workman. He caught Mr. Tillinghast's idea of training teachers to interpret truth by their own thinking. This is in line with the modern doctrine, that self-education is the only real education. He had no special theory of teaching but did possess what I have called the fine art of teaching.

A group of three remarkable teachers went to Illinois with Richard Edwards—Thomas Metcalf ('47), a remarkable teacher of mathematics; Edwin C. Hewett ('52), teacher of English and later president of the University; and Albert Stetson ('53).
Mary B. White (’47), after a long and eminently successful experience as teacher and principal in primary and grammar schools, became the first principal of the City Training School in New Bedford, a position which she held for many years. She taught for forty years, and had the honor of having a school named for her.

Ira Moore (’49) was the first assistant in the Normal University in Illinois (1857-61). When this school opened, Horace Mann, then president of Antioch College, was the choice of a large section of the Board, but his abolition views prevented his selection. Charles E. Hovey, superintendent of Peoria, was elected, and Ira Moore was chosen as first assistant. While the president was absorbed in erecting the buildings, Mr. Moore shaped the internal organization of the School. He had caught from Mr. Tillinghast the military precision of his West Point training.

When the call to arms came in 1861, Hovey went out as a colonel and Moore as a captain. One hundred eleven students enlisted. After the war Ira Moore served six years as president of the Normal School at St. Cloud, Minnesota, and eighteen years at Los Angeles, California. These facts reveal the situation as Richard Edwards took up the work.

Arthur Sumner (’48), after a number of years of experience in public schools, went to California to teach in the normal school of that State.

Albert G. Boyden (’49), after serving as assistant under Mr. Tillinghast and Mr. Conant, was appointed principal in 1860, serving till 1906, when he continued teaching as principal emeritus till his death in 1915.

Daniel S. Wentworth (’50), after teaching sixteen years in grammar schools in Massachusetts and Chicago, became the first principal of the Cook County, Illinois, Normal School in 1867.

Edward C. Delano (’50) entered the public-school service in Chicago in 1856 and continued in the system till his death in 1907. For twenty years he was principal of the old Chicago Normal School and for thirty years district superintendent of schools. "He brought to his work that fine moral earnestness
which is the greatest force in education. His intellectual attainments were of a high order and he was intimately acquainted with the great things written and said on the history and philosophy of teaching."

_Thomas Metcalf ('47)_ , after teaching nine years in grammar schools in Charlestown and West Roxbury, accompanied Richard Edwards to the City Normal School in St. Louis in 1857, and later, in 1862, went with him to the Illinois Normal University as teacher of mathematics. "He loved mathematics because of the definiteness and clearness of its formulae, still more because it afforded the finest field for sharp distinction between the false and the true." In 1876 he became principal of the training department, to which he brought "the warmth of a sunny disposition, a patience and sympathy, a christian love found only in the rarest souls."

In 1914 the new building for the Normal University Training School was dedicated and named for "Thomas Metcalf, the Scholar and Teacher." An interesting description of his character was given by a prominent graduate: "He was the Puritan refined by generations of culture and softened by a heart naturally tender and affectionate."

_Edwin C. Hewitt ('52)_ was an assistant at Bridgewater for four years, principal of the high school in Pittsfield, and principal of the first grammar school at Worcester. He went to Normal, Illinois, in 1858 as teacher of English. In 1875 he was elected as president of the University, serving till 1890. "His thoroughness was a household word. The textbooks on language and reading were models in precision of definition and clearness of statement. His was the frankest of speech, the terse Saxon with its fine sincerity."

_Albert Stetson ('53)_ , after graduation from Harvard, went to Normal, Illinois, in 1862. He had also been a student at Antioch under Horace Mann. "He brought with him to Illinois something of the impetuosity and idealism of that great prophet of the common schools."

_Mary J. Cragin ('51)_ , after teaching eight years in Wheaton Seminary, went to St. Louis as principal of the City Normal School.
Martha Kingman ('51) went with Richard Edwards as assistant in the English High School at Salem and then to the Normal School in a similar position. She remained with the second principal, Alpheus Crosby, whom she later married. Following his death, she returned to her native town of West Bridgewater, where she served for twenty years as superintendent of schools. "She had a long and worthy career as an instructor, and had a notable place in social and religious circles."

Elizabeth Weston ('50) was for twenty-five years a teacher in the high and normal school in Boston.

These graduates who went into the western states to build up normal schools found there a professional background as crude as the academic. There was little of educational theory and less of educational history. Men in those days had to rely on mental strength and common sense. The psychology which they had was pretty remote from educational practice, and there were no courses in method.

Private-School Group.—Another group of graduates developed the new type of private schools that was to supplement the academy, based on the newer ideas of teaching. In some cases these schools established dormitories with a well-organized form of home life.

Joshua Kendall ('46) was assistant at Bridgewater 1847-8, and graduated from Harvard in 1853. For seven years he was headmaster of different private schools, then became the second principal of the Rhode Island Normal School, at the time temporarily located at Bristol (1860-4). On his resignation he took charge of a private school in Cambridge fitting boys for college. "Mr. Kendall was a fine type of the gentleman, the scholar, and the teacher."

William H. Ladd ('47), after three years of experience, was elected principal of the Shepard Grammar School in Cambridge, which position he held till 1856, when he became an instructor in English in Chauncy Hall School, Boston. In 1860 he became co-proprietor, and in 1879 sole principal. Mr. Ladd's high literary attainments and his skill as an instructor in this department made Chauncy Hall the pioneer in the literary courses since introduced in all good high schools. "His
courses included a wide selection of the best English classics, and proved of great advantage in forming the tastes and cultivating the style, both of the boys going to college and of those who were training for mercantile pursuits." A wide range of subjects was pursued, and much individual instruction was given. Kindergarten, sloyd work, nature studies, gymnastics and military drill, together with a curriculum that fitted for college or technical school, were all kept up to a high degree of efficiency.

Edward A. H. Allen ('46) attended Troy Polytechnic Institute after graduation from Bridgewater and for five years was a teacher in the Institute. During the rest of his fifty-four years of teaching he was at the head of various academies, except 1869-70, when he was studying the European schools as agent of the United States Commissioner of Education. Nathaniel T. Allen ('46) and James T. Allen ('52) were known as the "Allen Brothers" at the head of the English and Classical School at West Newton (1853-90), a co-educational school of high reputation. Previous to this period Mr. N. T. Allen had been principal of the Model School in connection with the Normal School at West Newton.

The "Allen School" was a very progressive institution, being the first to introduce the kindergarten in this part of the country. It had the first gymnasium in any American secondary school; nature study was also emphasized.

Of James T. Allen it was said, "Character building was to him the end of school instruction." "One of Newton's first, best known, and most highly esteemed citizens." He was well fitted for his work, not only as a graduate under Mr. Tillinghast, but as a graduate of Troy Polytechnic Institute and subsequent instructor and Rector of the Training School.

Some of the women became prominent in private schools for girls. Martha Russell ('48) opened a private school for young ladies in New Bedford. Sarah M. Vose ('48) was the head of a private school in Hyde Park for many years. Hannah Cook ('48) was for twenty-five years principal of a private school in San Francisco, California.

English High School Group.—The struggle to establish
and maintain high schools in Massachusetts preceded the development in most other States because the common schools had been established earlier. This was largely the result of the educational awakening started by James G. Carter and Horace Mann. The Normal-School graduates, with their opportunity to study the more advanced subjects and the better methods of teaching, were in demand for these positions in such cities as Providence, New Haven, New Bedford, Salem, Newton, Boston, and Worcester, as well as in the States of Pennsylvania, Illinois, New Jersey, New York, and California. The competition with the academies was sharp because these schools had for a long time been a source of teachers of the more advanced subjects.

Grammar-Master Group.—In the forties the new type of consolidated grammar school was taking the place of the old double-headed grammar and writing schools. The careful official survey of this old system in Boston in 1845 led to the reforms of 1847. The modern form of a well-organized English grammar school was developed as a part of a completely graded system. The school had a master, one or more ushers, and assistants. The position of master became one of importance and dignity. A large number of the men took up this line upon graduation and continued for years as efficient heads of large buildings. Twenty-two graduates held leading positions in Boston, Salem, Lawrence, Cambridge, Medford, Lexington, Plymouth, Bridgewater, Brookline, Providence, Jersey City. The first woman to be elected as master of a Boston grammar school was Sarah J. Baker ('52), and she held the position for forty-four years.

John Kneeland ('42) was master of grammar schools in Dorchester, Roxbury, and Boston for twenty-four years. He was agent of the Massachusetts Board for one and one-half years, supervisor of Boston schools for fifteen years, and a member of the school committee for seven years. For many years he was devoted to the interests of the American Institute of Instruction (1855-80); he was an easy and fluent speaker.

George A. Walton ('44), principal of the Model School, West Newton, one year, was master of a grammar school in Lawrence
EARLY GRADUATES IN THE FIELD

for twenty years (1848-68) and twenty-five years agent of the Massachusetts Board of Education. In 1879 he made the noted Norfolk County Examinations, which revealed the importance of skilled supervision in improving the methods of instruction. He was well known as the author of a series of arithmetics: *First Steps in Number* was edited in collaboration with Dana P. Colburn (1844); later he published *Intellectual Arithmetic, Pictorial Arithmetic, Written Arithmetic, Franklin Arithmetic,* and *Illustrated Practical Arithmetic.* As agent of the Board, he visited every town in the State. “He probably touched the lives and work of more individuals in public-school relations than any other man had ever done in Massachusetts.” “He was a great teacher, clear in insight and expression, logical in thought and arrangement, fertile in expedients, patient and sympathetic.”

William P. Hayward ('44) taught fifty-one years, of which forty-two were as master in Salem. He had as pupils children and grandchildren of his first pupils, and their love for their master was handed down from generation to generation.

Jacob F. Brown ('50) was associated with Mr. Hayward for a long series of years as master of a similar school in Salem.

George T. Littlefield ('44) was master of the Prescott School in Charlestown for a long series of years.

David H. Daniels ('45) was master of a grammar school in Brookline for forty years, and later for nine years was superintendent of the schools of the same town.

Quincy E. Dickerman ('46) and Artemas Wiswall ('46) were masters of Boston schools during their lifetime.

Albert J. Manchester ('48) was principal of the Phillips School in Salem, and then for a long series of years principal of a grammar school in Providence, Rhode Island.

Robert C. Metcalf ('51) was born to be a teacher. On leaving the Normal School he began the service of forty years for the schools. For four years he was a sub-master in the Roxbury Latin School. For eighteen years he was master of Boston schools, and for twenty years a member of the Boston Board of Supervisors. He spent the last years of his life as superintendent of schools in Winchester. “His most distinct impress
on the schools of Boston was in the system of supplementary reading which he first introduced into the schools.” “His refined literary taste and his acquaintances in English made him easily an authority on school reading and work in language. As a maker of textbooks on grammar and language he acquired distinction.” He received the degree of Litt.D. from Tufts College in 1905.

Charles A. Richardson ('51), after six years of teaching, became editor of the Congregationalist, which position he held during the rest of his life.

Thomas H. Barnes ('51), master of Bigelow School, South Boston, had a record of teaching in grammar schools for fifty-seven years.

There were a number of pupils of Mr. Tillinghast who began their intellectual career at the School, taught for a few years, as was the custom in those days, and then went on to places of eminence in other fields—law, medicine, ministry.

Albert Conant ('42), a well-known artist of Boston.

Mrs. A. M. Diaz ('42), a prominent writer, lived in Boston. Founder of the Women's Educational and Industrial Union. Author of The William Henry Letters.

Judge Benjamin W. Harris ('42), a member of Congress, and later Judge of Probate Court, Plymouth County.

Henry L. Pierce ('44), a member of Congress, and mayor of Boston.

Horace Chapin ('44), a prominent physician of Somerville.

John A. Goodwin ('45), first superintendent of schools, Lawrence; Speaker, House of Representatives, 1860-1; postmaster at Lowell, 1861-74; school committee of Lowell, ten years; he was a brilliant and able debater, one of the most successful presiding officers, thoroughly acquainted with parliamentary tactics, quick of perception. For many years he was editor of the Lawrence Daily Courier, and Lowell's Vox Populi. As a direct descendant of the Pilgrims, he represented authority in his book, Pilgrim Republic.

General George L. Andrews ('46), professor of French, United States Military Academy at West Point.

Rev. Carlton Staples ('47), a prominent Unitarian clergyman in Providence, Rhode Island.
Rev. William J. Potter ('48), a noted Unitarian clergyman in New Bedford.
Professor Moses T. Brown ('48), superintendent of schools, Toledo, Ohio; professor of oratory, Tufts College; director of elocution, Boston schools.
William Watson ('51), secretary of American Academy of Arts, Boston.

It is interesting to note how influential the graduates under Mr. Tillinghast became. They went far and wide in the country, in all grades of schools. They carried the vision of the Normal School into many States.

Out of the five hundred twenty-seven graduates during Mr. Tillinghast’s administration an unusual number of outstanding educational leaders were inspired and developed. To a large number of his pupils he gave higher views of life and its duties, he opened to their minds a new world of intellectual life and moral perception, he stirred their souls to higher aspirations. Mr. Tillinghast, through his pupils, exerted a telling influence on the public schools of the Commonwealth, elevating and improving them. His spirit, his views, his methods, became a part of our educational system. He built no schoolhouses, but he built the character of many earnest and successful teachers. “Travel over our Commonwealth; visit elsewhere hundreds of schoolhouses of every degree of architectural pretensions; and you will find his pupils in them all, and ready to attribute to him the elements of their highest success.” The total of 5271 years (men 2501 years, women 2770 years) of teaching by these graduates is a revelation of the far-reaching influence of this brief period of thirteen years. The average number of years of teaching was, for the men twelve, and for the women eight and one half.
CHAPTER IV

A CRITICAL PERIOD

(1853-60)

During the last years of Mr. Tillinghast's administration many of the strong young men who had served as assistants under him had been called to more attractive positions. Dana P. Colburn and Joshua Kendall had gone to the Rhode Island School. Richard Edwards and Albert G. Boyden had gone to Salem. Only Edwin C. Hewitt, who was appointed the January before Mr. Tillinghast resigned, was left. Mr. Tillinghast left the School on June 28, 1853, and died April 10, 1856, after years of severe physical suffering. He was buried at Bridgewater, and the monument erected by his pupils bears the following inscription—"His purity of heart, independence of mind, and elevation of soul, exhibited the value of the truths which he taught." By the sheer skill and genius of this first principal, the experiment of a State Normal School in the Old Colony had been successfully performed. The School was left in a precarious situation, but Mr. Tillinghast recommended Mr. Marshall Conant, who at the time was consulting engineer at the Bridgewater Cotton Gin Works. Mr. Conant was an entirely different type of man. He brought a new influence to the School, not opposed to the previous development, but complementary to it. He brought the practical scientific element to bear on the problem.

Marshall Conant (1801-1873) was the son of Jeremiah and Chloe (Pratt) of Bridgewater, who moved to Pomfret, Vermont, in 1780. The son early showed a fondness for mechanics, manifested in the making of water wheels, windmills used for trip hammers, crank turners, and saw mills. He decided to become an architect and adapted his studies in district school to this end. At seventeen years of age he was master of the trade of housejoiner. His later study of Morse's Large Geography led him to the study of astronomy. Pike's Large Arithmetic, with its introduction to algebra, and Euclid were
constant companions. A comet appearing in 1823 led him to the study of Conic Sections and Planetary Motion.

At twenty-three he began teaching a district school, at $12 per month, boarding himself, taking his pay in corn, except a small sum paid by the district. Part of his wages went to the family, part of the corn he sold and bought books on mathematics and astronomy. In the next year he computed a lunar and a solar eclipse, and found his calculations verified. He studied the movement of the stars and constructed systematic tables of his computations. His next books were of higher geometry and the differential calculus. In 1828 he calculated an almanac for 1829, publishing 10,000 copies. His success led to the calculating of almanacs till 1834.

In 1829 he opened a private school in Woodstock, Vermont, for instruction in higher branches; this he continued for five years. Needing apparatus which he had not the means to buy, he made for himself an electrical machine, and an orrery for use in astronomy. To assist him in teaching and lecturing he acquired a knowledge of the French and Latin languages, and continued his studies, through access to the library of Dartmouth College.

In 1834 he came to Boston as a teacher in the Boylston Grammar School, continuing his historic and scientific reading at the Old Atheneum. From this time till 1845 he continued his teaching, mostly in academies, more or less interrupted by ill health. Finally, as his health required out-of-door life, he turned to his engineering profession, and served as head of the topographical department of the Boston Water Works then being built, later as consulting engineer of a railroad in New Hampshire, and thence, in 1852, to the Eagle Cotton Gin Company at Bridgewater.

He served as principal from 1853-60, when failing health required a period of rest. From 1862 till his last days, he assisted Commissioner Boutwell in organizing the Department of Internal Revenue in Washington, D. C. He finished the manuscript for an astronomical publication but a few days before he was released from suffering by his entrance into the life beyond.
A Scientific Trend.—This grew naturally out of Mr. Conant's scientific training. He was a man of scientific imagination. The love of truth was a crowning trait of his character. With this was combined the nature of a genial and courteous gentleman. His whole mind and strength were given to his teaching; his genial manner, his ready command of language, and his facility in illustration, always secured the attention of his pupils. He was clear, definite, and original in his methods, with a practical organizing mind. With Mr. Conant there came to the School a new set of features; his education had been less rigid, he was more open-minded than Mr. Tillinghast and less severe in his ideas of work and life. His imagination was more active and his enthusiasm more contagious. His influence on his students was profound; they admired his breadth of scholarship.

The studies were divided into five departments: (1) Didactics; (2) literary studies; (3) mathematics; (4) natural science; (5) miscellaneous studies, such as music, drawing, and the Latin language. As was to be expected, the equipment in apparatus and the library grew to meet the new demands. Maps and physiological plates were added. Collections of geological specimens were increasing. To meet these conditions the course was lengthened in 1855 to one and one-half years. There was a very definite purpose in this change: to enlarge the scope of the instruction so as to adapt it to impart mental strength and an accurate and liberal culture.

The Practical Trend in Pedagogy.—Mr. Conant gave much time and study to formulating some plan to impart judicious instruction in respect to teaching and management in the common schools, especially in the last term of the course. Certain definite forms of procedure were used by him to accomplish these aims, which are given in his own words: "I have selected individuals to give exercises before the class, after which I have called for suggestions and criticisms from its different members, adding also my own. In this way there seems to have been produced something of a very practical and available character to aid the pupils in their future work." Large classes were divided into sections of five or six pupils
each, with a leading pupil for each section who conducted a part of the recitation in the presence of the teacher. "Didactics must be given more or less at every lesson, and in connection with the subject in hand. Ways and methods—authors and their works—seem to come up then in a natural course, and with impressive distinctness, and thus to be of practical value."

In the last term certain recitations were conducted by the more advanced students, in the classes less advanced. "This arrangement gives the principal an opportunity of rendering more effectual aid in the attainment of good methods, and, in some measure, of making the theory of teaching become a matter of life and reality." "In connection with the careful study of the School Laws of the State, and of the Constitution of the United States, I find it very easy to lead on the minds of the pupils to a just conception of the necessity of good government in the schools, and of the importance of real character in the teacher."

At the time of Mr. Conant's resignation in 1860, the Visitors of the School recorded their high approval of his services as follows: "During his connection with the school, Mr. Conant, by his accuracy of scholarship, his skill as an instructor, his industry and fidelity, has always secured and maintained the high regard of the pupils, and has given entire satisfaction to the Board of Education, and his necessary resignation of office is universally regretted."

It is clearly seen that by the year 1860 the foundations of a professional school for teachers were firmly laid, a "teaching institution" had been established. The year 1860 saw twelve State Normal Schools in nine States established, as the product of the early pioneer work in Massachusetts.

A New Faculty Organized.—The only way to build a professional faculty was to select from the young graduates those who could assist in carrying out the new plans.

Edwin C. Hewett ('52), had begun his work in the last days of Mr. Tillinghast and continued till 1856. Later he became a professor in the Illinois Normal University, and finally its president.
Benjamin F. Clarke ('56), who later graduated from Brown University, and for a long series of years was professor of mathematics and engineering in that college.

Albert G. Boyden ('49), who had served as assistant under Mr. Tillinghast, was called back to the School in 1857, to be appointed principal in 1860.

Miss Eliza B. Woodward ('57), was the first lady to be appointed as an assistant. She was a beloved instructor for a long period of years, giving her life to the School from which she graduated.

A Standard of Teaching.—"Mr. Conant's whole mind and strength were given to his teaching; his genial manner, his ready command of language, and his facility in illustration, always secured the attention of his pupils. In his favorite studies of mathematics, astronomy, and mechanics, he was very clear, definite, and original in his methods. He was constantly drawing his pupils to higher fields of thought and higher attainments." His was "a tender, generous, courageous life—a life of steadfast earnestness and deep enthusiasm. Upon the moral side, his were the loftiest ideals; and he held his pupils to them by spontaneous attraction rather than by any conscious effort."

Contribution into Educational Leadership.—During these early years the Normal Schools had to struggle to maintain their standing. The reaction from the vigorous pioneering of Mr. Tillinghast's administration was difficult to meet. The unrest and financial depression of the country during Mr. Conant's administration was reflected in the general attitude toward education. While the Normal Schools had been nominally accepted by the public, the early enthusiasm had largely spent itself. The attendance, however, slowly increased, and many able minds were again attracted to the School. Out of the 340 graduates during the seven years there came forth a group of effective leaders, including three principals of normal schools; eight assistants in normal schools; thirteen high-school principals and teachers; thirty grammar masters and assistants in Boston, Roxbury, Worcester, Salem, Newton, Fall River, Brookline, Lynn, Hyde Park, Brockton, Hingham, Malden,
Bridgewater, Winchester, New Bedford, etc.; seven superintendents of schools; three college professors; and a number of noted ministers, physicians, and lawyers, who after teaching a short period prepared for their chosen professions.

Special mention might be made of the following: George M. Gage ('58), principal of normal schools at Farmington, Maine, and Mankato, Minnesota; and later superintendent of schools in St. Paul; Grenville T. Fletcher ('61), principal of normal school in Castine, Maine, superintendent of schools in Augusta and Auburn, Maine, and for many years agent of the Massachusetts Board of Education; John M. Rice ('54), professor of mathematics, Naval Academy at Annapolis, for twenty years; Benjamin F. Clarke ('55) (Brown), professor of mathematics and civil engineering in Brown University, twice acting president of the University; Edwin P. Seaver ('57) (Harvard), professor of mathematics, Harvard College, head master of English High School in Boston, superintendent of Boston schools ('80-'94), author of a series of mathematical textbooks; Bessie T. Capen ('57), teacher in Girls' High School, Boston, professor of chemistry in Wellesley College, and principal of a large preparatory school at Northampton; Eliza B. Woodland ('57), a beloved teacher in Bridgewater State Normal School (1857-84); Julia A. Sears ('59), an honored professor of mathematics in the Normal College at Nashville, Tennessee; Dr. Henry Blanchard ('54) (Tufts), a Universalist clergyman in Portland, Maine; Dr. George Whitaker, president of Methodist Universities of Texas and Oregon; Rev. John W. Chadwick ('58), a noted Unitarian clergyman of Brooklyn, New York; James B. Ryder ('59) (Yale), for many years head of the Hopkins' Preparatory School at New Haven; Henry L. Clapp ('61) (Harvard), principal of George Putnam School, Boston, the first to start the school-garden movement in city schools; Horace Graves ('58), a prominent lawyer in New York City.
CHAPTER V

THE PSYCHOLOGICAL NORMAL SCHOOL
(1860-90)

This period was marked by three specific tendencies, which were partly due to the rapid educational advances during the years following the Civil War, and partly to the expansion of the steps already taken in the development of the School. It has been noted that Albert G. Boyden was the lineal educational descendant of the teaching policies now firmly established.

Psychology the Master Science.—Pestalozzi's definition of education as the "harmonious development of all the faculties" became the dominant feature in teacher training. Instruction was to be based on sense perception, judgment, and reasoning. Clear impressions were to be gained by objective study, judgments were to be worked out by skillful questions, and definite forms of expression were to be established.

Each subject was worked out by a logical outline of topics. Oral instruction from real objects called for teaching skill; the class must be trained to follow the teacher in working out the essential elements of each subject. The right kind of questions, in the right order, must be developed by the teacher. Much more extended knowledge was required than appeared in the usual textbooks. The teacher must become an organizer and director; his preparation must be definite and extended. Oral language took on a new importance, though not as yet superseding the more technical grammar.

Teaching itself took on a new meaning, the teachers felt that they were doing a worth-while work of a professional character. The new methods came into sharp conflict with the older textbook memoriter recitations and the method of question-and-answer selections from the book text or from maps. The new objective and thought element began to differentiate teachers, "normal methods" began to have a distinctive meaning, with the consequent opposition from routine teachers.
OLD TOWN HALL, FIRST HOUSE OF THE SCHOOL.

BRIDGEWATER STATE NORMAL SCHOOL, 1871
of ability, and from the college lecturers. Teachers' conventions were alive with new questions, debates were vigorous and sometimes vindictive. The critics fired the sarcastic questions: "Were there no good teachers before Normal Schools were known?" "Is all pedagogical wisdom the peculiar possession of Normal Schools?"

