CHARLES W. ELIOT'S
CONTRIBUTIONS TO EDUCATION

by

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CHAPTER I

INTRODUCTION

It is difficult to introduce any discussion of the life of Charles W. Eliot, for he was sort of a remote superman who lived and acted quite beyond the scale of ordinary mortals. His years stretched well through three-fourths of the nineteenth century and quite through the first quarter of the twentieth.

He lived when there were no railroads to speak of, no telegraph, no practical use of electricity, no scientific laboratories in the colleges, no surgery worthy of the name, when matches, sewing machines, and reapers were being invented and perfected; and when a confessed belief in man's ultimate ability to talk over a wire or fly in the air was often sneered at as proof of insanity. But he lived also when aircraft were encircling the North Pole; when men were talking not merely over a wire but through the ether; when surgeons were performing the most delicate operations on limbs and brain; and when scientists were looking through solid substances with a new light in a way that in his early life would have been regarded as a defiance of the Creator.

In like manner there is a seeming limitlessness to what he accomplished. He helped develop the entire current system of elementary and higher education in America; he was prominent in establishing the beginnings of what today is regarded as modern medicine and modern science; he was the chief instrument in changing his own institution from a provincial college to one of the most important universities in the world; he par-
ticipated in every struggle in behalf of greater respect for human beings from the days of negro slavery to the fight for a World Court in 1925. Between the ages of eighty and ninety, when most men were in their graves and forgotten, he was in the thick of the struggle for all sorts of causes in American life.

There were, moreover, less official achievements. He had enforced upon the world a theory about the sacredness of every man's work; a ditch-digger might become a "minister" if only he put enough character in his digging. He had been the chief American figure in making parents and teachers and school committees see that a boy experiences vastly more of the educative processes when he works at a subject in which he delights. He had given to religion a new vigor and to science a touch of the sacredness of religion. He had been largely instrumental in winning the fight for greater social health throughout the country. He had become the accredited daily illustration of the effect of a serene spirit on physical health. And he had with great labor established in men's minds one thought which all the intolerance of a post-war period could not wholly dislodge; namely, that professors in universities must have the right not merely to think but to express their thoughts; that the way to develop a great university is not to badger men into playing safe, but to place faith in their loyalty to the high pursuit of truth.

It is the purpose of this thesis to explain the contributions which this great man gave to education and to show how his influence worked to create a better system of education not only for universities and higher

2. Ibid., p. 117.
education, but to elementary and secondary education as well. His influence extended not only to those in organized education, but also to the many others outside the realm of organized schooling. Many adults who because of some reason could not continue into higher education readily turned to his Five-Foot Shelf. Others were influenced by his many articles and addresses that were published on a multitude of questions of current interest in his day. Dr. Eliot lived to become, in all truth, the first private citizen of America and it is doubtful whether in all history there is any man who has touched humanity at so many points and been so continuously active an advocate of reform.

3. Fisk, Everett O. Noted Nonagenarians, Education; 45:208-9 (December, 1924).
CHAPTER II

BIOGRAPHY OF CHARLES W. ELIOT

"So here we see a man who for thirty critical years, as prime minister of our educational realm has defied prejudice, conquered obstacles, lived down opposition, and re-organized our entire educational system from top to bottom."\(^1\)

It was in the Beacon Street home of the Eliot family that Charles William Eliot, the only son of the Samuel Atkins Eliot family and the illustrious president of Harvard University from 1869 to 1909, was born on the twentieth day of March, 1834. His grandfather Samuel Eliot, the founder of the family fortune, was born in 1739. When Samuel was six years old, his father died and left him, his mother and three sisters with almost nothing. For a number of years poverty and privation were the lot of the small family. The mother, a woman of unusual fortitude and ability, managed somehow to bring up and educate all the children. After attending the Boston Latin School, Samuel was apprenticed to the mercantile house of Jonathan and John Amory. By the time he was thirty years of age he had taken over the retail branch of the business on his own account. Those were days when there were opportunities for a few men in the Colonies to amass fortunes, and Samuel Eliot made the most of them. He married twice, the second time with Miss Catherine Atkins, the great-grand-daughter of Governor Joseph Dudley. They brought up eight children under their roof—one daughter by Samuel's first marriage, and four daughters and three sons of their own. Samuel Eliot's estate at the time of his

death was appraised at $1,200,000, and was probably the largest fortune in Boston at that time. Theodore Lyman, his maternal grandfather, was the son of Isaac Lyman, for sixty years a minister in York, Maine. In 1786 he married Lydia Williams. Soon after they moved to Boston, where he went into the Northwest fur trade and the East India trade, and grew rich. Later he expanded this fortune by investing in textile mills that were building along the New England rivers. One of their children, Mary Lyman, became the mother of Charles W. Eliot. Theodore Lyman's home in Waltham was considered one of the finest in Boston in his time. He was a student of landscape architecture and the beauty of the ground about his Waltham home showed not only that he had made a thorough study of the subject, but also that he had a true eye for beauty and effect.

Thus it is seen that for a generation preceding the one of Charles W. Eliot's, the family was luxuriously established in a position to give its children every advantage, both of culture and refinement and of money.

Samuel Atkins Eliot, the father of the future president of Harvard University was born in 1798 and entered Harvard in 1817. It was the elder Eliot's wish that his son might become a minister and being a dutiful son, Samuel entered the Harvard Divinity School where he completed the course. But he, himself must never have felt the calling of a religious life for upon his father's death he abandoned the idea of going into the ministry. The two years following his graduation from Harvard were spent in Europe; and in 1826, just a few years after his marriage he built and moved into his palatial home at the top of Beacon Street. It was here that Charles W. Eliot, the only son of a family of five children, was born. The joy at the birth of a son for whom his parents had so long hoped was dimmed by the fact that the "new child" carried an ugly
and unconcealable birth-mark that covered most of the right side of his face. His parents immediately realized the significance of such a scar and they began in early life to school him to give no attention to this handicap. However, callous he might have been taught to be, he must often have felt the sting of his misfortune. Mingling among the boys in the Boston Common, the play field for the youngsters of all Boston, was difficult, and as a consequence he was forced to seek companionship in his own home, where his four sisters and his Lyman cousins were his playmates. Little wonder that he should have said when looking back at his childhood days after an interval of thirty years, "For me the days of childhood are not as rich and bright as later days. I do not know what people mean who say there are golden gates which part the soft and sunny path of childhood from the rough and wintry road of manhood, and who pretend that the light of life grows dimmer when these shining gates are passed. Are we not apt to forget how vivid and real are the pains, griefs, and fears of childhood, and how unconscious many of its joys?"

At the age of six his formal education was begun under the guidance of a Miss Sumner, who taught Charles and his cousin Arthur and Sarah Lyman. Later he attended a dame school that was kept by the Misses Cushing in a private house on Bowdoin Street. At seven years of age he was transferred from the dame school to a private school for boys that the Reverend Thomas Russell Sullivan kept in the basement under the Park Street Church. Three years later he entered the Boston Latin School, where the course of study contained nothing but Latin and Greek, a

little mathematics, and a little ancient history. It concentrated on a strenuous training of the memory through language and literature, forced its pupils to apply to work which had little or no interest and prepared a large proportion of its graduates for Harvard College.

Charles Francis Adams who was in the school for three years, two or three classes below Eliot, hated the place and says that it "was a dull, traditional, lifeless day-academy, in which a conventional, commonplace, platoon front educational drill was carried on in rooms that were unspeakably gloomy." With the exception of declamation and the Greek and Latin poets, Charles Eliot found little pleasure in the studies he had at these three schools. He delivered the Salutatory Address in Latin at his graduation and no less than four other declamations on "exhibitions days." His interest in declamation showed how determined he was to overcome his handicap. He seemed to serve notice upon himself never to shrink from an audience because of a scarred face.

Samuel Eliot realizing the grave deficiencies of the Latin School's program provided Charles with tools, a carpenter's bench, and a lathe, and procured his son lessons in carpentry and wood-turning. He also furthered a desire Charles felt to set type and issue a four-page weekly paper. Thus at an early age, thanks to a wise and generous father, Charles received good training of hand and eye which the programs of the schools of that day did not provide.

In September of the year 1849, he passed from the Boston Latin School into Harvard College. He was then fifteen and one-half years

old. The teaching staff of Harvard consisted at that time of thirteen
instructors. The staff "drilled the boys in Latin, Greek, and mathe-
matics, taught them a little history, led them to what we should call
a merely superficial glance at the moral and natural sciences; and when
they became seniors, offered them an opportunity to catch a glimpse of
European literature in a very agreeable way by attending Professor Long-
fellow's weekly lectures." Mathematics, chemistry, and mineralogy were
the studies which Eliot found most stimulating. But because the College
did not give credit for but a very little chemistry and mineralogy to-
ward a degree, he pursued these subjects voluntarily in the small
laboratory of the school. Harvard College at that time provided no
laboratories for the use of its students, but Josiah P. Cooke, the young
Professor of Chemistry had equipped, at his own expense, a laboratory
in the basement of University Hall. Realizing Eliot had a great interest
in Chemistry, Cooke allowed him to putter about in it. That this was cer-
tainly not a privilege given freely to all undergraduates of that day
can readily be seen from the remarks made by Eliot at the occasion of
the celebration of his ninetieth birthday, "This liking for research
was developed in me in Harvard College through the personal kindness of
my teacher in chemistry, Professor Josiah P. Cooke, who took me into
his private laboratory....My friends, I was the only undergraduate between
1849 and 1853 who had any such blessing." It was here that Eliot met
Francis H. Storer, who was Cooke's assistant. Eliot's life was influenced

   Theatre and the Yard, March 20, 1921, p. 260.
very heavily by both chemists. During the holidays Cooke, Eliot, and Storer would leave on excursions through Vermont, Connecticut, New Jersey, Pennsylvania, and New York on what Eliot described as geological, mineralogical and physiological toots. At home in the attic of the Beacon Street house Eliot set up a furnace that he might continue his study of chemistry in his spare time. In his Junior year Eliot's eyes, which had been bad since his childhood, failed him completely and he had to have all his text-books read aloud to him. Despite this, his rank at graduation determined by total averages for four years, and including the period when he was unable to use his eyes was that of second in his class.

A year later, in the autumn of 1853 and when he was only twenty years of age, Eliot was appointed "Tutor of Mathematics" in Harvard College. As a teacher, Eliot was both efficient and respected; although there is no evidence to suppose that students went out of his classes to recall them with enthusiasm or special gratitude. Outside the classroom he was required to live in one of the college dormitories and part of his duties was to preserve order among the undergraduates. Under the ancient system of petty disciplinary regulations at Harvard a conscientious disciplinary officer could hardly expect to be popular and as Eliot was very meticulous about carrying out these regulations he was very unpopular among the undergraduates. In 1856 Cooke had a quarrel with the Medical School and as a result Eliot was put in charge of his class in Chemistry for the rest of the year. He continued to serve the college in this capacity until the spring of 1858 when the College made him as assistant professor of "mathematics and chemistry". His was the
The first appointment of an assistant professor at Harvard.

The years in which Eliot taught at Harvard throw some light on the development of his administrative ability. President Walker was not a ready man of administration. Accordingly he found in Eliot a man who was both ready and able to handle numerous phases of administrative work. It became usual for Eliot to aid President Walker in making up a docket of business before meetings of the Corporation. In faculty meetings when it became necessary to draft a resolution, President Walker would delegate the task to Eliot. Other administrative duties such as supervising construction of Appleton Chapel, reports from committees, buying supplies, all were handled by Eliot. Very early it became clear that he had a special talent for phrasing clear statements. Years later when Charles Eliot had been offered the presidency of Harvard, he went to consult ex-President Walker. Perhaps remembering what a great help Eliot had been to him while he was president and how eminently qualified Eliot was in administrative duties, he urged him to say Yes.

In 1857 the comfortable circumstances of the Eliot family were suddenly reversed. A firm of cotton brokers of which Samuel Eliot was a silent partner was forced into insolvency during the financial panic of 1857. Some light is thrown upon the character of Samuel Eliot when it is known that although it was never determined legally whether he was responsible for the debts of the firm "he refused his consent to any other arrangement than the entire surrender of everything that he possessed." The misfortune, terrible as it was, was accepted so

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philosophically by the entire family that it served to give proof of the fact that the Eliots must have lived for ends towards which money does not so greatly count. At Samuel Eliot’s age the failure finished him as a man of affairs. Charles now became the business man of the family. A legacy of approximately $40,000, left to him by his grandfather Lyman, enabled him to build a large double house in which he lodged his parents and three unmarried sisters. The eastern end of this house was to become his own home for in the midst of the emotional stress which followed the loss of the family fortune, Eliot consoled himself by falling in love with his childhood sweetheart, Miss Ellen Derby Peabody. After a short courtship, the couple was married on October 27, 1858, at a ceremony in King’s Chapel in the presence of about fifty relatives and friends.

