Book IV

MODERN TIMES

1881–1940
The University at last had a head. With the introduction of changes in the position of the Provost long overdue, and without which the nominee would not accept the office, a new era of efficiency and development was entered upon. The restricted position of the Provost, like that title itself, had been an anomaly from the beginning. Both reflected the supremacy of the group of generous contributors who had founded the institution and had become not only its Trustees but its rulers. The active personality of the first Provost, Dr. William Smith, preserved the colonial College from a conflict of jurisdictions, although at the cost of the alienation of Franklin and of its separation in spirit from the great body of the community that surrounded it. It was never, until these modern days, the civic institution Franklin planned.

The University of the State of Pennsylvania conceded to the second provost, Dr. Ewing, all the authority he cared to claim. But ever since the union of 1791, except for short periods, the Provost had been, as has been repeatedly pointed out, in no proper sense head of the institution. His position was one of distinction but not of power. His headship was quite different from that of the presidents of other American colleges and universities, and successive Provosts had looked with longing at the freedom of action and opportunity for influence of the presidents of Harvard, Yale, Princeton, and Columbia, and indeed of many smaller
and younger colleges. Pennsylvania had continued to be governed in its educational as well as its material side by its Board of Trustees, except perhaps when Dr. DeLancey was Provost and for the early part of the provostship of Dr. Beasley. It would never, it is true, have been impossible for a man of sufficiently dominating personality so to transform the office as to make of it a means of imposing his ideas upon Trustees and Faculty, but everything was against such a transformation—the legal power, the traditions, the sense of duty, the very distinction of the Board of Trustees; the habitual acceptance of routine by the Faculty, the tough resistance of the local community to the provision of the sinews of war for any campaign of progress. At any rate, no such personage had until 1881 appeared on the scene.

It was largely the course of events, the slow evolution of an organization too large and too varied in its requirements to be administered by committees of business men and lawyers, unfamiliar with the actual problems of education, that made concentration of power and responsibility obviously necessary. This had become the case in the administration of Dr. Stille, but the less advanced members of the Board had not yet become convinced of it, and that somewhat petulant critic of things as they were, the Provost, was not skilled in reaching his ends by patience and consideration; so his work was dropped half done. Time, however, was on the side of his ideas, and shortly after his resignation the Board, on the recommendation of one of its committees, adopted a series of amendments to the by-laws which practically introduced all the changes Dr. Stille had so vainly sought, and so made the provostship a new and vastly more efficient office.

The significance of the change justifies a somewhat full quotation from the by-laws, as amended:

The Provost shall be the chief executive officer of the Board of Trustees in the absence of the Governor, and shall have the right of offering resolutions and speaking on all questions that may come before the Board, and shall be ex-officio a member of all standing committees.

He shall be a member of and President of each Faculty, and when present at a Faculty meeting shall preside thereat, and may call a special meeting of any Faculty when he may deem the same expedient.
ent. He shall be the organ of communication between each Faculty and the several members thereof and the Board of Trustees. . . . He shall in all cases affecting the government and instruction have full and exclusive authority, subject only to the Board of Trustees, and as the chief executive officer of the University shall be obeyed and respected accordingly.

There is little reason to believe that Phillips Brooks, who was offered election as Provost but declined, would have filled the office effectively; Dr. S. Weir Mitchell, who was sounded out as a possible candidate, in view of his later expression that what the University needed was an autocrat, would probably have driven with too tight a rein. The great work that has been since achieved has been achieved through leadership and cooperation, not through the exercise of autocratic power. There was available in Philadelphia, however, now that the Provost was to be a real head of the University, the ideal man for the position. This was Dr. William Pepper. In the prime of life, but thirty-eight, a graduate of the College in the class of 1862 and of the Medical School two years later, active as an alumnus of both schools and a professor in the latter, possessing a good private practice as a physician, of distinguished appearance, well-to-do, and with good social connections, there was scarcely a qualification for the position he did not possess. He had made many addresses and written various reports on the border line between medical and more general social interests, and had shown executive ability in taking charge as medical director of the sanitary department of the Centennial Exposition of 1876. Moreover, he had already shown his ability in just that direction in which the most immediate need of the University lay. He had been the moving spirit from 1871 to 1874 in securing the land from the city and the funds from the state and individuals necessary for the building and endowment of the University Hospital. Therefore when he was mentioned for the position and it was known that, given the recent legislation concerning its powers, he would accept, he was elected by a unanimous vote.

Dr. Pepper’s administration as Provost, lasting from 1881 to 1894, was one of the most notable in the history of the University. It was marked by the establishment of thirteen new departments,
several of them each almost a college in itself. It is not to be un­
derstood that the Provost created all, or perhaps any, of these new
departments. It was rather his amazing responsiveness to new
ideas, his ready perception of their value and practicability, the
encouragement he gave to their advocates and the enthusiasm
with which he impressed them upon the Board of Trustees and
the community that made him such an effective head and his
period as Provost perhaps the most constructive in the history of
the University.¹

Much of this influence will appear in the brief outline of these
foundations that will fill the next few paragraphs; the more gen­
eral movements of the period will follow.

THE EARLY YEARS OF THE WHARTON SCHOOL

Provost Pepper was able in his inaugural address of February
22, 1881, to announce the donation of a sum of $100,000 from
Joseph Wharton of Philadelphia for the foundation of a new
school, a school of business. Medical and law schools had become
familiar; there were schools of dentistry, of engineering, of sci­
ence, of agriculture; but as yet there was not in the United States,
or indeed elsewhere, an institution of collegiate grade that made
preparation for the higher ranks in the financial, commercial,
banking, transportation, or manufacturing world its special ob­
jective. The vision of such a school had come to Mr. Wharton in
the midst of an active and successful business career, and he now
offered to establish it under the aegis of the University. His offer
was presented to the Trustees at their meeting of March 1, 1881,
in a letter accompanied by a printed project of a "School of Fi­
nance and Economy" which became the basic plan of the school
which bears his name.

The offer was accepted by the Trustees and referred to a special
committee of the Arts Faculty which, after conference with Mr.
Wharton, drew up an arrangement of courses, a statement of
objects, and a selection of professors, which were published in the
University catalogues of 1881–82 and 1882–83 and in a special

¹ The character and achievements of Dr. Pepper are perhaps rather too exuber­
antly told in F. N. Thorpe, William Pepper, M.D., Philadelphia, 1904.
circular. Robert Ellis Thompson was Dean and J. G. R. McElroy Secretary of the Faculty. This was the first collegiate establishment of its sort, and no other appeared for seventeen years, until in 1898 similar schools were founded in the Universities of Chicago and California.

The first Faculty was composed of men in the departments of Arts and Science; it was not until 1883 that a group of new men, Edmund J. James, Albert S. Bolles, and John Bach McMaster, were elected and formed a genuine Wharton School Faculty. In 1888 Simon N. Patten was brought in as Professor of Economics. These four were a notable group, laying the foundation of the new school in much the same way as the four University of Edinburgh graduates had inaugurated the Medical School something more than a century before, and as similar groups are looked back to as the "founding fathers" of various other departments of the University. Professor James, a graduate of the University of Illinois, came directly from taking his doctor's degree in political science in Germany. He was full of enthusiasm for the introduction of a new group of interests into the University and into the staid civic life of Philadelphia. For thirteen years he was the leading force in the new school, and fathered or supported many outside projects germane to the general educational objects of the University, though not directly under its control. University Extension, the American Academy of Political and Social Science, with its widely circulated publication, the Annals, and other old and new organizations either owed their inception to him or long felt his directing hand.

Dr. Patten was an economist of much originality and distinction, a natural-born teacher and intellectual leader, especially attracting advanced students. He was the constant center of wholesome economic and social dispute, and raised a whole generation of disciples who became men of influence.

Professor John B. McMaster was to a certain extent a man of mystery. Educated as an engineer, member of a United States government survey unit in the far west just after the close of the Civil War, he was more impressed with the empire-building going on at that time in that region than in the political events of the past. He determined therefore at this early date to write
a history to be occupied with the domestic and peaceful interests of the American people. Self-trained, so far as the writing of history was concerned, except for his reading, and engaged in teaching mathematics at Princeton, he worked in obscurity and silence for five years, then produced the first volume of the *History of the People of the United States*, destined to extend to eight volumes, to occupy him for twenty-five years and to achieve great popularity. It was a new kind of history, interesting itself in whatever the people of the times about which he wrote were interested in, and drawing its materials from contemporary sources previous historians had seldom thought of using. The first volume, which appeared in 1883, had an immediate success, and American history being an evident need of the Wharton School, he was promptly invited to leave Princeton and his mathematics and to come to Pennsylvania as Professor of American History, the successor, after a half-century's interval, of Henry and William B. Reed. Here he remained for the rest of his teaching and writing life, his success in the latter, it may be said, being greater than in the former. Professor Bolles, the third member of the original Wharton School Faculty, was a man of much experience in journalism and in business and was called to teach banking and commerce.

Under these men and some colleagues drawn from the other faculties, a four-year course was established, although for some years the students spent the first two years in classes elected from the general College course, spending only the junior and senior years in courses connected with the objects of the Wharton School. After 1894 the whole four years were occupied with courses adapted more or less closely to those objects. These objects, according to Mr. Wharton's ideas, which have been followed in the main through the whole existence of the school, were threefold, preparation for business in its various forms, preparation for public service, and preparation for the management of property.

Alongside of the thread of general culture and devotion to professional preparation there was, naturally, much attention given to knowledge and investigation of matters of general social and historical interest. These two ideals, professional training
and general cultural interest, though not necessarily opposed or even incompatible, represent a difference in emphasis, and this double conception of the school has always been present, sometimes one object predominating, sometimes the other. Like the Law School, the Wharton School is at the same time a professional school and an opportunity to cultivate a special field of higher intellectual interest.

The first degree given by the school, in 1884, was Bachelor of Finance. For the next ten years the degrees depended on the department in which the student had taken his first two years. After the prolongation of the course in 1894, the regular degree was Bachelor of Science in Economics.