**Psychological Textbooks.**—Three prominent sources of study became the backbone of Normal instruction—Sir William Hamilton's *Inductive Reasoning*, Mark Hopkins's *Outline Study of Man*, and William T. Harris's *Logical Outlines of Study*.

From this analytical study of psychology developed courses in the "Theory and Art of Teaching"; outlines were prepared and most carefully studied by the Normal students. Page's *Theory and Practice of Teaching* was first issued in 1847 and was for many years one of the most successful of all the professional books. When New York State followed the example of Massachusetts and established a State Normal School at Albany, David P. Page of Massachusetts was made principal on the recommendation of Horace Mann and Henry Barnard.

When Albert G. Boyden was appointed principal in August, 1860, this psychological movement was just beginning to be felt. In this same year Edward A. Sheldon, Superintendent at Oswego, New York, imported from England the books and apparatus for carrying out Pestalozzi's plan of object teaching, to be used in the City Training School of Oswego. The movement spread, was investigated by the National Teachers' Association in 1864-5, and in 1866 the School was made into a State Normal School, with Dr. Sheldon as its principal. Oral instruction and object teaching thus became the watchword in education, and Dr. Sheldon's *Manual of Object Lessons* was the text.

**The New Principal.**—Mr. Boyden had at different times served as assistant teacher under Mr. Tillinghast and then under Mr. Conant. During these six and one-half years he had been called upon to teach nearly every branch in the course of studies, and to make a careful study of the principles and
methods of teaching. A member of the School at the time Mr. Boyden was appointed first assistant in 1857 said of him: "He raised that School up on his shoulders like a young Atlas. His spirit began to make things different almost immediately."

**Psychological Courses.**—The professional course was somewhat ambitiously designated in some detail as follows: "The Theory and Art of Teaching, including Mental and Moral Philosophy, General Principles and Methods of Instruction, School Laws of Massachusetts, School Organization and Government." The application all along the line was thus designated: "Principles and Methods of Instruction, both elementary and advanced, in the different branches of study, illustrated by Practical Teaching Exercises." It is evident that the technique of teaching became the central object of instruction in the whole range of subjects. A marked transformation of emphasis was taking place in this School as well as in the other Normal Schools of the State. During the seventies the psychological elements were carefully analyzed, as follows:

The ends chiefly aimed at are the acquisition of the necessary knowledge of the principles and methods of education, and of the various branches of study, the attainment of skill in the art of teaching, and in the general development of the mental powers.

All the studies are conducted upon the topical plan; textbooks are used only as books of reference. All studies are conducted with especial reference to the best ways of teaching them.

Recitations are not deemed satisfactory, unless every pupil is able to teach others that which he himself has learned.

In every study the pupils in turn occupy temporarily the place of teacher of their classmates.

During the senior term, object lessons are given to classes of children, so that every pupil obtains considerable experience in teaching children to observe, think, and give expression to thought.

It is evident from these statements that the psychological element was dominant and that the Normal School was still distinctly a "teaching institution."

**Psychological Applications.**—During the eighties the psychology became more analytical and specific. "The Study of Man" was a course worked out by Principal Boyden as the basis of a thorough course for seniors.
The teacher as an educator must know *what* the different mental powers are, the *order* of their development, and *how* they are called into right activity.

He must know the *different kinds* of knowledge, the *order* of their acquisition, and the *method* of acquisition.

The principles of education are derived from the study of the mind. The methods of teaching and training are determined by these principles.

The objective teaching which was developed led to the large collections of objects and pieces of apparatus which were to serve as the basis of the teaching exercises. Sets of weights and measures were used to teach denominate numbers; dissected rulers and circles illustrated fractions; geometric forms, whole and dissected, took the place of diagrams in teaching form and mensuration; commercial papers of all kinds served as the basis for studying business transactions; objects and charts revealed the meaning of decimal numeration; objective diagrams were used to illustrate the solving of problems; graded series of examples were arranged to make arithmetical processes clearer to the understanding; globes, maps, pictures, and collections of productions made geography objective, and definitions in the subject were derived from the actual observation of phenomena; home-made apparatus was used in the demonstration of the principles of physics and chemistry; collections of minerals were used to teach qualities of matter; living plants served as the teaching material for botany lessons; living animals and collections became the essentials in teaching the elements of zoology; even in teaching grammar objective sentences placed on the blackboard were the subjects for analysis and organization. No subject was exempt from the observation and thought method of teaching.

Each subject in the curriculum was analyzed and organized; printed outlines were prepared and used as the basis of the teaching; textbooks became reference books to be used after the objective teaching. Definitions of all terms were carefully worked out from the personal observation of the objects by the pupil, and the logical form of expression was as carefully determined by means of skillful questioning. Applications were made in the most practical form. No statements from the pupils were accepted unless the meaning had been
thought out. The following illustrations taken from the notebooks of a student in the School in 1864-5 are good examples of the early phases of this form of teaching:

(1) Here are three minerals. Test each of them to discover certain qualities peculiar to each. Tell what each mineral is, why you are sure that you are right, and why these are all useful minerals.

(2) Demonstrate the meaning of Equator and the Tropics by drawing them on the Slated Globe.

(3) Half a dozen points which you yourself discover are worth more than a book full of statements to which you give your assent.

The New Arithmetic.—Textbooks based on the new methods were used. Dana P. Colburn, ('44), assistant at Bridgewater under Mr. Tillinghast, and first principal of Rhode Island State Normal School, was the author of Intellectual Arithmetic and Arithmetic and Its Applications. These books organized the teaching of the subject on objective and demonstration methods. Processes were worked out by illustrative examples, methods were translated into rules, followed by abundant applications for drill work.

"The introduction of Colburn's Intellectual Arithmetic was an epoch in the science. Its excellence does not consist in rules and illustrations by which examples and problems are easily solved, but in leading the mind of the pupil into natural and apparent processes of reasoning. Herein is a mental discipline of great value in the daily affairs of men of all classes and conditions."

These books were followed by Walton's Series of Arithmetics. George A. Walton was also in the Class of 1844, and became widely known for his long and unusually effective work in the State as agent of the Board of Education. This series of books included primary, intermediate, and advanced textbooks, fully illustrated by pictures for the younger children and diagrams for the older ones. The objective method was carried out systematically through the whole range of arithmetical teaching. These books continued the work of Colburn, and for many years were standards of teaching in the State. They were later revised and modernized under the joint authorship of Walton and Edwin P. Seaver ('56), professor of mathe-
matics in Harvard College, headmaster of English High School in Boston, and finally superintendent of the schools of Boston.

The New Geography.—In geography the new series of Guyot’s Geographies superseded the older “fact, question, and answer” books which had been in use in the School for forty years, supplemented in the Normal Schools by Lippincott’s Gazetteer of the World, with which each student was expected to furnish himself, according to the catalogs of the School from 1855 onward for several years. Guyot’s books were based on the new definition, “Geography is the study of the earth as the home of man.” The books were rich in physical maps with appropriate coloring for the different physical features, and with interesting pictures of the human activities as well as of natural phenomena. The text became material, not for memorization, but for thoughtful discussion of cause and effect, and thus it lent itself to psychological treatment in the class exercises. Large physical wall maps and new globes led to abundant teaching exercise. The more advanced supplementary book for Normal Schools was Guyot’s Earth and Man, published in 1849; his lectures at the Normal Schools and in the State Institutes led the way for the widespread revolution in the teaching of geography.

The New Reading.—The subject of reading was going through as great a transformation. The Normal School was advocating the “word method” of teaching beginners in place of the A B C method which was still entrenched in many of the schools. In the Normal classes stress was placed on “voice culture” as the basis for good oral reading, and the elocutionary element in selections for public reading was marked. Monroe’s series of School Readers were in great use. These books had introductory pages on voice exercises, which preceded a wide range of selective types of reading lessons. The work in the reading classes under Miss Woodward expanded into what today would be termed literature. A careful study was made of the American poets, Longfellow, Holmes, Whittier, and Bryant; of Scott, Wordsworth, Shelley, Keats, Tennyson, and Browning; in prose, of Hawthorne, Dickens, and some of Scott’s novels, Waverly and Ivanhoe in particular, besides Car-
lyle's *Sartor Resartus*, Emerson's *Representative Men*, and Tyndall's and Spencer's scientific and educational essays. All of this extended program in reading was done under enthusiastic, literary-minded instructors, and amid interesting class discussions. It was all a part of the new type of teaching based on definite psychological principles.

It is interesting to note that in 1861 a donation of $300 annually was made by Thomas Lee, Esquire, of Boston, for the purpose of giving premiums at the closing examinations of the Schools for the best readers, as determined by a rather vigorous examination. The purpose was to improve the reading of those who were to go forth as teachers of youth, for at that time there was an extended demand in the towns for better instruction in reading. In 1863, additional prizes were given candidates at the time of their admission to the Schools. Certain points were selected as the basis for determining the excellence of the reading—fullness of voice, distinct articulation, correct pronunciation, just emphasis, naturalness and spirit, and, in reading poetry, unaffected emotion. These prizes were usually in the form of books. For many years after the discontinuance of these awards, an oral examination in reading was one of the prominent factors in the selection of candidates for admission.

*From Grammar to Language Lessons.*—Technical grammar still held its strong, almost impregnable position, as the foundation of correct speaking and writing. Sentences, often long and complicated, were analyzed, with almost infinite care, and diagrammed on the blackboard. Greene's *Analysis* and Brown's *Grammar of Grammars* were the authorities consulted in all disputed cases. The sentence written on the blackboard was the unit object from which all teaching started; the logical analysis followed, even to the finest distinctions.

Etymology became an important adjunct of all word study, the Latin and Greek roots, prefixes and suffixes, were mastered and applied. Word study was often the subject of general exercises given to the whole school by the principal. In time the grammar gave way to what was called "Language Lessons," in which good oral and written expression were developed from
objects and from experiences in life. Many illustrated lessons laid the foundation for good usage on the part of the pupils. One of the best known textbooks was the series by Robert C. Metcalf ('50), for many years master of a Boston school, and later a member of the Board of Supervisors of the city schools.

Public Examinations.—The teaching work culminated in the semi-annual examinations, which occupied two days. These exercises attracted State and School officials and graduates, as well as the public, for they exemplified the new methods used in the preparation of teachers. A selection is made from a report of the exercises of 1863 which was typical of those given for many years.

In astronomy, the principal led the senior class in an exercise in astronomical definitions, including the solar system and phenomena of the earth in relation to the sun. Well-drawn chalk diagrams, executed before the Visitors, illustrated every phase of the subject. Mr. Dexter, an assistant teacher, led the junior class in an exercise in geography, which was very interesting to all. Mr. Schneider, the first assistant teacher, examined the seniors in English Literature—the biographies of distinguished authors, an account of their principal works, readings and explanations of what was read, made an interesting exercise. Then followed the reading by members of the middle class, candidates for the Lee prizes. This exercise was conducted by Miss Woodward. An exercise in mental arithmetic was an exciting one—rapid combinations of numbers, large and small, involving operations of every kind, tested the readiness of the pupils. Principal Boyden then led the seniors in a discussion of the theory and art of teaching. The official Visitors took part in it, and the interesting subjects of school discipline and instruction, qualifications of teachers, etc., were amply and intelligently discussed.

In 1864, the Joint Standing Committee on Education in the Legislature was authorized to visit the Normal Schools at the time of the February examinations and report. The examinations were of the most searching kind and in various departments of study. Different topics were assigned to different pupils, without any previous notice, then each was called upon to give his views of the matter in extemporaneous language. Questions were freely propounded by the Committee, by the Board of Visitors, and by others present. The Committee were unanimous in their report, commending the ability of the teach-
ers, the attainments of the pupils, and the preëminent utility of the institutions. The only criticism came upon the inadequate preparation of some of the candidates for admission, and they suggested that the most rigid scrutiny should precede the granting of diplomas.

As a further illustration of this plan of presenting the specific types of Normal-School instruction, in 1876 each member of the graduating class either presented or taught a topic according to the psychological method which had been worked out in the course. A few selected topics will give an idea of the scope of the instruction:

A reading lesson
An object lesson on a robin's nest
A plant and its parts
Ventilation
Transposing a scale
Subtraction in algebra
The structure and purpose of barometers
Properties of the air
Marks of expression in music
Working of the common lifting pump
Common metals
Tides
Methods of finding the cubical contents of an irregular solid

Principal Boyden's Educational Creed.—The best summary of the place which psychology took in this period is given in Principal Boyden's own words. In 1876 the first Alumni Record was prepared as a part of the centennial celebration of our country's achievements. In this volume he stated the aims and methods of the School in words that are very familiar to all of his graduates:

The ultimate end of school work is the education of the child. The ultimate object of the Normal School is to make the Normal pupil a skilled instrument for the education of children, or, in other words, to make him, as far as possible, an educator.

Education is training all the powers of the child till he gains the ability and inclination to make the best use of his powers. The processes
of education are instruction, teaching, and training. Right thinking is secured by the right use of these processes. The product of right thinking is mental power and knowledge.

The "teacher" is an educator. As such he must know what the different mental powers are, the order of their development, and how they are called into right activity. In addition to this knowledge of mind, he must know each pupil as an individual.

Ideas and thoughts are to be gained from the objects of thought. The right arrangement of ideas must be observed. All lessons are conducted upon the topical plan. The same method is employed with both subjects and objects. Each is considered as a whole first, and then in its parts. A subject is presented as a whole by clearly defining it to show what it includes. It is then analyzed into its main divisions, and each division is outlined in topics logically arranged. The topics for the study of an object are arranged in the natural order.

The plan, instituted by Mr. Conant, of having the pupils conduct the recitations of their classes under the eye of their instructors was developed to a very high degree of efficiency. This plan was adopted as a valuable substitute for the system of Model Schools which met insuperable objections in the early days. In 1850 the Model School was discontinued. Practice teaching was not attractive to those who had taught before coming to the Normal School, and those who had never taught before did not become sufficiently interested to appreciate the work. Some parents preferred that their children should not be "experimented with," and others did not wish to pay the tuition fees required to meet the salary of the teacher.

Under the methods of objective teaching, this form of class instruction became the best plan for developing the teaching power of the prospective teacher. It developed confidence before a class, skill in the art of questioning, ability to meet difficult situations, and power to organize a subject for teaching. Constant use of blackboard illustrations gave the teacher power to make subjects clear to the learner.
CHAPTER VI

INTRODUCTION OF NEW COURSES

A New Faculty.—The second marked characteristic of this period was the extension and differentiation of courses of study. With this advance came the necessity for creating a faculty that could put into effect the psychological foundation for teaching each subject. It was soon evident that an academically trained college graduate would have difficulty in meeting the new requirements of teaching in the pioneer field. As the art of teaching grew under the psychological principles, it became more and more difficult to find men who had the technique of objective teaching clearly in mind. For several years in the first part of this period the attempt was made to build up the departments under men trained in the older normal regime or in colleges. The principal trained these teachers in working out the new models of teaching, but it soon became evident that the School must depend on young teachers fresh from the School under the inspiration of this type of teaching.

By the seventies there was developed a faculty of young enthusiastic teachers who were thoroughly in sympathy with objective teaching and who had been trained in its application. In the catalogue of 1869 there appear names well known to the older graduates—George H. Martin ('63), Alice Richards ('66), Albert E. Winship ('64), Eliza B. Woodward ('57), and Mary H. Leonard ('67). All but one of these had graduated under Principal Boyden.

New Organization of Courses.—At the opening of this period studies were grouped into five departments, as in the previous period. The growing interest in the sciences, including physiology, natural philosophy, and astronomy, is shown in the division of time devoted to science as compared with literary subjects. It was 118:145 minutes in the junior class; 104:151 in the middle class; and 84:201 in the senior class.

The new natural-history sciences appeared in lectures to the school in botany, physical geography, and zoölogy, illustrated by superior maps and charts. A lecturer in chemistry
gave a series of demonstrations in chemistry from 1860-7, arousing much interest in this subject. These courses were incidental to the regular work, and one important result was the building up of collections of specimens and of apparatus for experimentation. Most of this work was simple and encouraged teachers to apply these sciences in their own schools. Naturally the practical side of these subjects was emphasized. It was a marked advance over the older method of “book science” so prevalent for years in the upper grades of the schools. The fragmentary nature of this work in the Normal School was its greatest weakness; neither time nor teachers were available to make it effective.

The first change in the courses came in the absorption of certain new subjects into the regular course: music, gymnastics, certain sciences, mental philosophy, elocution, civil polity, and English literature—which were at first taught by teachers who came to the School one or two days per week, or came as special lecturers. This was the only way in which these new subjects could be introduced, but by 1870 all of these new subjects had been taken on by the regular members of the faculty and were constituent parts of the curriculum.

Music.—The income of the Todd Fund (established by Henry Todd, Esquire, of Boston, in 1850) was used for instruction in music, and for lectures in the Normal Schools. “The father and founder of musical instruction” in the public schools was Dr. Lowell Mason. In 1827 he commenced the instruction of classes in vocal music in Boston. Early his attention was called to the Pestalozzian method of teaching, which he adopted, and of which he became the most distinguished champion and exemplar in the country. He began the teaching of juvenile classes, and by his influence music was introduced as a regular branch of study in the public schools of Boston under his instruction (1838).

Dr. Mason’s labors and successes did not escape the eye of Horace Mann. At one of the first Teachers’ Institutes held by him in 1845, at Bridgewater, Dr. Mason was employed as an instructor in music. Of his teaching on that occasion Mr. Mann wrote in the following terms:
While witnessing your exercises, I resolved to avail myself of an early opportunity to express to you the great gratification I experienced from witnessing your mode of teaching. In your adaptation of the thing to be taught to the capacity of the learner; in your easy gradation from the known to the unknown, the latter always seeming to spring naturally from and to be intimately connected with the former; and in your reviews, more or less extensive, which seemed to link together the parts which had been separately given before—in all these points your lessons appeared to me to be models, worthy the imitation of teachers in all other branches. I have never before seen anything that came nearer to my beau ideal of teaching.

Dr. Mason often came to Bridgewater, and gave illustrative lessons. Mr. Tillinghast said to him, "I think your method of giving instruction the best model I have ever seen." The Secretary of the Board said of his work, "His simple, natural, and yet philosophical methods, combined with a remarkable tact and power of illustration, have powerfully contributed to form the character of large numbers of the most successful teachers in the Commonwealth."

Music was one of the early subjects introduced at Bridgewater, but this instruction was not regarded with much interest by the students, because so many of them had no knowledge of the subject and no love for it. The plan of a weekly lesson in music for the whole School by an outside teacher was not satisfactory. "No great proficiency or skill can be expected from so limited cultivation in an art which requires frequent and diligent practice. Particularly must this amount of effort fail to secure what should be the special aim of such instruction—the preparation of teachers to conduct musical exercises in their own schools, and impart some musical education to their pupils. It is desirable that more direct and efficient measures should be adopted to secure that result." (1857). In 1860 Mr. O. B. Brown was appointed to take charge of the music; each class received two lessons on the day of his visits. By his skillful and thorough instruction, and by the aid of a new piano, new life was given to all the musical exercises of the School, although the plan was still regarded as a temporary expedient till more funds were available. These so-called "special subjects" were slow in reaching a satisfactory position in school instruction.
This general teaching of music was continued till Hosea E. Holt was appointed in 1864. He soon developed the idea of teaching music based on the objective method; tones became the objects of study. Unusually effective results were obtained with children and students. It is interesting to note that $225 was the munificent sum appropriated for instruction in music.

In 1869 Mr. Holt was appointed director of music in the Boston schools, and the subject at Bridgewater was assigned to one of the regular teachers (Miss Alice Richards), thus taking it out of the miscellaneous group of subjects. The new method of teaching was so firmly established that it remained as a permanent plan. Part songs came into vogue, and individual as well as class singing followed. Teaching lessons in music became as much a part of the School regime as were the other subjects. It was not a long step to morning chorus singing and to glee clubs.

Science.—Lectures in natural history and chemistry were given by men who came to the School, either for a short series of lectures or upon weekly visits. Usually six or even twelve lectures per term were given. Professor James C. Sharp of Dorchester gave lectures in chemistry for many years, and in 1866 a special appropriation for chemical and philosophical apparatus was made, which dignified the course.

The revised course of study (1866) provided for lessons once or twice a week in botany, zoölogy, mineralogy, and geology. Professor Sanborn Tenney was a very proficient teacher in these subjects, building up generous collections of specimens for real objective teaching. According to the financial report for 1867, the sum of $125 was spent for lectures and specimens; small beginnings only were possible in those days.

With the enlargement of the building in 1872, it was possible to extend the facilities for teaching science; a chemical laboratory was fitted up on the first floor and a room for philosophical apparatus; cabinets for mineralogy and zoölogy specimens were placed in the classrooms. In 1874 an appropriation of $1000 was used to thoroughly fit up the chemical laboratory with tables for twenty-four students to work at one time, each pupil manipulating the apparatus and dealing with
the chemicals used in the experiments. Thus the science teaching began the transition from that of demonstration by the teacher to that of the laboratory method of individual study. In the course of time all of the sciences came to be taught in this manner. The growth of the students in the four-year course was a strong factor in the growth of science teaching. At this time in the upper grades of city schools the subject of elementary science was being established, and the young men upon graduation were ready to meet this new demand. The addition of a set of typical mounted skeletons was made to the zoological cabinet.

Laboratory Building.—Following the Philadelphia Exposition in 1876, there was a marked expansion in science teaching in the American schools, and this influence was early reflected in the Normal School. The increase in the students on the four-year course, especially of men, and the increased attention to the study of science by laboratory methods, led to the necessity for additional rooms. The only plan that was feasible was the building of a two-story annex connected with the main building by a porch. The principal was granted a six weeks' leave of absence to study school buildings which had been erected for science study.

In this building there were four laboratories, each thirty feet square, and the connecting porch contained two teachers' laboratories. The rooms on the lower floor were used as physical laboratories, elementary and advanced; those on the upper floor were chemical laboratories, elementary and analytical. These rooms were furnished with the most approved appliances for teaching these sciences. Each student had a place at the tables, and was taught how to make and use simple, inexpensive apparatus such as could be used in schools. The building was erected at a cost of $8000.

One of the physical laboratories was arranged for sixty students to work in classes at the tables, with a dark room for measuring the candle power of lights, one for photography, and one for spectroscopic work. The other was arranged with a laboratory table for demonstration and projection work.

The laboratory for elementary chemistry also was ar-
arranged for sixty students at the tables; the one for analytical work was provided with places for twenty students.

*Natural-History Laboratories.*—The removal of the chemical and physical laboratories out of the main building made it possible to reorganize these old rooms into natural-history laboratories with abundant apparatus and specimens for individual work. One laboratory was fitted up for mineralogy and geology, with cabinets and typical specimens arranged for study; another laboratory was fitted up for zoology, physiology, and botany, with cabinets of specimens.

Rapid advancement in the study of the natural sciences took place during the eighties; comprehensive manuals were prepared, sets of working specimens collected, and more extended microscopic studies were made. In 1885 a Bridgewater Science Club was organized, whose object was to promote the study of natural science, and to provide for the School a representative collection of the minerals, plants, and animals of southeastern Massachusetts. Large additions were made by the summer excursions of some members of this club.

During this period the teachers of the School were called out to teach in the Institutes held by the Board of Education in all parts of the State; this tended to arouse an interest in the teaching of elementary science in the schools. This movement toward the teaching of elementary science in the schools had been stimulated by the publishing of well-organized courses in elementary science by William T. Harris, superintendent of the St. Louis schools. These courses were a marked improvement over the English-Oswego object lessons. Oral lessons in physiology were introduced into all grades, and this subject soon tended to separate itself as a new subject.

In 1885 a law was passed requiring the teaching of physiology and hygiene in the public schools. This instruction was to include special instruction as to the effects of alcoholic drinks, stimulants, and narcotics on the human system. A course in this subject was outlined and taught in the School and in the State Institutes.

*Physical Education.*—In 1850 physiology and hygiene were authorized to be taught in the public schools, and all
teachers were required to be examined in these subjects. This put a new emphasis on the subject which had been taught from the first in the Normal School. It has been noted that Horace Mann urged the teaching of physiology in one of his early reports. In 1853 physical training was introduced into the Boston schools by a rule which required daily, in the forenoon and afternoon, some kind of gymnastic exercise.

In 1860 a new interest in physical education was aroused by a series of lessons in gymnastics given by Dr. Dio Lewis of Boston. It was a well-devised system of exercises that would develop every part of the physical system, and was regarded as the most economical method of preserving bodily health. A period of from twenty minutes to half an hour per day was given to these exercises. In opposition to this plan much was said about the danger of the excess of such exercises, also "no general, systematic, physical training in connection with the schools has ever been attempted."

Dr. Lewis's system was particularly adapted to the wants of children and ladies. The apparatus was simple, cheap, and manageable. The exercise was mild, gentle, suitable, and yet sufficiently taxing to the physical powers. The system could be conducted privately or in a schoolroom, in the aisles between the desks.

After Dr. Lewis had fully demonstrated his system, the daily exercises were taken over by two of the male teachers who had familiarized themselves with them. "It broke the monotony of long study, and greatly contributed to the preservation of good health and strength. It also qualified the pupils to give instruction in their schools." This plan was continued until a gymnasium was built in the new building (1890).