In July 1861, Professor Eben Horsford resigned his connection with the laboratory of the Lawrence Scientific School and Eliot was put in charge. This relieved him from teaching mathematics, a task which had become quite distasteful. Science was his first interest and one which he spent all his spare time pursuing. His promotion to the Lawrence Scientific School, however, in no way affected his salary or his position as assistant professor.

Just at the time when Eliot’s five year contract as assistant professor was about to expire, Horsford resigned the Rumford Professorship on the Application of Science to the Useful Arts, a position which he held since leaving the Lawrence Scientific School. Eliot had hoped to be appointed to the Rumford Professorship. Unfortunately there were those in Harvard who felt that Wolcott Gibbs from New York would bring something to Harvard that Eliot could not contribute. This
opposition led by Louis Agassiz and Benjamin Pierce convinced President Thomas Hill of this fact. As there was only money on hand for one salary of Professor of Chemistry, this left Eliot without any recourse except to resign. The news that Wolcott Gibbs of New York rather than Eliot had been appointed to the Rumford Professorship was a shock not only to Eliot, but to all those interested. It was thought by everyone that Gibbs could not have known of Eliot's relations to the College or he would not have accepted the appointment.

The severance of his connection with Harvard under such circumstances was a bitter disappointment to Eliot, perhaps the greatest disappointment of his life. Such a disappointment might have checked the career of one less courageous, but for Charles W. Eliot it seems to act as a stimulus. However, many weeks of uncertainty followed. And, although for some time he thought of going into business he reasoned that it was not the time for a man to turn aside from his vocation. Just at this time a bank in which Eliot had invested the remaining part of his grandfather's legacy declared a 100% dividend and he decided to take his family abroad. The family at that time consisted of his wife and two sons, ages five and two, the second of his sons having died in 1861. Some idea of the character of the man and the spirit in which he took his dismissal from Harvard are shown in the note to Arthur Lyman when he had made his decision. "I am going," he wrote, "very sorry to leave Cambridge in just such a way, but with a feeling that if I succeed in overcoming this present difficulty I shall be a good deal more of a man than if I had never met it." 7

7. James, Henry. op. cit., p. 114
The two years from 1863 to 1865 were spent abroad visiting European schools and universities and studying their constitutions and methods. As soon as he had found quarters in Paris for his family he set out to visit French schools. From France he traveled through Switzerland, the Rhineland, Belgium, and Holland, to London. His time spent in England was very unsuccessful, so he re-crossed the channel to spend the winter in Germany visiting the little University of Marburg in Hesse, and institutions at Karlsruhe, Heidelberg, Hohenheim, Struttgarten, Tubingen. There is nothing to indicate that Eliot was greatly impressed by the pattern of European universities, or that he brought home any recipe for use in America. He was however, impressed by the range and variety of the subjects that the student might pursue in these schools. In the spring of 1865 he took his family to Rome. It was while there that he received an offer which almost resulted in his abandoning his chosen profession. The position offered was the superintendency of the Merrimack Textile Mills in Lowell, Massachusetts, at a salary of $5,000 a year and occupancy of an excellent house.

It took days of deliberation to decide such an important matter. The financial arguments coupled with the hazards of an academic career at that time would surely have prompted him to accept the offer. But, because he thought it would be foolish to cast aside eleven years of preparation for teaching he declined the Merrimack offer.

During Eliot’s absence abroad the Massachusetts Institute of Technology had been organized. It was to provide education for men who wanted to become architects, practical chemists, or mechanical,
civil, or mining engineers. And it was just after his refusal to accept the Merrimack offer that this institution sent him an invitation to become Professor of Chemistry. Eliot had been able to observe the prompt success and rapid growth of the Polytechnic Schools in Europe. He was inclined to accept, but he wanted more information. Letters from Jeffries Wyman, Asa Gray, Ephraim Gurney and John A. Lowell were all hopeful that he would accept the offer. Storer, his former associate at the College, who was already at work at the Institute, also urged him to accept. Under the prompting of these men and President Rodgers of the new Institute, Eliot agreed to accept. In September 1865, he returned to Boston to become Professor of Chemistry in Massachusetts Institute of Technology.

His association with the Massachusetts Institute of Technology was very satisfying, for he was given complete freedom and his association with Storer was always a pleasant one. He turned from research in chemistry to original work in teaching chemistry. It was while he was thus employed that Eliot in collaboration with Professor Storer wrote the text-book of "Inorganic Chemistry" which revolutionized the teaching of elementary chemistry by making it a laboratory subject. It was at this time also that he published in the Atlantic Monthly of February and March 1869, his first contribution to the public discussion of education entitled "The New Education, Its Organization". These contributions are recognized even today among the best.

In the midst of this most interesting work at the Institute of Technology, Eliot suddenly realized that his wife's health was failing rapidly. Accordingly he made plans to leave immediately for a second trip to Europe. In June 1867, the family, now three in number, for a
baby had been born in July 1866, together with Mrs. Peabody and her unmarried daughter sailed for Europe. But circumstances which he could not alter seemed to be pressing him. His youngest child then about eighteen months old, became ill, and a few weeks later died. The next months were spent travelling through southern Europe hoping that his wife might regain her health. In 1868, the family returned to America and Eliot established himself and family in the Chestnut Street home in Boston.

In September of 1869, just when Eliot was beginning another year of teaching at the Massachusetts Institute of Technology, the presidency of Harvard became vacant by the resignation of Thomas Hill. The nomination of Hill’s successor lay with the Corporation, but they had to wait for a vote of consent from the Board of Overseers before they could proceed to elect. After the Corporation should make its choice, the matter could not definitely be decided until the Board of Overseers voted to concur. For five months the Overseers procrastinated, but finally on February 25, they authorized the Corporation to proceed. On March 10th, a member of the Fellows, Reverand George Putman, informed Eliot that the Corporation wished to elect him President. His election to the presidency was not to come easily, for there were many who feared him as a dangerous radical. Among the opponents for his nomination was a group led by Louis Aggasiz and Benjamin Pierce, that had preferred Gibbs for the Rumford Scholarship. It is a tribute to Eliot’s open mind and fairness, that in later years he spoke of both of these men as leaders in American science. A large group of conservative alumni felt that a classical education was the important distinction of a college man, and were afraid of a liberal
enlargement of the list of elective studies which Eliot's election seemed to portend. Informally at least, the Corporation offered the presidency to Charles Francis Adams, but that individual promptly declined the offer. At this time, the American colleges were all denominational and most of them upheld some particular theological bias. Eliot had said in one of his articles in the Atlantic Monthly, "The American Colleges have taken and still take their presidents from the clerical profession almost exclusively...it is gradually becoming apparent that they are suffering from this too exclusive clerical administration." Despite all this opposition, the Corporation meeting on the morning of March 12th, formally elected him president, subject to the concurrence of the Overseers. This just six years after half of these gentlemen who now composed the Corporation, had denied him the Rumford Professorship. For a while the Overseers declined to concur in Eliot's election, but on April 21, a majority voted in his favor and his election was complete.

During all of this time Eliot was completely indifferent to the outcome of the controversy. His mind and heart were elsewhere for at home his wife's long illness was drawing to its fatal end. Upon meeting Francis Parkman, one of the members of the Board of Overseers, Mr. Eliot said, "Ephraim Gurney was my candidate, he is my friend and I wanted him to be president. I have never sought the nomination, I don't want it...I am content with my present position and in the saddened state of my household, I have no thought of seeking another." On this night

of March 11th, the doctors announced that Mrs. Eliot who had been ill several months, was sinking rapidly and her life was now measured by hours. But she was still conscious and shared his happiness when Eliot told her the news of his appointment. The next day she died.

On October 19, 1869, Charles W. Eliot at the age of thirty-five was inaugurated President of Harvard University. His inauguration truly began a new era in the history of American University education. That Eliot had foreseen what had to be accomplished in the way of reform for the American University is clearly shown in his inaugural address. Although the prophetic character of his address was not so clearly seen then, we, of today, who can look back over the forty years of reform recognize him not only as a man of keen insight, but as one who made his promises good through his achievement. This inaugural address was truly an amazing document. It was not just a formal address but a well considered exposition of educational and administrative principles. The principles that he proclaimed in his inaugural address he adhered to throughout the forty years of his administration. Because those principles were, and are sound, and because his ardent devotion never flagged, the remarkable development of the university from a provincial New England college and two or three inadequate professional schools maintaining standards far below the standards of corresponding European institutions into a cosmopolitan university worthy of recognition the world over, followed inevitably.

As was anticipated, it set forth the president's view vigorously and unequivocally. His opening words must have been a satisfaction to

to his supporters, and, at the same time, they tended to calm those opponents who looked for a ruthless break with tradition. Those opening words - the keynote of the whole address - were: "The endless controversies, whether language, philosophy, mathematics, or science supplies the best mental training, whether general education should be chiefly literary or chiefly scientific, have no practical lesson for us today. This University recognizes no real antagonism between literature and science, and consents to no such narrow alternatives as mathematics or classics, science or metaphysics. We would have them all, and at their best......A university is not closely concerned with the applications of knowledge, until its general education branches into professional.....It were a bitter mockery to suggest that any subject whatever should be taught less than it now is in American Colleges. The only conceivable aim of a college government in our day is to broaden, deepen, and invigorate American teaching in all branches of learning."

One of the first administrative reforms that Eliot instituted was the creation of the office of Dean of the College. Into this important office he put his old friend Ephraim Gurney. The new Dean assumed all disciplinary duties and others which had formerly taken a good bit of the president's time. Deans were subsequently appointed in every department of the University which had a faculty of its own. A single University calendar was established which ended the confusion of term and vacation periods among the different departments of the

University. Physically the College grounds were expanded and improved. Another alteration which was enacted in the first year was a complete revision of the old petty disciplinary regulation. A booklet containing five pages of broad and harmonious rules replacing nearly forty pages of petty regulations, gave the undergraduates freedom and a chance to prove they could be trusted.

Before Eliot's inauguration the presidents of Harvard University contented themselves with the administration of Harvard College only. Other branches of the University such as the Schools of Divinity, Law, Medicine, Dentistry, or Science, conducted their own affairs independent of the College. Eliot broke with this tradition immediately. He began to attend and preside over all faculty meetings with unfailing regularity. Slowly he welded a group of independent Schools into a solid University. Higher standards of admission requirements and methods of administering examination were instituted. Up to this time examinations were largely oral. It was during Eliot second year of teaching that he and a fellow tutor, James Mills Pierce, rose up in criticism of the practice of examining students by quizzing them before a committee of "visitors" from the Board of Overseers. They persuaded a reluctant Faculty to let them grade their students by using written examinations. This reform had spread throughout the College, but in the Medical School and elsewhere they were still using oral examinations. Records of scholarship were completely separated from disciplinary records and a Graduate School of Arts and Sciences began slowly to arise. Enlargement of the faculty and the curriculum made an increase in the list of elective courses and paved the way for the establishment of the elective system. His insistence upon needed reforms in the professional schools needed real courage as it was not realized without much controversy. He thought
that the standards of the professional schools were shamefully slack. They maintained low standards of admission and graduation. For the first four or five years he fought vigorously to improve them and less strenuously when the faculties of these several Schools became convinced of his wisdom.

Beginning with his first Annual Report and continuing every year thereafter, President Eliot transformed what had formerly been a vague and perfunctory document that appeared to be designed to induce a complacent state of mind concerning affairs in the University, into a report that expressed his opinion about the state of things whether favorable or not. He reported fully and precisely about the events of each year presenting an accurate account of his conduct of Harvard's affairs. Relatively few persons have written or spoken the English language as clearly and forcefully as he did. He continually refused in his later life, requests to write an autobiography, but referred to his "Annual Reports of Harvard University". He put so much of his life into them that he regarded them as a sufficient biography. There were thirty-nine of these which contain an unexcelled treasure house of wisdom for the guidance of education.

In October of 1877, Charles Eliot was married to Grace Mellon Hopkins. His engagement and marriage helped to dispel the loneliness and lack of companionship which he had felt since the death of Ellen Peabody Eliot, and which had been intensified by the recent death of his mother.

a long story of changes and innovations in the instruction and administration of the College, Eliot presented his resignation as president, to the Harvard Corporation. His resignation became effective in May of 1909, when he became President Emeritus. Finding it impossible to sever his relations with the University, he consented to let himself to be elected to the Board of Overseers for a six year term.

During the remainder of his long life he was interested in many public spirited institutions, outstanding among which are the following great foundations: the General Education Board; the International Health Board; the Rockefeller Foundation; and the Carnegie Endowment for International Peace. President Eliot was a very active member of local and national education associations. His participation in the activities of the New England Association of Colleges and Secondary Schools was influential in bringing order out of the chaos of college admission requirements during the 1880s and 1890s and in enlarging the scope and flexibility of the instruction in the secondary schools. His journey around the world which he began in the spring of 1911 and which was responsible for increasing his already keen interest in the promotion of peace between nations was undertaken on behalf of the Carnegie Endowment of International Peace. Numerous honors were conferred upon him during the closing years of his life, among which were the offers of appointments as ambassador to Japan in 1912 and to Great Britain in 1912, both of which he declined because he felt that education and not politics was his field.