The new and somewhat vociferous educational activity introduced into the University by the first group of teachers in the Wharton School and their corresponding efforts to wake up Philadelphia outside its halls, though looked on with favor by Provost Pepper, were much less heartily approved of by some of their older and more conservative colleagues and some members of the Board of Trustees. As a result serious friction developed. This friction was connected somewhat obscurely with the controversies that arose in 1892 concerning Professor Robert Ellis Thompson and in 1896 concerning Professor James. Professor Thompson, a native son of the University, of the class of 1865, was one of the most brilliant, admired, and useful men on the University Faculty and in the community of Philadelphia, and the revered master of this writer. In March 1892 it was rumored in the newspapers that the Trustees of the University were about to remove Thompson from his professorship. This news had "leaked" from the Board against its intention. It appears that a committee of the Board, reflecting dissatisfaction with conditions at the University, had brought in, March 24, 1892, a report proposing what was then possible, though it would not have been in the colonial College and would not be now, immediately "dispensing with the services" of Professor Thompson, three other professors, and two instructors, reorganizing certain departments and abolishing one.¹

¹ The constitutions of 1749 provided that no professor could be removed except after two admonitions from the Board; and the present Statutes allow of removals of professors only on petition of a Faculty, and give abundant opportunity for
This recommendation was approved by the Board, and the Provost was directed to ask Professor Thompson and the others for their resignations. In the meantime the proposal had become public. Older alumni will remember the active campaign of opposition to Thompson’s removal; the visits of angry graduates to the Board of Trustees to protest against their proposed action; the articles in the newspapers, the interviews and published protests. Professor Thompson, notwithstanding his twenty-five years of service on the Faculty, had undoubtedly laid himself open to serious criticism by his devotion of so large a part of his time and interest to occupations outside of the University. He was a regular editorial writer on at least two weekly papers, he lectured in other institutions and preached frequently, he hurried away from the University after his classes. He was chargeable not only with neglecting his college teaching but with being non-coöperative with the Wharton School and other new educational enterprises then being undertaken in the University; a committee reports that he “cannot or will not work to advantage with others.” It is true also that the type of scholarship and teaching in which he had been brought up and in which he excelled was giving place to more specialized and fundamental studies with which he had scant sympathy. Whether that change was good for college boys or not, who knows?

Under pressure the Trustees offered to retain him in the Faculty to give courses on the English Bible, church history, and industrial and elementary history, but would not agree to his retention of the more responsible position, the John Welsh Centennial Professorship of History and English Literature, to which he had been appointed on the resignation of Dr. Stillé ten years before. This offer he rejected, stating his lack of preparation for that work and denying the right of the Board to remove him or to reorganize his department without consultation with him and without previous complaint about his work. His requests for the reasons for his dismissal made in two successive letters remained unanswered. By this time the matter had become a test of strength between the hearing and answering the charges against the person concerned. The whole matter of removals of professors has, in addition, been subjected to the regulations of a national organization, accepted by all reputable universities and colleges.
ERA OF EXPANSION

Provost, supported by the Board, and Professor Thompson and his supporters among the Trustees, the alumni, and in the community. A contest had arisen and neither side would give way. It was part of the price of the new provostship that the Provost was practically an autocrat, and autocrats do not yield except to revolution. The affair was reminiscent of that incident in the very early history of the College when, as will be remembered, the Trustees removed David James Dove, a distant predecessor of Professor Thompson as a teacher of English, but only after pointing out to him the reasons for their dissatisfaction. After various reports and discussions, the report of the committee recommending his removal from the John Welsh chair was, in June 1892, accepted by the Trustees by a vote of nineteen to three. By this vote he ceased to be a member of the University Faculty. One of the Trustees who had voted with the minority thereupon resigned. Five of the living sons and daughters of John Welsh joined in a letter to Professor Thompson, dated June 13, 1892, expressing their admiration for him and regretting his removal from the chair founded in their father's name.

Professor Thompson was, naturally, much embittered. He felt that he had been cast out by his own people. He had been, except for his Ulster boyhood, a Philadelphian all his life, a protectionist, a strong defender of the national policy to which most of the successful business men of Philadelphia, directly or indirectly, owed their wealth, passionately attached to his city, his state, and his college, a preacher in many Presbyterian pulpits, and a speaker on many platforms. He never forgave the University, making little discrimination, in fact, between those who had been responsible for his removal and those who had fought against it.

A few years later, in 1896, much the same conflict arose concerning Professor James. It was even more obscure in its causes, arising largely no doubt from incompatibility of personalities, ideas, and methods at a time of rapid change and much innovation. Professor James was asked to resign. He was not so vigorously defended and his feeling was not so deep as Professor Thompson's; his departure was the occasion of a dinner of farewell given by his friends in which no personal or University bitterness was
expressed. Both Thompson and James subsequently lived lives of distinction and influence: Thompson, after refusal of the Presidency of Northwestern University, as President of the Philadelphia High School through the period of its great extension; James as professor at the University of Chicago, then as President successively of Northwestern University and the University of Illinois. The departure of both was a serious and unnecessary loss to the University; it has not had any too many men of their stature, and neither need have gone if greater reasonableness had been exerted.

Although Professor Patten was a man of recognized position as an economist, an excellent teacher, a prolific writer, and frequent participant in public discussions, and drew much attention to the University, this attention was not always favorable nor was it welcome to men of conservative views. There was no crisis in his relations to the institution, but there was an evident readiness to bring his connection with it to an end promptly when he had reached sixty-five, which was then the early age of retirement. This occurred in 1917.

Notwithstanding the specific objects for which the Wharton School had been founded, it was general rather than professional training that predominated during its early years. This may have been due to the fact that there were as yet so few textbooks or outlines for study of applied economics, sociology, and political science; it was partly the result of the relatively small number of courses of a technical nature given and the dependence of the school on members of other faculties. This was presumably the reason that so many of the early graduates attained prominent positions on boards of trustees, faculties, and in administrative offices rather than in business. Such were Mr. Samuel F. Houston of the Board of Trustees of the University, President Gates, Secretary Mumford, the devoted alumnus Henry LaBarre Jayne, Professors Cheyney, Witmer, Lindsay, and Stewart, Clinton Rogers Woodruff, Leo S. Rowe of the Pan American Union, Robert Adams, member of the United States House of Representatives, Shiro Shiba, a Japanese who was subsequently a member of the ministry, and many later Japanese and Chinese, apart from the
long list of subsequent graduates who have attained eminence.

From the opening of the second decade of the school not only were additions made to the staff in general subjects, but appointments were made and courses introduced of a more technical nature, belonging to the directly professional object of the school. Such were transportation, banking, insurance, corporation finance, real estate, brokerage, industry, accounting, statistics, and other courses of a vocational character. It was in this second decade that the large numbers that have been a distinctive characteristic of the Wharton School began to appear. In 1894 there were 113 students in the school, a decade later there were twice as many, and the increase continued steadily until the Wharton School became, as it has since remained, the largest department in the University. This was the result, no doubt, partly of the widespread appeal this group of subjects made to young men, partly to the ability of its Faculty, partly to the practice, instituted in 1902, of frequent and systematic announcements of the opportunities the school offered.

For many years the Wharton School, notwithstanding its distinctive name, was but incompletely discriminated from the general College Faculty; it was merely one group of courses in the College. In 1904, on account presumably of the more professional character of the school, its Faculty was made a separate self-directing body and the Chairman of the group was made Director, an office occupied long and with distinction by Dr. James T. Young, a Wharton School graduate of the class of 1893, and, like so many of the early professors, also a Ph.D. from a German university. Later the director became Dean. The expanding spirit of the Wharton School led to the establishment in 1904 of the Evening School of Accounts and Finance at the University and, later, of the Extension School of Accounts and Finance. This group gave courses in several Wharton School subjects at five selected cities in central Pennsylvania. These courses, both those in the city and those in the state, available to ambitious young men occupied in business in the daytime, proved to be attractive to a large number of students not less loyal to the University than those who take courses for four years on the campus.
One of the distinctive characteristics of the modern university is the large proportion of its attention that it gives to graduate studies. This is largely due to the influence of Germany—the old Germany, interested in scholarship, not dominated by nationalism. American students going abroad were fascinated with the lectures of men who drew their knowledge directly from the sources, who were specialists in their fields and counted on a considerable degree of maturity in their students. The professors in the German universities had worked out the seminar system by which students as well as themselves came in contact with the raw materials of their subjects and shared the methods of study of their instructors. Even those who did not go abroad were affected indirectly by the influence of these methods. So there grew up among both teachers and students the desire to pursue postgraduate work. This took its clearest shape at Pennsylvania in what was known as the Department of Philosophy, since it was analogous to the German philosophical faculty and, like it, should lead to the degree of Doctor of Philosophy.

It is true that this degree, as we have seen, had been given from 1870 to 1880 to graduates of another department, the group of Courses Auxiliary to Medicine. Even these, however, were postgraduate courses, leading to the degree only after graduation from the Medical School; and among the courses were several of a liberal cultural character. Moreover, the grant of these degrees had been abolished November 4, 1879, so the way was now open for drawing together the desired advanced courses and giving to graduates in them the degree, since so familiar and so coveted, of Ph.D. It should in future be the result of prolonged study and some research. The approval by the Trustees of the formation of a Faculty of Philosophy and its grant of this degree was given March 1881; a tentative plan, presented by the Faculty of Arts in May, was adopted by the Trustees in December, and in November 1882, professors in thirteen subjects, all of them already on the University's staff, were appointed to constitute the Faculty. A meeting of several of these was held at the home of Provost Pepper, December 8, 1882, where the Graduate School may be said to
have been founded. Professor Edmund J. James was the leading spirit and became Secretary of the Faculty tentatively organized. He remained in that position for six years. The veteran Professor E. Otis Kendall was Dean. The new department was announced in the catalogue of 1882–83 and in a circular issued in 1884. This circular announced both instruction and examination for the degree in eight subjects, and examination for the degree in three others.