Recognition of Normal Methods.—The methods of teaching began to receive general approval, the demand for Normal teachers became greater than the supply; frequently whole classes were engaged on or before the day of graduation. Teaching by topics began to take the place of the reciting of pages of the textbook, and habits of free class discussion were encouraged. The result was manifest in the report of the Visitors of the School for 1870. "Its improvement within three
or four years past has been very marked, mainly due to the improvement in the accommodations of the pupils, and in the instruction and management of the School."

One of the constant participants in the semi-annual examinations of candidates for graduation was Henry F. Harrington, the well-known superintendent of schools in New Bedford. In 1870 he wrote these words to the principal:

I am more and more interested in the work of the Normal School; no expedients attempted by school committees will prove an equivalent for it. I should be ready to second a proposition that no person should be eligible to election as a teacher who had not had the advantage of a Normal-School course. You can and do give a degree of general intelligence, a philosophical conception of the duties of a teacher, and a lofty standard of attainment such as enable a person with any brains to perform a very acceptable work. The School at Bridgewater has been steadily advancing in reputation and success, and never stood so well as now.

**Drawing Takes on a New Prominence.**—This subject was specified in the earliest courses in connection with writing. In teaching the other subjects, constant and careful attention was given throughout the course to drawing and delineations on the blackboard. What was called industrial drawing was used in mathematics. Map drawing was a prominent phase of geography teaching, and sometimes these maps were very elaborate features of blackboard decoration. Early in this period drawing was made a special subject and was taught as one of Miss Woodward’s group of subjects. This was largely freehand drawing. The turning point came when a group of men of high standing in the community petitioned the Legislature to report some definite plan for the introduction of drawing and other arts of design in the schools. This was based on the disadvantages under which the manufacturers labored in competing with foreign countries in matters of design.

In 1870 an act was passed which made drawing one of the branches of learning to be taught in the public schools. It was admitted, by all who had examined the subject, that every one who can learn to write can learn to draw, as drawing is simpler in its elements. Special instructors would not be needed, for teachers could learn and teach elementary drawing as they teach other branches.

Professor Walter Smith, the art master in charge of the
school at Leeds, England, was employed by the Board as professional advisor and lecturer, to be known as State Director of Art Education. He visited the Normal classes, inspected their work, and outlined the course to be pursued, which included all phases of the subject. Drawing was to be taught as a visible language, the language of form having but two letters in its alphabet, the straight line and the curved line.

The enlargement of the school building in 1872 made it possible to fit up an art room for the new work. It was furnished with the best kind of furniture and apparatus. A large number of the finest examples of casts, models, and flat copies were obtained from London. Thus it became possible to give thorough instruction, either elementary or advanced. It was recommended by Professor Smith that the time of one teacher be given to the teaching of this subject, and Miss Woodward was regarded as amply able to conduct this work. A course of study was laid out including freehand, model, memory, geometrical, and perspective drawing. Students were to be examined at the end of the course. Drawings should be made from plaster casts in crayon and sepia; from groups of natural objects, as fruits and flowers; from still life and objects of arts, in water colors.

As a result of legislation the Normal Art School was opened November 6, 1873, and from that time the teaching of drawing went forward rapidly in the schools of the State. Special agents of the Board went around the State urging the introduction of the subject. They also visited the Normal Schools, lecturing and advising. Among these efficient leaders should be mentioned the name of the beloved Henry Turner Bailey. In 1876 an examination in drawing was held by Professor Smith in all the Normal Schools. The results at Bridgewater were very interesting.

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96 per cent passed. This was the highest record of the five Schools.
Introduction of Manual Training.—Industrial education was being agitated partly as a result of the superiority of the Russian exhibit at the Philadelphia Exposition in 1876 as shown by the work in wood and iron done by the pupils at the Imperial Technical School at St. Petersburg. This was a type of work adapted to secondary schools. The St. Louis Manual Training High School (1880) formed a type for the organization of such schools elsewhere. The movement to introduce manual training into the elementary schools was a natural result. In 1881 an experiment in industrial instruction was made in a “carpenter’s class” in the Dwight School, Boston. In 1888 the city took over these classes. In 1886 Gustav Larson was brought to Boston from Sweden to introduce Swedish Sloyd, and a teacher-training class was established.

In 1884 the State authorized the use of hand tools in the public schools. The new work was advocated as a fine form of discipline of mind and hand. The exercises were formal and uniform for all, and knife work was very prominent. In this same year an industrial laboratory was fitted up at the Normal School with nine carpenters’ benches and tools, a turning lathe and jigsaw, in which the students were instructed in the use of tools in making sets of inexpensive apparatus for use in the different studies of the course.

It was not the purpose to prepare teachers of manual training, but soon the graduates were called upon to use this preparation in an incidental way in the schools for very practical purposes. A teacher with a knowledge of tools was able to help the boys in many ways. From this time there was always a manual-training shop connected with the School.

The Four-Year Course.—The most far-reaching change in policy came with the introduction of this new course in 1869. This was not a sudden change. Joseph White, Secretary of the Board, had been a strong advocate of this plan. The Normal Schools were originally established with the view of furnishing teachers for the “common schools.” An early attempt was made to meet the demand for male teachers of the high schools by the passage, in 1853, of the Act relating to State Scholarships. By this Act $4800 was annually paid for
the aid of forty-eight young men to be selected by the Board and educated in the colleges, on the condition that after graduation they would teach in the Commonwealth for a period equal to that during which they received aid. After a trial of twelve or thirteen years, it clearly appeared that the law had failed to secure the end proposed. "The fault was not so much in the young men as in their training." Although showing ample proofs of scholarship, they had not received that professional training which only the discipline of the Normal School or of actual experience can give.

In 1866 the law was repealed, it being the prevailing opinion that the object sought could be more satisfactorily reached through the Normal Schools. Four plans were suggested for discussion: (1) The establishing of another Normal School with a four-year course; (2) the establishing of another school with a supplemental course of two years to which present graduates could go to complete their preparation; (3) raising one of the present schools to a higher grade; (4) supplying all the existing schools with such additional teachers and apparatus as would enable them to furnish, in connection with the present course of study, instruction in the higher branches. After much inquiry and reflection it was felt that the fourth plan would be less expensive and more convenient for the different sections of the State. The opinion was expressed that the expenditure would hardly exceed the amount required for the State scholarships.

High schools were increasing in number. The law of 1827 had required high schools in towns of 500 families, and the law of 1835 had made permissive such schools in all towns. In 1865 there were 163 high schools in the State, although a number of towns had neglected the law. It was believed that in no way so effectively and at so little expense could the Normal School be made to exert a widespread influence, as by furnishing thoroughly trained teachers for those schools of the higher grades in which the great majority of the teachers of the common schools are educated. "Let the higher schools be taught after Normal methods, and the lower schools must be taught of necessity after the same method." There was a
great call from all parts of the country for Normal teachers to take charge of high schools. "If a single first-rate instructor can be put in every high school, thousands of young persons will have a chance of witnessing the practical operation of good teaching."

At this same time a new proposition appeared—a six months' course in the senior year of the high schools in the theory and art of teaching and governing, for all who desire to become teachers. The argument was that the Normal Schools could not be depended upon to supply all the teachers. They graduated only about 160 teachers per year, while from 6000 to 8000 different persons were employed annually. The majority of the graduates taught less than three years, so that only about 7 per cent of the teachers were trained. The high schools must supply most of the teachers; if the teachers of these schools were trained in the Normal Schools, and the high schools include the training class, then the Normal system would soon be diffused through the State. This plan never was carried out; instead, city training schools began to arise in certain cities.

The advanced class was formed in 1870 with two men who had just completed the two-year course (Josiah G. Bassett and Joshua M. Dill, who later served as masters of Boston grammar schools for many years). The corps of teachers was increased by the appointment of Dr. Francis H. Kirmayer, a graduate of the University of Munich, as teacher of French and Latin. He brought to his work a large share of patience, zeal, German fullness of knowledge, and thoroughness of method.

The advanced course in each of the four Normal Schools comprised Latin, French, higher mathematics, ethics, natural sciences, and English literature. In 1871 there were fourteen graduates and undergraduates pursuing these subjects.

One of the factors that aided the four-year course was the proposal of Harvard College to maintain in the Lawrence Scientific School, for the benefit of the male graduates of the Normal Schools, a number of scholarships not exceeding eight, and of an annual value of $150 each, the same being the amount
of the tuition fee. The incumbents were to be appointed upon the recommendation of the principals, and the scholarships were renewable for one or more years upon recommendation of the Scientific School (1880). Advantage was taken of this opening for advanced education by many of the four-year graduates. It soon became a common practice for some of the men of each graduating class to get their college degree in the above manner.

The two years' course was crowded, as it included twenty-five different branches (1877). Each study had to be considered from the standpoint of the teacher. The time was too short for a proper consideration of these subjects, those taking the three- and four-year courses were in great demand; so that by 1877 one third of the School were pursuing the longer courses, which allowed better organization of the material. The majority of the candidates now came from high schools and were prepared for this extension of work. Large grammar schools were attracting both principals and assistants from these courses. The standards of scholarship were raised by this large group of advanced students.

The School of Observation.—The Board of Education, on the establishment of the Normal Schools, thought it necessary to connect with each a Model or Training School. The relations of the School to the town and to the Normal School were never entirely satisfactory, and Model Schools were soon dissolved, leaving the Normal students to obtain their experience by practice on their own members.

The Normal School turned its exclusive attention to the study of the philosophy of teaching; to gaining a technical knowledge of the branches of learning taught in the schools; to preparing such courses of study as are the right occasions for the acquisition of useful knowledge and right mental development; and to training the pupils to teach, by requiring them to recite all review lessons in the form of teaching exercises. This method of work produced good practical results, and yet it did not furnish an opportunity for an experience in teaching and controlling a school of real children.

To supply this need a school of observation was planned,
so related to the Normal School that its principal could, by permission of the town school committee, nominate the teachers, suggest a course of studies, and the method of teaching that should be practiced. The Normal pupils were granted the privilege of observing the operations of this school, and of teaching some of its classes. As the Schools became thoroughly established in the State and teaching improved, a new demand was rising, that of thorough training for primary schools, and this led to the idea that there should be schools of observation and practice, taught by well-trained teachers, and under the supervision of the principals of the Normal Schools (1877).

Courses of study in the larger cities were being prepared for primary and grammar grades, notably in Boston (1877-8). These were emphasizing the series of steps in each subject from the actual experience in the schools. City training schools were being established—e.g., Cambridge, Newton—to give not only the theory of teaching the subjects, but actual practice in the grades. There were Model Schools in some of the schools, but the conditions were limited. The Board felt that schools of practice should be developed in all the schools, containing all the grades, and that all who received certificates should pass a satisfactory examination in teaching.

The thorough examination of Norfolk County schools, (1879) by State Agent Walton, aroused a very keen interest in the methods and results of teaching all through the grades; it brought a new emphasis on teaching children and aroused the people to the need of more efficient supervision of teaching in the State.

It was not easy to revive a practice system which had been in disuse for so many years, and a new public sentiment had to be developed. In 1880 an arrangement was made with the town by which one of the schools was to become a school of observation and practice for the Normal School. By this arrangement the members of the graduating class could observe a good school with reference to its organization, its course of studies, its methods of teaching, and its discipline. A graduate of the School with successful experience was placed at the head of this school, which at first included the primary grades. An
elementary course of study was made out for the State by J. W. Dickinson, Secretary of the Board, and printed in his report (1880).

The city training schools had ample opportunity for practice, and superintendents in selecting teachers gave great weight to these opportunities for actual teaching. The problem was to secure the coöperation of the towns for this purpose. By the end of this period practical arrangements had been made by all the schools. In 1888 there were city training schools in North Adams, Lawrence, Lowell, Haverhill, Pittsfield, Adams, Springfield, Cambridge, Quincy, Weymouth, Leominster, Gloucester, and Chelsea. This fact was a stimulus to the State to increase the training facilities in the Normal Schools.
CHAPTER VII
A LONG BUILDING PROGRAM

Growing Needs.—The third marked characteristic of this period was an almost continuous building program. There were three factors leading to this growth. First, the continued increase in the attendance at the School was due to the growing success of the Normal graduates and to the public recognition of the value of trained teachers. The progressive attitude of the Board and its Secretary toward the development of teacher training brought about the new advanced courses that appealed specially to young and scholarly men and women. The Harvard Scholarships opened the door to advanced work and higher positions to the ambitious young men who saw a future in teaching. The enlargement and enrichment of courses made them attractive, and the gradual increase in entrance requirements attracted a better class of students. A definite philosophy of education gave a dignity and value to teaching that held the students to the longer courses. To meet this growing attendance year by year meant the extension of the meagre buildings which were thought to be adequate in the early days.

It was no easy matter to draw from a reluctant legislature the funds necessary to meet the new demands, which seemed to have no end. As soon as one building project was fairly complete, the growth of the School called for another large appropriation. In many cases the sum appropriated was so far below the estimates that the full completion of the work had to wait for a supplementary appropriation. Normal Schools, because of their position as State institutions, received no bequests from wealthy alumni, but depended entirely on the most persistent presentation of their needs before committees that held down the appropriations to the lowest possible point.

The second factor was the need of adapting and extending building facilities to the new courses of instruction. The development of departmental teaching required adequate classrooms in which to teach the new phases of the subjects. The introduction of the sciences demanded the building of rooms
adapted to demonstration work and to arranging collections of specimens and apparatus. As the laboratory method of teaching came into vogue, the demand for abundant space for individual work became imperative. The development of the teaching of drawing called for a special art room with its appropriate equipment, and the expansion of the collections of books required more library space.

Only the persistent arguments of Principal Albert G. Boyden kept the school buildings up to the requirements. The increase of facilities in turn attracted more students, and thus the cycle was formed. It is true that a building program has been a continuous performance even to the present time.

The first Normal School building in America, though heralded as one of the most attractive schoolhouses in the State, was a very plain edifice. An appropriation of $5000 only was asked for, on condition that a like sum be contributed by friends of the School. Even this sum was insufficient and had to be supplemented by gifts from friends. No contract could be made with the available funds till Horace Mann came forward and gave his own obligation to make up the deficiency.

At the beginning of this period, when Albert G. Boyden became principal, the school building and its furnishings were entirely inadequate to the proper accommodation of the School. The legislature was thought to be generous when it appropriated (1861) $4500 for the enlargement of the building. It took several years to really complete this enlargement. No addition in furnishings had been made for years except a new piano which replaced an old one that rattled so much that no music came from it. In 1862, $200 procured some furniture for the new classrooms. In 1864 the new oak desks and chairs replaced the old pine ones of 1846, and the painting of the building was finished. In 1866 the necessary chemical and philosophical apparatus was bought and placed in cabinets.

The encouraging part of this program was that this building, composed of the old nucleus with two wings attached, although plain and unornamented, was adapted to the new course of study which was developing. A large schoolroom made a unified school possible, with appropriate general exercises by
THE SCHOOL IN 1861

THE FIRST DORMITORY, 1869-1873
the principal, and the new form of gymnastic exercises. Differen­tiated departmental study was made possible by the five recitation rooms with side rooms for apparatus, and with a separate library. This enlargement of facilities correlated with the development of a new faculty that was being organized on the new psychological basis of instruction.

The third factor was a very important one, namely, the problem of proper and adequate living conditions for the students. The early plan of boarding in the families of the town became inadequate. As the School grew in numbers, suitable rooms became scarce, boarding places were insufficient for the demand, and prices increased. Many students were forced to board themselves in tenement rooms hired by the principal. Similar conditions in the other Schools led to the policy of having the State erect boarding halls from funds loaned from the School Fund, the students to pay the cost of board plus interest on the investment and insurance. As the time went on, these halls had to be enlarged until the dormitory system became established at most of the Schools. The principal lived in the hall, supervised the administration, and kept the accounts.

During the first eight years of the School (1840-8), the price of board for students was $2 per week, including washing. After that time the price gradually increased, and in many cases more than doubled. Under this new plan the pupils were to board at cost; an account of the expenses was kept, and a settlement made each term. An advance payment was made in order to purchase supplies at wholesale prices. When the cost was $3.75 per week, this rate included room rent, fuel, light, washing, and board. The men paid $2.87 per week for table board. The interest on the cost of the hall was fully paid according to the conditions of the appropriation till 1871, when the State released the Board of Education from the payment of the interest and insurance.

*The First Dormitory.*—The building of a dormitory went through the same series of delayed experiences. Many expedi­ents were suggested to overcome the conditions, but only one procedure was possible, and the appeal had to be made to the
legislature. A similar situation at Framingham aided the project. A summary of the Resolve of 1869 will reveal the actual situation with its limitations: The Commissioners of the School Fund were authorized to loan the Board of Education $15,000, in trust, to be expended in erecting and furnishing a Boarding Hall at Bridgewater. Said Board was to collect a sum sufficient to cover interest at 6 per cent on cost of building and furniture, and a reasonable insurance of the same, payable semi-annually. If the Board failed to pay the interest, the Commissioners could sell the house with the appurtenances and the furniture, and invest the proceeds. After completing working plans, careful estimates showed that a building for fifty students could not be erected at less than $25,000. The long session of legislature made it possible to get another loan of $10,000, on the same conditions. The building was erected between June and November, under the direct supervision of the principal, who made no charges for this extra work.

The accommodations of the Boarding Hall were soon outgrown, but no relief could be obtained till 1873 when the third annual attempt succeeded, with an appropriation for a substantial addition at a cost of $36,000. Still again the old experience of an inadequate appropriation caused delay and inconvenience, until in 1874 money amounting to $7600 was appropriated for the introduction of gas and for various items of furnishings not provided for in the first appropriation.

The Second Enlargement.—This work was barely completed when the further enlargement of the school building was urgent. The School numbered 142, and the main schoolroom accommodated only 120. In 1871 plans for adding a third story to the old building were made effective by an appropriation of $15,000. As usual, this was found inadequate, and the heating and ventilation plans were obliged to wait until 1872, when a fireproof boiler house was constructed in the embankment at the southeast corner of the building under an appropriation of $6000. The equipment of the art room for the new work in drawing established by the State waited for its appropriation of $600 till 1873.

The new scientific movement toward the laboratory
method of teaching led to the request for $1000 in 1875, by which one of the demonstration rooms was fitted up for a chemical laboratory, and furnished with chemicals and apparatus, so that twenty-four pupils could work at one time. The modern movement in teaching was just coming into its own. Improvements were still in demand, and in 1879 $500 was appropriated for new blackboards. At that time the old-fashioned painted blackboard was giving way to liquid slating which was being applied to a hard, smooth surface especially prepared for the purpose. The main schoolroom and ten classrooms shone with the new equipment.

Laboratory Annex.—Hardly had 1880 arrived before new building schemes were in the air. The rapid growth of advanced students and also of laboratory science compelled attention if the School was to meet modern requirements. In 1881 the hopes were realized in the two-story annex built entirely for laboratory purposes at an expense of $8000, but here again inadequate appropriation led to incomplete furnishings, such as chairs, settees, and laboratory tables. These, however, had to wait over for the next year (1882), as $1500 was absolutely necessary to make certain repairs in parts of the building which were becoming dangerous, and in the following year a rather bitter controversy over the disposal of sewage led to an appropriation of $5500 for the purchase and preparation of a sewage field of four and one-half acres. Again, in 1883-4, fire escapes and a night watchman were required.

The Campus.—During these later years a new project loomed in sight. In 1881 a piece of land containing six acres, across the street from the School, came upon the market under a mortgagee's sale. It was offered in small lots and was about to be taken for the erection of a number of small buildings. The principal, seeing the emergency, personally bought the land, excavated a pond to drain the land, and laid out the grounds for a campus. He also built an ice house near the pond in order to procure an inexpensive supply of ice for the Boarding Hall. He said: “I assumed the responsibility of securing the land and laying it out, because of the need of such a playground for sports and for the military drill then in use,
in hope that when the favorable time came it might be the permanent possession of the School." In 1886 he offered to sell the land to the State for $4000, which was considerably less than the land had cost him, as he did not feel that he could continue to carry the annual expense of the land. This generous offer was accepted, and the campus was named Boyden Park.

In 1887 a beautiful chestnut grove (one-half acre) adjoining the Park was presented to the School by two alumni, Dr. Lewis G. Lowe and Samuel P. Gates, both residents of the town. This grove was a pleasant resort in the warm months, and for a number of years was used as the arena for class-day exercises.

New Buildings.—Further attempts to put the plant in good condition were made in 1888 by an appropriation of $2000 for new steam boilers for heating both the school building and the dormitory. Still the pressure continued, the limit of capacity had been reached and passed, classrooms were overcrowded; every available place for case, cabinet and closet was full; there was no suitable provision for the growing library—books were scattered inconveniently in different rooms. Proper ventilation was impossible; constant readjustment of classes was required. The issue must be met, as the School was growing rapidly.

Again the Board requested an enlargement of the wooden building to accommodate a maximum of 250 students. Beyond that number, in their opinion, the School ought not to be allowed to grow, since to exceed that number would mean a considerable increase in the teaching force, or a marked diminution in the attention given to individual pupils. It was believed that for a moderate sum additions and reconstructions could be made to the old buildings. Plans were accordingly made; but when the Education Committee of the Legislature visited the plant it was unanimously decided that it would be very unwise to patch up such a building, and they recommended a new modern brick building. Thomas W. Bicknell, Editor of the Journal of Education, and chairman of the Committee on Education, was a most vigorous advocate of the new structure,
and an appropriation of $150,000 was made. This closed the building program for this period, for when the new building was ready a new period began.

It is evident that a continuous building program from 1860-1890 was one of the great achievements of Principal A. G. Boyden. Once he was asked by the legislative committee if this would not be the last of his requests for money and the work be completed. He replied that as long as the School continued to grow he should ask for adequate support.
CHAPTER VIII

FIFTY YEARS OF NORMAL SCHOOLS

This was a very significant period, with far-reaching educational results. It was a history unique in many respects, with unusual difficulties and marked achievements. An internal study of these institutions is necessary to understand the real development. Bridgewater was a distinct type with a long list of followers. Only as we see it in perspective does its real place appear.

An Institution with a Handicap.—The normal school had no traditional history for its background. There were two hundred years of educational history before the institution appeared on the horizon; common school, Latin school, academy, high school, and college were the recognized agencies for education. The normal school was not attached to the academy nor to the college as a professional school; it was an importation from the monarchial governments of France and Germany, with a peculiar mission for the common schools; it stood alone educationally. Even its name was foreign, and it had none of the higher functions which such schools possessed in Europe, for only the elementary portion of the institution was imported. It was born amid opposition and indifference, cherished by the very meagre support of reluctant legislatures; the project was disturbed, even threatened, by the irritation of religious intolerance, and by the contempt of many teachers and school committees. It was frankly an experiment carried on with serious misgivings or expected failure, and even to the present time it has occupied an anomalous position, between the high school and the college. As a state institution it was not expected that support would come from generous bequests and endowments; it had to hold its own by sheer force of its achievements. Its buildings and equipment, its faculties and their salaries, were at the mercy of economical legislators often willing to use only the interest of a very limited state school fund. The institution was often grouped with other state institutions having a philanthropic or disciplinary purpose.
In 1840 there was no philosophy of education, no system of pedagogy, and very few textbooks that by any stretch of the imagination could be called modern. American educational literature was in its infancy, and only a few people had heard anything of Pestalozzi and his methods. History and literature had made very slight progress in the schools. The great leaders of science and geography had to be brought from Europe to begin the modern teaching of these subjects. The district system in all its weakness was dominant in the country. Teaching was only an art following tradition; there was no glimmer even of a science of teaching.

“The Normal Schools of Massachusetts in their youth were not popular institutions. Carter, Brooks, and Horace Mann believed in them from the first; but there were not a few who believed that theory is fatal to good practice, and that tradition and experience are the only safe guides for the instructors of youth to follow.”

In 1840 the legislative Committee on Education made a report against the Board of Education and the Normal Schools, and in favor of repealing all acts establishing them. The bill was defeated in the House by a vote of 245 to 182 after the most strenuous efforts of the friends of education.

In the early history of the Schools it was difficult for the graduates to find a chance to teach. They were looked upon with some suspicion. The Schools gradually made themselves known and felt in the community through their graduates, some of whom signally failed, but a large majority satisfied all reasonable expectations.

At the close of the first half century of development the demand greatly exceeded the supply; of the 8,753 teachers in the State, 3,373 had received a professional training. This large number of educated teachers not only introduced improved methods of teaching in their own schools, but by their example modified the methods of all other schools with which they were associated. Nearly 98 per cent of the Bridgewater graduates of the period from 1865-90 had engaged in teaching, four fifths of them in Massachusetts. Some of the early grad-

*Fifty-third Report, Board of Education.
uates had taught more than forty years; many had taught more than twenty years, and a much larger number more than ten years.

They were engaged in all grades of educational work,—as state superintendents, agents of the State Board of Education, superintendents of public schools, principals and assistants in normal, high, grammar, and primary schools, and in some of the most prominent academies and private schools. Eighteen had become principals and sixty-two others assistants in normal schools. In Boston, the superintendent, two of the supervisors, fourteen of the masters, and nine of the submasters of the grammar schools, and a large number of assistants through all the grades, were graduates of Bridgewater. Some had become prominent as lawyers, physicians, clergymen, and business men, after a short period of teaching. Many of the women as wives and mothers held prominent positions and exerted a strong educational influence in their communities. Graduates were found in nearly every state in the Union, and in England, France, India, Burmah, and Japan. Their influence was felt around the globe.