President Eliot was a prolific writer and the list of his publications was a long one. Age never diminished his extraordinary insight into the questions with which he dealt. During the years between his
eightieth and ninetieth birthdays he published no less than one hundred
and ninety-two articles and books on subjects such as the League of
Nations, the Swiss System of Military Training, Capital and Labor,
Zionism, Social Hygiene, Church Unity, Prohibition, Anglo-American
Relations, Civil Service Reform, and America's Role in the Near East.
He fought hard for America's entrance into the League and when it became
certain that America would abandon the project, his only comment was
"When a good cause has been defeated, the only question that its advocates
need ask is when do we fight again."

President Eliot lived to be ninety-two years old. On March 20th,
1924, a remarkable gathering took place at Harvard University to cele­
brate his ninetieth birthday. The ceremony was arranged by the Harvard
Alumni Association and the Associated Harvard Clubs with the cooperation
of an honorary committee of citizens formed under the patronage of the
President of the United States, the Chief Justice of the United States,
the Governor of Massachusetts, and the premier of Canada, and other
distinguished citizens.

Congratulatory messages were presented to President Eliot by
appointed spokesmen from these groups. It was a great outpouring of
America's respect and affection for the man who was recognized as the
outstanding progressive leader in American education and one of the most
public spirited citizens our country has ever produced.

The shock and sense of loneliness which he experienced after Grace
Hopkinson Eliot's death in 1924 almost completely overwhelmed him.
He never seemed to completely rally from the shock. Finally, on

August 22, 1926, when he was ninety-two, his long and eventful life came to a close at his summer home at Northeast Harbor in Massachusetts.

As the years pass and we find Eliot’s views on education triumphant and himself universally admired, we feel that it has been his reward for the years of generous service to his University and to education in general. No one can begin to measure the gain to civilization and human happiness that his services have wrought. Throughout all of his life he was a living symbol of Edward Everett Hale’s words, which he quoted so often—"Look up and not down; look forward and not backward; look out and not in; and lend a hand". 
CHAPTER III

CONTRIBUTIONS TO UNIVERSITY EDUCATION

After his inauguration, President Eliot began without delay to introduce the reforms and innovations that he desired. It would be impossible to review all the reforms and yet it is worthwhile to take into account some of the more important matters which he championed. It would be of course, gratuitous and also unfair to other men to pretend that all the changes that were brought about in the first years of his administration were conceived by his unprompted imagination. For he did not have to work unaided. But if a force which is suddenly introduced into a static situation, to the disturbance of its equilibrium and with the effect of liberating other forces hitherto latent, may be spoken of as a cause of changes that follow, then it is right to attribute to Eliot almost everything that now occurred. The direction in which all sorts of things began to move was certainly the direction in which he was pressing forward.

In acknowledging the tributes paid to him on his ninetieth birthday Eliot had said:

"It was the strength of the Harvard Faculties themselves which filled me with strength and what is called leadership. I gave expression and opportunity to their hopes, aspirations, and devotions; and great was the privilege of so doing. You must therefore attribute the successes which I have been privileged to win to the very fortunate circumstances of my life, to the leadership of the extraordinary philosophers and scientists of my time." 2

1. James, Henry op. cit., p. 239.
2. James, Henry op. cit., p. 311.
It is quite just to say that Eliot's inauguration began a new era in the history of American University education. Eliot's ideas were not new. He had taken the best that he could find from those who had gone before him, from his brief teaching experience, from his first hand study of European Universities, and from his own student days. It is significant that he came at thirty-five to the opportunity offered him as well-trained an expert in matters of higher learning and teaching as it would then have been possible to find in America.

One of the first things he turned to was the improvement of the professional schools. In America in 1870 ministry, law, medicine, and teaching were the only established professions. Engineering and architecture were barely beginning and could count only a few competent practitioners taught by a number of new technological institutions such as Massachusetts Institute of Technology. The colleges that existed to fit young men for the professions were contenting themselves with lower standards than they had aspired to during the first third of the century. Earlier presidents of Harvard concerned themselves very little with the professional schools, but as has been explained before Eliot considered himself the President of every department of the University not less than of the College. He pushed their reorganization to the fore and began a series of critical comments that were unprecedented for an American College president.

All Harvard professional schools were in about the same condition in at least one respect. They could hardly be said to have entrance requirements. Generally speaking a "good character" and a previous

acquaintance with high school studies sufficed for admission. It was easier to matriculate in the professional schools than to get into the College. Evidence of character was not considered, except superficially and examinations were informal and easy to pass. In his Annual Report for 1870-71 Eliot stated:

"In undertaking to train young men for the clerical, legal, medical, and scientific professions the University assumed grave responsibilities, which have not always been kept sufficiently in view...In this country, where preparation for the learned professions, except the clerical, has been notoriously scanty, hasty, and unsystematic, it is especially important that the leading University should set an example of thoroughness."4

It seemed shocking to him that institutions of learning should present young men to the community as doctors, lawyers, ministers, or engineers who were not confidently prepared for their profession.

"College degrees have fallen into just disrepute in this country, through the ignorant carelessness with which Legislatures have granted the right to confer degrees to hundreds of institutions which had no just claim to the possession of such a power."5

So he intended that Harvard should supply the community with specialists who were better than shams and promote the country's efficiency by providing the best possible education for its professional men.

Everyone could foresee, including the faculties concerned, that the reforms Eliot urged would cause an immediate reduction in the number of students in the professional schools. Whether this number could be made up again was of concern to many. They felt that the finances of the Medical and Law Schools could not survive the double strain of an in-

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4. James, Henry, op. cit., p. 263.
crease in the cost of instruction and a reduction in the number of students. In answering these arguments Eliot had nothing tangible to rely on, but he was convinced that it was better to lose fighting for something first rate than to achieve a vulgar success.

In 1869 the Law School was modeled after a lawyer's office. The students paid a tuition fee of one hundred dollars which was kept by the professor who in turn placed his private library at the disposal of the students. After eighteen months of attendance a student received his degree as a matter of course. For ten years there had been no change in the course or method of instruction.

On September 27, 1870, Eliot presided over his first Faculty meeting with the Law School. Professor Holmes, Washburn, and young Professor Langdell composed the faculty. It was understood that a dean was to be elected and the two older men apparently hoping someone else would assume the duties of the new office elected Langdell. This was a very happy selection, for under the leadership of Langdell, the most fortunate harmony prevailed within the Law School.

Langdell's appointment to the Law Faculty was one of the first that Eliot made after his inauguration. He had first met Langdell as an undergraduate and had recognized him as a man of genius. Langdell regarded the law as a science which was to be mastered only by the investigation of its sources – the decisions of the courts. The teaching of law was then quite unknown in England and the United States as a career. When Langdell was appointed to the Law Faculty he gave up his private practice entirely. His appointment and that of J.B. Ames in 1873, a man who had never practiced law, marked a new era in the teaching of law as a career.
An important event in the history of the law school and of legal education in the United States was the establishment during the year 1874-75 of an admission examination of all applicants for the school who did not already hold a degree of Bachelor of Arts, Science or philosophy. Langdell also inaugurated a change in the method of study by using a selection of cases as a text-book instead of a treatise. This gradually extended to all the instruction in the School, and thus became the famous "case system" which was soon to be copied in every law school in the country. Other reforms were the establishment of a progressive curriculum by dividing the subjects into first and second year courses, and requiring students to pass a written examination before they could pass into second-year subjects.

President Eliot was in complete agreement with Langdell's views just as the new Dean believed heartily in President Eliot's ideas. Consequently after 1870 Eliot played his part in the development of the school simply by giving his full and cordial support to the policies of the Dean. Good effects of the new regime were noticed immediately. A decline in the number of students proved to be only temporary and within three years had rectified itself. The average quality of the student body improved noticeably and the schools finances began to look up. By 1890 the men who had been graduated from three years instruction by the case study method were proving in the competition of professional life that their training had been superior to any other.

Within the Divinity School the problem was essentially the same. The school was conceived and dedicated with the thought that the minister should be the best educated man in the community. Only graduates of colleges were accepted as students of theology. But gradually others were admitted on passing an examination of a comprehensive character.
These examinations became weaker and weaker until in 1869 practically no academic preparation was required. To make the situation worse the Divinity School was using its funds in promiscuous aid to all students. W. DeWitt Hyde described this distribution of aid as amounting to between $150 and $200 a year to an ordinary student, and to $350 a year to those few students who might have a B.A. or M.A. degree.

In 1870 the Faculty of the Divinity School returned to the practice of requiring a knowledge of Latin and Greek languages for admission, and established periodical written examinations for all students. The degree of Bachelor of Divinity which was formerly given to all students who remained in the School for three years and regularly pursued the prescribed course of study, became available only by examination. By 1872-73 the promiscuous distribution of aid to all students stopped, and scholarships were established in their place. In 1897 the tuition fee became the same as other schools and since 1882 a college education or its equivalent was required for admittance. The school took a fresh start in 1869 and resumed its proper position at the head of the professional schools of the University.

Unfortunately none of the other Schools in the University had a leader like Langdell in the Law School. In all the others the faculties were larger and there was much opposition to any change. The Medical Faculty was dominated by two men. Dr. Henry J. Bigelow and Dr. O. W. Holmes. Both of these men enjoyed great popular as well as professional prestige and resented any interference with the conduct of the school. To them the practice of medicine was an art to which science had no part.

Within the school the instruction covered two terms which meant the student had to be on hand for a total of sixteen weeks. In addition there were three short summer sessions which only a minority of the students attended. Classes were ungraded so that there was no distinction between first and second term students. Various entrance requirements existed, but were not effectively enforced. The only requirement that was general was that all candidates for a degree must produce a certificate showing they had studied for three years with a regular practitioner. After attending for two terms any student who wished to graduate paid a fee of thirty dollars for an examination and presented a dissertation. Of the three, the fee was the only one in which the student could affect some sort of compromise. The best of the dissertations were wretched and the examination was much like a mad tea party. The students were all examined orally on nine separate subjects. At separate stations each candidate was quizzed for ten minutes. At the end of this time the examiners would vote on each candidate. If the student passed in five of these nine subjects, he was awarded his degree. Speaking of this examination in later years, William James told how Dr. Holmes on hearing the correct answer to his first question said, "If you know that, you know everything. Now tell me all about your family and the news at home." It now seems incredible that this was the meager preparation for a learned profession, but Harvard was no worse than any other medical school in the United States at that time.

Dr. Henry Bigelow in defending the Harvard Medical School as it stood, then maintained, "No successful medical school has thought proper

to risk large existing classes and large receipts in attempting a
more thorough education. He maintained that physicians are born, not
trained, and that the same applied more strongly to surgeons; that if
you reduced the number of students, you diminished the possibility of
gaining the real physician or surgeon."

In 1856 while giving a course in the Medical School, Eliot was con-
vinced that changes were needed:

"While giving that course of lectures I made thorough
acquaintance with the methods of teaching which then
prevailed in the Medical School...I remember seeing on
two occasions the condition of the paper of the manu-
script lectures which Dr. Jacob Bigelow read every
year to the medical class. The paper was brownish-
yellow although it had once been white....In his
hands subject of materia medica underwent no change to
speak of between 1815 and 1855."9

Eliot found young men in the Medical Faculty who were chafing under
Dr. Bigelow's domination and were eager for reform. Among them were such
men as Calvin Ellis who was elected Dean to succeed Dr. Bigelow. The
first steps they accomplished were to pass all receipts and disbursements
into the University treasury instead of being handled by the faculties.
Second, the students should be graded and the course a progressive one of
three years duration. Third, that the system of examinations be reformed.

The Faculty opposition which at first was led by both Dr. Bigelow and
Dr. Holmes received a surprise when Holmes suddenly joined with the
opposition and voted against Dr. Bigelow. President Eliot describes this
change as coming after the debate had been progressing into the fourth
month. At that time the Faculty was meeting at the house of Dean,
Dr. Calvin Ellis. After the Faculty had adjourned Dr. Holmes came up to

8. Ibid., p. 130.
9. Eliot, Charles W. A Late Harvest, Oliver W. Holmes, p. 35.
me and said, "Mr. President, you have undoubtedly seen what is the
matter with me. I have been under Dr. Bigelow's thumb so long that I
have not been able to get out from under."