In 1887 an Executive Committee was appointed, and it thus became a recognized separate school, though its Faculty was made up entirely of men who were at the same time professors in Arts and Sciences and in the Wharton School. The first really active Dean, who superseded Professor Kendall in 1888, was Professor George S. Fullerton, College '79, one of the most able of the younger men on the Faculty at this time. He had not studied in Germany, but his postgraduate study in divinity at Princeton and Yale, and his German philosophical reading gave him much the same interest in postgraduate and research work that others had brought back with them from abroad. His prominence as Dean of the College and Vice-Provost will come up later. In the meantime his work for the Graduate School, along with his keen Socratic method of teaching philosophy that perplexed, awakened, and delighted his undergraduate students, along with his use of hypnotism, was his principal interest. His successors as Dean in the first ten years of the School's existence were Professors Lamberton and Newbold.

The Faculty grew slowly, by invitation, from those who were already giving courses, or from the Dean, or by offers to give graduate courses approved by Dean, Executive Committee, and Board of Trustees. Most of the older professors were uninterested in graduate teaching, but a generation of younger men grew up to whom membership in the Graduate Faculty was their principal ambition. After ten years there were some twenty fields in which seminars or graduate lecture courses were offered. The student body grew, at first, even more slowly. The first students were enrolled in the winter of 1885–86. Among the first to be enrolled—two men and two women—and the first to receive his degree in course at Pennsylvania was Arthur W. Goodspeed, sub-
sequently for many years head of the Department of Physics at the University. At the end of the first ten years there were still only forty or fifty enrolled at any one time. Men and women were admitted on equal terms, and a body of superior women students who, not admitted as undergraduates at Pennsylvania, had taken their undergraduate work at other institutions were thus introduced into the University. The registration of women was somewhat complicated by the organization of the Graduate School for Women in 1892; but as all their work was taken in the Department of Philosophy, it was largely a distinction without a difference. Chemistry with its forty men taking degrees, history with its twenty-five, English with its twenty-one, and economics with its twenty were the leading witnesses to the need for a graduate school.

The first considerable extension of the field of action of the school was its taking over from the departments of Arts and Science of the granting of the degrees of M.A. and M.S. This was done by the Trustees at the request of the Graduate Faculty, through the intermediation of the College Faculty in 1887. Instead of the traditional grant of M.A. by the College Faculty automatically to A.B. graduates of three years' standing, as inherited from England, or the somewhat modified system of recent years, the two Masters' degrees were now to be given by the Graduate Faculty only after the candidate had devoted at least a year to close and continuous study, followed by a rigorous examination. The M.A. has been an uneasy companion to the Ph.D. degree. The latter is primarily a research degree, laying stress on acquiring knowledge and training by working with the primary sources in a particular field, and it therefore requires specialization. The M.A. degree had no such suggestion of originality, although in recent years it had not been given even by the College without some proof of study during the three years, usually the preparation of a thesis. Yet its ideal was rather the continuation of acquisition of knowledge by methods already familiar to the undergraduate than work of a different order carried on by new methods. The courses for the M.A., however, became extremely popular, being the standard preparation for high school and undergraduate college teaching. The special significance of that
degree has been a subject of frequent question, and the inclusion of preparation for it has held back the Graduate School from declaring itself, as many members of its faculty have desired, purely a school of research.

For the next serious advance in the history of the Graduate School we must pass somewhat beyond Provost Pepper's administration into that of his successor. Scholarships and fellowships were an especial desideratum in the Graduate School. Students of an age beyond that to which a parent's support is expected to extend, preparing for a career that offers few probabilities of large reward, possessed often of abilities and ambitions out of all proportion to their means to develop them, and sometimes unfortunately already burdened with family cares—such students must often have assistance if the community is to have the benefit of long training of competent scholars. In recognition of this need there were from the foundation of this school students who held fellowships in it and took its courses, though their titles were often in the College. Such, for instance, was the Hector Tyndale Fellowship, endowed in 1885 by Professor John Tyndale in memory of his father out of the proceeds of his American lecture tour, the two Mrs. Bloomfield Moore Fellowships for women who expect to become teachers, and several others.

It was because he was impressed by these conditions that in June 1895 Mr. Charles C. Harrison made a gift of $500,000 to the Graduate School "as a filial memorial" to his father, much the largest benefaction the University had received up to that time, and since by accumulation brought to more than a million dollars. "The George Leib Harrison Foundation for the Encouragement of Liberal Studies and the Advancement of Knowledge," to give the endowment its full and descriptive name, will be more fully described later, but it may be noted here that it endowed, according to its initial establishment, eight scholarships, fourteen fellowships, and five post-doctoral fellowships for research in addition to its other provisions, and thus supplied a constant nucleus of superior students.¹

¹ See a series of articles by W. R. Newbold in Old Penn, 1912 and 1913, beginning with p. 805.
Attention has been called to the two strains of scientific interest long existent in the University, the cultural and the practical. The establishment of the School of Biology at the University in 1884 was the culmination of a long series of efforts to embody the former, especially the interest in botany and zoology, in some kind of separate department or group of studies. A department of Natural History had existed in 1816–1827; a department of the Natural Sciences was provided for, but ineffectively, in a resolution of the Board of Trustees, May 6, 1856; professorships of botany and natural history had taken various forms from time to time. But no attempts at organization had been successful until the more favorable conditions of the period we have now reached had appeared. Among these were the interest of some Philadelphia women in zoology, the return of Dr. Horace Jayne, College '79, Medicine '82, from his studies in that subject in England and Germany, and, as in all other departments, the sympathetic interest of Provost Pepper.

The story is told that a Miss Fields, a missionary to China, had there become interested in ants and on her return to Philadelphia wished to pursue their study further. She applied to Dr. Leidy, then at the Academy of Natural Sciences, but finding no facilities there, spoke of the matter to various persons, among them to Mrs. Bloomfield Moore, a woman of position and means who had already made liberal gifts to the University for the education of women, and to Dr. Harrison Allen, Professor of Comparative Anatomy in the Auxiliary Faculty of Medicine. Dr. Allen on this suggestion wrote a vigorous article in one of the magazines appealing for the establishment in Philadelphia of a biological institute.

The old local interest in botany could always be counted on, and several zoologists were now available. The most noted was Dr. Joseph Leidy, who had been for many years Professor of Anatomy in the Medical School, and had already attained wide fame for his original work in natural history. He was also President of the Academy of Natural Sciences. Dr. Jayne, who has been referred to above, had wealth as well as interest in the subject,
and secured the interest of Dr. Pepper. Courses of study were offered. Dr. Jayne provided the largest part of a fund of $100,000 with which the gaunt brick building which is now so thrown into the shade by its more modern companions was erected. Biological Hall, as it was called, was opened December 4, 1884. Soon a class of ten men and two women were at work as students, and three zoologists and two botanists were developing lecture and laboratory courses for their benefit.

As in so many departments of the University, a specially notable group of teachers and investigators surrounded its earlier years. Does the effort involved in bringing a new school to the birth develop special ability in its group of founders? Or is the selective process by which they are gathered a specially rigorous one? Or does the inbreeding so likely to occur in later years weaken the stock (though biological teaching tends to discredit that old belief)? At any rate the tradition concerning the past that "there were giants in those days" is a persistent one, and it is as applicable to the men who founded the Biological Department as to the founders of the Medical School, the Wharton School, the Department of Philosophy and elsewhere. Certainly the group that included as zoologists Leidy, Cope, Harrison Allen, Jayne, Dolley, and Ryder, and as botanists Rothrock, Macfarlane, and Wilson, was probably unequaled in the United States at that time.

There were from the beginning three notable characteristics of the Biological Department; it was open to men and women alike, students learned through actual observation and experiment, using individual microscopes and living material, and it was much given to research. As to coeducation, much of the interest that led to the formation of the school was on the part of women; the school was new, with no hampering masculine traditions to bind it, and both Dr. Leidy and Dr. Dolley, through their connection with Swarthmore, were used to mixed classes. Dr. Jayne, its first Director, had worked in biology alongside of women in England and Germany; Dolley, besides, was son of Dr. Sarah Adams, one of the first women physicians and feminists in the United States, and naturally therefore inclined in its favor.

As to observational methods of work, they were made more
practicable by aquaria and greenhouses and for a while by the gift in 1890 by Charles K. Landis of a tract of beach and marsh land which became the school's laboratory of marine biology at Sea Isle City, N.J., where study and collection, research and experimentation were carried on for some years with great interest. But such an establishment was extremely expensive, and the connections of professors and advanced students with the far better equipped and longer established marine station at Wood's Hole, Massachusetts, were so close that the effort to support the New Jersey institution was after ten years discontinued. The third characteristic of the school, the extent to which it encouraged research, was by this time becoming a marked tendency through the whole University; but earlier than in most departments the interests of its teachers and students were devoted to investigation and experiment. This led to the adoption early in its career of the practice of providing each year for the absence of one member of its staff who might be engaged in an extensive piece of research.

As a department, although but a part of the College, it was successful from the beginning in attracting students; its fundamental course in zoology became one of the most popular though one of the most rigorous elective courses for undergraduates. At first only a two-year course was given, as the anticipation was that, except for special and advanced students, its appeal would only be as a course preparatory for medicine; but as it became evident that there would be a larger constituency, in 1894 a four-year course was arranged and the consent of the Trustees was obtained, not without protests from the older departments, for the grant of a new degree, Bachelor of Science in Biology to men and women alike. Except in the course in music, this was the first opportunity offered by the University for a woman to obtain a regular undergraduate degree, and so was doubtless made use of by women of good mental parts and college ambitions but not of any special interest in biology. Even more advanced courses offered in biological fields were taken by students enrolled in the Graduate School, and a lengthening list of men who had taken their degrees of Ph.D. at Pennsylvania appeared on other faculties.

Early in its career the Biological School revived the old project
of a botanical garden, neglected since its failure in the early nineteenth century and the destruction of its second effort by the building program on Ninth Street. In the will of Dr. George B. Wood, who died in 1879, there were provisions that might admit of this use of the fund, and the Faculty of the Biological School applied for the legacy in 1885. The Trustees acquiesced, assigned the use of some ground near the building, appropriated a small sum for its establishment, and elected Professor Macfarlane Director. From that time forward for a number of years the University's Botanical Garden was alternately encouraged and neglected. At one time, in 1895, it was laid out with several thousand plants and a number of trees, and with its seven acres of ground compared with the Harvard Botanic Garden and the Shaw Gardens at St. Louis. But like so many other plans that required money, the Botanical Garden dragged along, a burden on the School of Biology; it was only the teaching of the school that flourished.