The State Teachers Institutes held by the Board were a valuable adjunct to Normal-School work. They magnified the importance of popular education, and strengthened the Schools in public esteem. They encouraged the teachers to attend the Normal Schools, and the school authorities to employ trained teachers. In the early institutes some of the most distinguished educators of the time taught, and these men also delivered lectures in the Normal Schools. They were such men as Louis Agassiz, the great naturalist; Professor Arnold Guyot, the most noted geographer of his time; Professor William Russell, the renowned teacher of elocution; Dr. Lowell Mason, the pioneer teacher of music in the public schools; Professor Samuel S. Greene, the grammarian; and Warren Colburn, the mathematician.

In the later years the teachers in the Normal Schools were called to be instructors in the different school subjects. This work became an expansion of Normal-School teaching into the field. The subjects taught were: first, the principles
of teaching and the methods founded on them; second, the
application of these methods in teaching the various branches.
This included sets of topics to be used and the means of illus­
trating them. The members of the Bridgewater faculty who
were most frequently called upon were Principal A. G. Boyden,

A Notable Faculty.—In order to develop the psychologi­
cal basis for teaching in all the departments of the School, it
soon became clear that a faculty trained in Normal Schools
was essential to give unity to the work. A few of these per­
sons are worthy of particular note.

*Eliza B. Woodward* was one of the assistants appointed
by Mr. Conant (1857), who continued to spend her life for
the School. For thirty successive years she had taught the
classes, prominently at first in reading, but for the last twelve
years of her teaching she was the teacher of drawing, carrying
out with marked success the new work outlined by Professor
Walter Smith. Failing health compelled her to resign her posi­
tion in 1887, and she died in Harrisburg, Pennsylvania, that
same year. In her long connection with the School she won
the love and honor of all who were associated with her or came
under her care, impressing them with a sense of her genial
sympathy, her thoughtfulness, her ready encouragement, her
faithfulness in teaching, her fidelity to the School, and her
fine loyalty to truth. Hundreds of teachers held her in loving
remembrance. One of the large dormitories was named in her
honor.

*James H. Schneider.* A graduate of Yale in 1860, he was
called at once by the new principal to be a first assistant in the
School. He was the son of Dr. Schneider, Missionary in Ain­
tab, Turkey. He was greatly beloved by his fellow teachers
and by the pupils. After serving three years he was drafted
into the service, serving as Chaplain, and died of yellow fever
in 1864. "His ardent and increasing love for his work, with
his habits of thorough and exact study, and his aptness to
 teach, made his services exceedingly valuable."

*George H. Martin* of Lynn ('63) taught in Peabody and
became a member of the faculty in 1864, where he remained for
eighteen years. Here he wrote his books, *Civil Government* and *Manual of the English Language*. His clear thought, his apt illustrations, and his masterly command of English gave him great power with his pupils. During his residence in Bridgewater he was trustee of the Public Library, a member of the School Committee, deacon of the Central Square Church for twenty years, and superintendent of the Sunday School for nine years. In 1879 Amherst College conferred on him the honorary degree of A.M. In 1883 he was appointed an agent of the Board of Education. In 1892 he was elected a member of the Boston Board of Supervisors. In 1905 he was appointed Secretary of the State Board of Education; the same year Tufts College conferred on him the degree of LL.D.

"He came to this office with equipment second to that of no man among his predecessors, in his strong grasp of the principles of education, in his knowledge of the system of public education in the State, and in his acquaintance with the actual condition of the public schools." He was one of the earliest advocates of industrial education and medical inspection in the schools. His book, *The Evolution of the Massachusetts School System*, is a classic and authority on the subject.

*Albert E. Winship* ('64) principal of grammar school in Newton three years. He was a teacher (1868-71) of mathematics and science, Pastor of Prospect Hill Church, Somerville, Editor of *Journal of Education* (1886), and lecturer-at-large in the United States on educational topics. "Dr. Winship has been an incessant traveler, a constant lecturer, a facile writer, an everlasting friend to every good cause, and a quick helper to every one in need."

From 1869 he has been a constant attendant at the meetings of the National Education Association, and has been acquainted with all the educational leaders of the country. He knows American education from the Atlantic to the Pacific as no other man can know it.

During this period another group of teachers, well known and respected by their students, began work on advanced lines in the different departments.

*May H. Leonard* ('67) (1868-84) organized the new
courses in language and grammar on the basis of objective study of the sentence; later she went to South Carolina as one of the earliest teachers in the State Normal School at Rock Hill.

Franz H. Kirmayer (1870-1919), a graduate of Munich University, emigrated to this country and served in the Civil War, and later was Vice Consul of the United States at Munich. In 1870 he was invited by Secretary Dickinson to become the teacher of languages in the new four-year course that was being organized. In this capacity he served till the time of his death. “To his wide and profound linguistic acquirements many learned scholars have given endorsement, and to his steadfast devotion to the interests of his pupils and of the School, the esteem and affection of hundreds of teachers who have been his pupils give abundant testimony.”

Barrett B. Russell ('69), (1871-9) was the teacher of arithmetic and chemistry. He was elected as principal of the Oliver Grammar School in Lawrence, and later served as superintendent of the Brockton schools (1855-1907). He was active in introducing new lines of work during this whole period—music, nature study, high-school laboratories, kindergarten, sewing, manual training, shorthand and typewriting.

Isabell S. Horne (1875-1906). She was a graduate of the School of Oratory, Boston University, under Professor Lewis B. Monroe, the leader in the new lines of reading and vocal culture. “In her gracious personality, her skillful stimulation of the appreciation of noble literary ideals, her cordial interest in the promotion of all social, dramatic, and generally uplifting enterprises undertaken by the members of the school, the service she rendered is deserving of the highest praise.”

Arthur C. Boyden ('71) graduated with honors from Amherst College in 1876, then taught mathematics in Chauncy Hall School, Boston, for three years. He began at once to develop the newer methods in mathematics, science, and later in history teaching.

Clara C. Prince ('74) (1879-1916) retired from active teaching in 1916, after thirty-seven years of devoted service as a successful teacher of mathematics and music. “Her
teaching was exact and forceful, and her loyalty to the best traditions of the School was unremitting. Her labors were abundant and fruitful."

William D. Jackson ('80) (1883-1926). After graduation he taught in the Royal Normal Institute for the Blind in London, England. His subjects in this school were mathematics and physics, and in the earlier years advanced English literature. It was frequently said of him that he was at home with any subject. His teaching was exact and clear, and never failed to make a strong impression on his students. He set a very high standard of scholarship in his department.

Frank F. Murdock ('79) (1884-1896). After experience as principal of city grammar schools, he was invited to take up the work in geography at Bridgewater. He developed modern courses in this subject based on the new lines of physical geography coming into prominence through the work of Professor Davis of Harvard. These courses were soundly scientific and practical for school use. Upon his acceptance of the position of principal of the new North Adams Normal School in 1896, he began the work of organizing and building an institution which was a great credit to the State. At the dedication of the new building in 1897, Principal A. G. Boyden said, "He comes in the full vigor of his manhood to give himself to the planting of an institution for the training of teachers on this hilltop, which shall be a light that cannot be hid, and which shall be a blessing to the children of this section of the State. I know that all which energy, ability, fidelity, and enthusiasm can do for this purpose, he will accomplish."

Fannie A. Comstock ('77) (1888-1913). After a successful experience as teacher in Castine, Maine, Normal School, she was invited to the position of teacher of literature at Bridgewater. "Her instinct of appreciation for the fine points of character and action, her spirit of refinement in all her teaching, and her loyalty to the best interests of the School, gave her an honored place on the faculty."
CHAPTER IX

THE MODERN NORMAL SCHOOL

(1890-1909)

New Influences at Work.—These years formed an active period in educational movements throughout the country. In the first place, the new scientific developments due to the general use of the laboratory method, the study of nature at first hand, and the revolutionized geography were exerting a profound influence on the teaching profession.

Also, the influence of Herbart and Froebel was being felt in revised courses of study and in the new impetus given to the study of literature and history. The psychology of self-activity and social expression was emphasizing individual development, motor expression, and social coöperation. DeGarmo's Essentials of Method (1889) and the McMurry publications on methods (1892-7) were having the effect of developing a better organization of the technique of classroom instruction. As a result, the National Herbart Society was founded in 1892 for the study of educational problems.

Differentiated courses of study and of classes were being worked out as a part of the reorganization of the whole school system of the country. Two important reports were influencing the movement—the report of the "Committee of Ten" (1891-3) on the enrichment of the secondary-school curriculum, and the report of the "Committee of Fifteen" (1892-5) on elementary subjects. All of these movements affected the Normal Schools. As a result new courses were worked out, and thus the ideas spread into the school system.

The New Opportunity.—The Normal School in the earlier periods had suffered from an inadequate teaching force, a low standard of admission, and unsatisfactory buildings and equipment. An enlightened public sentiment, an increased demand for skilled teaching, and new modern buildings were now giving the Normal Schools a fair chance for successful work. It is interesting to note that the number of Normal graduates
teaching at this time in the public schools of the State was one third of the whole number required.

An appropriation of $150,000 was made for the new school building, which also provided rooms for the new Training School. Seven classrooms were provided for this school, which was composed of eight grades numbering 175 pupils. The enlargement of this building in 1894 at an expense of $75,000 gave the opportunity for the modern Normal School, with abundant classrooms, laboratories, offices, and an assembly hall for 250 students; a library, gymnasium, manual training shops, lunch room, and playrooms for the children. The practice facilities were brought up to date with a school of eight grades and a kindergarten, and new courses were organized in methods, child study, and practice.

The new dormitory named "Tillinghast Hall" (1896) ($59,000) and the laundry building completed the boarding accommodations for the 250 students, which was at that time deemed an entirely adequate enrollment. South Field also was acquired and graded for athletic sports for children and for the Normal students. Thus at the close of the century the small institution of 1840-6, with its one and one-quarter acres and single building had grown to a sixteen-acre plant—three acres on which the buildings stood, six and one-half acres in a campus (Boyden Park), two acres in an athletic field, and four and one-half acres in the sewage farm.

The faculty had grown from a principal and one assistant, and a Model School principal, to fourteen members in the Normal School department, and ten teachers in the Training School. Up to 1859 less than $30,000 had been spent by the State for the creation and furnishing of the school buildings. At the close of the century the value of buildings and grounds was $1,000,000. This was a proof of the growth of public sentiment from indifference and opposition to positive and enthusiastic endorsement.

A Modern Normal School.—At the opening of the twentieth century the condition was well described in the Report of the Committee of Fifteen.

Professional training comprises two parts: (a) the science of teaching and (b) the art of teaching. In the science of teaching are included:
(1) psychology as a basis for principles and methods; (2) methodology as a guide to instruction; (3) school economy, which adjusts the conditions of work; and (4) history of education, which gives breadth of view. The art of teaching is best gained: (1) by the observation of good teaching; and (2) by practice teaching under criticism.

It was believed at that time that there should be distinct schools of observation and schools of practice, separate in purpose and in organization, a condition not yet realized in most normal schools. Economy still delays the formation of distinct demonstration schools in the Massachusetts Normal Schools, and this phase of the work has to be carried on by the adoption of various expedients.

A New Epoch in Teacher Training.—The best available description of this new period was stated in an address given by Dr. William T. Harris, United States Commissioner of Education in 1899, on The Future of the Normal School. His remarks are summarized as follows:

1. The study of educational methods in the normal schools is producing skilled teachers who were inspired with a professional zeal.
2. The wide-spread movement known as “child study” is devoting itself to learning the natural history of infancy, childhood, and youth. It is trying to discover the laws of development.
3. The invention of devices of instruction is making the child more self active in the process of learning and not so dependent on the teacher’s power of illustration.
4. The movements of colleges and universities to establish professorships in Education has the distinct object of improving secondary and higher education.
5. The philosophy of teaching is working out the three stages of method: first, the kindergarten which imparts the symbolic stage of the mind, in which imitation is the important process, and play-acting the general characteristics of the school; second, the conventional stage in which the child tries to master the signs used by civilization, also the practical techniques of life, and in this stage the child’s experience furnishes the illustrations which he verifies for himself; third, the secondary
school stage in which the pupil studies facts in great groups, systematically arranged, which we call science.

(6) The first great work of the Normal student is a new study of the lower branches which he is to teach in the light of the higher branches from which they derive their principles; this is called the method of construction. The higher the standard of admission the better will be the preparation for this reflective habit of mind which is ready for critical investigation and can penetrate the plan of construction of the textbooks which he is to use.

(7) The discussion of all educational questions must be made in the light of the history of civilization.

This accepted philosophy was the product of the fifty years' progress, and was to be the guide to the new movements which developed so rapidly in the next twenty years.

_The Five Essentials._—In the pamphlet on the Massachusetts Normal Schools prepared in 1900 by Albert G. Boyden, for the Paris Exposition the five essentials in the training of student teachers were stated in the following forms:

(1) It is essential that the student teacher should breathe the ozone of teaching which permeates the atmosphere of the Normal School.

(2) The student must be led through the educational study of the subjects in the public-school curriculum—in order that he may know the essential facts and principles of the subject in their logical sequence; that he may know why the subject is to be used in teaching; and that he may know how to use the subject in the teaching process.

(3) The student teacher must make a careful study of human nature, to find the powers that are active in men, the conditions of their activity and the product of their operation.

(4) The student should make a practical study of the child in the different stages of his development.

(5) The student should have ample observation of the workings of all the grades in a good public school, and sufficient practice under supervision to place him on his feet as a teacher.

**Advance Movements**

The modern spirit was contagious and Normal Schools were coming into their own. At this time (1892) more than half the schools were led by untrained teachers. "Excellent in character, noble in purpose, commendable in effort, they yet lacked
just that adaptation which the Normal School and other helps can give them. The State cannot afford to relax its efforts till every schoolroom shall be under the guidance of a teacher possessed of both knowledge and skill.” This sounds very much like Horace Mann’s slogan—“a trained teacher in every school.”

This attitude of the Board resulted in higher admission requirements, higher salaries for the teachers, more rigid tests for graduation, and more concert of action between the Schools. Drawing was placed on the required list of entrance examinations in 1893 and in 1894 a high-school graduation was required of every student, and only one class a year was admitted.

The new aim of the Schools was concisely stated—“The aim will be to teach the history, the philosophy, the science, and the art of teaching as applied to every subject discussed, and not primarily to teach the subject matter itself.” Here is seen another definite movement toward the professional aim of the Normal Schools. At this time courses were opened to college graduates and others of advanced training in the method of teaching special subjects as classics, modern languages, science, etc., in the secondary schools. This movement was coincident with the fact that some of the colleges were beginning to offer courses in psychology and education. All this was tending to raise the level of the teaching profession.

(1) Better Candidates.—The establishment of four new Normal Schools by the Legislature of 1894, was evidence in the most tangible form of the desire for more trained teachers in the State. It was directed by the Board that beginning in 1896, uniform examinations be held for the Normal Schools, and that the dates of their examination shall be uniform. This was one step nearer a State standard for all the Schools.

Careful standards of entrance were outlined by the Board, which were to include: (1) Written examinations to determine the scholarship—the questions were so framed as to invite comprehensive and connected study in the high school; (2) an oral interview to gain an idea of the candidate’s personality—physique, presence, health, temper, tact, patience, and moral spirit; (3) the candidate’s record as determined by such testimonials as were available.
The type of written examination was carefully selected. There were five groups of subjects, which were high-school staples, and which appeared in this report of the Committee of Ten. These five papers were to be taken at five sittings, requiring eight hours and extending over two days. The candidate was offered a choice among the questions so as to secure themes with which he was familiar, and in such form as to favor continuity of treatment. 4 Probably at this time this was the highest standard of entrance for Normal Schools required in this country, and lifted the quality of professional work up to a higher level.

(2) The Nature-Study Movement.—This was an outgrowth of the elementary-science courses in the upper grades first organized by Superintendent W. T. Harris of St. Louis (1871). It was based on the first-hand observation of the common plants and animals, and was correlated with the new home geography courses.

The beginning of this movement in Massachusetts was made by the Plymouth County Teachers' Association in 1890, under the inspiration of the teachers and graduates of this School. A simple outline of nature observation was prepared and sent to the schools, with the request that a report be made to the convention at the fall meeting. 5 Reports were received from most of the towns, showing a real interest in this kind of work. The graduates of the School who had received instruction in this subject, while they were students, responded with enthusiasm. The next year a more ambitious outline was presented and a questionnaire was sent out. Reports came back that were very encouraging—nineteen out of twenty-seven towns had adopted the work. The study of trees, common plants, animals, and minerals were included in the scheme. In one town supplementary reading books in natural history were adopted; in another the drawing was based on plant forms; in another form a systematic study of plants and animals was made the foundation of language lessons. As a result

4 For sets of questions see Sixtieth Report of the Board.

of these experiments a more extended course was worked out for general use in the schools.  

In 1892 Mr. A. C. Boyden gave a series of nature lessons to the teachers of the City of Brockton, whose superintendent was B. B. Russell (1869), a former teacher of science in this School. Mr. Boyden also inspected the work in the different schools from week to week. At the close of the year an exhibit of the work was given, including large collections of natural objects, drawings, and written descriptions of the objects studied.

During this year an organization known as the "Educational Workers of New England" was formed to promote education through self-activity in observation, thought, and expression. One of the important committees of which Henry L. Clapp (1861) was chairman held an exhibition of the result of nature study in the State at the English High School Drill Hall in Boston. The largest exhibition was from the Bridgewater Normal School. Fifteen cities and towns of the State were represented.

Henry L. Clapp, master of the George Putnam School in Roxbury, was the first to establish a school garden for purposes of instruction. In this, much was made of the common wild flowers which were transplanted into the school garden, and later used as the basis of the language lessons.

Supervisors of nature study were appointed in some of the larger places and the graduates of the School were selected for these positions; teachers were in demand who could conduct this work in the schools. The first book on this subject published in the State was Nature Study by Months by A. C. Boyden. The articles which formed this book were first published in serial form in the Journal of Education. The editor, A. E. Winship, was a strong advocate of this work.

During the years 1891-3 the National Committee of Ten, under the chairmanship of President Charles W. Eliot of Harvard, was at work on the enrichment of the curriculum of the secondary schools. Mr. A. C. Boyden was a member of the sub-committee on the teaching of natural history and biology

*Fifty-fourth Report, p. 147.
in the schools. The report of this committee had a far-reaching influence in improving the education given in the high schools of the country.

It can be added at this point that the School received the medal of the first grade from the World's Columbia Exposition in Chicago (1892), for its exhibit of work along these new progressive lines. A pamphlet prepared by A. C. Boyden recorded the movement in the State to establish this subject in the schools.

The course of study at this time definitely included the full range of science studies:

1. Elementary course—elementary physics and chemistry, geography, physiology, study of minerals, plants, and animals;
2. Advanced course—chemistry, physics, astronomy, physical geography, geology, mineralogy, botany, zoology, physiology.

A course for elementary schools was worked out and published in the Report of the Board for 1892, from the first to the ninth grades, with careful suggestions for carrying out the work. This course was based on the work at Bridgewater. The nature studies were based on the importance of cultivating the observing powers of the children. This was done by the definite study of natural objects, such as minerals, plants, and animals. These objects were at hand and were presented in concrete forms which were easily grouped. Thus the children were initiated into the rudiments of scientific study and their minds were enriched with clear ideas.

School Gardens.—The natural expansion of the nature studies in the elementary school and science study in the upper grades was in the development of school and home gardens. Window gardening also was developing in the schools of Boston and the Park Department encouraged this by means of surplus plants which were delivered to the schools. The Agricultural College was offering assistance in the expansion out into agricultural lines.

In 1905 there were reported 210 school gardens in 50 cities and towns in Massachusetts. In the primary grades nature study was developing observant children who were becoming sensitive to the seasonal changes going on around them,
and were enjoying the primitive philosophy of nature as personified in mythical literature. In the grammar grades it was becoming the apperceptive basis for other subjects in drawing, geography, and literature, and it was laying a foundation for the scientific studies of the high school.

There were many by-products of this movement—publications dealing with bird life; Cornell University leaflets interesting children in rural problems; Dr. Hodge's leaflets on the useful value of nature study;\(^7\) Primer of Forestry by the United States Department of Agriculture; and many other publications bearing on human interests. The school gardens furnished a healthful form of manual training, and dealing with life processes excited the interest of children.

**Teachers' School of Science.**—This association was an outcome of the new science movement. Its object was the awakening of scientific interest in the teachers of the preparatory and grade schools, and the introduction of more perfect methods of teaching science in all schools. In 1901 the organization of all those who had studied with Professor Alpheus Hyatt, Professor George H. Barton, and others, was formed with Arthur C. Boyden as president, A. Lawrence Lowell, vice president, Frederick W. Swan ('94) secretary and treasury, and Seth Sears ('91) auditor.

This School of Science was supported by the Lowell Fund, which also financed the Lowell Institute Lectures in Boston. Teachers from eastern Massachusetts attended the weekly lectures in botany, zoology, and geology held at the Natural History rooms in Boston. During the fall and spring out-of-door lessons each week were held at interesting centers of study. This whole movement for years had been a great incentive to real science study. Summer trips were made to Nova Scotia and other localities for geological study, and many valuable specimens for the School cabinets were gathered.

**Home Gardens.**—The next step in the nature-study movement came under the direction of village-improvement associations which sponsored the home-garden scheme. Seeds were distributed to the school children, sub-committees were appointed

\(^7\) Especially Dr. C. F. Hodge, *Nature Study and Life*, (1902).
who visited the different schools and gave directions for planting the seeds. During the summer these committees visited the gardens, and in the fall prizes were given for the best gardens. Also exhibits were held in climbing flowers and vegetables.

Mr. A. C. Boyden was the first president of the Association in Bridgewater and head of the garden movement. He also visited many towns explaining and encouraging similar associations. Henry T. Bailey, agent of the Board, lectured on *The Village Beautiful*, as a part of this plan to improve the towns by means of real nature study. This step was followed by the formation of a Massachusetts Civic League with a Village Improvement Section, and Mr. A. C. Boyden was president of the Town and Village Betterment Association. This work then expanded into bird study, with prizes for the best bird colony and the best written paper on bird observation. The next step was the establishment of home industrial work for the children with an exhibit and prizes for excellency for both boys and girls.

*St. Louis Exposition, 1904.*—The work of preparing a nature-study exhibit for the St. Louis Exposition in 1904 was assigned to Arthur C. Boyden of the Bridgewater School. The work was followed through every grade from kindergarten up, showing the work of the children, under the direction of the student-teachers. The exhibit was accompanied by typewritten plans, written papers, drawings and paintings, and copies of blackboard illustrations used by the teachers.

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<th>GRADE</th>
<th>THE EXHIBITS</th>
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<tr>
<td>KINDERGARTEN</td>
<td>“First Steps in Nature”—drawings, paintings.</td>
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<td>I and II</td>
<td>Animal and vegetable sequence on life of the seasons—tables, drawings.</td>
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<td>III</td>
<td>Development of flowers and seeds in different stages—drawings.</td>
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<td>IV</td>
<td>Connection of nature study and geography, illustrated by varieties of soil, influence of climate—collections, drawings.</td>
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<td>V</td>
<td>Life history of animals such as frog and butterfly.</td>
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<td>VI</td>
<td>Trees, their growth and value.</td>
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<td>VII</td>
<td>The stars. Ferns, mosses, lichens.</td>
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<td>VIII</td>
<td>Local animal types—drawings, paintings. (This was noted as especially fine.)</td>
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<td>IX</td>
<td>The action of the forces of nature—streams, tides, air and water pressure.</td>
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The exhibit showed not only the study of nature but its connection with literature and art. Also there was a collection of mineral boxes used by the children in their work. In October, 1904, the School was awarded the gold medal for excellence of the exhibit. "The exhibit from the State Normal Model School at Bridgewater, is preëminently the fullest and richest and most carefully prepared nature work in the whole exhibit. It was arranged under the personal supervision of Mr. Arthur C. Boyden, who for twenty-five years has been an enthusiast in nature work and is today the leading exponent of nature study in Massachusetts." In 1906 this exhibit also received the gold medal from the Oregon Exposition.

Parting of the Ways.—In the first decade of the twentieth century this nature movement began to differentiate into two rather distinct lines. The first was the original non-bookish, personal, active, natural, outdoor nature study. This implied a teacher fond of nature, and competent to take children out into life itself. This was not a matter of set program, themes, and times.

The second line was the information type, and meant the assembling of materials by the bookmakers. When the subject was handled only in bookish indoor and memory ways, danger threatened the whole movement. Real nature study developed along the lines of school and home gardens, nature clubs, agricultural clubs, camp studies in the wild or by the seashore, camera clubs, nature collections by children, excursions and children’s museums. The book became only an incidental factor of suggestion and inspiration. In a short time the unreal nature study dropped out of many schools, due to the press of other book studies, the subject became an incidental one or disappeared altogether. This was the perfectly natural evolution of the new movement.