It took two years to effect the major reforms. The proposal to re-
quire candidates for a degree to pass all subjects and not just five out
of nine received dramatic aid at a crucial moment from Charles Francis
Adams. In speaking before the Board of Overseers, Adams described how a
recent graduate of the Harvard Medical School had caused the death of
three patients by prescribing an overdose of morphine. Written examina-
tions were soon instituted over the vigorous objections of Dr. Bigelow:

"He actually proposes to have written examinations for
the degree of doctor of medicine. I had to tell him
that he knew nothing about the quality of the Harvard
medical students; more than half of them can barely
write. Of course they can't pass written examinations."12

The tuition fees were raised in order to compensate for the expected
decrease in enrollment and in his Report for 1871-72, Eliot put a strong
plea for endowment of the Medical School. By 1874-75 the period of trans-
ition was over. That year the school ended with a $3500 surplus and
established a course for graduates. In 1893 a physiologist who had
never practiced medicine became Dean of the Medical School. Nothing
could have proved more pointedly that the School had become an institution
for the teaching of medical science instead of an association of
practitioners who licensed men to go out and learn the art of healing
at the bedside of their patients.

The Lawrence Scientific School in 1869, although a distinct unit,
included the School of Mining and Practical Geology. The Museum of

10. Ibid., p. 37.
p. 32.
12. Ibid., p. 28.
Comparative Zoology, the Botanic Garden, and the Astronomical Observatory, were also included in this group. When Eliot decided to make this group part of the University program of efficiency and economy, two problems emerged.

The school was attempting to discharge two distinct functions. First, they were teaching fundamental science, and second, they were training their students to apply their science to the industries and arts. Eliot reasoned that the teaching of elementary science would not have to be done in this school if only the College would consent to introduce scientific subjects into their curriculum. Under his influence Chemistry, Physics, and Natural History were introduced into the College curriculum.

Realizing that Massachusetts Institute of Technology was turning out technologists and was doing its work very well, Eliot negotiated for a partial merger with the Scientific School and Massachusetts Institute of Technology. For a few months it looked like he would succeed, but then he was compelled to admit that the plan was not feasible.

In 1861 while still a teacher in the Lawrence Scientific School he had conceived a plan which would entirely reorganize the School. This plan proposed that the School should provide a course of instruction extending through two years and described courses of study preparatory to the prescribed courses of the School, even to a tabular statement of hours of recitation for all classes. The plan defined substantial entrance requirements and provided that they be enforced by means of examination. It provided for four years of study, two of broad preparation and two of specialization. Nothing came of this plan at that time, but in 1871-72 the School was reorganized largely on the basis of this former plan.
A new rule which allowed students in any department of the University to enter classes in any other, made some economy possible by transferring classes in Chemistry and Physics to the College Laboratory. The right to room in the College dormitory was accorded to students in the Scientific School and the School of Mines. A special one-year course in the modern method of teaching science by observation and experiment was introduced. Despite these changes it was many years before there was any marked change in popular sentiment about scientific education.

The Eliot epoch at Harvard is associated in people's minds with the development of the elective system. As early as 1869 in his first Atlantic Monthly articles there was shown an example of Eliot's faith in the elective system when he stated:

"The natural bent and peculiar quality of every boy's mind should be sacredly regarded in his education; the division of mental labor, which is essential in civilized communities in order that knowledge may grow and society improve, demands this regard to the peculiar constitution of each mind, as much as does the happiness of the individual most nearly concerned."13

As a student and as a teacher he had gained an insight into educational methods, and he was deeply impressed by the inadequacy of the prevailing methods of education. His mind revolted against the compulsions of rigid systems which checked originality of thought and the development of personal powers.

In his inaugural address the young president uttered such sentences as these:

"Only a few years ago, all students who graduated at this College passed through one uniform curriculum.

Every man studied the same subjects in the same proportions, without regard to his natural bent or preference. The individual student had no choice of either subjects or teachers. This system is still the prevailing system among American colleges, and finds vigorous defenders. It has the merit of simplicity. So had the school methods of our grandfathers—one primer, one catechism, one rod for all children... This lack of faith in the prophecy of a natural bent, and in the value of a discipline concentrated upon a single subject, amounts to a national danger."

In reviewing the traditions of Harvard College in his "Harvard Memories", Eliot states that the studies pursued at Harvard down to the close of the Revolutionary War had remained of the classical type which had prevailed in the English Colleges for centuries. The students had no choice of studies, and the discipline was what we now call strict.

Various advances were made at Harvard under Presidents Cornelius Conway Felton and the Reverend Thomas Hill in respect to enlargement of the opportunities for scholarship and encouragement of research. Dr. Hill advocated the enlargement throughout of the scientific teaching of the University and the professions. Dr. Hill took a strong interest in the Schools of Medicine, Theology, Law, and Science. Nevertheless, there was strong opposition to the development of the "Elective System". There were some members of the College Faculty who thought that the President was venturing too far in an unexplored field of liberty for students. They felt that a young man of eighteen would not be qualified to know what he should study. Many were alarmed at the increasing number of instructors and assistant professors that were necessary with an increase of elective studies. These men were lovers of the "good

15. Ibid., p. 104.
old times" and believers in driving children and youth rather than leading them. They were advocates of mental "discipline", particularly if disagreeable rather than in mental delights. While still an undergraduate, Eliot in one of his exercises gave his argument against "disciplinary studies" which he was to press again and again:

"When the general student undertakes to make himself familiar with all branches of knowledge, he necessarily pursues some of them under a disadvantage. The time which he spends upon those which are distasteful to him, will be more than half wasted, not because it is unoccupied, but because it might be so much better employed." 16

At first Eliot himself did not advocate giving students who came to Harvard College anything like complete freedom to select their studies. But he did see that the establishment of a large degree of freedom was an essential step toward an ultimate goal. The amount of time given to prescribed studies by Freshmen, Sophomores, and Juniors was reduced very slowly, and the list of elective courses, though prolonging itself at a rapid rate, was not long enough, for many years, to allow the undergraduate to stray very wildly during the portion of his time that he could dispose of to suit himself.

There appear to be good reasons to believe that by the years 1876 to 1878, the College Faculty had been so enlarged and its field of instruction had been so broadened that a return to the old system of prescribed studies was impossible. Within the faculty and the Governing Board the elective system had, in principle, been completely adopted. Discussions during the academic year 1878-79 resulted in the elimination of all prescribed studies from the Sophomore, Junior, and Senior years except

for the study of Rhetoric and writing of themes and forensics.

He was successful in thus improving and extending the elective system to the great profit not only of Harvard University but to higher and secondary education throughout the country. The freedom which he insisted upon for the students he accorded the professors.

Throughout his administration, and under his leadership, the faculty became a clearing house for educational opinions; every man feeling that his real opinion was desired, and not conformity to the president's views; knowing also that opposition to the president played no part in his tenure or promotion; that conscientious and effective performance of his duty to the university was the determining factor in his career. 17

By 1890 the elective system was perhaps at its best. The catalog had not yet become a bewildering maze to the average student and the variety of subjects and provisions for advanced study in all departments were rich indeed. The principle of the elective system was enjoying high prestige and was being applied in other colleges all over the country.

On building the Graduate School at Harvard, Eliot had the very good example and value of John Hopkins University which started in the year 1876-77 under the wise guidance and leadership of President Daniel Coit Gilman. It was the most brilliant single experiment in graduate study made up to that time in this country although it was conducted on a principle that would have been impossible of application at Harvard.

Daniel Coit Gilman proved that it was possible to have an institution of higher learning which was a real University in the sense in which that word was understood in Europe. What he proposed to do and what he actually accomplished impressed his friend, the President of Harvard. Mr. Eliot was an interested observer of the great events which were in progress in Baltimore. He saw and he understood. He reshaped his own course as a consequence. Harvard also became a university. 18

On the occasion of the celebration honoring President Gilman's
twenty-fifth year as President of John Hopkins, President Eliot stated:

"Your first achievement here, with the help of your
colleagues, your students, and your trustees, has
been to my thinking—and I have had good means of
observation—the creation of a school of graduate
studies, which not only in itself has been a strong
and potent school but which has lifted every other
university in the country in its department of
arts and sciences. I want to testify that the
graduate school of Harvard University started
feeblly in 1870 and 1871, did not thrive until the
example of John Hopkins forced our faculty to put
their strength into the development of our in-
struction for graduates." 19

A university cannot be said to be complete, no matter how numerous
its professional school, or how excellent its college unless it provides
opportunities to pursue studies to the very frontiers of knowledge, and
can give training in the methods of advanced work to young men who have
been through the elements. Before 1876 there had been efforts and
immature beginnings in graduate work. Eliot's initial experiment with
the University Lectures had proved to be a false start. From this
failure he turned to broadening the field of College studies thus making
it easier for a student to specialize and advance further in his chosen
field. This tended to superimpose the Graduate School upon the College,
resulting in a great deal of confusion and overlapping of the College
and Graduate School. Eliot had great difficulty in finding men capable
of giving advanced instruction and regretted the fact that men like
Asa Gray, Benjamin Pierce, Jeffries Wyman, and Louis Agassiz, were all
going off the stage and their places could not seemingly be filled by
Harvard men or any other Americans. At this time Eliot also felt the

keen competition of John Hopkins University where President Gilman offered better remuneration to his staff and was very vigorous in seeking learned men even to the extent of trying to lure Harvard teachers into his fold. Added to this difficulty was the fact that Eliot at first did not understand the true meaning of the word "research" and progress at Harvard was necessarily slow. Eliot had never been a research worker himself but a teacher and even then always a teacher of elementary students. Many times in his early years as President he disappointed members of his faculty by turning down requests to do original research. But although he never did properly understand research, Eliot showed his open-mindedness and readiness to learn by furthering research after the example of John Hopkins University had convinced him of the necessity.

By 1890 the Graduate Department which had been non-existent in 1869, was at last flourishing. Instruction had been correlated with that offered to undergraduates and its influence was beginning to be comparable with that of its younger and precocious rival, John Hopkins University. The reputation of the Harvard Graduate degree was now second to none.

Another example of President Eliot's vision and initiative was his founding the study of education within the faculty of arts and sciences at Harvard University. That was in 1891; and required both vision and courage because, at that time, education as a university study was looked upon with strong disfavor—not to say with contempt—by most university faculties in the country. How greatly the new department of study was distrusted by the Harvard faculty was evidenced by the fact that none of the three courses in education offered during the first year were permitted to count toward any degree. This handicap was partly removed during the
second year, and wholly during the third year of the department's existence. The example of Harvard in establishing the university study of education undoubtedly had a strong influence in inducing other endowed colleges and universities to do likewise. Today, very few self-respecting colleges and universities fail to offer substantial courses in the study of education.

The generosity with which Eliot accommodated himself and his work to criticism showed how tolerant he could be. This was not to be expected from him for his whole habit of thought was affirmative and he put an intense drive and desire to bring his ideas to practical fruition. Although his opinions were dogmatic, he never found conflict with others distasteful.

It wasn't very long after the reform of the professional schools that Eliot began to be alarmed about the rising age at which men were graduated. Having graduated from Harvard himself at the age of nineteen, which was about the average age of those day, he had since seen the age level rise steadily until in 1920 the average Bachelor of Arts student graduated at twenty-two. At the same time the professional schools had lengthened their courses so that the average professional graduate could not begin to practice until he was twenty-six or twenty-seven years of age.

Turning to the secondary schools first, he found that all attempts to have these schools graduate students at an earlier age met with failure. The professional schools on the other hand which at first had fought strenuously against any lengthening of their courses were now

just as adamant about any shortening of their courses. There was no where then to turn except the College. His idea here was to so shorten the course that a student could get his degree in three years instead of four.

After heated discussion measures were taken to make it possible for a student to obtain his degree in three years by taking summer courses and obtaining credit for some courses taken in secondary schools. This three year residence rule met with some success for a period of ten years. The College Faculty voted for it in a small majority, but it was continually opposed by the Overseers.

The report of the Committee of 1902-03 inflicted a mortal blow on the three year residence proposal by showing that the students were putting only an average of 2 1/2 to 3 hours a week of study on each subject instead of six as the Faculty had assumed. The Committee concluded that if the three year residence proposal were to be adopted it would be difficult to improve quality of instruction at Harvard College. The three year proposal never again came near being adopted.

Harvard College was originally established by a branch of the Christian Church - the Congregational Church. This Congregational Church desired to breed, bring up, create in the little College, successors for the educated ministers who had come over the Atlantic with the Massachusetts Bay Company.

By 1869 the School had come under the influence of the Unitarians, and the Divinity School became a feeder to the pulpit of this one denomination. Eliot was a faithful member of the Unitarian Church and

was sincere in his faith. Nevertheless, he felt that the Harvard Divinity School should play a non-sectarian rôle. Accordingly, as opportunity presented itself to make new appointments he added Baptists, Episcopalian, Congregationalists, and other non-Unitarians to its Faculty. When Dr. Andrew P. Peabody resigned as Preacher to the College, Eliot tried to induce Phillip Brooks, a prominent member of the Episcopal Church to accept the position. This produced such a storm of protest that Brooks declined to accept the offer. Accordingly in 1886 a Board of Preachers was established to divide up the work. This Board included members of several religious sects and was made up afresh year after year.

After adoption of the elective system compulsory chapel attendance seemed out of spirit to the students and the College Faculty, but the Corporation and Overseers along with President Eliot were unwilling to make any changes. After the formation of the aforementioned Board of Preachers a proposal for voluntary attendance in place of compulsory attendance at services was adopted. The preachers felt they would rather address a small congregation that attended in a worshipful spirit than hold prayers for a mass of students who were policed into the Chapel in a rebellious mood.