**THE GRADUATE SCHOOL FOR WOMEN**

It was a characteristic of these new departments, as they were successively established, that they were in most cases open to women as well as men. It was not unnatural that the adventurous spirit that led to the creation of a new field of instruction should make that instruction available to both sexes. It was thus with the Department of Music, which the Catalogue of 1875–76 describes as offering lectures on the science of music "to such persons . . . male or female as may desire systematic instruction in this subject." It was so with the Graduate School, founded in 1882, which, like other graduate schools in America and abroad, made no discrimination of sex in advanced study. It was so, as has been seen, in the School of Biology, opened in the fall of 1884.

But the infiltration of women into the University had already begun at other points. It was curiously interwoven with the old Charity School. It will be remembered that from the circumstances of its origin and the requirements of its charter the University was bound to carry on a free school for boys and one for girls. As late as 1875 the boys' school was kept up in the old build-
ings at Fourth and Arch streets, the girls' in another building in the neighborhood, with three teachers and a total of more than a hundred pupils. The greater prominence of the Academy, the College, and the University has diverted attention from these schools, but they had their place in the history of elementary education and it has been estimated that they had nurtured more than fifteen thousand pupils. More than once the Trustees had proposed to divest themselves of the responsibility for maintaining them, but it had always proved too deeply imbedded in their charter and traditions to be disturbed. By 1875, however, when free education was publicly provided for all children, the need for this function had disappeared and the fitness of the University for its performance was doubtful. The question of its abandonment was raised again in 1877, and a carefully constructed judiciary committee of the Board of Trustees advised that the University might consider itself freed from this requirement of the charter on condition that it give certain scholarships to poor boys and that it should, so far as practicable under existing conditions, also provide instruction to "indigent female students."

This requirement was, so far as girls were concerned, fulfilled in a resolution of September 1877 allowing women applicants to attend certain courses in Arts and the recently organized Towne Scientific School, though of course as special students only, not as candidates for degrees; nor were their names to be printed in the Catalogue. Therefore women were, from 1877 onward, allowed to attend the lectures in modern history given by Provost Stillé himself, and courses in chemistry and physics. February 16, 1878, Dr. Stillé writes to a friend, "You will be glad to learn that my lectures on History are attended regularly by about twenty-five ladies, who seem much interested." It is within the memory of the present writer that in the lectures on physics in 1881 two young women sat meekly in a distant corner while Professor Barker was describing the new inventions of the electric light and telephone.

In the next year, 1878, the Auxiliary Faculty of Medicine, learning of this action, obtained authority from the Board of Trustees to "permit the attendance of ladies" in certain courses, under the same conditions as obtained in the Scientific School. Since the Auxiliary Faculty regularly granted degrees to those
who attended its courses and possessed the medical degree, they conferred in 1880 their usual degree of Ph.D. on Mary Alice Bennett, who had already received an M.D. from the Women's Medical College and had attended these courses two years. Hers was the first degree given by the University to a woman. In 1878 Mrs. Bloomfield Moore, a wealthy and philanthropic literary woman of Philadelphia, gave a sum of $15,000 to endow six scholarships for women who intended to become teachers, to be used in obtaining what education might be allowed them in the University.

These were all voluntary concessions offered by the University to women students. During the same period a frontal attack was being made by women themselves. The best known and most effective was that of Mrs. Caroline B. Kilgore. The first woman to obtain the degree of M.D. in the state of New York, Mrs. Kilgore, having in 1871 transferred her residence and her ambitions to Pennsylvania, applied for admission as a student in the Law School. She was refused. She then studied privately and in 1873 applied to the Pennsylvania Board of Examiners for admission to the bar. True to the standards of their profession the Board refused to examine her on the ground that there was "no precedent for examination of a woman for admission to the bar." She applied to the State Supreme Court, but, although the Chief Justice complimented her on her argument, he also denied her appeal. In 1881, however, the state Legislature passed a bill giving women admission to the legal profession. Mrs. Kilgore appeared in its support. She thereupon applied anew for admission to the University Law School, was accepted, and in due course, in 1883, received her degree of Bachelor of Laws. She practised her profession in Philadelphia for the remainder of her life. The ice was broken, a precedent created; the Law School has since 1881 been regularly open to women students.

During the next two years a somewhat similar contest was being waged by a Mrs. Hyems for admission to the Medical School. She had a letter of recommendation from Dr. H. C. Wood, but her application was not acceptable, the Board of Trustees giving its decision January 3, 1882, that "it is not at present expedient to admit women to this School." The Faculty of the Medical School expressed their agreement with this decision. There must
have been something contagious in feminine ambition at this time, for in September 1882 a Miss Ida C. Craddock contrived to have herself examined among the students applying for admission to the freshman class of the Department of Arts, and passed a satisfactory examination. The Faculty of that Department referred the question of her admission to the Board of Trustees and by a vote of five to four recommended that she be admitted, but the Trustees decided otherwise. October 31, 1882, on motion of Bishop Stevens, it was resolved that "the Board of Trustees deem it inexpedient at this time to admit any women to the Department of Arts." Miss Craddock for the next two years repeatedly pressed her claim to admission to what she considered her class.

Early in 1882 the Faculty of the Dental School, taking a different view from that of the Medical Faculty, called the attention of the Trustees to the number of women who were coming to this country from Europe for the purpose of studying dentistry, and recommended that such persons be admitted to their department. The Trustees again gave an adverse decision. A few months later, February 1883, a thoroughgoing petition was presented, signed by a number of persons asking that all instruction in the University be opened to women on the same terms as men, and there were various applications from women for admission as special students in the Department of Arts. Somewhat later the Wharton School Faculty asked to have women admitted to certain courses. The College Faculty on September 30, 1889, proposed, in a resolution to which there were only two dissenting votes, admission of students "without distinction of sex" to all departments of the College. At the same time the senior class, representing the memorial opposition of the undergraduates to the admission of girls, protested against any plan of coeducation. There were rumors of similar opposition from the alumni. In the Board of Trustees Mr. Fraley introduced a motion favoring the resolution of the College Faculty, but it was voted down.

All this interest could not be disregarded, and through 1882 and 1883 there was still much discussion. Interested committees held repeated meetings at the house of Mr. Fraley, one of the most sympathetic members of the Board. Mr. Welsh had also returned from England full of the discussion of the subject he had heart...
there and delighted with visits he had made in Cambridge to the
women's colleges of Girton and Nuneham. To show that they
were not opposed to women's education in general the Trustees
in November 1882 adopted a resolution providing that a separate
college for women, exactly parallel to the existing Department of
Arts for men, should be established as soon as sufficient funds
were attainable, $300,000 being suggested as the minimum
amount required. No such sum was in sight. There was little
spirit behind this proposal, the only immediate suggestion being
for the establishment of such a college in the old buildings at
Fourth and Arch streets, recently abandoned by the Charity
Schools. There was evidently strong opposition to the admission
of women to the College proper, and no very serious desire on the
part of the administration of the University to extend its respon-
sibilities to the field of women's education in any form.

From outside, however, came a call for a new step. Joseph M.
Bennett, a Philadelphia merchant, of his own volition donated to
the University the two tall dwelling houses which some readers
will remember as standing at Thirty-fourth and Walnut streets
immediately opposite the University. He explained that they
were "to be occupied for the purpose of a College for Women."
He stated his belief in the higher education of women, though
not in complete coeducation. Unfortunately Colonel Bennett did
not realize how expensive a matter the endowment of a college is
and, although he later added further gifts, including the six adja-
cent houses, and bequeathed to the University his moderate for-
tune, it was many years before this nucleus grew into even a
considerable building fund, quite apart from endowment. The
proposed gift called, however, for some immediate action. There
was evidently much popular interest in the subject. Provost Pep-
per had, on this as on other matters, grown far more liberal since
his tepid references to women's education in his inaugural ad-
dress of 1881. Repeatedly in the later years of his administration
he spoke with real warmth of the large part it was desirable that
women should play in public life, and even expressed his ap-
proval of coeducation elsewhere, though he was not ready to in-
troduce it in his own institution.

Another possibility thereupon emerged and became a favorite
idea of the Provost, a Women's Graduate School. A faculty was ready to hand in the professors in the Graduate School, already including in their lecture courses and seminars women as well as men. Colonel Bennett's gift provided at least for a woman's building as an administrative and social center. It might sidetrack the demand for genuine coeducation. Early in 1890, therefore, plans for a Graduate School for Women were adopted, and a Board of Managers, largely recruited, as in other cases, from outside the University, was provided for. Colonel Bennett made further donations of money, the Bloomfield Moore scholarships were changed into fellowships, thus securing the eight endowed fellowships required by the Trustees before the Bennett Hall of that time could be opened. In a dignified ceremony, held on May 4, 1892, in the open room of the new Library, the Graduate Department for Women was inaugurated, with addresses by the Provost, the venerable William H. Furness, the President of Bryn Mawr College, and the newly appointed Director of Drexel Institute, itself a successful coeducational institution.

Yet notwithstanding the sanguine tone of these addresses the Graduate School for Women was really but a shadow department. Women were already admitted to the Graduate School of Arts and Sciences on the same terms as this department offered, and it had no separate faculty. It satisfied neither the advocates of general coeducation nor those who hoped for a separate undergraduate college for women. It was at best but a compromise, providing fuller recognition, pleasanter surroundings, and some support for a group of graduate women students, but doing nothing to settle the question of admission of women to the College. Nor did anything of importance immediately follow. The growth of interest in women's education at Pennsylvania came largely to a rest for a period of more than twenty years. What was done during this time came automatically without much thought and can better be noted later.