Natural Science Garden.—Bridgewater met this crisis by the establishment of a natural science garden of over two acres, the gift of Messrs. A. G. and A. C. Boyden in 1907. It became the natural expansion of the school-garden movement. The purpose of the garden was threefold: (1) It served as an outdoor laboratory for biological study and experimentation for
Normal students and the children; (2) it trained students in the different phases of school ground decorations and in the development of school gardens for the children such as would be practically beneficial in training them to make their home gardens of the most value, esthetically and economically. This addition was soon followed (1910) by the erection of an eighty-four foot greenhouse, the generous gift of Mrs. Elizabeth R. Stevens ('72). It became the year-round laboratory for all classes in biology and gardening. Under the skilled and experienced direction of Miss Florence I. Davis and Mr. Louis C. Stearns, courses were organized in practical botany and horticulture. A garden club among the students was formed that gave impetus to the planning and cultivating of home and school gardens.

This department planned all the flower beds and the groups of shrubs for the school grounds. The seedlings were started by the students in the greenhouse, developed in the nursery beds, and then distributed over the whole grounds. This really served as a course in landscape gardening. Many of the students took saplings home to beautify their own grounds.

Practical Biology.—In connection with the school garden and greenhouse it was possible to build up a course in the new line which was replacing the older botany and zoölogy, and which would include the newer nature study, school gardens, and elementary agriculture. Such a course under Miss Florence I. Davis and Mr. Louis C. Stearns included observations, experiments, and garden work along four lines.

(1) Movements of plants which secure sunlight; protection of pollen and pollination; seed distribution; mechanical support.

(2) Propagation of plants by cutting, graft, corn, bulb, rhizome, and seed.

(3) The fundamental principles of agriculture and plant-breeding.

(4) Insects, mollusks, and myriapods of the garden; their effect upon plants, and measures for their prevention and destruction.
Normal School Active in Teachers' Institutes.—Secretary John W. Dickinson of the Board of Education organized these institutes all over the State under the direct charge of the four agents, George A. Walton, George H. Martin, John T. Prince, and Henry T. Bailey. As all of these were Normal-School men, the influence of Normal methods of teaching was spread into practically every school of the State. Mr. Dickinson usually opened the teaching at the institutes with certain definite psychological principles, and was followed by the teachers who exemplified these principles in the different school subjects. The well-organized Normal-School courses had prepared the way for this expansion of professional work into the schools. The cooperation of the district superintendents of schools gave a widespread influence to this movement. Massachusetts never has had the equal of this thorough organization of its teaching forces; it was a marked period in the development of the new lines of teaching, because the work was in the hands of educational experts.

Bridgewater was freely called upon for institute teachers and included Arthur C. Boyden in the subjects of elementary science, nature study, and history; Frank F. Murdock in geography and physiology; Isabelle S. Horne in reading; Elizabeth H. Perry in drawing; and Emily C. Fisher in grammar. At these institutes the teachers met in general session for the lessons in the psychology of teaching, and then divided into three divisions, consisting of high school, grammar, and primary sections. There was also the beginning of separate high-school institutes at Salem in 1891.

In 1890 Mr. A. C. Boyden accompanied Secretary Dickinson and Agent G. H. Martin in giving similar instruction at the Chautauqua Summer School in New York.

In the winter of 1891 Secretary Dickinson and Mr. Boyden went on an official commission to the Island of Jamaica. They established institutes in various parts of the Island and met all the teachers, white and colored, under the auspices of the educational department. All phases of elementary education were treated. The educational officials were extremely appreciative of the work.
A new type of Institute was opened at Laurel Park, Northampton, in 1891. This continued for a week, and all the important subjects in the curriculum for elementary schools were taught at the different sessions. The teachers from the Normal Schools served as the instructors, and Bridgewater furnished teachers in history, drawing, and nature study, language and grammar. A similar summer institute was held at Salem for several years beginning in 1898.

(4) State Courses of Study.—Under Secretary Dickinson's expert knowledge of psychology and its adaptation to teaching, these courses were prepared for elementary and for secondary schools. Bridgewater was rendering a substantial service in conducting a series of experiments on graded courses of study for the primary and grammar schools. These courses it tested in its training school, and when perfected they were furnished on request to teachers and superintendents everywhere. A course of this sort in nature study, prepared by Mr. A. C. Boyden, and adapted to the fall, winter, and spring, was called for very widely. Mr. F. F. Murdock did a similar work in geography, and Miss Elizabeth Perry prepared courses in drawing for schools of all grades.

Gradually all the courses of the School were prepared and printed in pamphlet form for use of the student as well as for distribution. In 1909 a special teacher of Penmanship was appointed—Charles E. Doner, supervisor of penmanship in Beverly. The arrangement was made in connection with Lowell, Framingham, and Salem. From this time this subject took on a new importance both in the Normal and in the Training School.

Manual Arts.—The general movement which had begun in the previous period advanced along very definite lines. A new course in manual arts was established in 1909. It was divided into three sections:

(1) Industrial Arts.—Industrial materials; their production and manipulation; knowledge of the typical industries through actual instruction; knowledge of design (expressed by working drawings), constructive and decorative.

8The Course of Studies for Elementary Schools is given in full in the Fifty-eighth Report, 1894, p. 307.
THE MODERN NORMAL SCHOOL

(2) Pictorial Drawing.—Perspective effects; technique of the media; knowledge of pictorial design; working pictorial drawings.

(3) History of Art.—Study of historic handicrafts; study of the fine arts,—architecture, sculpture, painting.

(5) City Training Schools.—The new emphasis placed on the necessity of adequate preparation for teaching, coupled with the lack of sufficient practice with children in the Normal Schools, led to a movement which for several years became very active. Some of the larger cities established training schools for their high-school graduates, who received a one or two years’ course in methods of teaching the elementary subjects and in practice teaching. After some years of trial this plan revealed its weakness, as the time was too short for the satisfactory preparation of teachers, or the cost of the critic teachers in each room was too heavy. The next plan, best known as the Cambridge plan, required the two-year graduates of the Normal Schools to take one year of additional practice in this city school before they were eligible to permanent appointments.

In the eighteen city training schools (1896), many of them preferred graduates of Normal Schools who would take six months or a year in supervised practice, as they were unable to get sufficient candidates from their own cities in the Normal School, and this other plan was the only remedy at hand by which the cities could get a minimum of trained teachers. This naturally led to the withdrawal of students from Normal Schools. The Normal Schools by raising the standards of admission and by providing ample practice facilities, together with the new schools established, met the situation, so that slowly these city schools were given up, or for a time took only Normal graduates. Finally all of this type of school disappeared. The City of Boston had established (1852) the second city normal school in the country, which developed into the Teachers College of the City of Boston in 1924, under the able leadership of Wallace C. Boyden, class of 1880.

(6) The Modern Training School.—The Training or Model School in 1900 consisted of two kindergarten classes,
and nine grades, with a principal (Brenelle Hunt), a supervisor of training (Lillian A. Hicks), and a regular teacher in each room who had charge of the room and served as the critic teacher in her room. The purpose of this School was to exemplify the mode of conducting a good public school, and to train the Normal students in observing and teaching children. After observing for a time, the students served as assistants in the different subjects, and then were given charge of some parts of the work. As far as possible they were placed under the conditions of a regular teacher.

One of the great functions of the Training School was to study children as individuals. This was a study preliminary to the practice teaching. Children of different sorts were carefully noted—those who were leaders, those who prevented good work and good discipline, those who failed to do good work for themselves, those above and below the average. The habits of the children were studied in their relation to the class and to the teacher. The general physical condition was noted, the intellectual ability and the moral qualities. The careful discussion of these points with the supervisor prepared the students to deal more successfully with the teaching problem.

The new child-study movement, especially under the active studies of G. Stanley Hall, was affecting all the Normal Schools. Dr. Hall pointed out that the child is the teacher's problem, to be studied by the laboratory method. Hence the model kindergartens, where she may study her problem in some of its earlier phases. Hence the Model School where she may study its functions under expert teachers. Hence the practice work where she may try to solve her problem.

The modern normal school was finding that the subject matter was not the center of its activities, it was the child waiting to be taught. The laws of child growth must be known, the varying capacities of children's minds must be perceived, and the equipment and instruction must be adjusted to these varying capacities. The new Training School became the instrument for this new development. The addition of the ninth grade made it possible to meet the new movement which
meant the extension of the elementary curriculum into the upper grades so as to include the elements of science, algebra, geometry, and manual training. These subjects were taught in a practical and concrete manner, and closely related to the other studies. Here is seen the forerunner of the junior high school.

(7) Apprentice Teaching.—As the School grew in numbers up to three hundred in 1909, it became necessary to extend the practice facilities not only in the number of schools available but in the character of the work. The apprentice work was extended to rural and graded schools in Bridgewater and eight other towns. This was not a State policy but an individual plan of Bridgewater to meet its own problem. The “intensive” practice of the Campus Training School was supplemented by an “extensive” course in these schools in which students acted as assistants to the regular teachers under the supervision of the Normal teachers. The expenses of travel were met by the towns in consideration of the assistance rendered, and there were more applications than could be filled. In the next period this plan was widely expanded to a larger number of schools under a supervisor of training.

(8) The Modern Teaching of History.—In the early day the fact-history for patriotic purposes was dominant; much of this was contained in the great reading books and geographies of the day. After the Constitution was firmly fixed, the study of civics became a factor in the upper grades. While Mr. G. H. Martin was a member of the faculty, he published a book on civics entitled *The Civil Government of Massachusetts* which for many years was the standard text on this subject.

In the nineties there came a new meaning to the study of history due to two prominent reasons. The Herbartian influence was active in emphasizing the social side of history as a means of character development. This included not only American history, but all the interesting material from the whole range of history. The great classics were put in form for children’s reading, and for a time the “culture-epochs theory” was advocated as the basis of a history curriculum. The Com-
mittee of Ten (1892-3); The Committee of Seven of the American Historical Association (1899); and the New England History Teachers' Association (1899) were earnest advocates of the broader view of teaching history in all grades.

Probably the most potent influence was the lectures and textbooks of John Fiske. He was the first to give a philosophy of American history as based on a European background. He so enriched the forms of teaching history that it became attractive to children and young people. A large number of elementary books appeared to enrich the history on the biographical side, and much of the new history teaching was based on the characteristics of our great heroes in different fields. A new type of history book by Mary D. Sheldon of Wellesley College and Oswego Normal School was published, consisting of collections of historical materials—chronicles, laws, pictures of buildings, tables of great names, and interesting quotations. In the midst of this material were inserted questions and problems for the student to work out.

These books gave an impetus to the modern use of the research element in history, the going back in an elementary way to the actual sources and then drawing conclusions. It was a distinct forward step away from the old memoriter history which was usually regarded as a very dry subject. The Normal Schools were among the first to adopt this new plan of teaching.

History teaching at Bridgewater took on an interest equal to that which had characterized the nature-study movement. Courses were outlined in American history and in the general history taught in the four years' course. These courses were given at the Teachers' Institutes throughout the State, and in special courses of lectures in some of the cities. The cultural and citizenship values of history were emphasized. History was taught as a great movement toward certain direct ends. This is the dynamics of history. History has an appeal to all stages of child development:—the mythical and legendary stories appeal to the imagination of the child; the great achievements appeal to the youth; and the intimate study of cause

*Sheldon's American History, and General History.
and effect interest the older minds. This study of the great turning points of a nation's history make the organization of material natural and easy.

(9) **Modern Physical Education.**—The building of the gymnasium in 1905 was the culmination of a long period of efforts to work out an adequate program of physical education. In 1860 some simple gymnastic exercises originated by Dr. Dio Lewis of Boston were adopted by the School. These exercises were directed by the teachers in the main schoolroom. In 1891 the new building included a small gymnasium in the basement, and Swedish gymnastics were introduced with F. F. Murdock as instructor. In 1893 a lady teacher was employed to teach the women. In 1895 the South Field playground was purchased for baseball and football. An increase of 50 per cent in students made the small gymnasium entirely inadequate.

The new gymnasium building was furnished with all forms of modern equipment, except the swimming pool which was made an impossibility when the first appropriation was cut from $65,000 to $55,000. "Modern physical education seeks to promote health, maximum vigor, self mastery, grace of body and purity in physical living." This was the message of Dr. L. L. Doggett, President of the Y. M. C. A. Training School in Springfield, at the dedication exercises.

This new building also became the social center of the School activities.

(10) **Foreign Students.**—In the seventies a few students from abroad came to the School to prepare for normal-school work in their own countries. Among these were two men Burmah and one from Japan. All of these returned to carry on American ideas of teacher training. Shuje Isawa of Tokio, Japan, was the most noted; he became President of the Higher Normal School in Tokio, was a member of the aristocracy, and of great influence in educational circles.

In 1896 the governor of the State of Coahuila, Mexico, asked for the admission of five young men, graduates of the normal school in that State. They were accompanied by Professor Andres Osuna, one of the instructors in that normal
school, who also took a two years' course. The Governor's re-
quest was interesting: "We have observed with great interest
the rapid growth and prosperity of your country, and believe
this is due to the better public education of your people. We
desire to send these young men to you that they may be better
fitted to teach in our state. After examining many catalogues,
we have selected your School for this purpose." These young
men completed the course and returned to occupy influential
positions in the normal schools of Mexico. They assisted in
the great forward attempt of Mexico to educate her people
for the privileges of citizenship. Later other students came
and went back with the message of teacher training.

Mr. Armenag Chamichian, a teacher for a number of
years in Armenian schools came to Bridgewater in 1907 for a
course that would prepare him for teaching in the normal school
in his own country. After a successful course at Bridgewater,
he returned and became principal of a normal school. During
the War (1914-18) he was driven from his town by the in-
vading Turks and lost his life in trying to save his students
from the enemy.

Mr. Jesse S. Matossiari of Aintab, Syria, graduated from
the School in 1903, supplemented his four years' course at
Yale for his A.M. degree, and went to Aintab, Central Turkey
College, to assist in training teachers. He met his death in
the World War.
CHAPTER X

THE FORWARD LOOK BEGINS

Longer and Stronger Courses.—The thought of lengthening and strengthening the Normal-School courses began to take form in 1901 when the expediency of extending the two-year course to three years was presented to the principals for their opinion. On the question of a greater need in the way of scholarly and professional qualifications the opinion was unanimous. When the circumstances of the pupil and the danger of reducing the attendance were considered, there was a marked hesitation among the majority of the principals. It was thought better, on the whole, that extension should be gradual and voluntary rather than by positive and uniform requirement. Worcester and Fitchburg had extended courses in which a year of practice, sometimes with pay, really gave the students the advanced period of training. Bridgewater already had a four-year course as well as a three-year extension course. In 1901 she had 66 graduates from the two-year course, 11 from the three-year course, 13 from the four-year course, and 23 certificates from the special course of one year for teachers of experience. This School seemed to be meeting the demand as it arose.

The comparison of the preparation of teachers in America and in Europe was also a factor in turning the thought toward more thoroughness in our normal schools. At this time in Germany at the close of a three-year course the candidates had to pass written and oral examinations in the subjects which they were expecting to teach, and show evidence of ability to teach by giving teaching exercises. Before being placed on the permanent list, they were required to pass a second examination after two years' interval; this was of a practical nature, calling for evidence of proficiency in teaching. Candidates for the position of teacher in high schools had, after three years' study at the university, to pass the first examination, and two years later had to pass the second examination.

In France, a three-year course was required in the primary normal schools and in the secondary normal schools, with rigid
examination. For high schools a degree of A.B. was required and a severe professional examination. In England, teachers of the elementary schools were trained as pupil teachers for five years.

In 1902 it was suggested that the Board should have the means at its disposal for making a thorough examination of the Normal Schools. “Progress must be largely dependent upon knowledge of present conditions and of possible improvements.” It was suggested that at the end of the course there should be a special examination of all candidates for diplomas. “Scholarly habits and tastes, moral ideas and mental tendencies, should be as much insisted upon in such an examination as the mastery of certain specified subjects.” This suggestion was tried, each School was left to set its own standard of graduation.

Massachusetts System of Normal Schools.—At the close of this period the ten Schools were fully established. The Board of Education made the following summary of conditions:

The buildings used in Massachusetts for this work are, in construction, light, heat, ventilation, and equipment, in striking contrast of excellence to those found elsewhere; and the general idea and method of training pupil teachers is more direct and promising. Our Normal Schools need not fear comparison with the best which other States have to offer. In excellence of equipment, in instruction, in the mature grasp of the whole question, in the training offered to pupil teachers, it is a conservative judgment to say that Massachusetts leads.

The First Survey of the Massachusetts Normal Schools.—In 1904 Ellis Peterson was appointed as Special Agent to study the ten Normal Schools. Two important questions were to form the basis of this survey:

(1) Have the Normal Schools accomplished their object? During the 65 years 25,391 students have been enrolled; 13,184 have been graduated, 12,207 did not graduate, but pursued a partial course and had been prepared to do some good service to the State. “The great majority of the graduates have been of immense service to the State.” “The State Normal Schools must be pronounced effective agents for training teachers in the common schools.”
(2) In what respects can the Normal Schools be improved as to organization, administration, and efficiency?

(a) The imperfect preparation of the larger part of the candidates can be improved by bringing about a closer relation with the high schools. (Accomplished by the certificate system in 1910 onward.) If the Normal School is to prepare teachers for high schools, pedagogical instruction from a different point of view must be given, and a practice school containing high-school classes, conducted by competent high-school teachers, must be provided and specially organized. The Bridgewater School, with its four-year course, offers an opportunity for this expansion. If a modification of training were made, then the opportunity should be made for the four-year graduates to enter college or scientific school. In this connection it is interesting to note that for a number of years the work of the four-year course was recognized and accepted by the Lawrence Scientific School of Harvard University. In 1906 Harvard College opened full privileges, with credit according to the work done in the Normal School. A large proportion of the young men took advantage of this opportunity and received their degrees.

(b) It is necessary for every common branch and some high-school subjects to be studied anew for a scientific knowledge of each subject, with its principles and essential facts in their proper proportion and in their logical and psychological relations. Studies must be pursued in their relation to each other; for example, physics and geology in their relation to geography. A remedy for waste of time would be to require certain sciences to be studied before admission, and others after admission, to the Normal School. (Partially met by new entrance requirements in 1911.)

(c) A minimum three-year course is necessary in order to pursue higher subjects and to give adequate practice. (This requirement was met by optional three-year courses, and mandatory elementary courses in 1929-30.)

(d) The central study of Normal Schools is the study of children—their nature, tendencies, impulses, and instincts. (This was met by increased observation and practice in the
training schools, as well as by specific courses in applied psychology.)

(e) To get the best possible teachers it was recommended that every new teacher for a normal school or training school should be appointed on probation for one year, the same to be reported upon before confirmation by the Board. (Never put in practice—each teacher is appointed during the pleasure of the Board.)

(f) The length of practice teaching differed in the different Schools. One third of the senior year was regarded as the minimum. (Practically carried out later.)

(g) A supervisor of practice in the large Schools was regarded as important. (This was true then of some of the large Schools, and since then has gone into effect in practically all the Schools.)

(h) Some of the Normal teachers should go regularly into the practice schools, in order to become acquainted with the work, to confer with the teachers, and to conduct certain exercises. (This has to a certain degree been carried out in the schools, and is still being urged.)

(i) Courses of study approved by the majority of the principals and sanctioned by the Board should be the guide of the schools, not mandatory but advisory. Unity, not uniformity would be promoted and finally secured. (The standardization of the next period brought about this result.)

(j) The greatest pedagogical art of the future will be to train pupils to enjoy doing their work vigorously and thoroughly, whether it be easy or hard.

It is to be noted that this survey did not recommend any drastic changes, but a steady and quiet evolution of the best methods in normal training. Mr. Peterson died before details could be worked out by him.

Normal Schools in the Middle West.—Mr. Arthur C. Boyden, on his appointment to the principalship in 1906, was allowed by the Board a leave of absence to study the advance movement in other normal schools, particularly in the Middle West where the most active advances were being made. In his report he drew some conclusions applicable to Massachu-
setts Normal Schools, although the conditions are somewhat different from the East.

(1) A broadening of the course of study is needed, in order to give more opportunity for elective cultural work. (2) Courses should be arranged to allow more differentiation in the preparation of teachers. (3) Definite steps should be taken toward the preparation of teachers for secondary schools and of those who wish to enter the field of supervision. (4) Closer relations should be established between the Normal Schools and the colleges. This might be done by accepting college-entrance certificates in place of the scholastic examination, and by arranging strong professional courses for college graduates. (5) In some way the path to a pedagogical or college degree should be opened for Normal-School graduates. (6) Expansion of courses in manual arts, including domestic science and the elements of agriculture. School gardens should be further developed in each of the Schools. In order to maintain her historic leadership Massachusetts should enter on new lines of advanced professional training.

In May, 1907, the following votes were passed by the Board.

Candidates from high schools which are on the certificate list of the New England College Entrance Certificate Board may be admitted to any of the State Normal Schools without examination in any subject required for admission in which they have a standing of B, or 80 per cent, as certified by the principal of the high school.

Beginning in 1908, candidates from high schools not on the above list may be admitted on similar conditions, if the high schools are approved for the purpose by the Board of Education.

This forward movement was later developed into a certification plan of entrance to the Schools, somewhat similar to that used by certain colleges.

Dr. Martin's Administration.—In 1904, Dr. George H. Martin (1864) was elected Secretary of the Board of Education. His eighteen years' service as teacher in the School, ten years as Agent of the Board and twelve years as a member of the Boston Board of Supervisors, gave him an unequalled preparation for the important duties of his new office. At this time Albert E. Winship ('65) was a member of the Board.
John T. Prince ('65) and Grenville T. Fletcher ('65) were Agents of the Board.

The Board said of Mr. Martin: "He brings to this place a ripe experience, a willing spirit, and an energy capable of accomplishing many things. He has it in his power to broaden and extend the influence of his office." His book *The Evolution of the Massachusetts School System* had become a standard reference in the history of education of the State and country. He had a more thorough knowledge of the educational conditions of the State than any other man. His short term of office (1904-9) made it impossible for him to work out policies that would have made Normal-School progress very effective. In spite of this fact he laid foundations that were of great importance.

*Survey of Massachusetts Education.*—In Mr. Martin's first report (1904) he made a survey of State conditions with an unequalled interpretation of the State policy for the early days.

This was his general interpretation: Massachusetts has no State system of education. In this respect it is unique among the States. It has an educational policy. The responsibility for education is primarily in the hands of the parents, and secondarily in the local communities. Legislation has followed local initiative: the Board of Education is not an executive board, its duty is to furnish facts, theories, and arguments, as a basis of legislation. He pointed out the fact that there was a decided tendency to make the Board a court of appeal, and in favor of a larger exercise of direct authority and control. This was a prophecy of movements that became effective in the next period, and in spite of his beliefs made him an instrument as well as a victim of this tendency. He read the signs of the times and foresaw the centralized organization that was soon to come to the State.

*Professional Foundations.*—Following his survey he mapped out a program which was a development of the previous history toward professional standards. While this plan had its influence, the trend was away from this policy with the legislation which changed the policy of the Board and made the standardized and vocational purpose dominant.
The first objective was the improvement of the quality of the teaching force. "Five factors go to make up an efficient teacher—natural ability, scholarship, training, experience, and growth."

There are no standards of scholarship fixed by the State. Of the 14,741 teachers, more than half have attended a normal school, and 1500 have attended college. The number of trained teachers grows larger year by year, but the ratio grows slowly, and they are not evenly distributed throughout the State. Teachers who have outlived their usefulness cannot afford to retire. "Some practical and general provision for the retirement of teachers is one of the pressing needs of school legislation." (In 1914 the Teachers Retirement Association was formed, the beginnings of a pension system.)

There is not a sufficient supply of suitable teachers in spite of all the agencies working toward this end. Teaching has become a more serious business, because of the widening of the old fields of knowledge—geography has passed from a mere description of the earth's surface, to a science requiring a high degree of intellectual power, and ability to master inductive reasoning; reading now includes the whole range of American literature; history now includes the range of the great American historians, and stories from all history adapted to children's interests; natural science rests on the basis of the objective study of life and forces at work, it has expanded into elementary science, nature study, and the whole circle of sciences; music means more than singing by note, but also instruction in musical notation, training of voice and ear, and chorus directing; drawing now includes the history of art and the appreciation of the great masters and their works. Furthermore, as Horace Mann urged, the teacher should be independent of and superior to the textbook.

To meet these requirements several things are desirable:

(a) Higher wages must be paid to attract abler persons into the profession, so that teachers can spend a larger time in preparation.

(b) More college graduates must be attracted to the elementary grades by supplementing their four academic years with a year of Normal training.
(c) The minimum Normal-School course should be lengthened to three years, in order to secure a longer practice period, and a broader scholarship. (This was finally accomplished in 1929-30).

(d) Improvement of teachers in service; this can be done by means of the Normal Schools and by the direct professional work under the superintendents in groups of teachers. (State summer schools were already well organized, and State extension service began in 1915.)

(e) Professional training of high-school teachers. "My observation leads me to conclude that untrained teachers are much alike, whether they have been graduated from a college or a district school." Some colleges had established chairs of pedagogy, but no agencies were complete enough to serve the purpose of training teachers for the secondary schools. Dr. Martin believed that a special school was needed for this purpose. It would have three distinct lines of work—first, the philosophic study of general psychology and the special psychology of adolescence; second, pedagogical work in general method and a review of the studies of the secondary school with reference to their educational aim, value, and peculiar method; third, practice work in some good high school under normal conditions of teaching but under the supervision of skilled instructors. This plan would be for the sole purpose of preparing college graduates for work in high schools. (The State never worked out this plan.)