In summarizing Eliot's contributions to University Education we can do no better than cite the following items which Eliot in a letter to Edward Everett Hale regarded as the best fruiter of his forty years of service as President of Harvard University.

1. The re-organization and ample endowment of the Medical School.
2. The re-making of the Law School under Langdell.
3. The re-building of the Divinity School on a scientific basis with a Faculty containing members of several denominations.
4. The establishment of religious services on a voluntary basis under a board of preachers representing several denominations.
5. The requiring of a previous degree for admission to all the professional schools except the Dental School, which is moving in the same direction.

6. The administration of the University as a unified group of departments—one undergraduate department and many graduate schools.

7. The perfecting of the elective system as a system.

8. The increase of the endowments and of the number of students, due to the confidence of the public in the financial and educational management of the University during a period of remarkable development in the wealth of the nation.

9. The remarkable rise in the scholarly quality of the men appointed to teach in the University.

22. James, Henry *op. cit.* p. 171.
CHAPTER IV

CONTRIBUTIONS TO SECONDARY EDUCATION

Having thus started every department of the University on the road to reform, President Eliot next turned his attention to the secondary schools. As far back as his report for the year 1873-74 he had called attention to,

"the great importance to the colleges and to the community that the way be kept wide open from the primary school to the professional school; for the poor as well as the rich.... The desired connection between the secondary schools and colleges might be secured by affecting certain changes in the requisitions for admission to college on the one hand and in the studies of the existing high schools on the other." 1

President Eliot's influence upon secondary education, if its story could be fully told, would be found to be scarcely less than upon the college and university. This had been most directed upon those academies and high schools which fit for Harvard College, but it was not limited to these.

President Eliot felt that a college administrator who paid no attention to the condition of Secondary Schools could not guide well the policy of his own college, and could not secure for his college its proper share of influence on education in general. For this reason, efficient college presidents watch and think about secondary schools—their effects on colleges, and the colleges influence on them.

At Harvard Eliot proposed to count for admission any study taught in Secondary Schools, to an extent which can fairly be supposed to cultivate in the pupils the peculiar mental capacity the study is fitted to impart. In other words the colleges and secondary schools were beginning to recognize that their first demand should be for trained capacity in their candidates for admission, and not for knowledge of any particular subject or subjects.

Much of what Eliot used to say about educational reform seems trite now because we take for granted many of the things he campaigned long and hard for. The reforms were of course, not all of Eliot's sole making, but on point after point his voice was one of the first and clearest which urged and prophesied change. His leadership in educational matters did not rest on his own particular originality, for his ideas were not new, but on the fact that he was usually ten to twenty years ahead of the majority.

Very early Eliot became convinced that the schools did not pay enough attention to the training of the senses. The programs of the secondary schools still clung almost exclusively to the memory subjects and the elements of mathematics. They provided small opportunities for acquiring any skill of eye, ear, or hand, or any acquaintance with the accurate recording and cautious reasoning which modern science prescribes.

The changes which Eliot felt should be introduced immediately in the programmes of American secondary schools, in order to correct the glaring deficiencies of the present programmes, are chiefly:

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introduction of more hand, ear, and eye work—such as drawing, carpentry, turning, music, sewing, and cooking, and the giving of much more time to the sciences of observation—chemistry, physics, biology, geography—not political, but geological and ethnographical geography. These sciences should be taught in the most concrete manner possible—that is in laboratories with ample experimenting done by the individual pupil with his own eyes and hands, and in the field through the pupil's own observation guided by expert leaders. In secondary schools situated in the country the elements of agriculture should have an important place in the programme, and the pupils should all work in the school gardens and experimental plots, both individually and in cooperation with others. In city schools a manual training should be given which would prepare a boy for any one of many different trades, not by familiarizing him with the details of actual work in any trade, but by giving him an all-round bodily vigor, a nervous system capable of multiform coordinated efforts, a liking for doing his best in competition with mates, and a widely applicable skill of eye and hand. Again, music should be given a substantial place in the programme of every secondary school, in order that all pupils may learn musical notation, and may get much practice in reading music and singing. Drawing, both freehand and mechanical, should be given ample time in every secondary school programme; because it is an admirable mode of expression which supplements language and is often to be preferred to it, lies at the foundation of excellence in many arts and trades, affords simultaneously good training for both eye and hand, and gives much enjoyment throughout life to the possessor of even a moderate amount of skill.

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Every school plant, whether in city or country, should be used, not only by the regular pupils between the hours of eight or half-past eight and four or half-past four, but by older youths and adults at hours outside the working time in the prevailing industries of the town or city where the school is situated. Many efforts are now being made to introduce continuation schools and to develop evening schools; but these efforts should become universal, and should result speedily in a large extension of the American public school system. Moreover, the fundamental object of the proposed changes in the programmes should be distinctly recognized—the better training of the senses.

One special change which President Eliot was probably the most important champion was the greatly increased attention given to English. The meager time allotted to this in secondary schools and the slight importance attached to it by college entrance requirements in comparison to Latin, Greek, and mathematics, were perhaps the most extraordinary phase of the educational situation at that time. President Eliot was a positive force in giving English a strong place in the modern secondary school curriculum.

In his inaugural address on becoming President of Harvard College, October 19, 1869, Eliot said:

"The practice of England and America is literally centuries behind the precept of the best thinkers upon education. A striking illustration may be found in the prevailing neglect of the systematic study of the English language. How lamentably true today are these words of Lock: "If any one among us have a facility or purity more than ordinary in his mother-tongue, it is owing to chance, or his genius, or anything rather than to his education or any care of his teacher." 6

In his first published contribution to the study of education, Eliot stated that,

The first language that a student should study with persistence and thoroughness is his native tongue, and this not through its formal grammar, but by reading aloud, by committing to memory choice bits, and by listening to a good teachers commentary upon passages from standard authors. The mother tongue should come to a child by unconscious imitation of good examples.7

With the new freedom for the pupil that the elective system introduced, President Eliot advocated that there be no admission requirements within the colleges themselves of the traditional subjects—Latin, Greek, Mathematics, and elementary history and philosophy.

"The study of Latin ought not to be forced by either school or college on all boys and girls in secondary schools who are going to college, or later on all candidates for the degree of Bachelor of Arts."

The doctrine that a knowledge of Latin is indispensable to real acquaintance with the great literatures of the world is difficult—indeed impossible—to maintain before American boys and girls whose native language is that of Shakespeare and Milton, of Franklin and Lincoln, of Gibbon and Macaulay, of Scott, Burns, and Tennyson, and of Emerson and Lowell. English literature is incomparably richer, more various, and ampler in respect to both form and substance than the literature of either Greece or Rome.

In stating that Latin should no longer be a requirement for the degree of Bachelor of Arts, Eliot did not mean that the study of Latin should be given up in either the secondary schools or the colleges. On the contrary, it should unquestionably be retained as an elective college subject, and should be accessible to the pupil in all well-endowed and well-supported secondary schools, public or private.

Next he claimed that French and German ought to enjoy a position of academic equality with the classics and mathematics; for, said he—"I cannot state too strongly the indispensableness of both French and German to the

American or English student. Without these languages he will be much worse off in respect to communicating with his contemporaries than was the student of the seventeenth century who could read and speak Latin; for through Latin the student of the year 1664 could put himself into direct communication with all contemporary learning." 8

He then went on to put in a plea for what he called "political economy or public economics" and the study of history:

"One would naturally suppose that the history of the United States and England, at least, would hold an important place in the programs of American school and colleges, and that no subject would occupy a more dignified position in the best colleges and universities than history in respect to the number and rank of its teachers." This was not the case at this time. 9

Eliot listed four main processes or operations of the mind which systematic education should develop and improve in an individual in order to increase his general intelligence and train his reasoning power. The first of these powers is observation; next, the function of making a correct record of things observed, third, developing the faculty of drawing correct inferences from recorded observations, and fourth, cultivating the power of expressing one's thoughts clearly, concisely, and cogently.

Looking at the process of learning at that time he felt that:

"Throughout all education, both public and private, there had been too much reliance on the principle of authority, too little on the progressive and persistent appeal to reason. By commands, or by authoritative imposition of opinions, it is possible for a time to protect a child, or a generation or nation of childish men, from some dangers and errors; but the habit of obedience to authority and of the passive reception of imposed opinion is almost inconsistent with an effective development of

reasoning power and of independence of thought." 10

But more important than the competition between subjects and the arguments about which ones should be taught was the problem of employing right methods of instruction. Eliot was keenly aware of this fact and as early as his inaugural address he spoke about lectures as compared with recitations, of standards, and of methods of examination. Being a pioneer in the development of the laboratory method of teaching science and in the use of the written examination for testing students, he advocated their use in the secondary school. As a teacher Eliot, was eternally interested in methods of maintaining pupil interest.

With the idea of making trigonometry more interesting to one of his classes at Harvard, he organized a small group of volunteers into a surveying party that surveyed the College grounds and other adjoining properties. To him, the "how" was more important than the "what" in teaching.

To Eliot the lecture method was the worst mode of teaching. He realized that success in teaching depended upon the personal force and sympathetic quality of the teacher, and his own comprehension of the methods, and therefore require a fine breed of teachers on a new scale; but they may be expressed in rules or formulae as follows:

1. Enlist the interest of every pupil in every school—public or private, elementary or secondary—in his daily tasks, in order to get from him hard, persistent, and willing work.

2. Relate every lesson to something in the life of the child; so that he may see the application and usefulness of the lesson, and how it concerns him.

3. Teach all subjects, wherever possible, from actual objects, to be accurately observed and described by the pupil themselves. Cultivate every hour in every

child the power to see and describe accurately.

4. Make the training of the senses a prime object every day.

5. Teach every child to draw, model, sing, and read music.

6. Stimulate every pupil to active participation in every school exercise by looking, listening, speaking, drawing, and writing himself. Each pupil should be active, not passive, alert, not dawdling, led or piloted, not driven, but always learning the value of cooperative discipline.

7. Teach groups of subjects together in their natural and inevitable relations. For example, teach arithmetic, algebra, and geometry together from beginning to end. Do the same for economics, government, and sociology, and for history, biography, geography, and travel. Associate reading, spelling, and composition day by day, and make sure that every child sees the object of having his own compositions correctly spelled and legibly written.

8. Teach chemistry, physics, biology, and geology all together every week throughout the entire course.

9. Make sure by adequate provisions in the programme that every pupil has a fair chance at the proper stage to learn, in the laboratory method, the elements of agriculture, dietetics, cooking, and hygiene, every girl to acquire the other domestic arts, and every boy the elements of some manual trade.

10. To make room for the new subjects, reduce class work and the size of classes, lengthen the school day, and shorten the present summer vacation.

11. Increase individual work. Aim at variety in pupils' attainments and in rate of promotion, and therefore at frequent sortings and shiftings among the pupils.

12. Give every pupil abundant opportunities to judge evidence, to determine facts, and to discriminate between facts and fancies.
13. Use in schools such stimulating competition as both children and adults use in sports and games to increase their enjoyment of them.

14. Keep the atmosphere of every school charged with the master sentiments of love, hope, and duty. Keep out fear and selfishness.

One of the arguments which Eliot found an early interest was the question of uniform entrance requirements for admission to college. Only a small minority of American boys at that time found a pathway of orderly progression from grammar school to college. Each college clung to its own traditions and idiosyncrasies and played a long hand in the competitive business of attracting students. Order and standardization had to be evolved mainly by process of conference, suggestion, argument, and agreement. To Eliot who believed whole-heartedly in the democratic method of expressing differences by compromise and agreement, this method of ordering and standardizing seemed as admirable as it was necessary. Negotiations for uniform entrance requirements went on ceaselessly between the years 1870 to 1900. Full three years of debate and conference were necessary before Harvard, Yale, Brown, Dartmouth, Williams, Trinity, Amherst, Wesleyan, Tufts, and Boston University agreed to make their entrance requirements alike.

By 1900 the College Entrance Examination Board became a reality. It had been suggested first by Eliot in 1877. During more than thirty-two years, while the recommendation slowly won friends, he pressed it patiently on every suitable occasion.

The two addresses by President Eliot in 1892, one before the Department of Superintendence of the National Education Association in February

12. James, Henry op. cit., p. 368.
on "Shortening and Enriching the Grammar School Course," and the other before the National Education Association in July, on "Undesirable and Desirable Uniformity in Schools," were influential in educational reform. In the first address President Eliot listed five needs for a better teaching program: 1. better teachers; 2. better school curricula, 3. elimination of waste in both elementary and secondary schools, 4. cutting down retardation, and 5. a lengthened school day.