On the whole there was little enthusiasm in high places for women's education at the University. It is probable that an opportunity was then lost. If at this time or during the two languid decades that followed there had been any real sympathy by the authorities with the higher education of women, and any serious
wish that it should be taken up by the University, there is little doubt that among the enlightened, wealthy, and generous women of Philadelphia someone or some group would have been found ready to furnish the endowment for a genuine college for women in connection with the University, as Barnard had been established at Columbia in 1889 and Radcliffe was to be attached to Harvard the next year, and such as was adumbrated here in 1882.

THE FOUNDING OF THE VETERINARY SCHOOL AND HOSPITAL

There has always been an interest in Philadelphia and even in the University in diseases of animals and their cure. In 1806 the Philadelphia Agricultural Society offered a gold medal for "The best plan for promoting veterinary knowledge." The next year Dr. Rush devoted the opening lecture of his regular course in the Medical School to the "Duties and Advantages of Studying the Diseases of Domestic Animals" and, deploring the fact that there was as yet no veterinary school in the United States, he appealed for the introduction of the teaching of veterinary science in the University. It was one of the branches provided for in the Faculty of Natural Science founded in 1816, but there is no indication of any actual teaching being given.

In November 1882, however, Mr. J. B. Lippincott the publisher, a Trustee, brought the matter to attention by donating $10,000 as the beginning of an endowment for "establishing a veterinary department under the control of the University of Pennsylvania." This was soon doubled by the ready response of Provost, Trustees, and an interested clientèle. It is a good indication of the readiness for expansion of the University in this period of its history; for the work of this Department was far indeed from its old classical ideals. It was not so far from the ideals of Franklin, who would readily have included it in the "Skill in Agriculture" which he declared was "no disparagement to any." Nor is it a bad instance of "the active encouragement and sympathy with improvements whenever suggested which shall aid and support every project which may promise to enlarge the sphere or add to the reputation of the University," which Dr. Stillé would
so gladly have given if opportunity had been vouchsafed him.

As a matter of fact his successor, Provost Pepper, welcomed the gift and threw himself heartily into the plan, which soon obtained a building on the University grounds, later a hospital, an organized Faculty, a Dean; and thus it became a distinct department of the University. The school was opened October 1884 with an enrollment of twenty students, which grew until in modern times it has an entrance class each year restricted to fifty students. The interest in this Department of both Provost Pepper and his successor was especially deep and continuous. For Provost Pepper its work lay in the general sphere of the cure of disease to which his own life was dedicated, and Provost Harrison was impressed with its utilitarian value. As he says in his first report, and over and over again in his appeals to the Trustees for its support, “How wide a field of possible usefulness is open to our Veterinary Department,—a field which it has not yet begun to occupy.” Mr. Lippincott during his lifetime, and his family after his death, continued to contribute liberally toward its support. In its tenth year it received a welcome endowment of $100,000 from a woman sympathetic with its work.

It was notable, moreover, as being the first department, except the University Hospital, to obtain in modern times acknowledgment from the state of claims to support for its service to the community. In 1889 a grant of $12,500 was made to the Veterinary Hospital for its research work in the diseases of animals, in 1905 $100,000 for a suitable building for its uses and those of the State Livestock Sanitary Board, and in 1907 the state gave $50,000 for maintenance purposes, the first step in what has become a recognized relation between the state and the University. With hospital service, its specialized professional teaching, and research, the Veterinary School is perhaps the best example in the University of that direct practical service to the community to which all of its schools are more and more coming to conform.

FOUNDING OF THE DEPARTMENT OF ARCHITECTURE

The establishment of the School of Architecture was, like that of the Law School, the Scientific School, and the Wharton School,
an effort to provide the training for a profession which could no longer be learned in the field, the workshop, the law office, or the counting house. The professions were offering greater opportunities and making higher demands upon those who entered them, but these demands could be met only by technical training. Architecture had been since 1874 one of the five parallel courses of the Scientific School. It was under Thomas W. Richards, who had been appointed Instructor in Drawing in 1869 and Professor of Architecture in 1874. As has been told, he designed the group of four greenstone buildings to which we have so often in this narrative had to return as the cradle of the new University in West Philadelphia.

Professor Richards had studied in the office of a Philadelphia architect and had practised in Philadelphia and Baltimore till the Civil War brought building to a close. He would gladly on this new occasion have followed another design if it had been permitted to him, and he found the material distasteful, but the available funds were exiguous and the authority of the building committee insistent, so we were left with buildings with more appeal to usefulness and the kindly familiarity of successive classes than to either dignity or beauty. There was small inspiration to architects in the surroundings of their studies. Professor Richards wished to broaden his subject, but the scanty facilities available made his course, before 1890, narrow and unsatisfactory.

A new influence, however, was during this period having the same effect on architecture in America that we have already seen transforming scholarship. This was travel and study in Europe. Young men who were graduated in architecture in this period went abroad and studied at the École des Beaux Arts in Paris, traveled and sketched and came back to America dissatisfied with the condition of architectural practice here, especially with the facilities for its study. There were by this time genuine architectural schools at Cornell, Syracuse, Illinois, and the Massachusetts Institute of Technology; the course at Pennsylvania was obviously inadequate. As a result a group of young architects, several of whom had been abroad and had on their return formed the Philadelphia Chapter of the American Institute of Architects, urged the University to reorganize the teaching of architecture
and to establish a separate school in that subject. Dr. Pepper was as usual sympathetic, and October 7, 1890, the School of Architecture was opened under the active management of Theophilus P. Chandler, a successful Philadelphia architect, as Director, with Professor Richards as Secretary.

After one year Mr. Chandler retired and Warren P. Laird, a graduate of the Cornell School of Architecture, and at the time studying in Paris, was elected to head the new school; Professor Richards withdrew to carry on professional work. At first much of the teaching was by professors in scientific and academic subjects and by lectures given by practising architects, but within the next few years men trained in special phases were added. The school throve and spread till it occupied a large part of College Hall. When in 1915 the Dental Department migrated to its new building the School of Architecture moved to its vacant building, which with some remodeling proved to be admirably suited to its purposes.

To an outside observer the Department of Architecture, now a division of the School of Fine Arts, seems a merry institution, giving from time to time departmental tableaux and balls in artistic character. On the other hand the lights in its drafting rooms burn all night when designs and decorations and ingenious plans are being worked out in competitions for national and international prizes.

**PHYSICAL CULTURE AND ATHLETICS**

What would the history of the University be with athletics left out? Yet of its four half-centuries it is only in the last that they have played any appreciable part. Even during this period the historian is at a loss whether to treat them as a matter of physical culture or as a form of student amusement. The earliest references are all in favor of the former. Franklin would have placed the College—"Academy" was the word he used—in the country, where "to keep the students in health and to strengthen and render active their bodies they should be frequently exercised in Running, Leaping, Wrestling and Swimming, etc." Almost a cen-
tury later, in 1831, Provost DeLancey advocates “connecting with the college some gymnastic exercises, either on college premises [the College was then on Ninth Street] or under college regulations at some other place,” in order “to relieve our institution of a current charge of working the students too much for their health.” A committee of the Trustees thereupon visited the gymnasium of a Mr. Roper and obtained from him an agreement to take students for an hour every day, to supervise their exercise himself in order to avoid accidents, and to charge them only $10 a year instead of his usual price of $20, if he could be guaranteed as many as seventy pupils. He was to have a connection with the University as Teacher of Gymnastics. After still another half or three-quarters of a century Dr. J. William White, speaking for the alumni in 1904, as he hands the new Gymnasium over to the Trustees speaks of it as “a laboratory for our Professor of Physical Education” and asserts that “its relation to competitive college sports is altogether subordinate in the minds of the Trustees, the Alumni and the Athletic Association to its hopes for usefulness in relation to health and education.”

On the other hand no one who has gone into training, taken part in contests, or gathered with the crowd to watch a competitive game can believe athletics to be nothing more than an exhibition of the results of hygienic training. Athletics appeal to much more primitive human instincts. Probably the two objects, physical culture and pure sport, are inseparable, indistinguishable in the minds of those who encourage and those who participate in them. Each is an excuse and in turn a reward for the other.

In the meantime, from 1842 onward, with small thought of physical training, cricket had had a long and interesting history in the College. There had been intercollegiate match games, the formation of a Senior and a Junior Cricket Club, including at one time more than fifty players. There were whole dynasties of famous players, the Mitchells, the Thayers, the Clarks, the Hopkinsons, the Pattersons, the Scotts; there was an English coach. Cricket brought the University into touch with Haverford College and with non-college groups, like Germantown and Merion,
including teams of English visitors. The sixties were probably the time of the greatest popularity of the game.\(^1\) Much the same course of events marked the early history of rowing. The University Barge Club was formed in 1854 among the students who used to go out by bus to “Old Charlie’s” boat house at Fairmount in the afternoons to hire boats for a row on the river. Later they bought a barge of their own and became resplendent in rowing costumes on which U.B.C. was conspicuous. Ultimately they built a boathouse situated on city property and took in outsiders. The College Boat Club was next formed and introduced competitive college rowing. Sparring and fencing may have been picked up by some students at Tom Barrett’s gymnasium on Market Street above Eighth, or at Jim Hughes’s billiard parlor on Sansom above Sixth, or at Baldy Sorer’s tavern on the other side of Ninth Street, or other resorts referred to, presumably, in Provost Stillé’s strictures on the disorderliness of the neighborhood of the University.

When the University moved to West Philadelphia, the open lots around the new buildings allowed of track and field sports, and football in a crude form appeared on the scene. Associations were formed for the various sports. In the fall of 1873 a number of students of the classes of ’75, ’76, and ’77 formed themselves into the Athletic Association. Effingham B. Morris, then a junior, destined to be a lifelong devotee of athletics and a warm supporter of many more serious University interests, was the first President. All this was quite without administrative or even much alumni encouragement, and, as to the Faculty, mainly without approval. The Faculty had an instinctive hostility to athletics as the strongest or at least the most conspicuous competitor for the time and interest of the student with the studies which should be his principal—in the minds, no doubt, of some—his only interest.