Professional Preparation of Superintendents.—The Legislature of 1904 provided that half the salary of superintendents in Union Districts should be paid by the State, and that their fitness should be determined by an examination conducted by the Board, and certificates issued. Also a course for superintendents at the Hyannis Summer School was to be conducted for a series of three or four years. Here was a definite forward movement toward professional education under the direct control of the State. At this time eighteen Bridgewater graduates were serving as superintendents of schools.

The New Viewpoint.—Mr. Martin's long experience and historic instinct led him to see the changes that were coming
in teaching. From the old viewpoint education consisted in imparting and acquiring a body of knowledge. This meant that children were alike and that courses of study should be alike, and instruction uniform. The modern movement was explained by him along three lines: (1) *The child as a viewpoint.* This meant the physical inspection of all school children, with the purpose of remedying the deficiencies. It meant recognizing the differences in mental capacities, with adaptation of courses to mental aptitudes. “Self realization” was the term that was becoming prominent. (2) *Environment as a viewpoint.* City life had brought about new and unsatisfactory conditions. Children must have opportunities for physical development on playgrounds and in gymnasiums. The participation in simple and varied forms of industrial activity is an essential part of a complete education. Household duties must come in for adequate treatment. This program is an interesting forecast of the junior high school movement. (3) *Vocation as a viewpoint.* The old theory was that general mental power could be turned into use in any specific calling. The solution for this new problem lies along several lines, first, the modification of elementary teaching so as to lay a foundation for vocational life, e.g., reading, language, drawing, arithmetic, geography, and some history. Second, high-school courses can be well differentiated—classical for college, business or commercial, mechanic arts, arts and crafts for girls, domestic science for girls, music and foreign languages, rural agriculture.

*Music in the Schools.*—This was the first subject to be investigated by Dr. Martin as Secretary. A careful survey, through a questionnaire, was made of the teaching of music in the high schools. As a result of these inquiries an institute of music supervisors was held in Boston in December 1904. The official recommendation was that music be made a more substantial subject in the high schools. The growth of music in the elementary schools had been of slow growth; it stood in the program as one of the miscellaneous studies. In the large cities there were supervisors who directed the chorus singing and to some extent the class work. This was notably true of the work of Lowell Mason and Hosea E. Holt in the Boston schools.
The Normal Schools had been distinctly in advance of the actual use of music in the elementary schools. Music took its place as one of the regular subjects. Courses for the grades were carefully outlined, individual singing was required, the directing of chorus singing was emphasized, and glee clubs were organized.

The agitation of this subject led to a new enthusiasm in music appreciation and later in specific elective courses in music in the high schools. There was an effort made to have a music supervisor for the State appointed, corresponding to the art director, but the movement never culminated. In the next period there came a great revival of musical interest in all the schools.

**Physiology and Hygiene.**—The statute of 1885 made these subjects obligatory in the schools and the Normal Schools added them to their instruction. The Secretary of the Board recommended that these subjects be broadened to include the hygiene of the home and public hygiene. An outline of topics for the seventh, eighth, and ninth grades was made out and became effective in the Normal-School courses. This was the first step toward definite medical inspection in the Schools. In 1905 a survey found that forty-six cities and towns had special playgrounds for children, many had athletic fields, and some indoor gymnasiums for boys and girls. It was just at this time that the new Bridgewater Gymnasium was built, and for the first time in Massachusetts a Normal School was really equipped for physical education.

In the survey it was found that fourteen cities and towns had already established a system of medical inspection. The law of 1906 provided for the appointment of school physicians to work in connection with school nurses. Various tests for sight and hearing were worked out. The efforts of Secretary Martin had established the system of medical inspection in the schools of the State, which later culminated in a state director for physical education (1922).

**Industrial Education.**—This subject had grown until in 1904 about 97 per cent of the children of the Commonwealth had the benefit of special teachers of drawing.
The Normal Schools had organized abundant preparation of the teachers in drawing and manual training. On December 30, 1904, an institute for supervisors of drawing was held at the Normal Art School. This movement began in 1870 when drawing was added to the required subjects. In 1872 cities and towns were authorized to establish industrial schools. In 1884 elementary instruction in hand tools was authorized. In 1895 manual training was required in high schools in cities of 20,000 inhabitants. In 1898 such instruction was extended to elementary schools of towns and cities with 20,000 inhabitants. In 1905 a careful survey of this work was made by Secretary Martin, and the beginnings made in a movement which was to have far-reaching results in the organization of the Board. In connection with the surveys there was one made of school gardens in Massachusetts. For fifteen years the Massachusetts Horticultural Society had a special committee on school gardens and native plants, and all that period Henry L. Clapp ('61) was chairman. Trade schools were springing up in certain local industrial centers.

The Commission on Technical and Industrial Education appointed in 1905 made a report the following year in which they recommended a new commission to have charge of a new type of independent industrial schools, while the existing schools should remain under the Board. This separate Commission was not regarded as a success and in 1909 the Legislature combined the two bodies under a reorganized Board of Education, with a Commissioner of Education and two deputy commissioners to deal with the two functions of the new board. Thus Mr. Martin was really legislated out of office and a new period in educational administration was inaugurated.

When he resigned, Mr. Martin had served the public-school system of the State for forty-eight years. This unique and varied experience gave him a more intimate acquaintance with the public-school system than was possessed by any one else then living. His lectures before the Lowell Institute in Boston led to his book on the Massachusetts school system, and in his course at the Old South Forum he gave the history of the Boston school system. As Secretary of the Board he
was a member of the famous Douglas Commission on Industrial Education (1905) and wrote the report for the Commission. He represented the Board at the International Congress of School Hygiene in London in 1907. In 1879 he received from Amherst the degree of A.M. and in 1905 from Tufts College the degree of Litt.D. A complimentary dinner was given him October 28, 1911, at the Boston City Club, sponsored by a very large list of distinguished educators. An unusual series of circumstances had contributed to the abrupt change in the educational policy of the State.

_School Organizations._—Mr. Martin continued his surveys by a study of the organizations in high schools including class organizations, musical organizations, sketch clubs, art clubs, camera clubs, science clubs, craft clubs, school papers, student government, military drill, athletics, and the like. He found a growing appreciation of modern social conditions recognized as a part of school education. This was a forerunner of the school organizations in the junior and senior high schools.

The Normal-School activities were a part of this movement. These supplementary educational influences became effective through various agencies. An organization of teachers and students known as the "Normal Club" arranged each year for a series of entertainments, thus bringing to the School prominent artists and speakers. Later this plan developed the dramatic and musical talent of the School, which organized its own clubs and each year presented some fine programs. Especially active in this line were Miss C. C. Prince who developed a permanent glee club of superior ability, and Miss Anna W. Brown of the reading department who developed a permanent dramatic club. The first Shakespearean play (As You Like It) was presented in June, 1908. From time to time an orchestra was formed by capable and enthusiastic students, but this did not take on a permanent form for some years.

For many years Principal A. G. Boyden was accustomed to give his "general exercises" before the whole School. These were highly appreciated by the students. The new form of exercises began in 1906 and brought the students forward to
conduct these exercises before the School. These exercises took the form of debates, selections by members of the faculty and by students, stereopticon talks, and musical selections. Students were appointed to report on important current events, in order to stimulate general reading. From time to time addresses were given by invited speakers and by the principal. This was the beginning of what was to be known as "extra-curricular" activities, which spread into very effective school and class organizations. The junior high school movement opened up this field to a marked extent.

Summary of the Period.—This short period of twenty years (1890-1909) was one of the most active in School development toward a fully organized professional school for teachers. The building equipment was of a modern type, including school buildings for normal and training purposes, gymnasium, dormitories, garden and greenhouse. Only a few of the older buildings were left to be replaced. Extension after extension had been made to meet the needs of the growing School which now had reached a total of 300 Normal students with 450 in the Training School. More than this, the rapid growth of the School was still calling for additions to the plant. Courses of study in the older subjects were reorganized on modern lines and the newer lines of nature study, manual training, and physical education had been added.

The influence of Normal-School teachers was now fully recognized, and colleges began to establish departments for preparation of high-school teachers; also there was an agitation for the advanced standing of Normal Schools. Foreign students were coming to these Schools for preparation for spreading the modern movements in their own countries.

During this period (1906) a transition in principals took place without any internal adjustment. Principal A. G. Boyden, after forty-six years of executive service (1860-1906) became principal emeritus, continuing his teaching of psychology, and Arthur C. Boyden assumed the duties of principal, continuing his teaching in the history department. In one day the change was made without a jar in the machinery of the institution. The first appointment by the new principal was
Miss Florence I. Davis, teacher of biology in the Fall River high school and a graduate of the class of 1880. This inaugurated the new department of modern biology which has previously been described.

With the abolition of the old Board of Education came the close of a long period of professional development in the Normal Schools under Visitors and practically independent principals. Under this policy the Schools had for seventy years made a national reputation for themselves under expert leadership that was left free to develop. A marked change in policy was pending.

An excellent picture of the inner life of the School has been given by a graduate of the Class of 1896; parts of this account are inserted at this point.

The students at the Bridgewater Normal School from 1890 to 1900 realize anew, as they look back, the value of the preparation they received for the events of world-wide and age-long importance which have marked the last twenty-five years as unique in human history. From the first day, when the kind but searching eyes of Principal Albert G. Boyden greeted us until we were sent out as representative of Bridgewater's high standards of living and teaching, we were under the influence of ideals which made for character and intellectual leadership.

The School was more like a home than an institution. Our angular natures gave way before the good-natured training of the large family. Friendships, lifelong and sacred, were formed. We learned to rejoice in one another's success. These were years of mind and soul awakening. We came to love learning for learning's sake. We found that if there were diversities of gifts, the right spirit was the one thing needful. What if some of us would never excel in music and drawing, we could at least strengthen our appreciation of these gifts by doing our best. Mr. Boyden's morning question hour shamed the lazy minds and stirred us all to be alert and observing.

For years we have tried to give expression to the impressions we received at Bridgewater. The longer we try, the more we marvel at the patience our teachers had with us and their faith in us. As raw material, some of us gave little promise. We chafed under the accuracy of thought and statement which our wise instructors insisted upon. However poor may be the superstructure we are building, the foundation they laid has stood the test of time. All honor to our teachers!

Our words of appreciation and expressions of gratitude will not differ widely. Students during all the years of Bridgewater's history acknowledge a debt they can never fully pay. More than many another student, however, I feel that I touched the real heart as well as the real mind of
Bridgewater. Months of serious illness during my last year as a student brought into my life such expressions of unselfish ministry and lofty ideals from faculty and students that the course of my whole life was changed. No word of mine, therefore, spoken or written, can adequately express my gratitude for the permanent, helpful influences of the Bridgewater Normal School.

The Growing Faculty.—During this period there were many important changes and additions to the teaching force of the School.

Mr. Frank F. Murdock was appointed principal of the Normal School established at North Adams in 1897. He had built up the geography work to a high point of efficiency, and he carried to his new position an unusual administrative and professional power which soon put that School into a position of leadership.

Mr. Charles P. Sinnott, a four-year graduate in 1881, also a graduate of Harvard University, was appointed to the department of geography and geology. He had been five years a principal of the normal department at Atlanta University and eight years in the State Normal School at Milwaukee, Wisconsin. He continued his efficient work in this line until his retirement in 1930. His careful and clear teaching won the respect and admiration of his students.

Mr. Harlan P. Shaw, a graduate of the four-year course in 1890, with graduate work at Harvard and Teachers' School of Science, took up the work in manual training and chemistry. He has remained a teacher in the School through all the years, developing the courses in chemistry, physiography, and general science up to a high level.

Mr. Frank E. Gurney, graduate of the four-year course in 1890, was appointed instructor in 1891 and remained until his sudden death in 1914. His genial qualities and readiness to be of help whenever his services were needed made him respected and liked by all his students.

The building of the gymnasium in the new school building made possible the beginning of a department of physical education. Miss Bessie L. Barnes was appointed as its head; she remained till the new gymnasium building was erected in
1905, when her health compelled her resignation. Miss Elizabeth H. Gordon took her place.

Miss Elizabeth H. Perry was appointed at the head of the new drawing and manual arts department in 1891. She developed this work to a high point, holding the position till 1910.

Miss Emily C. Fisher, four-year Class of 1887, was a beloved and respected teacher of English from 1889 to 1901.

When Mr. A. C. Boyden became principal, the natural-science work was taken up by Miss Florence I. Davis, Class of 1880, who organized the new course in biology and carried that work to a high degree of efficiency.

Miss Anna W. Brown, 1907-15, brought the new dramatic element into the English literature classes, organizing the Shakespearean plays, a movement from which the dramatic club developed.

The penmanship courses were established on a firm basis by the appointment of a specialist in this line who has seemed efficient from 1909 to the present time.

The Training School organized in the new building in 1891, led to the appointment of a line of teachers that molded the new practice work of the students. Miss Lillian A. Hicks, Class of 1875, was the principal from 1891-99, when she became supervisor of training 1899-1910. Mr. Brenelle Hunt, four-year Class of 1896, was principal from 1899-1919 when he was appointed as the head of the work in psychology in the Normal School. Miss Ann M. Wells built up a most effective kindergarten department from 1893 till her retirement in 1930. During the later years she was head of the kindergarten-primary department. She was assisted by Miss Frances Keyes, who served faithfully till her retirement in 1930.

Several of the early teachers in the Training School have remained to the present time—Miss Flora M. Stuart, Class of 1887, appointed in 1891; Miss Martha M. Burnell, Class of 1894, appointed to the eighth grade in 1895, and later as principal of the School; Miss Nellie Bennett, Class of 1888, appointed in 1896; Miss Jennie Bennett, Class of 1886, appointed in 1898.
A large number of the graduates of this period came to occupy prominent positions in the teaching profession. This was due largely to the growth of the four-year course, to the custom of supplementing this work by college courses leading to a degree, and also to the larger number of special students, college graduates, and experienced teachers, who came for the advanced professional courses. An interesting table emphasizes these points.

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<th>Position</th>
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<td>Normal-School Instructors</td>
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CHAPTER XI

THE PROFESSIONAL NORMAL SCHOOL

(1909-)

Steps in the Development of Teacher Training.—About 1909 there began a period of very rapid development in the whole field of teacher training throughout the country which resulted in the transition from normal schools to teachers colleges. This period marks the culmination of the teacher-training movement in the United States. The series of steps leading up to the recognition of teaching as a profession is interesting and illuminating. The first idea of teacher training was in the Monitorial Schools introduced from England into New York City in 1809. Here began the change from hearing individual children recite their lessons to the teacher to the grouping into classes of nine or ten children who were to be taught by monitors prepared beforehand in both subject matter and method of teaching.

The second step came through the academies that from the early days had been recognized as a source of teachers, but it was not till the nineteenth century that some specific preparation for teaching was given. In 1823 Rev. Samuel R. Hall opened a private academy in Concord, Vermont, for the training of teachers, and in 1829 published his Lectures on School Keeping which was the first book in English in this professional field. In 1831 some of the New York academies had put "Principles of Teaching" into their courses of study, and in 1834 State aid was granted to the academies that educated teachers according to the directions supplied by the State school authorities.

The third step came with the establishment of State Normal Schools in Massachusetts, followed somewhat slowly by the other States. These were for the preparation of teachers in the common schools, and usually had a one-year course in the subjects to be taught and in the best-known methods. The Pestalozzian methods hastened the growth and value of these Schools. Page's Theory and Practice of Teaching (Albany
Normal School) was the most widely studied book for prospective teachers and really became an educational classic.

The fourth step came with the expansion of the courses to two, three, and in some cases, four years. In some sections, especially in the Middle West, these schools took on the task of preparing teachers for high schools and supervisors of special subjects. They thus paralleled the new State universities in their development.

Finally, the effect of the scientific study of education in the universities made itself felt rather rapidly in the normal schools. Courses of study were being scientifically organized; scientific tests were coming into prominent use; the formation of junior high schools was calling for broader and differentiated training; the extension of vocational education required differentiated and longer courses; the new social conception of education called for a breadth of training not possible in a two-year course; the necessity of specific training for high-school teachers was becoming more and more apparent; a closer relation between the normal school and the university courses in education was becoming a vital question to teachers seeking advancement; the raising of teachers' salaries following the war period gave an incentive to longer training; teachers felt that some professional degree was but a fair recognition of their years of preparation; superintendents were calling for broader training with which to meet the complex modern school conditions; society was placing more and more responsibility on the school; entrance to normal schools was now in most cases the graduation from a four-year course in a certified high school, and a collegiate grade of professional work was a natural conclusion.

The establishment of the four-year program with the professional degree was a rapid movement; in 1916 there were fifteen of these teachers' colleges, and ten years later there were a hundred of them distributed over half the States of the Union. In Massachusetts the movement came slowly, partly from peculiar conditions in the distribution of Normal Schools as well as the radical reorganization of the educational departments of the State.
Reorganization of the Board of Education.—With the combination in 1909 of the old Board of Education (1837-1908) and the new Industrial Commission on Vocational Education (1906-8), a complete change of policy began to be formulated. The new Board assumed full control of the educational policy of the State, the execution of which was placed in the hands of a Commissioner and two deputies. This meant that administrative duties were now dominant, whereas the work of the Board and its Secretary, from the days of Horace Mann, had been largely professional. The old Board of Visitors for each Normal School was abolished, and these Schools were placed directly in charge of the Commissioner as the official representative of the Board. A business agent was appointed to supervise the business operations of the Board, including the Normal Schools, and a State system of accounting was established in order to secure uniformity in method as well as to control expenses. A State Commission on Economy and Efficiency was appointed in general control of finances.

These changes aimed at the standardization of the Normal Schools, a policy that had advantages and disadvantages. Dr. George H. Martin, who had been demoted to the nominal position of treasurer and special agent for the promotion of medical inspection, resigned in 1911. Dr. John T. Prince who had served as Agent of the Board for twenty-eight years also resigned. The sad death of Frederick L. Burnham who had been Agent for the promotion of manual arts (1906-11) added another change in the forces. All these changes made an almost complete change in the personnel of the educational department of the State. A new leadership was to be developed.

Standardization of the Schools.—This work began at once under the new Commissioner, and although the change was necessarily gradual, by 1914 the policy was definitely organized and stated. "The Board of Education has statutory authority over the State Normal Schools; it is directly responsible for their general efficiency, and for all specific and detailed phases of their work." The professional purpose was clearly stated—"The Board has a right to expect that in every Normal School the principal and members of the faculty are carefully studying
all phases of their work with a view to bringing it into harmony with the more progressive educational tendencies. Especially as regards the clearer definition of aims and the development of more effective methods of realizing these aims.” To carry out these ideas the Board organized sets of rules to meet all questions of administration.

**Standardization of Entrance Requirements.**—A new plan of admission went into effect in 1912. This included three important elements: (1) Physical fitness, which later called for a specific physical examination under State direction; (2) a certificate of moral character which later developed into a “personal characteristics” paper to be filled out by the high-school faculties; (3) certification in ten out of the fifteen or sixteen units of high-school work; of these three must be in English, while later United States history was added as a required subject. Eighty per cent was named as the certification mark. Inability to be certified required an examination. A list of certified high schools was established by the Board.

Further specification of required subjects was not provided, on the basis that a good certified high-school course would be an ample foundation on which to build the professional studies. This opinion was changed later in order to bring about a closer connection between the high-school and normal school curricula.

The purpose of this plan was to give credit for power and quality of scholarship, and to insist also on a mastery of essential facts. This was a step considerably in advance of the standards in most of the States which admitted on the basis of simple graduation from a four-year high-school course, and was a distinct step toward a professional standard. Still later the standards were strengthened and an “evaluation plan” arranged to establish an even more selective basis of filling the quota of entering students.

The rules of the Board in 1915 designated the maximum number of pupils that might be admitted to each School. This limit was based upon the number of sections that the School could properly handle. Precedence was given in the order of application as made on January 1 of each year.
Standardization of Courses.—In developing the new scheme of administration, monthly meetings of the principals and Commissioner were held to consider administrative problems, business methods, and the differentiation of the courses of instruction.

As a result of extended conferences it was decided that the two-year course was to be shaped so as to fit students for teaching in the first six grades only. Steps also were to be taken to organize at Fitchburg, Salem, and Bridgewater, three-year courses designed to prepare teachers for the upper grades. The four-year course at Bridgewater was deemed an unwise procedure, as Normal Schools should limit themselves to the preparation of teachers for the elementary schools only.

Differentiation between professional (vocational) and cultural courses was sharply drawn. Normal Schools were in reality vocational schools with a limited field of service. Technical and cultural work, where the latter was used, were to be separately organized so as to prevent confusion in administration and instruction. "The Commissioner has constantly urged upon Normal-School principals and faculties the desirability of a conscious and clear-cut differentiation between studies and practices that are expected to function directly in teaching competency and others of a purely general nature." This form of standardization was a departure from the previous history of Normal-School instruction in which the professional point of view pervaded both the vocational and cultural studies. No special distinctions were worked out at this time, and later the work recovered its former point of view, in which all phases of the work were professionalized along modern lines.

Professionalized subject matter implies: (1) the selection, organization, and enrichment of subjects from the point of view of teaching; (2) such a skilful presentation of material that it becomes a worthy example of teaching; (3) the specific application to the work of teaching based on a wise philosophy of education.

Elementary Course for First Six Grades.—Changes going on in American education were making it necessary to regard these grades as a field by itself, while the education of youth
in the seventh, eighth, and ninth grades required departmental work and a more intensive treatment of subject matter.

To attempt to give a high-school graduate, in two years, an equipment equally serviceable for any and all grades, is to impose possibilities of overwork or of superficiality. The average Normal School girl studies too many subjects; too much of the work in science, mathematics, and English, is on the plane of secondary education rather than adapted to the elementary school; there is not time enough to give competency to the teaching of correct English, children's literature, history, nature study adapted to young people, practical arithmetic, practical civics and morals, games, manual training and gardening adapted to the lower grades. Students do not have sufficient time and incentive for a suitable social life, contact with current events, and physical recreation. Psychology, the history of education and other professional subjects are presented on a level which frequently prevents their functioning in the shape of teaching power.

It was on the basis of this reasoning that the elementary course was definitely limited to the preparation of teachers for the first six grades. This limited the Schools at Hyannis, Westfield, North Adams, and Lowell to this work, while the other Schools carried in addition three- or four-year courses for the upper grades. This plan put the Schools in two groups, and the public began to make their estimates of the two groups, sometimes to the detriment of the smaller Schools.

*Lengthening of the Elementary Course.*—The question very soon arose whether, in view of the broader education that is demanded of the teacher in a modern public school, the elementary course should not be increased to three years. By reason of the salaries now paid to elementary teachers, such extension of training was regarded as economically impracticable, and would result in a diminution of the number of teachers equipped for public-school teaching. Relief must come through summer schools for teachers in service, and extension courses.

It was not until 1928 that this lengthening of the course was effected and by that time the drift of attendance had passed to the larger schools. The fact that the State had the financial burden of carrying ten Normal-School establishments made the problem a very difficult one to solve. A retarding influence was felt in low salaries paid to Normal-School teachers,
no change having been made in ten years. The uniform salary of all the principals was $3000, which in comparison with other States was exceptionally low. The maximum salary for men was $2300 (with one exception) and $1500 for women (with one exception). Nearly half the men on the faculties received under $2400 per year, while about half the women, apart from those in the Training Schools, received $1100 or less.

At this time there was an agitation before the legislature for the State to take over the Boston Normal School and thus relieve the city from this expense. The scheme met with strong opposition by Boston and by the State at a time when there was an imperative need for higher salaries to keep the present schools up to a proper standard.

*Kindergarten-Primary Course.*—This three-year course at Bridgewater was established in response to the demand for special preparation for teaching in the primary grades. It included, first, certain Normal-School subjects directly or indirectly connected with the primary grades; second, a careful study of kindergarten principles as influential in primary grades; third, a longer practice in the Training School, including the kindergarten and the primary grades; fourth, a longer period of practice in the primary grades of neighboring cities and towns under supervision.

It was decided to retain this course for the time being, as it was functioning vocationally without any increased expense to the School. The blending of the kindergarten and lower primary grades was a problem still to be worked out. There was a lively demand for graduates of this course for primary grades, although only a slight call for kindergarten teachers, the field already being held by the private kindergarten training schools.

*Four-Year Course.*—In spite of the valuable work accomplished by the graduates of this course, the Board deemed the course as an unnecessary intrusion into the college field and therefore as too expensive a luxury. It was dropped as a course by them (1917-21) without a hearing.

Two new conditions, however, were rapidly developing which were destined to overthrow this policy. The growth of
junior high schools created a demand for well-trained departmental teachers, and a three-year course was not adequate to meet this requirement. The Normal Schools were obliged to strengthen their courses or yield the field to the colleges, which had no specially adapted courses in education, techniques of teaching, or practice facilities. A second factor was the transformation of Normal Schools into teachers colleges in different parts of the country. Curricula were established to meet the new demands, and educational degrees were granted. In 1921 the new Department of Education recognized the situation and obtained from the legislature the right to grant degrees for the four-year courses. It was natural that these inducements to a more thorough preparation should have increased the numbers in the three- and four-year courses, especially for young men and scholarly women.