"The chief objects of this address are, first to point out a serious difficulty which is embarrassing the whole course of American education; and secondly, to indicate briefly a few of the directions in which labor may be wisely spent in improving our school system, to the general end that the pupils may receive a better training in a shorter time." 13

These papers started a discussion of a new educational problem—that of the respective purposes and places in our educational system of the common elementary school, the high school, and the college. As a result, many schools between 1890 and 1905 reorganized the instruction in the sixth, seventh, and eighth grades by changing from the grade-teacher plan to a departmental type of instruction. These three grades were subsequently regrouped to form a new school.

At the meeting in 1891 of the National Council of Education, an interior committee of the National Education Association, a committee organized at a previous meeting made a valuable report through their chairman, Mr. James H. Baker, then Principal of the Denver High School, on the general subject of uniformity in school programmes and in requirements for admission to college. That committee was continued, and was authorized to procure a conference on the subject of uniformity during the meeting of the National Council in 1892, the conference to consist

of representatives of leading colleges and secondary schools in different parts of the country. This conference was well selected and duly summoned, and held a series of meetings at Saratoga, N. Y., July 7-9, 1892.

It resulted in the formation of the Committee of Ten. This Committee consisted of ten leading educators with Charles Eliot acting as Chairman.

The committee met for the first time at Columbia College, New York City, November 9-11, 1892, and decided to organize conferences on the following subjects: (1) Latin; (2) Greek; (3) English; (4) other modern languages; (5) mathematics; (6) physics, astronomy and chemistry; (7) natural history, including botany, zoology, and physiology; (8) history, civil government, and political economy; and (9) geography (physical geography, geology, and mineralogy); each conference to consist of ten members. The Committee then proceeded to select the members of each of these conferences, ninety in all, and to provide about thirty substitutes.

The Committee then asked every conference to consider:

1. At what age should the study which is the subject of the conference be first introduced in a school course extending from the age of six years to eighteen years?

2. How many hours a week, for how many years, should be devoted to it?

3. How many hours a week, for how many years, should be devoted to it in the ordinary high school period?

4. What topics or parts of the subject should be covered during the whole course—six to eighteen years of age?

5. What topics or parts of the subject may best be reserved for the last four years?

6. In what form and to what extent should the subject enter into college requirements for admission?

7. Should the subject be treated differently for pupils who are going to college, for those who are going to scientific or technical school, and for those who are presumably going to neither?
8. At what stage, if ever, should this differentiation begin?

9. Can any description be given of the best method of teaching this subject throughout the school course?

10. Can any description be given of the best mode of testing attainments in this subject at college admission examinations?

11. If a college or university permit a division of the admission examinations between two years, can the best limit between the preliminary and the final examinations be defined?

The report of the Committee of Ten and the nine reports of the conferences immediately engaged the attention of thousands of teachers in colleges and schools all over the country, and became objects of close attention in all teachers' meetings in all college Faculties.

President Eliot's prodigious labors on that Committee secured national sanction for his long-cherished views as to the worthlessness of short, scrappy information courses; the earlier beginning in the elementary schools of such subjects as algebra, geometry, natural science, and modern languages; the correlation and association of subjects with one another by the programmes and by the actual teaching; emphasis on the supreme importance of thorough training in English; the doctrine that secondary schools supported at public expense should be primarily for the many who do not pursue their education farther, and only incidentally for the few who are going to college; the doctrine of the equal rank, for purposes of admission to college, of all subjects taught by proper methods with sufficient concentration, time allotment, and consecutive-ness; and the correlative thereof, that college requirements for admission should coincide with high school requirements for graduation. At the

III. Eliot, Charles W. A Late Harvest, Education Since the Civil War, p.132.
same time he secured the working out in detail of the practical application of these measures by representative experts in all the departments involved, thus giving to secondary education the greatest impulse in the direction of efficiency, variety, serviceableness, and vitality it has ever received, and winning the grandest victory ever achieved in American Education.

From its ponderings the committee emerged in time with a number of suggestions. It came out for a six-year elementary school and a six-year high school, a recommendation to which most American schoolmen at the time turned a deaf ear. The committee reasserted the belief that the high school's primary function was to prepare American youth for practical life. It made suggestions in regard to college entrance requirements as well as the quality of high school instruction; it gave its blessing to the elective system in the high school; and it invented the notion of the unit system by basing a unit of instruction on the number of recitation periods during a week. A normal program for a high school boy or girl was put at four subjects, each having four periods a week.

As early as 1888 President Eliot had suggested the desirability of reorganizing the secondary school into six-year periods. About 1910 the new unit came into being. Since then the movement has gained considerable momentum, there being more than 2300 junior high schools and something like 6200 junior-senior high schools today.

The report was criticized by some because of the large number of college and university men represented in the committees. The argument being that those who were working in higher education only, could not grasp the problems of those who were engaged in secondary and elementary education.

school work. Speaking of this argument in a later article Eliot states:

"If I were asked to mention the best part of the contribution which the Committee of Ten have made to the progress of American Education I should say that their general method of work was the best part. The method of investigation and discussion by subject of instruction with teachers and experts from all sorts of colleges and universities, and from all sorts of schools, public, private, and endowed, taking part in both investigation and discussion. The Committee method of work emphasizes the community of interest at all grades, and the fact that experience at every grade is valuable for suggestion and counsel at other grades. To my thinking the present artificial and arbitrary distinctions between elementary and secondary schools, or between grammar and high schools, have no philosophical foundation, and are likely to be profoundly modified, if they do not altogether pass away----I have never yet seen in any college or university a method of instruction which was too good for an elementary or a secondary school. The alert, inspiring, winning, commanding teacher is just the same rare and admirable person in school and in college. 17

Without a doubt there is greater academic freedom and a broader view of teachers opportunity because of Charles Eliot. The freedom which he believed in for the student he accorded also to the professor. Eliot hoped by setting pupil and teacher free education might escape in each generation, ever and ever again, from traditions that become formal and from formalism that becomes inert. Discussions in faculty were untrammeled, and no man's career was ever injured because he opposed the President in matters of policy and opinion. It would be difficult for example to pick two men more opposed in temperament and personality than Mr. Eliot and Professor Barrett Wendell, and their differences were often displayed in the councils of the college. "You will understand," said Eliot while Wendell still had only a temporary appointment, "that your opposition to me will in no way affect your chances of promotion."

Speaking of this opposition in later years Eliot said that he had often had to defend Wendell from the assaults of persons who objected to his continuance on the Harvard Staff, although he disliked very much things that Wendell said, measures that he advocated, and his impetuous assaults upon measures that Eliot advocated because throughout his college career he respected Wendell's independence, sincerity, and frankness, though not his judgement. Not only in faculty room and classroom were professors given their freedom, but in outside activities as well. Mr. Eliot saw no reason why a place on a college faculty should limit a man's rights as a citizen; and this freedom he claimed for himself also.

Charles Eliot realized it would be a great boon to education if teachers were free from anxiety for the future. In a speech before the Massachusetts Teachers' Association, December 20, 1879, on teacher tenure he outlined a three point program for a well-organized public school service. First he advocated careful selection of teachers by examination and probation; second, ultimate appointment without limitation of time; and third, a system of retiring annuities. These principles, taken together, either openly avowed or tacitly recognized, are the foundation of every just, economical, and efficient public administration in the world.

In any discussion of school boards he advocated small boards with long terms of service. In general he deplored the fact that the teaching positions in our secondary and elementary schools were largely filled by women and he was concerned that so few men were entering the teaching

profession. He took an intense interest in legislation which affected education and in Massachusetts especially was interested in improving the normal schools which were providing most of the teachers for secondary and elementary work.

By 1890 public secondary education was still in a feeble and distracted condition. The wide gap between elementary schools and colleges was very imperfectly bridged by a few public high schools, endowed academies, college preparatory departments, and private schools. To improve secondary education in the United States, Eliot believed that two things were necessary. First, more schools were needed and second, the existing schools needed to be brought to common and higher standards. He felt that the latter might be aided by state aid and supervision and uniform college entrance requirements. Both agencies are now almost universal in the United States.

Eliot believed there were three directions that improvement in American secondary education would take such as:

1. We may expect State examining and inspecting systems to be improved and extended.

2. We may hope to see formed a combination of four or five of the universities which maintain large departments of arts and sciences to conduct simultaneously, at well-selected points all over the country, examinations in all subjects anywhere acceptable for admission to colleges or professional schools.

3. We may expect to see a great extension of the scholarship system, whereby promising youths are helped through secondary schools and colleges. States, cities, towns, and endowments provided by private benevolence, will all contribute to the development of this well-proved system. 19

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CHAPTER V

CONTRIBUTIONS TO ELEMENTARY EDUCATION

It seems remarkable that Eliot whose interest would most naturally have been restricted to university education, and possibly to the establishment of a reasonable continuity between secondary education and university requirements should have had such definite and constructive suggestions to offer concerning elementary education. Eliot was always interested in the whole picture of education and not just that which dealt exclusively with higher education. Realizing the shortcomings in the schools where he received his own education, he was always ready to give constructive suggestions and criticisms to elementary education. Speaking of this in a paper read before the conference on education of the Second Pan-American Scientific Congress, Eliot states,

"It is not the secondary school alone which needs to be reformed; the elementary school needs to set a different standard of attainment, not lower or easier, but rather higher and harder; a standard in which the training of the senses shall be an important element. If new secondary schools are to accomplish their rational objects they must rest on new elementary schools which utilize the spontaneous aptitudes of childhood."

Eliot felt the democratic school should begin early in the very first elementary grades the study of nature; and all its teachers therefore should be capable of teaching the elements of physical geography, meteorology, botany, and zoology, the whole forming in 1

the child's mind one harmonious sketch of its complex environment. From the seventh or eighth year according to the quality and capacity of the child, plane and solid geometry, the science of form, should find a place among the school studies, and some share of that child's attention should be claimed by that subject for six or seven successive years. The process of making acquaintance with external nature through the elements of these various sciences should be interesting and enjoyable to every child.

There is another part of the child's environment that he should begin early to make acquaintance—namely the human part. The story of the human race should be gradually conveyed to the child's mind from the time he begins to read with pleasure. The story should be conveyed quite as much through biology as through history with the description of facts and events entwined with charming and uplifting products of the imagination.

Realizing that the grammar school course should be shortened as well as enriched, Eliot felt that the first great reduction should be made in arithmetic. It was very common in programs of the grades, to allot to arithmetic from one eighth to one sixth of the whole school time for nine or ten years. By the contraction of arithmetic, room would be made for algebra and geometry. On grounds of utility, he felt that geometry and physics had stronger claims than any part of arithmetic beyond the elements, and for mental training they are also to be preferred. Moreover, the attainments of the pupils in arithmetic were not diminished by the introduction of new studies, but rather increased.

Language studies, such as reading, writing, spelling, grammar, and literature, occupied from one third to two fifths of most grade programs. He felt there would be ample room here for the introduction of the optional study of a foreign language, ancient or modern, at the fourth or fifth grade. Here it is to be observed that nothing will be lost to English by the introduction of a foreign language. In many schools the subject of grammar still filled too large a place on the program.

In this country the democratic theory implied equality among the children, uniformity of program, uniform tests for promotion, and no divisions in the same school-room according to capacity or merit. To Eliot these conceptions of true democracy in schools were fallacious and ruinous.

"Democratic society does not undertake to fly in the face of nature by asserting that all children are equal in capacity or that all children are alike and should be treated alike. Every child is unique personality. It follows, of course, that uniform programs and uniform methods of instruction, applied simultaneously to large numbers of children, must be unwise and injurious. It is for the interest of society, as well as of the individual, that every individual child's peculiar gifts and powers should be developed and trained to the highest degree. Hence, in the public schools of a democracy the aim should be to give the utmost possible amount of individual instruction, to grade according to capacity just as far as the number of teachers and their strength and skill will permit, and to promote pupils, not by battalions, but in the most irregular and individual way possible."

At the same time that Eliot felt there should be irregular promotion, he also felt there should be no retardation. "In almost all the numerous collections of school statistics now published in this country, it appears that the various grades contain children much too old for them, who have apparently been held back. This phenomenon seems to be due partly to the ambition of teachers and partly to the caution of parents. The ambition of teachers tends to keep
children too long in the several grades, because they desire to have their pupils appear well at the periodical examinations, and also because they like to keep in their classes the bright children as aids to the dull ones.... The exaggerated notion that it is necessary to master one thing before a child goes to another is also responsible for the retardation of children on their way through the regular course. The result of this retardation is that the boy comes too late to the high school and college.

Speaking of undesirable uniformity in schools, Eliot gave as an example the graded school of large town and cities in the 1890s:

"In any room of a perfectly graded grammar school we find, in the fall, a single class of from forty to sixty children who are supposed to have had the same lessons, in the same books, at the same time, under the same teachers, throughout the year; who are to make as nearly as possible the same progress every day in each subject, and to submit to the same tests at the same intervals. They are all kept together, day by day, so far as is possible. The bright ones never work to their utmost, and are frequently marking time; the slow ones are urged forward at a rate which drives some of them to despair; and the ideal of the class is that of equal preparation, equal capacity, equal progress, and equal attainments. At the end of the year, they have not been pretty well evened up, the teacher has been less successful than she could have wished. In my opinion, the right aims, in any room of a primary or grammar school, are to recognize at the beginning of the year, as promptly as possible, the different capacities and powers of the children; to carry them forward, throughout the year, each at his own gait and speed; and to turn them out at the end very much more different in capacity and attainments than they were at the beginning."