It was on the athletic field that some of the most interesting and persistent of Pennsylvania’s college customs originated. The red and blue that on special occasions now spreads like a sea widely over Philadelphia, and at all times gives a color to so

\(^1\) A. H. Graham, Jr., *Cricket at the University of Pennsylvania*, privately printed, 1930.
much of official as well as unofficial ceremony in a thousand scattered places, was first seen, according to a well-established tradition, at a college track meet held in 1874 at Saratoga, New York. Here, according to this testimony, Henry Laussat Geyelin, of the class of '77, entering the hundred-yard dash, was asked what were his colors. On the spur of the moment, seeing red and blue each used by some others as single colors, he adopted a combination of the two.

It was probably the first official choice of the colors that remains in the memory of this writer, from a date seven years later. On February 22, 1881, as the undergraduates stood in front of College Hall waiting to accompany Dr. Pepper downtown to the Academy of Music where he was to be inaugurated Provost, they were each handed a strip of red and blue ribbon to tie in a buttonhole or to be otherwise displayed. There are but few still living who received those favors that day, but the army of which they were the vanguard has been a mighty one, to which the red and blue has meant a deeper sentiment than in our Anglo-Saxon shyness we are willing to acknowledge.

The next step came from the Provost, who in April 1882 invited a group of graduates of the University interested in athletics to a meeting at the office of C. Stuart Patterson "to discuss the question of athletic sports." Later other meetings were held, including undergraduates. As a result of these discussions a new and much stronger University Athletic Association was formed and in the same year incorporated. It appointed standing committees to exercise oversight of the five principal branches of sport. Its first considerable performance, however, was the preparation for use of the first University playing field. This was on the tract now partly covered by the Dormitories. It extended from Thirty-sixth to Thirty-seventh Street, and from Spruce to Pine. This tract had been given to the University by the city in return for fifty free scholarships to be awarded to pupils of the city public schools. The ground was put in order and seating stands were built by the new Athletic Association, at an expense of some $15,000, principally subscribed by interested alumni, under an agreement with the Trustees that the ground should not be diverted to other uses except after three months' notice to
the Association. It was opened at the spring athletic sports of 1885 and was the scene of much interesting athletic history for the next eight or ten years.

In the meantime a new movement for physical training came to the fore. May 14, 1883, the Board of Trustees by resolution established in the College a Department of Physical Culture, adding $5 a year to tuition fees for its maintenance. Dr. J. William White of the Medical School Faculty was appointed its Director. Its actual foundation was delayed, but in January 1885 it was formally opened at a crowded meeting in the chapel of College Hall, where Provost Pepper and Dr. White spoke. By December the old assembly room in the basement had been transformed, with the personal advice and assistance of Dr. Dudley A. Sargent, and on the Harvard model, into a usable if not an adequate gymnasium. There can be no doubt that among the causes of the increase of University enrollment noticeable at this time the growing prominence of athletics and even the attention paid to physical training were highly effective. No better means of advertising the existence and claims to usefulness of colleges and universities has been found than competitive sports. It may be doubted whether there is any close connection between success in athletics and large enrollment, but there is no doubt they have brought the institutions that are active in that field, whether victorious or defeated, into public notice.

In the later days of Provost Pepper's administration two influences were pressing upon existing athletic conditions: one was the need of a new and larger gymnasium, the other the demand for the old athletic field as a site for dormitories. In 1892 the first steps were taken toward obtaining a new athletic field by applying to the city for the waste land to the east of that which the University was then so rapidly covering with its buildings. During that and the next year this wild region was filled in and graded by the efforts of the interested alumni. In 1894 it was handed over to the Athletic Association, and the name of Franklin Field, now so familiar, was adopted for it. On April 20, 1895, Franklin Field was formally opened in the presence of the Provost, a number of Trustees and city officials, and a great crowd that had gathered for the first intercollegiate and interscholastic
relay races that have since annually attracted much appreciative interest.

The $500,000 to $600,000 which has been expended on the new gymnasium, grandstands, training houses, and other dependencies of Franklin Field took ten years more to collect and spend, and it was not till December 1904 that Weightman Hall and the Gymnasium were formally opened and handed over to the Trustees in the presence of a great assembly. Dr. White could still take part in the opening exercises as he had of the Department of Physical Culture twenty years before. They represented, however, the entrance on his duties of a newly appointed Director, Dr. R. Tait McKenzie, whose devotion to his task, insight into its possibilities, artistic gifts, and personal attractiveness have made his recent passing a sad event in the history of physical culture at the University. The new Gymnasium, the new requirements, penetrating into every department of the University, the new Director and corps of assistants, the additional buildings, and the long series of picturesque struggles on Franklin Field in the years since have been a colorful history, of which only limitations of space and time justify the omission from this book.¹

SOME EXPERIMENTS

During the decade from 1880 to 1890 the University entered more than once, if only for a short distance, on unfamiliar paths. One of these was its patronage of the significant work and inventions of Eadweard Muybridge, whose fantastic spelling of his first name was only one of many peculiarities. At the corner of Thirty-sixth and Spruce streets, where the Maloney Clinic Building now stands, was erected a strange group of sheds and other buildings where the inventor had established himself with the encouragement and at the expense of Provost Pepper and a number of other gentlemen interested in the University and in these investigations. Here Mr. Muybridge had a series of cameras and other devices from which emerged striking studies in animal

¹ See among other sources the article on the Athletic Association in Old Penn, May 24, 1913, p. 1094, and on the Department of Physical Education in the same journal for June 7, 1913, pp. 1157-64.
locomotion. He was a skillful photographer and an inventive genius. His work was a part—a by no means unimportant part—of that series of inventions and trials and errors that eventually created the new world of moving and talking pictures as we now know them. Using instantaneous photography at the very beginning of its career, he photographed in motion student athletes from the campus, animals borrowed from the zoological garden, thoroughbred horses loaned by interested owners, men, women and children, and a great variety of subjects in an endless variety of movements, till he had built up that striking series of 781 plates, with more than 20,000 pictures, that represent his work while at the University.

He invented a device for reproducing the pictures, showing men, animals, and birds in motion, which he called the "zoopraxiscope." At the Columbian Exposition of 1893 the Fine Arts Committee of the Exposition thought enough of his work to put up for him a special building. Here, with the support of the National Bureau of Education, he exhibited daily from May to October, to applauding audiences, the results of his experiments. For these the University was given the credit in a diploma from the authorities of the Fair, "For the extent and scientific importance of the collection of photographs made by Mr. Eadweard Muybridge under the auspices of the University of Pennsylvania." Those interested in his series of investigations, including Dr. Leidy, Harrison Allen, Professor Barker, and others, had contributed some $40,000 toward their cost during the three years Muybridge was at the University.

In 1887 he published eleven volumes containing some 100,000 photographs representing his work both in California, where he had formerly tested the gait of race horses, and in Pennsylvania, under the general head of Animal Locomotion, showing many pictures of men and women in unconventional garb or lack of it. The University published a short technical description of his work.¹ By no means least in interest in this episode is the statement made by the Provost in describing it, of his conception of the function of the University as including not only teaching and

¹ Article by George E. Nitzsche in Old Penn, April 19, 1913, pp. 933-38, "Animal Locomotion and Muybridge's Work at the University of Pennsylvania, 1888."
research by its advanced scholars, but the appointment and support of scientists in prolonged and expensive investigations. Universities, fully occupied with the first two of these functions, have seldom had means to subsidize scholars outside their own faculties; but along with the millions now annually granted for research by various foundation, more and more the universities, Pennsylvania among them, are being entrusted with funds for this purpose.

An even more remote search was contemplated by the gift in 1883 from Mr. Henry Seybert, a cousin of Provost Pepper, of $60,000 as endowment of a chair in philosophy, accompanied by a request, tantamount to a condition, that the incumbent, with the help of an officially appointed committee, should make a study of the claim to truth of all systems of religion, especially the subject of modern spiritualism, which Mr. Seybert accepted. He added $20,000 to the endowment to pay the expenses of the contemplated investigation of spiritualism. The University took the matter seriously, appointed a distinguished committee, of which the Provost acted as chairman and Professor Fullerton as secretary, a large library of books on all phases of the occult was collected and the committee entered upon a series of tests, séances, and other forms of investigation. In May 1887 the Seybert Commission made a preliminary report to the Board of Trustees, which was published, but intentionally given only a limited circulation. Several members of the commission appended their personal observations to the testimony published in the report. Not having reached any convincing results, indeed overwhelmed by a mass of deception, the investigation was suspended, although successive holders of the Seybert Chair of Philosophy have given evidence of the interest with which its foundation was connected.

Another form of external investigation, one with which Provost Pepper was much concerned during the whole period of his administration and until his death, was the series of expeditions and successive steps in organization that culminated in the establishment of the Free Museum of Science and Art of the University. Its affairs came to the front over and over again, but the erection of the building and the establishment of its direct re-
lation to the University fall so definitely into the period of his successor that the story may be better brought up to date there, so far as it is possible to tell it at all. It must not be forgotten, however, that the increased interest in the University by the surrounding community, so characteristic of the modern period, was strengthened in many ways by the Museum connection. Still other movements—the building of the Dormitories and the Gymnasium, provision of a permanent home for the Law Department, and others that reached their full growth at a later time—had their roots in this period, so full of fertile suggestions and beginnings.

THE ALUMNI

The interest of the alumni in the University during its long history has waxed and waned. We have seen the temporary activity of the newly organized Society of the Alumni of the College in the middle years of last century and the pressure of the Medical alumni for reform in their department in the seventies; athletics have always drawn the interest of many of the alumni, and in the period after 1880 this was expressed by their support of the Athletic Association and liberal gifts for the preparation of playing fields and for the building of the Gymnasium. Soon after the accession of Provost Pepper to office, at the request of the Society of the Alumni a closer connection with the University was made by the creation of the Central Committee of the Alumni. This body, made up of ten representatives of the graduates of each of the departments, was clothed by vote of the Board of Trustees in 1881 with various powers, the most considerable of which was a right to nominate a candidate, with the expectation that their nominee would be elected, for every third vacancy on the Board.