Departmentalized Normal Schools.—The next step after limiting the courses to two and three years came the parceling out of certain special departments to the different schools, e.g., kindergarten, Worcester; commercial subjects, Salem; household arts, Framingham; practical arts, Fitchburg; music, Lowell; correspondence courses, North Adams; summer school, Hyannis; elementary grades, Westfield; upper grades, (later junior high), Bridgewater, Worcester, Fitchburg, and Salem. This plan still left certain small Schools with a limited function, but tended to build up the larger Schools both in numbers and teaching facilities.

Normal School for Men.—In 1913 this plan was strongly advocated by the Commissioner of Education:

The establishment of a separate Normal School for men only would at the present time be probably one of the most profitable educational investments that Massachusetts could make. Such a School would not necessarily be large. It should have a body of students composed of young men who have deliberately elected to prepare for teaching positions with the view ultimately of securing administrative positions. A superior school of this character, with suitable dormitory facilities, would undoubtedly tend in time to develop a professional spirit in its student body which would result in large benefits to the schools of the State.

Such a school should be located near a large center of population, although probably not in the metropolitan district. This center should contain one or more colleges under the influence of which such students
might come in a measure, and with which some affiliations as to certain courses might be made. The City of Worcester is a particularly favorable center for a school of this character.

Preliminary steps were taken to obtain land for this purpose, but some unfortunate complications led to the dismissal of the whole scheme and it has never been revived. The four-year degree course in 1921 caused the young men to return to the Normal Schools in sufficient numbers to warrant courses that would appeal to them. Junior high school principalships became the goal.

Standardized Courses of Study.—The Commissioner, in cooperation with selected committees from the Normal Schools, began the preparation of such courses for the first six grades. Two purposes were dominant: (1) To bring Normal-School teachers to the point of facing the actual needs and possibilities of the elementary schools; (2) to place in the hands of busy superintendents a suggestive course of study which could be used in whole or in part. This course was to provide minimum standards in the different subjects. This minimum was to be expressed in terms of skill or efficiency in such subjects as spelling, penmanship, or arithmetic; in command of facts in geography, history, or science; and in development of appreciation and interest in literature and the fine arts. Each subject was to be assigned a certain value, and a time-distribution chart was to be worked out. At first these courses were to be advisory, and after trial could be adopted as a basis of State courses.

Progress was very slow for a variety of reasons—the plans proposed were in many respects radically different from those in use; the vocational and cultural issues were at variance; instead of small committees, large groups of teachers were put to work on the revision, and much time was wasted in desultory discussion. Nothing was really accomplished, until the Normal Conferences were established and small working committees appointed in 1918.

Professional Practice Teaching.—A differentiation in the practice teaching was established at Bridgewater to meet the requirements of a large school. The work was organized in two groups.
1. In the Training School (intensive training)

(1) Specific observation and study of the characteristics and habits of children.

(2) Specific study of the methods of teaching.

(3) Methods of examining and correcting children's work.

(4) Teaching of individual children, of groups of children, and, finally, of a grade—all under careful criticism.

2. In Outside Schools (extensive training)

For one quarter-year the students were assigned as assistants in rooms or buildings, under experienced teachers. From time to time the assistant was left in full charge of the room or served as a substitute in the building. The men acted as assistants to the principal of the building and thus shared in supervising and directing the activities of the School.

Members of the Normal-School faculty were selected to supervise this form of teaching. It rapidly developed as an effective means of preparing teachers for the actual conditions of the schoolroom. In time the plan expanded till it included eighteen or twenty towns and cities with all grades of schools from the one-room rural school to the highly organized city school.

Junior High School Movement.—An active study of this movement was begun in 1915 by the High School Masters' Club of Massachusetts. They found that in 1918 eleven cities and twenty-four towns were organizing some form of a junior high school, the dates of organization ranging from 1895 to 1918. This Committee found only three objections to these schools that deserved serious consideration, namely: the necessity for pupils to travel greater distances to schools; the increased cost to the taxpayer; and the possibility of too early and too marked differentiation of courses. They believed that the advantages offset the disadvantages. Suggested curriculums were outlined.

A careful study of Bridgewater's relation to the new plan was made by Chester R. Stacy of the faculty. This was made because this School was one of the four Normal Schools in the State to which the Commissioner assigned the task of developing training courses for junior high school teachers.
The first step was to organize a curriculum, the main characteristics of which were as follows:

1. The existent three-year course for upper grammar grades was modified to meet the new requirements.
2. Scholastic preparation was made in certain groups of subjects so as to fit for departmental teaching.
3. A study of psychology and methods was applied to the early adolescent stage of pupil development.
4. Observation and practice in managing and teaching pupils in a training school organized after the junior high school idea.
5. Apprentice teaching in junior high schools in neighboring cities and towns was organized.

In addition to this program it was proposed to increase this curriculum from three to four years in length as soon as the proper authorities could be convinced of the need of a preparation equal in quantity and quality of instruction to that given by colleges. "This four-year course should be entirely professional in its motive and those graduating from it should be granted a professional degree." This plan was partially realized in 1921 when the four-year course with a degree was established, and in 1931 when four years were required for all junior high school teachers.

In 1918 this new three-year curriculum for junior high school teachers was worked out at Bridgewater as follows:

First year. A professional foundation in all the great departments of the curriculum, including directed observation and participation in Training-School activities. This furnished the opportunity for teachers and pupils to discover the departmental capabilities of the students.

Second year. A gradual differentiation of the junior high school subjects and methods; continued practice; introduction of electives.

Third year. Division of studies into departmental groups; apprentice teaching; psychology and pedagogy of the adolescent youth.

Junior-High Conferences.—In carrying out the conference policy of the department the junior high school principals
of the State were called to Bridgewater in April, 1920, for a three-day convention to study the problems arising in the new movement. Two leaders in this development were the speakers, Dr. Thomas H. Briggs of Teachers College, who had published his studies on the new type of school, and James M. Glass, of the Washington Junior High School of Rochester, N. Y., whose school was one of the most advanced at that time. These conferences were continued annually, and later were composed of both junior and senior principals because their problems were so interrelated.

In 1921 the department appointed a large committee who worked out a booklet on the Organization and Administration of Junior High Schools for use in the State. Clarence D. Kingsley, State Supervisor of Secondary Education, was chairman of the Committee, and A. C. Boyden was the representative of the Normal Schools. This pamphlet became a standard of principles and procedure for a wide use not only in Massachusetts but in other States. In it the “seven great objectives” were fully emphasized and details worked out.

War Activities.—The influence of the War upon the School was felt very early. Without checking the regular progress, it introduced a new and exciting element.

Before the United States entered the War the School was moved by the death of two prominent graduates. Armenag Chamichian ('09) died in a deportation camp in Mesopotamia in 1916. After receiving his degree of Master of Arts from Harvard, he was made principal of the Cicilian Normal School in Armenia. From the beginning of his career in 1912 until his tragic death, his life had been one of sacrifice, hard labor, and noble service. “In two years he had brilliantly organized his school, and was hoping to see it more prosperous with the cooperation of six instructors of Armenian education, two of whom had studied at Bridgewater, then at Harvard and Columbia; but the World War broke out and let loose the spirit of persecution, which swept before it all the splendid work and the worker.”

Sergeant Robert E. Pellissier ('03), A.M. Harvard 1909, instructor in romance languages at Leland Stanford, Ph.D.
Harvard, Assistant Professor at Leland Stanford, answered the call of his beloved country of France, and was killed in 1916 at the Somme.

In January, 1918, all the students were organized into a Normal-School Section of the Red Cross Unit. All departments of the School contributed to the needs of the hour; the study of current events took on a new meaning; the different School organizations turned all their profits into service contributions; the School became a community center for public addresses and celebrations; twice the School went "over the top" in its contribution to the Relief Funds of America, paying in over $1900 for this work.

The service flag of the School had fifty-seven stars upon it. Four deaths were recorded from this list: Robert E. Pellissier ('03), Jesse Matossian ('03), Armenag Chamichian ('09), and Harold R. Blake ('13).

All the Schools except Bridgewater (increase 7 per cent) showed a decrease in attendance, which led to a decided shortage of properly qualified teachers, combined with the effect of the call of other occupations at a much increased remuneration.

Principal Boyden was appointed on the Fuel Committee of the town by the State officials, and he served as one of the "Minute Men" in giving addresses at public meetings, as well as acting on War committees of different kinds.
CHAPTER XII

THE SEVENTY-FIFTH ANNIVERSARY

The celebration of the Seventy-Fifth Anniversary of the establishment of the Bridgewater State Normal School was inaugurated on the evening of June 18, 1915, with a reception to the officers of the Normal Association given by the faculty and students. During the evening the Glee Club rendered several selections, under the direction of Miss Clara C. Prince. Open house was held in the various dormitories. School songs and serenades followed in the illuminated quadrangle.

Historical Addresses.—At the formal exercises on June 19, Dr. Albert E. Winship ('64) presided. The address on Bridgewater’s Spirit and Influence by Dr. George H. Martin was a masterly treatment of the problems and achievements of teacher training. Dr. David Felmley, president of the Illinois Normal University, delivered an inspiring address on Bridgewater and the Normal Schools of the West, showing the widespread influence of the Bridgewater School in the building up of new normal schools in the West. Dr. David Snedden, Commissioner of Education, extended the greetings of the State in a bugle call to continue meeting the demands of new conditions. Dr. P. P. Clayton, United States Commissioner of Education, telegraphed his greeting, giving facts and figures regarding American Education.

Every State superintendent telegraphed greetings accompanied by the latest information regarding professional training in his State. Presidents of State Normal Schools from Maine to California also telegraphed greetings. Deans James E. Russell of Columbia Teachers College, Charles H. Judd of the Chicago School of Education, William C. Bagley of the University of Illinois, W. V. O’Shea of the University of Wisconsin, and E. P. Cubberley of Stanford University sent unusually hearty and extended greetings.

Feature Exhibits.—These exhibits, arranged in the different rooms of the school building, represented the modern lines of work in both the Normal and Training departments. In-
stead of the usual miscellaneous exhibit of children's and students' work, each department selected some important feature of the instruction and illustrated it by means of the modern plan of charting. A few of the topics illustrated will give a general picture of the exhibit.

Community Arithmetic—Based on the mathematical activities of towns and cities.

Community Civics—A survey of Bridgewater; current events taught from a bulletin board.

Correlation of geography with picture study, manual training, and drawing; graphic method of teaching.

Picture Building—Coöperative pictures, "cut-outs," original pictures, costume figures, landscape forms.

Nature Study—Making a bulb border, tree pruning, window boxes, home gardens.

Science—Industrial chemistry, physics in the home, science of common things.

Historic Pageant.—The five scenes gave a realistic picture of the great periods in the development of the School with the outlook into the future.

Prelude. Dance of the Hours and Years

Scene I. First State Normal Building in America
   The Pioneers. The Experiment. The First Building.

Scene II. The Formative Period
   Overcoming Opposition. Message to the Children.
   Alumni Association (1845)

Scene III. The School and Patriotism
   Call to Arms. Roll of Honor.

Scene IV. The School of Today

Pageant Procession

The Chairman of the Committee on the pageant, Mrs. Flora Townshend Little ('95), well described the fine spirit which characterized the preparation of this elaborate celebration.
How well the machinery worked, once it was put in motion, how freely all responded, giving time and strength, is well known, and made the achievement one worthy the traditions of the School. It was decided to transform the icehouse into the time-dial needed, and to center the action about the south of Campus Pond, with the pond, the dial, and trees as background. In quick succession followed choice of leaders, of dancers, of color scheme, work on properties and costumes, rehearsals and more rehearsals.

It would be a pleasure to give credit to each and all; to note how willing hands made the handsome banners and shields, the grassy dais, and all the numberless properties; how cleverly costumes were evolved from pictures and suggestions; how many yards of cloth were measured, and how many thousands of loyal stitches taken. The achievement of Miss Burnell and her aides in borrowing, distributing, and returning intact scores of all kinds of old-fashioned costumes is worth a chronicler.

How admirable was the music of the Glee Club, and the Orchestra; and what a credit the smooth finished performance of the Pageanters was to Miss Moffitt’s dramatic training! So we might go on and fill a volume, if the full tale of loyal service were told. It must suffice to say that it proved a fine school spirit.

The main theme was this: the spirit of enlightenment shows that page from the book of Time which deals with the inception of normal schools, and with the past growth and present strength of the Bridgewater School.

Sentence Tributes.—The tributes from a wide range of graduates in different walks of life brought out certain salient characteristics of Bridgewater—they are a valuable interpretation of the purpose of the School. A few samples are selected:

Inspiration from Bridgewater led to the following services, viz:
25 years President and Director in Improvement Association.
33 years as Moderator of Town Meetings.
50 years as Chairman of School Committee.
56 years as Superintendent of Sunday School (Graduate of 1847).
Bridgewater Normal School:—One of the largest elements in the development of Progressive Education in Massachusetts. (Graduate of 1855).

To the students of forty years ago, this School is a fountain of inspiration, leading to a search for knowledge. (Graduate of 1860).

For sane views of life, sensible judgment of children, fondness for literature, I owe to Bridgewater. (Graduate of 1875).

The Bridgewater School is a builder of strong men and women, persons who think, think straight, think a proposition clear through and act with intelligence, judgment, and power. (Graduate of 1888).
In Bridgewater a student learns to think; from it a teacher carries the high ideal of teaching others to think. (Graduate of 1897).

The Bridgewater Normal School, a pioneer; always a pace maker; and first in the hearts of its graduates. (Graduate of 1903).

**Summary of Service.**—The following statistics are revealing.

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole number of graduates</td>
<td>951</td>
<td>3635</td>
</tr>
<tr>
<td>Whole number of years of teaching</td>
<td>12,425</td>
<td>31,191</td>
</tr>
<tr>
<td>Average number of years of teaching</td>
<td>13.0</td>
<td>8.6</td>
</tr>
</tbody>
</table>
CHAPTER XIII

STANDARDIZATION IN ADMINISTRATION

A New Commissioner and Staff.—On July 1, 1916, Dr. Snedden, retiring from six years of service as Commissioner, returned to his position as professor of education at Teachers College, a work which was especially congenial to him. At a banquet given in his honor, Dr. Charles W. Eliot, of Harvard, characterized Dr. Snedden as an “educational idealist.” During his administration only the first steps toward the standardization of the ten Normal Schools had been taken. Many of the changes suggested were radical ones and required careful investigation before they could be put into effect under the prevailing conditions.

The new administration organized a strong corps of officials—Dr. Payson Smith, Commissioner of Education in Maine, was elected by the Board as head of the organization. Frank W. Wright, Superintendent of Schools, Uniontown, Pennsylvania, was chosen deputy commissioner. Burr F. Jones, superintendent of schools, Amesbury, was chosen as agent of elementary schools. George H. Varney became the business agent. Robert I. Bramhall, superintendent of a union district, was placed in charge of the Teachers’ Registration Bureau.

The standardization of finances led to a State budget system which included standard estimates for maintenance and for new undertakings. These estimates went from the principals to the Commissioner, who was the representative before the Finance Commission and legislative committees. A standard method of nomination to teaching and other positions also went into effect.

Second Reorganization of the Department.—A general consolidation of State departments accomplished by the Constitutional Convention of 1918 caused a centralizing of all the educational functions of the State. By the Act of 1919 the Commissioner was appointed by the Governor as head of this consolidated department, with an Advisory Board of Educa-
tion of which he was chairman. The deputy was made director of Normal Schools. Thus the final step was taken toward standardization, under the direction of the Commissioner, who was given full control of the Normal Schools.

Professional Conferences.—The new policies were soon put in force and the plans were clearly outlined. (1) Regular monthly meetings of the principals were held by the Commissioner to discuss administrative policies. (2) Annual conferences of all the Normal-School faculties for a three-day session were held at Bridgewater during the first week of the school year in September. At these meetings addresses were made by leading educators on the newer problems of the teaching profession. A State Normal School organization was formed to bring about greater professional coöperation on common problems. Officers and standing committees were elected each year, a body of representatives chosen by the faculties met during the year to formulate the policies and organize plans of action. Usually an exhibit of school work was arranged each year at the conference.

A Preferred Normal-School Preparatory Curriculum.—The next forward step was taken in 1918 on the following recommendation by the Commissioner and principals to the high schools.

For the most successful pursuit of work in a State Normal School and in teaching, the following subjects are recommended as especially desirable in high school:

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3 units</td>
<td>4 units</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3 units</td>
<td>3 units</td>
</tr>
<tr>
<td>Science</td>
<td>2 units</td>
<td>4 units</td>
</tr>
<tr>
<td>One Foreign Language</td>
<td>2 units</td>
<td>4 units</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2 units</td>
<td>2 units</td>
</tr>
<tr>
<td>Household Arts</td>
<td>1 unit</td>
<td>3 units</td>
</tr>
</tbody>
</table>

In addition students should have music, art, and physical education.

This was a distinct departure from the previous theory that any thorough high-school course would equip a candidate to successfully pursue the professional subjects in the Normal School. It was hoped that candidates would make their choice of the teaching work early in their course and then elect the
subjects in a preferred curriculum that would be broad and at the same time contributory to the Normal-School course. There seemed to be the same reason for such action as was the case with college-preparatory courses.

Syllabi of Minimum Essentials.—In order to bring about greater uniformity in the curricula for elementary courses, committees were formed to work out these syllabi in the several subjects. These reports were carefully discussed at the conferences each year and finally were put in the form of printed pamphlets and distributed to the schools. For the first time, after many previous unsuccessful trials at cooperative curriculum making, the plan was satisfactorily worked out under the general guidance of a “Steering Committee” of Normal-School principals (Principal Boyden, Chairman). From time to time the different curricula were revised.

For many years outlines of all the important subjects, prepared by the individual teachers at Bridgewater and printed as pamphlets, had a wide circulation among teachers. State courses of study had been prepared by experts under the direction of the State Board of Education. This was especially true under the administration of Secretary Dickinson (1877-93). As he was an expert in psychology, it followed that the courses were carefully and logically worked out. They were published for a series of years in the annual reports of the Board, which was one reason for the great educational value and influence of these reports. From the time of Horace Mann these reports were regarded as invaluable records of the professional history of education in Massachusetts, and were widely read by educational leaders.

As the Department of Education under the new law took on an administrative form these reports were limited in the main to statistical matters and thus largely lost their function as a part of educational history, so that Massachusetts history of education became merged in the general movements, with less distinctive features of leadership. A wave of financial economy that prevailed for a series of years was another factor in the limitation of these State reports. Out of these conditions came the new coöperative plan of working out Normal-School courses
through the faculties of these Schools, and State courses through committees of superintendents and teachers. This plan had valuable features, but lacked the unifying influence of an educational expert. The early part of this century was a period of experimentation in search of a philosophy of education to meet the new conditions. The university schools of education now became the active agents in such a movement, under the leadership of such men as John Dewey, Charles H. Judd, W. C. Bagley, William H. Kilpatrick, E. L. Thorndike, Paul H. Hanus, and others.

Normal-School Organization.—A third influence of the conferences came through the formulation of resolutions on the Normal-School policies as voiced by the faculties and their representatives.

In 1918 there was the proposition that the elementary course should be lengthened to three years (finally adopted in 1929-30), and that a four-year course should be required for junior high school teachers (begun in 1921 in certain schools, extended in 1931).

It was recommended that physical education be introduced by law in all the public schools under the supervision of the Department of Education. (The law was passed in 1922; Carl Schrader was appointed director for the State, with a lady assistant. New courses were put into force in the Normal Schools.)

The importance of sociology in Normal Schools was emphasized, as social standards were being frankly considered in State and nation in relation to the establishment of a higher plane of living and welfare. (Introduced in the four-year degree course 1921).

The teaching load of Normal-School faculties was studied and reported upon. “Many of the teachers are carrying teaching programs that are excessive.” “The teaching load should not be of sufficient weight to prevent fresh and thorough preparation, constant professional growth, productive and constructive work which makes for educational leadership.”

Follow-up Work.—“We believe there should be a closer relationship between the Normal Schools and the public schools
of the State. This should be promoted in part through more field work by the instructors, including, for at least one year, systematic follow-up relations with the graduates.” Plans were carried out in 1928 onward for field work, and for graduate conferences twice a year at the School. Programs of demonstration and conference for the different grades were organized, attended by a large percentage of the graduating class in the nearby field.

By 1922 these Normal conferences had proved so valuable that they became a fixed feature of each year’s work, regarded as an integral part of the school year. They can be described as having certain definite values: first, they furnished opportunities to hear distinguished educators along the newer lines and to discuss plans advocated by them; second, through exposition and conversation the best work of the different schools was disseminated among the whole group; they developed feelings of mutual respect, of contentment and happiness in their peculiar work, and of pride in the professional body of which they were members.

The Massachusetts Normal Association fostered the spirit of professional cooperation and provided an avenue for helpful cooperation with the Department in all advance movements. It also gave opportunities for the suggestion of new policies. Research work which was contemplated did not develop as rapidly as was hoped to be the case.

Problem-Project Method.—At the 1921 conference this subject was carefully presented and discussed. Probably Professor William H. Kilpatrick of Teachers College, Columbia, was the most influential factor in the organization and development of this method. The faculty of the Normal School presented this method to the students for investigation and practice. In the Training School the students applied the method in practical projects.

A special project in the rating of student teaching was worked out by the supervisor and critic teachers in the meetings of the Training-School teachers. It included specific detailed ratings in (1) personal equipment, (2) social disposition, (3) professional equipment, (4) administrative technique, and
(5) specific results in teaching. The day students worked out a social project in the preparation, furnishing, and decorating of a rest and social room for this group of students. The various clubs found certain definite projects the most effective way of developing initiative in the members.

In the Training School, a daily "free-work" period was planned as a project by which the children developed initiative and self-control. It enabled the teachers to determine individual differences and thus plan the work for the class more effectively.

Monthly graphs in arithmetic, spelling, and penmanship were used to show the child his standing, to reveal his weaknesses, and to measure individual progress. A class graph also was kept, and this created a certain amount of competition.

"Journey geography" included the planning of imaginary journeys to different countries. This involved the laying out of the route, places of interest, scenery, music, art, and literature. It also meant letter writing, reading, diaries, and manual work.

"Coöperative school government" taught the children how to conduct their own class and school activities, as well as how to coöperate in school government. This was done through lessons in civics, health, and current events; also through garden, bird, and reading clubs. The children held their own meetings, elected officers, read reports, originated and carried out a great variety of projects.

In the upper classes it was possible to work out history projects, geography collections for different countries, dramatization of great events, and mathematical contests. This method lent itself especially to the plan of socialized recitations that called for original contributions, class discussion, and organization of material for a definite purpose. The teacher became the guide and director of student activities. Gradually this method passed from the experimental phases of interest into an integral part of progressive class work.

Coördination of Training and Normal Departments.—At the 1923 conference four recommendations were adopted:

(1) Training Schools should be under the direct control
and supervision of an expert administrator. [This was true at Bridgewater under Miss Cora I. Newton (1912-27), and Miss Alice B. Beal (1927 onward), who were designated "Supervisors of Training." The other Schools had similar plans.]

(2) A supervisory council of Normal instructors and Training-School teachers should take charge of the curriculum and the methods of teaching. (This was accomplished through meetings held by the supervisor.)

(3) Arrangements should be made by which Normal instructors should participate in Training-School responsibilities. (This was gradually worked out in certain departments. The time element in the Normal program was a difficulty to be overcome.)

(4) The relationship of the two departments should be particularly close. (The faculty was made up of both groups and held meetings for common discussion; the supervisors also held faculty meetings on specific Training-School problems.)

Educational Tests and Measurements.—Under the direction of E. A. Kirkpatrick of Fitchburg an investigation was made of the value of intelligence tests in the Normal Schools, and with the assistance of the teachers of psychology of the various Schools, an extensive study was undertaken. Tests were given to all Normal-School students in 1920-1, and a report was made of the findings, and comparative ratings. The purpose of this series of tests was to determine to what extent such tests furnish evidence of future power in candidates for admission. After several years it seemed clear that these particular tests were suggestive but not determinative.

At the conference of 1922, Brenelle Hunt of Bridgewater made an interesting and suggestive report on the use of tests among the Training-School pupils. Also educational tests in reading and arithmetic were given near the beginning and the end of the school year. Such tests, in conjunction with the Binet tests, were very suggestive in the grouping of first-grade children; they also revealed a knowledge of the child not otherwise as evident. Regrouping was frequent and could be made from studying the child's free choice of activities and materials, from scores which he had kept of his own growth, as well as from the teachers' records.
In the Normal School it was found that the "achievement tests" were very suggestive in mathematics, language, history, and geography. These tests aided the teachers in differentiating the class work to meet especial needs; they also aided subdividing classes into groups. The regular examinations took on the modern form as used in the various achievement tests, and the normal curve served as an excellent check on all test results.
CHAPTER XIV
NEW COURSES ESTABLISHED

The Teacher-Librarian Course.—In September, 1911, there was established a new teacher-librarian course, which included the following subjects:

1. Children’s literature.
2. Methods of directing children’s reading, and of creating an interest in the same.
3. The essentials of good books, with an emphasis on the successive tastes in books the children have at different ages.
4. The use of reference books and magazines for professional reading.
5. The organization of bibliographies in different subjects.
6. Instruction in library organization.
7. Library lessons in the different grades of schools.