The best way to avoid undesirable uniformity in schools, is to push steadily toward the individualization of instruction by reducing the number of pupils assigned to one teacher. The larger the number of pupils assigned to one teacher, the greater the inevitable uniformity of method and pace, and the smaller the account that can be taken of individual peculiarities, good or bad.

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In speaking about the grammar school of the future before the Massachusetts State Teachers' Association, on December 1892, Eliot listed the following mechanical improvements which he hoped to see developed in the future. First, he hoped for more fresh air within the building; for moderate temperature and abundance of light. Along with these, he felt that there should be a large piece of open ground around each building where the children could get out-of-door exercise every hour or two. Within the building itself he desired to see a large assortment of apparatus of various kinds. This would include an illustrative library of books within each room, simple apparatus for the study of chemistry and physics, and a large assortment of models, charts, maps, globes, and photographs for the teaching of geography. There would also be a collection of typical objects in the various branches of natural history. He felt that all subjects needed to be dealt with concretely for the child, first by actual objects, and then by representations and descriptions of objects.

In this address he gave two suggestions for lightening the teaching load of the average grammar school teacher. First, he would have assistants provided for each teacher. These assistants would be young graduates who would meet the principal teacher weekly or daily, and get their entire guidance from him. These assistants could then supervise the daily work of a large number of students. Second, he would have the schools work on the departmental plan by employing special teachers in special subjects, and directors for departments of instruction.

The grammar school at this time was the only school for ninety-five per cent of the American children, and Eliot felt that many of the subjects then belonging to the high school should be introduced into the grammar school. For, in a democracy the public schools should enable any child
to get the best training possible up to any year, not for the humblest destinations only, but for all destinations. The American grammar school of the future will make universal the rule which is now the exception—every child without special favor to get at the right subject at the right age, and to pursue it just as far and as fast as he is able to travel.

Eliot felt that an important part of the education of every child was his contribution to the daily labor of the household and farm. The rapid concentration of population into cities and towns, together with the minute division of labor which was coming to characterize modern industry made this important element of education less easily secured. He believed organized education must, therefore, supply in urban communities a good part of the manual and moral training which the cooperation of children in the work of father and mother affords in agricultural communities. Hence the great importance in any urban population of facilities for training children to do accurate hand-work, and for teaching them patience, forethought, and good judgement in productive labor.

To him the total training during childhood should result in the child acquiring a taste for interesting and educational reading, which should direct and inspire his subsequent intellectual life. That school which resulted in the student acquiring this taste for good reading, however unsystematic or eccentric, had, in his estimation, achieved a main end of elementary education, and that schooling which does not result in implanting this permanent taste had failed.

Another function of education in a democracy which Eliot thought

should be firmly implanted in every child's mind were certain great truths which lie at the foundation of the democratic social theory. The first of these truths was the intimate dependence of each human individual on a multitude of other individuals, not in infancy alone, but at every moment of life—a dependence which increases with civilization and the development of urban life. By merely teaching children whence came their food, drink, clothing, and means of getting light and heat, and how these materials are supplied through the labors of many individuals of many races scattered all over the world, the school may illustrate and enforce this doctrine of intricate interdependence, which really underlies modern democracy. The second truth which democratic education should inculcate in every child was the essential unity of a democratic community, in spite of the endless diversities of function, capacity, and achievement among the individuals who compose the community. That inequalities of condition are a necessary result of freedom; but that through all inequalities should flow the constant sense of essential unity in aim and spirit. The third truth was that a democracy should teach to all its children the familiar Christian doctrine that service rendered to others is the surest source of one's own satisfaction and happiness. And finally, the democratic school should teach its children what the democratic nobility is. The children should learn that democratic nobility exists, and must exist if democracy is to produce the highest types of character; but that it will consist only of men and women of noble character, produced under democratic conditions by the combined influences of fine inherited qualities, careful education, and rich experience. Membership in this nobility can be transmitted to children only through the transmission of the sound mental and moral
qualities which are its sole warrant.

Charles Eliot was always interested in any experiment in education that would break with the traditional and time-honored methods that to him seemed to stifle a child's mind and prevent that child from advancing as rapidly as possible. Accordingly, when the Lincoln School, at Teachers College, Columbia University, opened in the fall of 1917 under the direction of Dr. Otis W. Caldwell, he immediately gave his attention to the methods that were being used there.

"My interest in the Lincoln School is strong because I see there the best exposition in practice of changes in elementary and secondary education which I have been advocating for many years past. Its general aims and objects I sympathize with completely, such as its commanding the children's attention, and getting hard work out them by interesting them, its incessant demand for activity on the part of the children themselves, and for accuracy in all their mental and bodily activities, its insistence on the acquisition of some manual skill or artistic competency and of skill in narrative and exposition by every pupil, its implanting of a love of reading, and its fundamental conception that school is a place where children enjoy themselves so that they want to go early and stay late.... Most American children continue to get the best part of their training in their sports and other occupations outside the schools." 7

CHAPTER VI

CONTRIBUTIONS TO ADULT EDUCATION

The contribution that Charles W. Eliot made to adult education was tremendous. Anyone who attempts to analyze this contribution is faced with an embarrassment of riches. The great mass of his writings and speeches include practically every subject of interest in his time. During the latter part of his presidency at Harvard and still later when he became emeritus, he was looked up to by hundreds of thousands of his fellow citizens as a guide not merely in educational matters, but in many other great questions that have agitated the public mind. His influence on all classes of his countrymen went far beyond that of the usual academic dignitary.

Although Mr. Eliot had a lively interest in political and social affairs during his tenure as President of Harvard, it was after his resignation in 1909 that he became to such a remarkable degree the giver of counsel, to the nation at large. Age never seemed to dim his ardor or his interest. His retirement signalled a renewed interest in numerous social problems. Education still remained his foremost interest, but he began to give more time to interests outside of education.

Each presidential election as it approached led him to a careful scrutiny of issues and candidates, and he usually communicated to the public the result of his reflections. Latterly he was regarded as a Democrat, his leaning to that side being due in part at least to his disbelief in protection and to his feeling that on the whole the Democrats had shown more "sympathy with ordinary humanity, with the less
comfortable and happy classes, and with the dejected and discontented portion of the American population." He was a strong supporter of Woodrow Wilson in his Mexican and European War policies, and a believer in the League of Nations. Yet he was never a rigid partisan and voted for the man not the party.

There were four great foundations in particular which Mr. Eliot devoted a great deal of his time and effort after his resignation as President of Harvard. They were the General Education Board, the International Health Board, the Rockefeller Foundation, and the Carnegie Endowment for International Peace. He joined the General Education Board in 1908, served on the International Health Board from its inception in 1913, and was elected a trustee of the Rockefeller Foundation in January 1917. He later resigned his membership to the Rockefeller Foundation when the journeys to attend board meetings became too arduous. He was a trustee of the Peace Foundation from its beginning in 1910 until 1919 and in its behalf made a trip around the world in 1911.

His strong belief in the importance of preventive medicine and public health movements was evidenced by his work in two young associations, the National Committee for Mental Hygiene, and the American Social Hygiene Association. Eliot accepted an election as vice-president of the Mental Hygiene Committee in 1913 and continued in that office until his death. The American Social Hygiene Association elected Eliot as their first president in 1913. He retired as active president of this association in 1915 but continued as honorary president until his death. America's entrance into the first World War brought out two facts which intensified

Eliot's interest in the affairs on this society. One was proof of the prevalence of venereal disease which emerged from the enforcement of the Compulsory Service Act, and the other was the direct contribution of personnel and guidance that the society was able to make in the protective work of the services.

Charles Eliot frequently campaigned for Civil Service Reform and was an active member of the National Civil Service Reform League. In 1902 he became one of the vice-presidents of this league and in 1908 allowed himself to be elected president. He held the office until 1913 and during that time he worked strenuously for the abolition of the spoils system.

In a talk that he had made before a group of working-people Eliot had stated that a five-foot shelf could hold enough books to give a good substitute for a liberal education to any one who would read them with devotion, even if he could spare but fifteen minutes a day for reading. Shortly afterward he was approached by Mr. Norman Hapgood and Mr. William Patten of the Collier Publishing House, who reminded him of this statement, and proposed that he should assume the editorship of a library of the world's best literature. Apparently the idea of putting good books into countless homes appealed to Eliot and having secured the assistance of Professor W. A. Neilson he agreed to accept the proposal.

He immediately requested and received permission from the President and Fellows of Harvard to have the collection called "The Harvard Classics". Shortly after the work had begun Eliot, in a speech at Atlanta, disclosed the information that he expected to make a selection of books that would go into a Five Foot Shelf and provide a liberal education for everyone.
This pronouncement set off a chain of publicity that went to lengths no one could have foreseen. Editors and writers all over the country became fascinated with the idea and difficulties behind the Five-Foot-Shelf. Every bit of information that they could seize upon or imagine about the construction and selections of these volumes was played up in the press and was subsequently distorted. Other publishers took advantage of this publicity to issue cheap editions of items that were supposed to go into the Five-Foot Shelf and advertised them as "recommended by President Eliot". This resulted in litigation with Colliers and much confusion and controversy.

Throughout all this confusion Eliot remained unperturbed. He did not relish all this foolishness, but he felt if his recommendations sufficed to give new impetus to some good book or essay, so much the better. To disseminate knowledge and popularize ideas was always one of his chief desires. When Mr. Patten asked him whether he minded it all very much, "there was an amused twinkle in his eye and the corner of his mouth lifted a trifle, as he replied, 'I suppose it has been good publicity'."

When the actual work on the "Shelf" got under way it was decided to limit the contents to fifty volumes. While with very few exceptions every piece of writing in these volumes was a complete work, many of them were composed of numerous short but complete works. The purpose of the Harvard Classics as stated in the introduction,

"was to provide the literary materials from which a careful and persistent reader might gain a fair view of the progress of man observing, recording, inventing, and imagining from the earliest historical times to the close of the nineteenth century and present such an ample and characteristic record of the stream of the world's thought that the observant reader's mind shall be enriched, refined, and fertilized by it."

2 James, Henry op. cit., p. 197.
At the very outset of the work unexpected difficulties arose, some of which, although almost mechanical, proved to be unsurmountable. Many famous books were too long to be included in the set. Thus the English Bible could not be included as a whole, because it was too long; and for the same reason only selections from Shakespeare, and the first part of "Don Quixote" could be included. Many famous and desireable books on history had to be excluded because of their length. The works of living authors were in general excluded, because the verdict of the educational world had not yet been pronounced upon them. 3

The full responsibility of selections of the books that should be included and those that should be excluded was assumed by Eliot. Professor Neilson wrote all the introductions and notes, made the choice among different editions of the same work, and offered many suggestions concerning available material. It also fell to Neilson to make all the computations needed to decide the question whether a desired work was too long to be included.

The public's reception of the completed fifty volumes showed that they were admirably devised to meet a popular demand. Nobody could have foreseen or dared to predict such a market for the books. Eliot, whose motive was educational and altruistic, had not bargained for a financial reward proportionate to the sales. By 1930 the publishers had sold over 350,000 sets amounting to 17,500,000 volumes. 4

Apart from the task of editing the Five-Foot Book Shelf, Eliot's chief occupations were consultative and advisory. He consented to let himself be elected for a six-year term on the Board of Overseers of Harvard, after his resignation as President. Out of consideration for his successor he remained in the background in all deliberations of the Board contenting

to give only information concerning relevant antecedent phases of University history. Had he been willing it would have been very easy for him to become a rallying point for a malcontent group of opposition to President Lowell's program which in many ways digressed from policies that he formerly advocated. But he very definitely did not want to make any opposition for President Lowell. If he did not agree with the new president he abstained from public criticism, but when he did agree he made every effort to make the fact known.

The problems of industry held a keen interest for Eliot and especially the ever present antagonism between Capital and Labor. He decried the practices of labor unions who in the face of war continued to strike and use threats of strikes to win their demands. He held no brief with the union policies of the closed shop, limited output, the boycott, and intentional slow down.

On the other hand he realized that these conditions of industrial strife could not be blamed upon the unions alone. He was well aware of the fact that employers and managers had been arbitrary, inconsiderate, and greedy, and that their efforts on behalf of their employees had been shortsighted and unintelligent. Blame for the unhappy and dangerous condition of the great manufacturing industries should be divided between Labor and Capital although in what proportion he felt no one could say.

He recommended profit sharing as a solution to a large part of this problem. He felt that profit sharing would be the best method of bringing to bear on the employee the same motives that govern the employer and give the employee a sustained interest in his daily work. Thus both parties would realize that an efficient production of saleable goods
would increase the divisible profits in the future. Profits which would be large in proportion to the success of the factory as a whole and profits which would be shared by the worker as well as the owner or stockholder.