They first exercised this privilege four years later, when Mr. John C. Sims, a graduate of the class of 1865 and secretary of the Pennsylvania Railroad, was nominated by the Committee and elected. He was a man of varied interests, who had been active in athletic matters, and was in every way a suitable candidate. The practice thus well established was followed later by the
elections of Judge Henry Reed, Samuel F. Houston, Charles S. W. Packard, Dr. Wharton Sinkler, Henry Galbraith Ward, Louis C. Madeira, George Wharton Pepper, and Samuel G. Dixon. The election of Mr. Ward was the first instance of the choice of a Trustee from outside the Philadelphia area, the legality of which had been questioned up to this time.

Meanwhile the General Alumni Society had been organized, following a meeting in 1894 of alumni of all departments, on June 12, 1895, and shortly thereafter its officers began to inquire why the privilege of electing to every third vacancy should not be vested in them, instead of in the Central Committee of the Alumni. It was not until January 1914, however, that the Trustees admitted the justice of the claim and made the necessary change in their statutes. Acting on this new privilege the Directors of the General Alumni Society made nominations for a vacancy in February 1916, and Mr. William A. Redding, of New York, was elected. We must pass for the moment to a later period.

In January 1917 the General Alumni Society, with the approval of the University Trustees, changed its by-laws to provide for a new method of election of Alumni Trustees. Under this plan at each third vacancy, the Society, having been notified, submitted six names. The Trustees selected three of them, or had the privilege of suggesting changes in the list. The three names finally agreed upon were then submitted to a ballot by the general body of graduates, and the Trustees were bound to elect the candidate who had the highest vote, not less than four thousand ballots having been cast. The first election on this plan was that of Hampton L. Carson in May 1917.

This continued to be the plan of election of Alumni Trustees until the amendment of the statutes in 1928, when the present provision for ten such Trustees was adopted. The Trustees, however, did not always insist upon the provision that four thousand ballots should be cast.

In accordance with the power of the Central Committee of the Alumni to appoint committees to visit the University and to make recommendations, occasional visits to classes were made and criticisms registered, conferences were held with deans, professors, and students, but nothing very constructive emerged.
The fatal weakness of all alumni interposition, ignorance of the actual conditions that have to be met, made their suggestions, however well meant, ineffective, and the practice of visitation soon died out. The committee was more successful in another field of endeavor, the encouragement of formation of local and class organizations of alumni. The New York Society of the Alumni, the first of such outside bodies, was organized at a dinner at Delmonico's in November 1886, shortly after the performance by the students of their Greek play in New York. The Provost made the speech of the evening. Similar organizations were formed in Chicago in 1892 and in Pittsburgh in 1894, the forerunners of the scores of such societies later formed throughout the country and abroad and of the hundred and more that have now come to exist. The Central Committee also encouraged the formation of class alumni organizations and initiated in 1887 the custom of classes holding their meetings at the University on Commencement Day.

The General Alumni Society was incorporated in 1896 and in the next year could report more than a thousand dues-paying members. Ambitious projects—to build an alumni hall or auditorium, to endow an alumni professorship of Greek, and others—were for a time advocated and even entered upon but for one reason or another not followed out. The interest of the alumni nevertheless has, once aroused, been continuous, has expressed itself in various forms and, as has been said above, with varying degrees of assertiveness, as will appear somewhat later in this narrative.

THE LIBRARY

Before the period of Dr. Pepper's administration was over the Library at last had its building and its modern organization. It was one of the last departments of the University to yield to the expansive tendencies of the new age. Until the time we have now reached it was a small, though carefully selected body of books, established in locked cases in one of the central rooms of College Hall. It was under the administration of a committee of the Board of Trustees and of one of the professors, who acted
as librarian in addition to his teaching duties, and was present to unlock cases and give out and receive books only at certain appointed hours in the week. Part of this backwardness is quite explicable. Situated in a large city with many libraries it was by no means the only or even the principal source of supply for reading matter of students and professors. Drawn as they so largely were in early times from well-to-do Philadelphia families, students had also their home libraries, often very excellent libraries, to utilize. So much of the teaching of early times was based on textbooks and so many of the lectures were purely didactic that texts for the classical and modern language courses were all that the average student used, and for his lectures the only additional book he really needed was his notebook.

In 1884, for the first time, the University had a trained and paid Librarian, J. G. Barnwell, the donor later of the well-known Barnwell Foundation of the Philadelphia High School. After three years he resigned and Gregory B. Keen became Librarian; even yet the Library was not handed permanently over to the administration of a professional librarian, for Morris Jastrow, whose services as professor of Oriental languages did not make much claim upon his time, served for some years as Librarian. But by that time there was a trained library staff, leaving to the head of the Library administrative and literary rather than technical duties. The change in his position is indicated by the somewhat later provision in the by-laws that "the academic standing of the Librarian is that of professor."

December, 1888, the cornerstone of the University Library building was laid by the Provost in full Masonic regalia; by 1890 it was so nearly completed that most of the books were transferred, and it was opened to the use of the students in the fall. The erection of the building was hastened and it was completed at this time, before the great building era under the next Provost had begun, largely because it was to be used, for the time at least, as a place of deposit and display of objects which would find their final place in the Museum. Products of the excavations in Babylonia and gifts of archaeological material from elsewhere were accumulating in the University's possession before there was any place to put them except as the Library from
1890 for eight years became a Museum as well as a Library.

February 1891 the building was dedicated to its principal use as a repository of books and a workroom of students in an impressive ceremony. It has been the heart of the University since. It was at the time of its erection considered very fine; it was indeed the triumphant product of a popular architect and an admired example of his school. According to later standards it is in doubtful taste and of questionable adaptation to its uses. It has had many interesting additions of books besides those that are purchased as they appear. An early addition was the Colwell Library, a collection of books and pamphlets on economics. In 1923 the Henry C. Lea Library of Medieval History was housed, by the gift of the son of the historian, in an addition to the Library consisting of a reconstruction on the University grounds of Mr. Lea's library in its original condition. The Shakespeare library of Horace Howard Furness was placed in the University Library in 1932. Notwithstanding the growth of its collections, its usefulness to several of the short generations of college students, and the notable events of which it has been the scene, it has long been the dearest wish of many that it should be superseded by a new building. It is not likely that the University will have advanced far into its third century without the erection of a far larger, more beautiful, and more convenient library building than that which has served its purposes since 1891.

CHANGES IN THE FIELD OF MEDICINE

Provost Pepper's interest in the Medical School was naturally deep and in his early years predominant. He had already been connected with that department twelve years when he became Provost; the total period of his service in it was thirty years. Long before he became Provost he had in a formal address indicated what should be the direction of development of that department as he conceived of it. It was an old custom at the opening of the medical courses in the fall for one of the professors, indeed sometimes for each of them, to address the students on subjects of a general character; some of these addresses, among them this of Dr. Pepper's, have become famous. October 1, 1877, fresh from
his work as Medical Director of the Centennial Exposition with
its national and international connections, he delivered an ad-
dress on "Higher Medical Education the True Interest of the
Public and the Profession," in which, in a critical spirit, he stated
the shortcomings of preparation for medical practice in the
United States at the time, and pointed out the lines of desirable
and possible progress. Applying these principles to the Univer-
sity through his whole career as professor and Provost, he ex-
ercised constant pressure toward the attainment of reform in
that field.

Yet the decade from 1870 to 1880 had seen so much accom-
plished that his period as Provost saw no comparable changes.
There was little that was notable except the lengthening of the
course, the establishment of the Department of Hygiene, and,
just at the end of his time, the foundation of the Pepper Clinical
Laboratory. The adoption of a compulsory three-year course,
with the corresponding systematic arrangement of the curric-
ulum, was accomplished in 1877, the year of his address; the
adoption of the four-year course was fifteen years later, in 1892.
The introduction of the requirement of four years of medical
study was closely connected with the establishment of the De-
partment of Hygiene. In 1889 Mr. Henry C. Lea, the historian,
a wealthy and liberal citizen of Philadelphia, impressed with the
need for preventive medicine, offered to build for the Univer-
sity a laboratory of hygiene. He made, however, certain condi-
tions, perhaps suggested by the Provost, and certainly not
unwelcome to him. These were that an additional sum of $250,-
oo be collected for the equipment and endowment of the De-
partment; that Dr. John S. Billings, whose reputation as a hospital
administrator was becoming widespread, be appointed its Di-
rector as well as teacher of the subject; that hygiene be made a
compulsory study in the Medical School, and that steps be im-
mediately taken to extend the medical course to four years. Mr.
Lea also placed a time limit on the fulfilment of these conditions.
The steps by which the Provost succeeded in meeting these
requirements are a good example of how a new stream of financial
support was being directed, albeit with infinite labor and diffi-
culty, into the University's service. He succeeded in obtaining
the agreement of Dr. Billings, who had just declined Johns Hop­kins' offer to be superintendent of its hospital, by making a hasty trip to Baltimore, offering him a liberal salary, and inducing him to agree to the arrangement in a written contract. Dr. Pepper himself contributed $10,000. He succeeded in obtaining private subscriptions of sums ranging from $5,000 to $25,000 from several wealthy men, together with many smaller subscriptions, and was able within the time limit to assign to the endowment of a chair of hygiene a sum of $60,000 just bequeathed by his brother George S. Pepper for a professorship in the Medical School, thus completing the needed sum.

Dr. Pepper was always himself a liberal contributor to the University. He returned to it his salary as professor in the Medical School and that paid him as Provost. The patients who contributed to his large income from his medical, especially his consultative practice, were, perhaps unknowingly, possibly sometimes unwillingly contributing to the upbuilding of the University, for there were few University objects to which he did not himself subscribe in money as well as in time and in enthusiastic interest. His success in obtaining the interest and support of others was of equal or greater significance.

The Laboratory of Hygiene was opened February 22, 1892. It became the center of a department of study of that subject of which Dr. Billings during his stay in Philadelphia, from 1892 to 1896, laid the foundation, in addition to his work as Director of the University Hospital. It was the first institution of its kind in the United States. It became, like several other departments, one of the links which united the University with the surrounding community by its courses, opened in 1909, leading to the degree of Doctor of Public Health and its close connection with the Department of Public Health of the city. But this and other extensions in this field belong to a later period. This was only the time of beginnings.