This work was intended to supplement the work that was being done by the Massachusetts Free Public Library Commission to develop the building up of small libraries in the schools. In 1918 it was revealed by a questionnaire that eighty high schools in Massachusetts had distinct libraries, although only nine schools reported that a regular high-school librarian was employed. In many cases the library was used as the study hall with different regular teachers taking charge, and this was in some cases reported as “supervised study.” It was evident that some radical changes were in order, if library instruction was to take place.

When the four-year course was reestablished with the degree, this library instruction became a departmental division in which students were prepared to organize and supervise libraries in junior and senior high schools. In 1922 this course was again reorganized and developed in accordance with the suggestions laid down by the department in conjunction with the Division of Libraries. Thus another step was taken toward standardization of the Normal-School courses. The new course included such lines as the following:

1. Organization and use of a school library according to modern classification.
2. Teaching students and children how to use a library.
3. Development of the reference material needed for school work in many different subjects.
4. Study of children's literature in the Normal classes and with classes of children.
5. Teaching children in the upper grades to use a library in literature, history, and other subjects.

At this time the School had over 12,000 volumes in the library, although most of these were scattered in the different departmental libraries. A number of typical books were gathered into a miniature library for teaching purposes and this served as a laboratory of preparation. A specially trained Normal-School librarian was appointed as instructor in library economy and in children's literature.

A still further advance was made in 1928 when a full four-year course for future school librarians was offered as one of the degree courses. This included (1) practice in the routine work involved in the administration of a school library, (2) practice in planning and conducting library hours with classes of children, (3) methods of teaching the use of the library—with practice in the Training-School library, (4) book selection, (5) cataloging and classification, (6) reference work and bibliography, (7) school library administration.

A number of the graduates of the four-year course have been appointed to positions in the larger junior high schools, and have aided this forward movement. In the new buildings enlarged facilities for Normal and Training-School libraries gave ample opportunity to develop this new line. A trained and experienced school librarian and a trained assistant made this work very effective. Gifts from the alumni made it possible to supplement the not too ample State appropriations for books.

Development of Fine and Practical Arts.—With the choice of Royal B. Farnum as Principal of the Normal Art School and State Director of Art Education, an effort was made to increase the value of the art work in the Normal Schools. Conferences were held regularly to see if some definite policy might be established for the sake of unity in (1) the value of accurate observation and truthful representation, (2) demonstration
NEW COURSES ESTABLISHED

drawing, (3) aesthetic values in production applied to hand work, school projects, and the everyday interests and activities of school and individual, and (4) the need for the cultivation of refined taste, sound judgment, and appreciation in the daily choices of all our people.

Exhibitions of Normal-School work from the different Schools were arranged in the gymnasium during the annual conferences, and these were fully described by representatives from the Schools. A new emphasis was placed on blackboard sketching as a means of illustrative teaching in the different subjects. The course included (1) lettering for rapid work and for programs, calendar pads, and map enlargements, (2) quick sketches in outline of common objects used in teaching nature study, geography, history, and literature, and (3) illustrations with the flat of the chalk, and color decorations.

Courses were established in art appreciation—studies of fine art in relation to the home and to the community; a background of culture for appreciation was given by studying historic forms of architecture, of furniture, and of decoration. An elective fourth-year course was given in the history of art. A general survey was made of the history of architecture, sculpture, and painting from the Egyptian period to the Renaissance and modern times. The fundamental principles underlying great works of art were studied in order to increase the students' power to select and enjoy good examples of fine art.

In the handicrafts courses were expanded as electives for reed work, book making and rebinding, modelling, cementing, and weaving, or any phase of handicrafts adapted to junior and senior high school students. In the practical arts it was now possible to offer elective courses in a number of lines of useful hand work for teachers. Printing was offered as an excellent opportunity for correlation with English and other subjects.

Physical Education.—By a law passed in 1921, indoor and outdoor games and athletics were made mandatory in all the public schools of the State. Mr. Carl L. Schrader, for the last fifteen years connected with the Sargent School of Physical Education, was made the Supervisor, and Miss Louise S.
French, graduate of the Savage School in New York, was appointed Assistant Supervisor.

From this time on this work was not an individual concern of each School, but all the Schools were under the direct supervision of the director of the department. A syllabus of minimum essentials for physical education was prepared covering physical examinations throughout the course, the theory of health education, and the actual practice.

In 1922 Miss Katherine M. Cronin and Miss Katherine Purnell were appointed as instructor and assistant upon the recommendation of the State supervisor. Both of these women were college graduates with special training and experience in this work. The new program went into effect at once. Mr. Joseph I. Arnold (Center College, Kentucky, Harvard, and Columbia) was appointed as master of sociology and economics, and also director of the physical education of the men who had increased in number at once upon the opening of the degree courses. Under the new regime the activities took on a new life. A Women's Athletic Association (W. A. A.) was formed, with a new system of membership by which all girls who joined were considered associate members until they obtained a hundred points, and when these points were gained they became active members. From this they worked on for higher awards, which varied according to the number of points won. One type of emblem was given to those gaining two hundred and fifty points, and a final award of considerable value to those who earned one thousand points and were judged by a committee as worthy of this high honor.

With the return of a larger number of men to the School, the Normal Athletic Association restored the sports—basketball, volley ball, and baseball, and later soccer, to a permanent position in the School.

The girls organized such sports as hockey, tennis, basketball, bowling, swimming (at Brockton), baseball, and various winter sports. The campus was laid out as the center for these and other sports, thus becoming a great outdoor gymnasium at all times when the weather permitted. Students were
prepared to serve as teachers and coaches in the new forms of athletic activities.

**Student Activities.**—The appointment of the Dean of Women (Miss S. Elizabeth Pope in 1914) and the Dean of Men (Mr. John Kelly in 1924) led to the definite organization of student associations for intensive work, which supplemented the regular class work. These clubs were under the advisory influence of the faculty members of the following types: musical, dramatic, literary, French, library, garden, civic, athletic, and Girl Scouts. Students who showed in their class work ability and interest were given the opportunity for expressional activities that strengthened their professional preparation.

The organization of the Student Government Association, as well as a committee on social activities, was perfected under the direction of the deans. The cooperation of the student activities with the faculty council tended to develop the best type of social democracy.

Orientation courses were conducted by the principal and deans with the entering classes and in professional ethics by the deans with the graduating classes. The outline prepared by the Normal School Committee served as a very helpful basis for these courses, which were not conducted in a didactic manner but by the method of socialized discussion on the project plan.

**Extension of Conferences.**—The Normal Schools were used as centers in each district for conferences on many important activities. These were usually day conferences and included joint meetings of the State Department of Education and other related departments.9

At the public-health conference the following topics were discussed:—

School hygiene.
What should be expected of the school physician and school nurse.
What should be expected of the teacher.

*For a series of years the annual conference of Massachusetts School Superintendents has been held at the School in the month of April.
The place of physical education in the school health program.
The rural school nurse.

These health conferences continued year after year, working out more effective means of carrying out the program of physical education.

*Conference of School Committees.*—The superintendents and school committees of the district held their first conference in 1923. A list of interesting problems was discussed including school age requirements, appropriations, transportation, care of buildings, making a school budget, and the regulation of extracurricular activities.
CHAPTER XV

THE STATE TEACHERS COLLEGE

Early Developments.—A special Commission on Education was appointed by the legislature of 1918, to investigate the educational system of the State. Among many of the changes recommended was the establishment of a State Normal College with the power of granting degrees. This college should provide a four-year course for high-school graduates. It was suggested that one of the existing Normal Schools might be set apart for such a college.

Another step was taken at the Biennial Convention in June, 1919. A committee was appointed to consider the feasibility of the establishment of a Normal College in Massachusetts, presumably on the Bridgewater foundation, since this was the largest of the Normal Schools of the State. At the annual meeting of the Schoolmasters Club held in Boston in October, 1920, the question of establishing a State Teachers College was discussed and heartily advocated. A committee was appointed to act with the committee appointed at Bridgewater in 1919. This joint committee formulated some plans and placed themselves in a position to assist the Department of Education in any way that was desired. This committee consulted with the Department which appointed a committee on lengthening the Normal-School course, consisting of William B. Aspinwall, Arthur C. Boyden, and James Chalmers. The committee reported in April, 1920, making certain specific recommendations.

1. That all students entering the Normal Schools in September, 1921, be required to take a three-year course (finally put into effect in 1930).

2. That in this new three-year course the studies now presented be so extended and strengthened along cultural lines that they will be of collegiate standard, particularly in history, English, literature, science, and sociology, with the addition of courses in modern languages, and mathematics. (Most of this suggestion was later embodied in the four-year course.)

3. That in 1924 one or more Normal Schools be selected to give a four-year course, and that the legislature be petitioned to empower
the Board of Education to grant the degree of Bachelor of Science in Education to students completing this course.

4. That students who have graduated from a three-year course in any of the Normal Schools be privileged to take the fourth year at these Schools. (This plan was not in line with the plans in other States, but it seemed the best for Massachusetts with its peculiar situation of ten Normal Schools, some large and some small in numbers of students.)

Some strong arguments in favor of the change were presented by the Committee; a few are stated:

1. The present shortage of teachers and the inferior quality of many now serving in the schools make it clear that the teaching profession is not attracting students in sufficient numbers or of high grade.

2. The present courses are inadequate to prepare students properly in both scholarship and technique for the comprehensive demands upon the grade teachers of today.

3. The normal school does not have the same dignity and standing that the college enjoys. Consequently the high schools urge their students to choose the college rather than the normal school.

4. The lengthening of the course would be a decided tonic to the teachers now in the service. It would offer the opportunity for further study with the prospect of a degree on terms similar to that of a college graduate.

5. The lengthening of the courses would tend to greatly improve the quality of the students. The experience of other schools indicates that numbers would increase.

6. Opportunity for specialization can be given in better preparation for departmental teaching in junior high schools, and for teachers of special types of pupils.

7. There is a decided tendency throughout the country in this direction. No less than fifty normal schools have lengthened their courses to four years, and all but six of them grant the bachelor's degree. In Missouri the normal schools have been converted into State teachers colleges.

In order that the judgment of the superintendents of schools be sounded, the facts and recommendations were presented in their annual meeting in April, 1920. By almost unanimous vote the superintendents favored the early adoption of the recommendations. They expressed themselves as earnestly desiring a better preparation of teachers for the public schools and as believing that this result could best be secured by a longer course.
Degree Courses Established.—The action of the various committees and the Department led to the introduction of a bill to authorize the Department of Education to grant degrees in education to graduates of a four-year course. On March 10, 1921, Governor Cox signed the act which empowered the Department to grant the degree of Bachelor of Education to any person completing a four-year course in a Massachusetts Normal School. (Later the degree was changed to Bachelor of Science in Education.)

The Department announced that beginning in September, 1921, four-year courses would be offered in the following State Normal Schools:

- Bridgewater—for teachers in elementary school and junior and senior high schools.
- Framingham—for teachers and supervisors of household arts.
- Normal Art School—for teachers and supervisors of art education.
- Salem—for teachers of commercial subjects.
- Worcester—for teachers in elementary schools and junior and senior high schools.

A diploma of graduation from a two- or three-year course in residence in a Massachusetts State Normal School would admit the holder to the third or fourth year, respectively, of the four-year course at Bridgewater or Worcester as a candidate for the degree. Courses to be offered in the third and fourth years would be of collegiate grade, cultural in character, and would have a definite professional aim.

A committee organized the courses for the third and fourth years, specifying the required and the elective curricula. There was only one new teacher added to the faculty at Bridgewater to meet the new situation, and that was in the new department of history and sociology. The policy of the department was to use the faculty as it was with such adjustments as could be made. The State was not ready to increase appropriations; in fact it was entering a period of economy through the activities of a finance commission which was cutting down expenses to the lowest possible point.
An Attractive Course.—In 1922 the influence of the new course was felt at once; one graduate of the Lowell School and two from the three-year course at this School, also a large number of those entering from high schools, enrolled for this course.

Candidates for Degrees

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<td>109</td>
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The educational courses most in demand were modern problems in education, educational measurements, advanced history of education, and psychology of the exceptional child. Among the curriculum subjects preparing for departmental teaching the majors selected were English and history (including library work), geography and history, and English and French. The men selected science and mathematics or the social studies.

Books of college grade were selected for these new departments, and the cultural work was placed on a professional basis. The quantity and quality of these subjects was of the college standard.
CHAPTER XVI
THE CRITICAL PERIOD

The Fire.—Every institution is apt to meet a crisis in its history which means vital changes in its development. This crisis came to Bridgewater on December 10, 1924, when a disastrous fire completely destroyed three buildings, the main school building erected in 1890, which also included the Training School; Tillinghast Hall, a dormitory erected in 1895; and the Old Woodward dormitory. No definite cause of the fire was ever determined, but the utterly inadequate water supply made the loss complete. Normal Hall and the adjoining boiler house were saved only by the most strenuous efforts.

The boiler room was repaired, temporary classrooms were established in the basement of New Woodward, the gymnasium, and vestries of the churches. The Training School was opened on half time at the McElwain School. Only ten days were lost, when all the activities of the School were again practically intact. The real crisis came when generous offers for a new location of the School came to the Legislature, also when the State insisted on a new contract with the Town regarding a Training School building, by which one half of the expense of the building should be borne by the Town, and that it should pay the per capita cost of school supplies.

The Town voted unanimously to borrow $475,000 for a new waterworks system, also to meet the new contract with the State. For the third time in its history, the School was established in the Town of Bridgewater. The gift of a lot of two acres of adjoining land by the will of Samuel P. Gates ('57) furnished the opportunity to place all the new buildings in an unusual setting around a beautiful quadrangle. The Gates residence was made over into a cottage dormitory. Because of financial conditions the building of a new and modern boiler plant was delayed till 1930.

The New Plant.—On October 22, 1926, the new buildings were dedicated with unusually interesting exercises. With modern facilities and new furnishings the School was really
entering on a new era with opportunities impossible in the old buildings, even though certain financial limitations restricted the size of some of the new accommodations. The buildings were definitely planned for a quota of between 500 and 600 students, amply sufficient to meet the demands of the State for new teachers. This made it possible to concentrate all our energies on the professional development of the School into a first-class Teachers College.

A central group of offices made the administration of a large school particularly effective. Each department was now organized in its own quarters with furniture and appliances adapted to its particular work. A large and beautiful auditorium was adapted to enriched chapel exercises, to large conferences, to public concerts and dramatic performances. An ample library with its associated classroom made possible the development of the new plans for the preparation of teacher-librarians for junior and senior high schools. A demonstration room made possible the exemplification of the teaching of children for the benefit of different classes in the Normal department. A lecture room connected with the science laboratories added a valuable factor to this type of instruction.

A separate Training-School building with its own gymnasium and playground made a unit of administration that exemplifies an elementary school in its varied activities. Practice in junior and senior high schools is still carried on in cities and towns.

The total State appropriation for the two buildings was $606,566, in addition to $86,500 contributed by the Town toward the construction and furnishing of the Training-School building. In 1930 the new boiler plant at the rear of Woodward Hall was completed at a cost of $82,000, and the grounds were put in first-class shape, thus blotting out all traces of the fire of 1924.

Among the memories of this period there stands out the generous loyalty of the Alumni, whose large gifts made possible the reëstablishment of the library, the new type of school decoration manifested in the beautiful paintings hung in the different departments, the tablets to Horace Mann in the ro-
THE CRITICAL PERIOD

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tunda of the auditorium, the replacing of the war tablets that were destroyed, and especially the wonderful cooperation with the Massachusetts School of Art in the production of the beautiful murals depicting the history of education through the years, under the direction of Richard Andrew, noted Boston painter and instructor in the School of Art.

The National Association of Teachers College.—This organization held a special session at the School on February 26, 1928. One hundred and fifty delegates made the trip to Plymouth and thence to Bridgewater. Special exercises were held in commemoration of the establishment of Normal Schools in this country. Principal A. C. Boyden gave an historical address on The Achievements of Bridgewater; director Frank W. Wright of the Department developed the history of the movement in Massachusetts; Dr. David Felmley of the Illinois Normal University dwelt on the relation of the Western institutions to Bridgewater; and Dr. Albert E. Winship spoke on the work of Horace Mann and Albert G. Boyden.

Henry Todd Lectureship.—In the will of Mr. Todd, a Boston merchant born in 1786, a sum of money was bequeathed to the Board of Education to benefit the Normal Schools along lines not otherwise provided for. From 1851 to 1908 the income of the fund was expended for various purposes in keeping with the intent of the donor. After 1908 the income was allowed to accumulate until in 1926 it became possible to establish the lectureship on a permanent foundation. The first lecturer in the series was Dr. Edward Howard Griggs. Each year an intellectual treat is looked forward to in the ten Schools.

Faculty Changes.—This period was also a critical one because of necessary changes in the faculty. Beginning in 1926, a number of the older teachers became eligible for retirement, and their valuable services were lost to the School.

William D. Jackson was the first to break the ranks of the older teachers, on September 1, 1926. After graduation in 1880, he taught in the School for the Blind in London, England, and began his work at Bridgewater in 1883 as teacher of
science and mathematics. He was a brilliant scholar, and one of the strongest teachers in the School. Thorough and exact in all details, he was a master of his subjects and made a strong impression on his students. Mr. George H. Durgin, graduate of Exeter and Harvard, with high-school experience, was appointed to this position.

Miss Cora A. Newton, after fifteen years of service as supervisor of training, retired in 1927. She was a graduate of Framingham and studied at Radcliffe. She was widely known in the field of education in the State, having served as principal of training schools in Haverhill and in New Bedford. A teacher of wide scholarship and rich experience, she brought her department to a high degree of efficiency. She was a person of sound judgment and superior skill. Miss Alice B. Beal, supervisor of schools in Haverhill, a graduate of Bridgewater in 1916, and of New York University, was appointed to the position.

Mr. Charles P. Sinnott retired in 1929 after thirty-two years of efficient service. He graduated from the four-year course in 1881. After a year's experience in Massachusetts he spent five years as principal of the Normal Department of Atlanta University. In 1889 he received his B. S. degree from Harvard College, whence he went to the Milwaukee Normal School where he taught mathematics and science for eight years. In 1897 he came to Bridgewater on the appointment of Mr. Murdock as principal of the North Adams Normal School. In addition to his work in this School he taught in the summer schools at Hyannis and at Hampton Institute, Virginia. He was the author of several works on geography. As a teacher he was held in very high esteem because of his clear presentation of his subject; his pupils were attached to him as a personal friend.

Miss Anne M. Wells, appointed in 1893, and Miss Frances P. Keyes, appointed as assistant in 1895, were identified with the kindergarten from its inception until their retirement in 1930. They built up an unusually fine school of this type, which developed into a kindergarten-primary department.
Credit for all that has been accomplished for this important phase of work in the Training School is due to their indefatigable efforts. Miss Wells was an unusual director, having a full knowledge of the details of kindergarten teaching and a charming manner in dealing with students and children.
CHAPTER XVII
A PICTURE OF TODAY

This School is within a few years of its centennial, and the question arises as to how far it has progressed as a teacher-training institution. The development has been a long one, slowed up by certain difficulties inherent to a new movement, accelerated in many ways by the determined policy of the Board of Education and of the early principals. During all the years the leaders have been sensitive to new lines which have developed in education.

From the historic normal school has evolved the teachers college with higher standards and enriched ideals. Here the question arises,—What are the standards which have been developed during the long years and for which Bridgewater stands today? The points of progress that are mentioned are not unique but are meant to be representative of the spirit of the Bridgewater faculty and graduates.

Teaching Power.—The art of teaching has been emphasized from the start as a prime function of the Normal School. As the science of education develops the art becomes more effective. A Bridgewater graduate should be par excellence a good teacher.

A Professional Morale.—The spirit of the teacher is the standard set before the students from the day of entrance to that of graduation. The ideals of public service are built up into a morale that represents a high professional type of life. Ethical and social standards are essential elements to be built into this morale in order that the student may become a helpful member of the institution as well as a useful member of society.

Historic Atmosphere.—The history and traditions of the School have a strong influence on the students as they come to know the story of teacher-training in Massachusetts. As they learn of the long list of successful graduates they feel that they are members of a group that has served the profession with distinction. The daily use of the Horace Mann Auditorium with its historic murals impresses on the student body the fact
that there is a great inheritance that demands their fullest appreciation and loyalty. While two series of the historic buildings have disappeared during the years there is a constant reminder in the bronze tablet which marks the site of the "First State Normal School Building erected in America."

Selective Admission.—There have been four stages in the plan of selecting candidates for admission, first, by examination in common-school subjects, second, by examination in high-school subjects, third, by certification in a specified number of high-school subjects, and, fourth, by an evaluation scheme which includes certified scholarship and certified personal characteristics. With an established quota for the freshman class this plan enables the School to select the best prepared applicants from the high schools.

Orientation of Freshmen.—The change from the high-school point of view to that of a professional school is a marked transition which calls for some definite adjustment. This is provided for in several different ways:—(1) a series of talks, discussions, and preliminary examinations by the principal; (2) preliminary courses in personal and professional ethics by the deans; (3) a systematic plan of directed observation and demonstration in the Training School, with supplementary reading, reports and discussions under the direction of the supervisor of training; (4) chapel presentations of the extracurricular activities carried on by the various organizations and clubs; (5) election of class representatives whose duties as leaders are explained.

A Professionalized Curriculum.—This curriculum includes (1) a broad background of cultural subjects needed to interpret all the teaching; (2) an intensive survey of the different curriculum subjects as the direct basis for teaching. From its earliest history these two lines have been followed in the School, and the advanced subjects have been thoroughly studied as the foundation for teaching those that are more elementary. This policy was firmly fixed by the establishment of a four-year course in 1870.

The correlation of cultural subjects, elementary subjects, and the technique of teaching is carefully studied in each de-
partment. Each member of the faculty establishes the objectives in his subject and prepares outlines of study and reading for his students. The School is well equipped with illustrative material for teaching the different subjects. The faculty of a teacher-training institution is now selected on the basis of broad culture, professional training and experience.

Personnel Studies.—A close personal relation between faculty and students has always been a characteristic of the School life, especially in the early days when the numbers were comparatively small. As the attendance increased more organized effort was needed, and a systematic plan was gradually worked out by the principal, the two deans, and the supervisor of training for the purpose of making a series of studies of student characteristics and special needs. Faculty and student committees have become an effective means of cooperation on the study of student problems and in directing social activities.

Departmental Equipment.—From the early days the emphasis on the objective element in teaching led to an extensive equipment in all the departments. In science, the different laboratories with the associated lecture room, the two-acre natural science garden with its greenhouse, together with the interesting surrounding country, all have contributed to the intensive interest in science teaching for which the School has been noted. In the arts department equipment covers drawing, handwork, manual arts, and printing. The French room, furnished with teaching equipment imported from France, gives excellent opportunity for the modern teaching of that subject. The new library rooms are adapted to the new course of instruction for school librarians.

Physical Education.—There have been three rather distinct advances in this field during the recent years. The first was the erection of a modern gymnasium in 1905, the last building whose erection was superintended by Albert G. Boyden and appropriately named for him.

The second was the establishment of new courses in health education under the supervision of the new division of physical education provided for in the law of 1921. The third phase
includes the increase in facilities for games and athletics in the transformation of the campus area into a great playground, in the new gymnasium for children, and in the playground with its appropriate apparatus adjoining the Training School. There remains to be laid out the large athletic field for major sports; it is hoped that State finances will make possible the completion of this work in the near future.

*Practice Facilities.*—The meagre opportunities in the early years for this important part of teacher-training have been rapidly advanced. They now include a thorough course in directed observation and demonstration in the freshman year, ample periods of "intensive" training in the second year, still longer periods of "extensive" apprentice teaching in the third year, and specialized teaching in the senior year.

Associated work in methods and in applied psychology link theory and practice. A close relation is being established between the Training School and the different departments. The two groups of teachers are united in one faculty for the discussion of professional questions. "Follow-up" assistance to the recent graduates has been in progress for several years. In the "Modern Problems" class during the senior year, various educational activities of the State are presented by interested representatives of these movements.

*Student Activities.*—The rapid growth of extra-curricular activities has been a marked characteristic of all educational institutions. The real problem has been to link them up as an integral part of the training of a teacher. The student co-operative association, which includes all of the students, is the binding link in the present plans. The various clubs are closely associated with the related departments and have definite standards of admission and achievement. The student budget system leads to a very close association of all the students with the different activities and provides for cultural opportunities not otherwise possible. The enriched daily chapel programs broaden the interests of the whole School and serve as suggestions to prospective teachers.

*A Beautiful Environment.*—The teacher must be an artist as well as an artisan. Ample grounds, beautiful trees, and
broad lawns counteract feelings of narrowness and mere utility. An historic type of architecture together with an appropriate arrangement and setting of buildings gives a dignity to the life of any institution. An artistic scheme of interior decoration lifts the daily routine of class work to a higher level.

An Institution with Ideals.—From its earliest history this School has had an ideal of the teacher that is very high. The leading of children and youth through the formative years is a God-given privilege, and only the heart, mind, and soul that is attuned to the Infinite can fulfill this obligation.