He listed other advantages of profit sharing as a pension system for all employees, the sale at a reduced price of stock in the employing corporation to any competent employee who wishes to buy, increased welfare work, and promotion of good will between employer and employee.

The owner or employer would reap considerable advantages under the profit sharing system in that their working force would have greater stability, productiveness would increase, and they would gain the satisfaction of cooperating with a contented and happy body of employees.

Eliot's correspondence occupied a large part of his time but he never complained of it. He read everything that came to him and when his advice was sought he gave it careful consideration. No topic or question seemed too trivial and he was especially charitable to young people who would write him for advice. He answered many letters that others would have thrown away and he seemed to enjoy the long hours that this heavy correspondence demanded.

On November 7, 1911, he embarked on a journey around the world undertaken on behalf of the Carnegie Endowment for International Peace. The Endowment recognized that international peace could be encouraged by sending influential men to visit foreign countries. They felt these visits would have a two-fold value. First the countries visited would be informed of the history, culture and ideals of this country by the addresses that the visitor delivered, and second, the visitor himself would bring back a wealth of information about the nations that he visited which he could give to his fellow citizens through interviews, addresses,
Charles Eliot's trip was interrupted quite suddenly when he was seized by an acute attack of appendicitis. He was operated upon in the Government Hospital at Kandy, Ceylon, which caused a three months delay in his journey and compelled him to abandon plans for visiting India, Java, and the Philippines. It is a tribute to this man's remarkable body vigor that he could undergo a major surgical operation at seventy-seven years of age and make a complete recovery. It is rather significant that Eliot who had many times advocated equal education and accommodations for the colored people in our Southern States, should have his appendix removed by a colored surgeon. For it was Dr. Paul, chief surgeon of the Colombo Hospital, a Tamil and decidedly black who removed his appendix.

From Ceylon Eliot went straight on to China and Japan where he received an enthusiastic and cordial welcome. Both countries regarded his visit as a high compliment. Many of the young people in both countries knew him intimately having studied in this country at Harvard and other American universities. This journey around the world naturally increased Eliot's interest in the promotion of peace between nations. His report on this trip which was later published under the title "Some Roads Towards Peace" dealt with the problems that faced the Oriental people. He emphasized that the fundamental object of western colonization, or other forms of occupation in the East, is as it always has been, the extension of European trade and the increase of European wealth; but that these objects could best be accomplished by increasing the intelligence, skill, and well-being of the Eastern populations controlled, by raising their standard of living, relieving them from superstitious terrors, social bondages, and industrial handicaps, and by creating among them new
wants and ambitions.

The principal means to these worthy ends were to Eliot:

(a) education, both elementary and advanced;
(b) preventative medicine and an effective public health education.
(c) sound labor legislation
(d) the levying of taxes under public law, collection of taxes by honest public officials, and the publication of national budgets
(e) liberty of association and incorporation
(f) courts and an administration of justice which command public confidence
(g) effective regulations concerning opium, alcohol, gambling, and prostitution.

Although not personally attracted to Woodrow Wilson he came out publicly for him in the election of 1912. Before the President-elect was inaugurated the two men met by Wilson's request, and Eliot was invited to accept the post as Ambassador to Japan. After due consideration and consultation with his family, Eliot declined the invitation mentioning the fact that he felt he could do better work in familiar fields at home. He was subsequently offered the appointment as Ambassador to Great Britain but as he had formerly refused the same offer from President Taft he felt obliged to turn it down again.

The courage that he carried into the battle to reform Harvard University and other educational matters he applied no less to other subjects of interest. Once Eliot had taken a stand and was convinced that it was right he was extremely courageous in defending his viewpoint. Not that he was unreasonable and stubborn about his views, for in later life especially he modified many of the ideas that he had formerly held. But the fact that a President of the United States or the Commanding Officer at West Point should write to him asking him to change his idea on any subject was to Eliot not a sufficient reason for changing

his mind. In reply to a telegram from Theodore Roosevelt, who was then President of the United States, that he reinstate two members of the Harvard crew from the probation he had placed upon them before the annual race with Yale, he replied,

To President Theodore Roosevelt, White House,

Each man did a dishonorable thing. One violated in his private interest and in a crooked way a rule made in the common interest, while the other gave a false name and did not take subsequent opportunity to give his own. The least possible punishment was putting them on probation, but that drops them from the crews. A keen and sure sense of honor being the finest result of a college life, I think the college and graduates should condemn effectively dishonorable conduct. The college should also teach that one must never do scurvy things in the supposed interest or for the pleasure of others." 6

Again in answer to a letter from Brigadier General John W. Ruckman of the West Point Military Academy at a meeting of the Harvard Teachers Association,

"Yours of May 6th reached me this morning. The report of my remarks made before the Harvard Teachers' Association given in the Sunday edition of the Boston Post of May 2 is apparently a long hand report; so that the language is for the most part not mine, and the heading, "West Point Horrible Example" is the reporter's or the editor's. Two statements contained in the report are, however, substantially correct; namely "West Point is an example of just what an educational institution should not be" and secondly, "This was shown by the inefficiency and failure of its graduates in the World War."

In my opinion no American school or college intended for youth between eighteen and twenty-two years of age should accept such ill-prepared materials as West Point accepts.

Secondly, no school or college should have a completely prescribed curriculum. Thirdly, no school or college should have its teaching done almost exclusively by recent graduates of the same school or college who are not teachers and who serve short terms. West Point, so far as its teachers are concerned, breeds in-and-in, a very bad practice for any educational institution.

I beg that you will prosecute diligently our intention of replying publicly to my "reflections upon graduates of the Academy", for it is possible that public attention may thereby be turned to the whole question of maintaining the American Regular Army. I beg that you will feel at liberty to use this letter in any way which seems to you desirable for the promotion of the public interest or the interest of West Point. I shall, of course, feel entirely at liberty to reply to any criticism, you may make on my remarks before the Harvard Teacher's Association.

Charles W. Eliot 7

Now that Eliot had reached such an advanced age when it could be supposed that the hereafter might seem imminent to him, others tried to sound out his belief and his thoughts on religion. In a letter to a minister Eliot described how he was...A Unitarian by birthright and environment, but that he had never accepted any of the common creeds, dogmas, and catechisms, or believed in the God they described. To Eliot life would look intolerable if he lost faith in the God that Jesus describes in the first three Gospels, or in the Creator of a boundless universe of order and beauty for he felt that all men should not only have a burning desire to be of service to those they loved and their community but most important of all "to walk humbly with their God."

In July 1909 Eliot read a paper before the Summer School of Theology entitled, "The Religion of the Future," in this paper he stated, that the religion of the future will not be based on authority, either spiritual or temporal. The

tendency toward liberty is progressive and among educated men irresistible. There will be no personifications of the primitive forces of nature, such as light, fire, or earthquakes. It will indulge in no worship either express or implied of dead ancestors, teachers, or rulers, and the primary object will not be personal salvation or safety but of service to others and contributions to the common good. Neither will this religion be propitiatory, sacrificial, or expiatory. It will not perpetuate the anthropomorphic representation of God nor will it be gloomy, ascetic or maledictory. It will not deal with sorry and death chiefly but with joy and life.

In the past religion held out hopes to the wretched, sick, and downtrodden of the earth in the consolation of deliverance by death, and of entrance into an immortal second life under the happiest conditions. But these consolations of institutional Christianity no longer satisfy intelligent people whose lives are broken by the sickness or premature death of a loved one. Thus the religion of the future will approach the whole subject of evil from another side, that of resistance and prevention not acquiescence. Consolation will come from the evidence in the moral history of the human race that a loving God rules the universe. The new religion will foster powerfully a virtue which is comparatively new in the world—the love of truth and the passion for seeking it, and the truth will progressively make men free. As the religion of a child is inevitable very different from that of an adult, and must grow up with the child, so the religion of a race must be capable of corresponding development.

All through his later years Eliot continued to enjoy the outdoor life and exercise which he continued long past an age when most men would deem it advisable. As always he was very fond of sailing and when he no longer was able to handle the boat himself he was satisfied to go along on any sail as a passenger.

He continued to take his daily walks and when the weather permitted

an early morning bicycle ride with Mrs. Eliot. One letter to Lord Bryce dated April 29, 1914 refers to these rides. At this date he was in his eighty-first year and Mrs. Eliot who regularly rode or walked with him before breakfast was seventy-six. Another letter refers to a walk about four and one-half miles long and still another of a bicycle ride of six miles.

Toward the end of his life he was forced to resign from many boards not because his interest in them was abating, but because the physical exertion required in journeys to attend these meetings was considerable and because he deemed it wise that younger men should be elected. It would seem a natural thing for a man who had reached the age of eighty-five to fold his hands and pronounce that his days of labor were through. But Eliot kept on exerting to the full measure of strength that was left to him for the betterment of society and "causes" which exemplified his faith in democracy. He may have reduced his labor by half but he kept on working as hard as his diminishing strength would allow. A statement to his son Samuel seemed to typify his spirit at this time. "I don't seem to get interested in Heaven; I want to know what's to happen to the World Court."

His interest in things new continued to the end of his life. Even in the spring months of 1926 when he was very feeble, his most ardent wish was that he might be strong enough to reach the coast of Maine again and the Mount Desert summer home where he spent many happy days. He was not disappointed in this wish, but his energy was far spent and continued to ebb. It was here in his summer home on August 22 that Charles Eliot's life passed away. The inevitable end had been painless, and he had died where he wanted to be.

- James, Henry op. cit., p. 288.
CHAPTER VII

CONCLUSION

The United States has produced no one who has surpassed Charles W. Eliot in educational leadership. Elected to the president of Harvard College when thirty-five, he served this institution for forty-one years, guiding it through a period of extensive growth and expansion, pioneering in many fields, raising standards, and setting an example for all other educational institutions. After retiring from his office at the age of seventy-six, he continued to serve the public for seventeen years. His advice was sought by Presidents of the United States, by social, educational and business leaders. He was twice offered ambassadorship to England, but refused in order to remain in familiar fields of helpfulness. He was a thorough and discerning speaker, with great initiative and vision, and a remarkable power of using others.

It is not easy to estimate President Eliot's accomplishments in looking back. The forces of the opposition dwindle in perspective. The disheartening failures he had the insight to recognize as incidents and not finalities. A public opinion which for twenty years, continued to be antagonistic, demanded a patience beyond praise. He said, 'My life has been much more varied and interesting than that of most men, but I should say that nineteen twentieths of it was drudgery'.

He had an absolute directness of speech,—something of the Socratic method of question and answer. A prompt delivery of whatever idea one had, but no lingering on the way. Such a technique had an alarmingly devastating effect on conversation. He failed to get the little intimate glimpses of the people with whom he talked which would have been revealed in leisurely discussion, but he did get the facts.

The popular impression of President Eliot was that of a singularly cold and even severe personality in which the gentler traits of character were quite subordinate, or even non-existent. To some observers of his public life, he seemed to be more than an engine of energy, a steam-roller of educational progress, crushing opposition and levelling the way; and it is quite true that his official duties confirmed in him the inclination to express himself by acts rather than words. He was companionable in habit, but solitary in spirit. Even at the height of his public career when he was surrounded by every testimony of confidence and honor, the number of his intimate friends was very limited, and his decisions for the most part were made without counsel or re-enforcement. This isolation of experience, however, makes all the more impressive the evidences of moral obligation and spiritual vitality exhibited, not in professions of piety, but in ways of conduct and thought.

He was not given to profuse utterances of sympathy, or gifted in the finer arts of emotional consolation; but when it came to a real emergency, and a steadying hand was sought, then with a precision and effectiveness never forgotten by those whom it reached, the healing word was spoken, or the wisely directed aid was applied.

Eliot was a radical, a revolutionary. His inaugural address seems mild enough now, but he was always a little ahead of his contemporaries. He made the little college national, brought new life into the professional schools and raised their standards, he gave a liberal interpretation to liberal education and became the ardent champion of the "elective system". His stimulating, vigorous ideas, in action and reaction at other universities, have had a profound and lasting effect, not only on American university education, but on the whole theory and practice of teaching. He refounded and recreated Harvard. He did much to mold the new American university.

He outgrew Harvard long before he left it. He spoke to the nation on almost every subject, Civil service reform, conservation, politics, international affairs, labor, religion, his vigorous support of President Wilson and his labors for the League of Nations. Throughout all, his tranquil wisdom and courage shown through. It was his good fortune, living, to see himself regarded as the foremost American citizen of his time. Public office he refused. His was the higher office of stimulating intelligence, of broadening tolerance, of advancing not merely elementary, high school, and college education, but the education of the individual and national conscience to sounder conception of domestic and international duties.

His greatest concern was for educational progress, and his success as an educator lay in his breadth of interests, his absolute sincerity, his clear vision, and the courage to stand against opposition for what he firmly believed to be right.
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