A plan close to the heart of Dr. Pepper, as physician rather than as Provost, was brought to completion only after he had ceased to hold office. It was, however, a characteristic product of his period. He had, according to the testimony of Dr. Stengel, his assistant at that time, had it in mind since 1893. This was the
establishment of the William Pepper Laboratory of Clinical Medicine. He furnished it with its first endowment, in honor of his father, William Pepper, Professor of the Theory and Practice of Medicine and of Clinical Medicine from 1860 to 1864.

It was to be a subsidiary of the University Hospital, yet independent in management and support and in its services. The University Hospital was in a position different from that of most hospitals of the time in being closely attached to a Medical School. To include in the advanced studies of the school the pathological conditions that appeared in the hospital was a natural procedure. But this required special space and equipment and, at least in part, a new personnel—men devoted to research and trained for it.

Opportunity for scientific research in clinical problems had been the lifelong desire of a number of the younger group of physicians of the middle of the century. Original research into the cause and nature of disease was the next step of medical advance. They were the forerunners of what has become the most marked characteristic of modern medical study. The University Hospital, like other hospitals, had its small laboratories in which routine and necessary examinations of the excretions of patients were made by the internes; but something more advanced and specialized was needed. The study of tuberculosis appealed especially to Dr. Pepper, whose father and brother and many of whose closest friends were early carried away by that scourge of young manhood and womanhood. Heart disease and chronic diseases in general were scarcely less a challenge. As a beginning for such an institution in 1894 Dr. Pepper subscribed $50,000 for the construction of a building, and for the partial endowment of research in it. In December 1895 this was dedicated, with explanatory addresses. Explanation was needed, for it was the first institution of its kind in the United States. It was to furnish room and equipment for a few men seriously engaged in medical investigation, and to a certain number of postgraduate students. No undergraduate instruction was to be allowed in it. It was the first step in the formation of what has since become the great group of medical and surgical research institutions in the University.
The Laboratory of Clinical Medicine was placed and long remained under the charge of Dr. Alfred Stengel, who gave up such assistance to Dr. Pepper and such private training in research of fourth-year medical students as he had been previously engaged in. He gathered around him a small group of men of scientific interest in medical research, some of whom, as in so many other fields of advanced intellectual interest at the time, had studied in Germany, Vienna, or Prague. From time to time the results of their studies, frequently previously published in medical journals, were gathered and issued in substantial volumes.

Notwithstanding the inadequacy of the endowment and the extent to which the routine pathological examinations they undertook to do for the Hospital intruded upon the time, space, and equipment of the Laboratory, it continued to do original work and to hold a distinguished position. In 1929 its old building was removed to give space for the erection of the Martin Maloney Memorial Clinic Building in which, along with other later established laboratories, the Pepper Clinical Laboratory, the oldest of them, still continues its work in the higher type of diagnostic investigation for the whole Hospital and in its own research along special medical lines.

THE CLOSE OF A GREAT ADMINISTRATION

Few men have possessed the physical and mental vigor of Dr. Pepper; still fewer have devoted that vigor so largely to public objects; and no one of the Provosts of the University has for so long a time, during so plastic a period, put his great powers at its service. It is difficult for the historian, as it was difficult for his contemporaries, to avoid attributing to Dr. Pepper's thought and action much of what occurred during his provostship which was by no means the product of his sole thought and effort. During several years of his administration he relied largely in College matters on Dr. Horace Jayne who, as Dean of the united College Faculty from 1889 to 1894, had much administrative influence. Dr. Pepper left him to attend to details that even his almost incredible industry could not supervise. During the last seven years of his administration Charles C. Harrison of the
Board of Trustees, who was in 1894 to succeed him as Provost, as Chairman of the all-important Committee of Ways and Means exercised a judgment and possessed a power that meant success or failure to movements that involved expenditure. For still other changes the Provost was only an intermediary, seizing upon some plan brought to him, encouraging the proposer, helping in its accomplishment, often contributing to its expense. Some changes of the time, as at all times, were part of the internal, evolutionary growth of the University over which the Provost had no control.

Yet after all is said it was a wonderful administration. For thirteen years Dr. Pepper had lived and worked mainly in the University, subordinating all his other interests to its demands. He had an almost Napoleonic power of doing two or more things at once. A professor, sometimes quite an obscure person, as this writer can testify, might be summoned to the Provost's home early in the morning to discuss some University problem between the Provost-Doctor's interviews with patients (the patient was fortunate if the two appointments were not at the same hour) while in the midst of the interview a knock at the door was followed by the entrance of a servant with the Doctor's breakfast, which he consumed while he continued the conversation. Day and night, for many hours, for many years, at high pressure, Dr. Pepper wrote or dictated letters—there is in existence a vast mass of writing in his own hand—prepared and delivered addresses, lectured to his classes, interviewed prospective donors or visited political personages in his efforts, surprisingly often successful, to induce city authorities to donate land to the University or state legislatures to make appropriations.

It is not a matter of surprise therefore that when in 1894 he insisted to the Board of Trustees that his health was being impaired by overwork and that there were other interests that still claimed his attention, his statement was believed and his resignation was accepted without protest. The Trustees voted to give him the degree of LL.D. at the approaching Commencement and appointed Dr. Horace Howard Furness to make a suitable address. The Commencement was a brilliant occasion; the Governor of the state presided in accordance with the requirements
of the law, usually more honored in the breach than in the ob-
servance, and Dr. Furness gave one of his rare and inimitable
addresses. Interwoven with Shakespearean phrase he described
the University of 1881 with its four buildings, the library of
twenty thousand volumes (though this was too small an esti-
mate), its fifty-five professors and slightly fewer than a thou-
sand students, "but all of them hungry after knowledge and the
professors had hard work to keep their gaping little mouths well
filled." Then, according to Dr. Furness,

... there came a revival of interest in education, sweeping like a
wind over Europe and reaching these spheres. In one of the eddies
our dear old University was caught and, lifting her serene eyes,
she too pleaded for a wider range of usefulness and a larger recog-
nition ... and so we had to find a new Provost.

Do you think that an easy task? ... Our ideal Provost had to be
a man of marked individuality ... a man of administrative ability,
a man of firm will, able to read the future to the instant, of constant
tact, and above all he must be vigilant to discern in the educational
heavens the signs of the times ... he need not of necessity be an
anatomist but must nevertheless know to the extremest nicety the
exact location in every man's body of the pocket-book nerve. ... Do
you think such Provosts are as plenty as blackberries?

He pointed to the twenty buildings that were the material
products of Provost Pepper's policy, most of them now, alas,
already inadequate, outmoded, superseded or about to be; to
the three hundred professors and instructors and doubled num-
ber of students, as compared with those at the beginning of Dr.
Pepper's administration, the five million dollars estimated value
of the University property as compared with the million and a
half of the earlier period. These were at least an outward indica-
tion of growth during a great period. Yet, he testified,

... at this hour the University is poor, wickedly poor, and she
would still be poverty-stricken, let us fervently hope, if she had fifty
millions instead of five. When any institution needs no more money,
its hour of usefulness has struck, its life has departed and it had
better close its gates. ... Never therefore, as you love the dear old
University, think that its cries for help will ever, ever cease. In that
hour when it says it has enough, oh then be sure to say the University is dead.

Note that this was not the speech of an aggressive leader in enterprise, an ambitious administrator eager to gain glory by exhibiting the spectacle of an institution growing great under his hand, but of a conservative Philadelphian, a plain man of letters, yet wise with wisdom drawn from the thoughts of the great dramatist, practical from long association as a Trustee with the needs, the problems, the aspirations of an institution which was only less than his alma mater.

But Dr. Furness was not apt to stop at material or external measurements of advance, so he enumerates some of the evidences of internal growth and intellectual adventuring.

These are some of the outward and visible expressions of the University of Pennsylvania as it stands today. But are they the University? "Stone walls do not a prison make," nor do they make a university. We may cover acres with buildings filled with every appliance for tuition, and yet they may all be dead and as unproductive of the life that now is as are the monastic cells in the desert of the Thebaid. The University is not neglectful of this higher life. In answer to our knockings the centuries buried beneath the sandy plains of Nippur have awakened to tell across the ages the old, old story of human life.

The University ought also here and now to "be a center whence, not merely by the annual graduation of classes, but through the active enthusiasm of its Faculty the intellectual life should be diffused far and wide."

Through all this wit and wisdom runs the recognition that the University must be provided with the necessary resources. He was too good and experienced a Trustee to fall into mere idealism. The University "must lie 'all Danaé to the stars,' receptive to all good influences," and among these influences must be money; "Expansion means life, and life means growth, and growth means money. . . . Every appeal for money which the University makes is the birth-cry of a new department which will widen its resources, extend its educational power, and enable it to answer the needs of the day." To fulfill "the needs of the day"—so this grand old gentleman, living almost as a recluse
from the present day, immersed in the past, connected with the audible world only by his old-fashioned ear-trumpet, went back to the teachings of Franklin and described the duty and the opportunity of the University.

If it be thought that these extracts are too much concerned with the University, too little with the person that called the address forth, the closing words of Dr. Furness, accompanying the gift of a bronze statue of Dr. Pepper from his friends, may be quoted to restore the balance:

The time will come when generations now unborn will gaze with gratitude upon it, and then, when all discords are hushed and all petty limitations of mortality are forgotten, and we are all gone "where are no storms, no noise, but silence and eternal sleep," then shall this image which I now unveil be held the true effigy of one whose heart and soul and mind and strength were devoted, while Provost, to the University of Pennsylvania.

If a University prophet could have stood in 1871 on the east bank of the Schuylkill and looked across the river to the open
fields of Blockley Farm and have seen in his mind's eye the wraith of the academic city which would arise there within the next three-quarters of a century, he would no doubt have arranged its buildings on some definite plan and designed them according to a consistent type of architecture. But, alas, there was no such official; the lands were acquired acre by acre, so to speak, and the buildings were erected as the need for them became imperative and as money to build them was found. The erection of some of them has been already described, but most of them were the handiwork, in a certain sense, of the twelfth Provost, Charles C. Harrison.

Spending money on "bricks and mortar," as contrasted with its expenditure for teaching and research, is frequently spoken of with disapproval. A familiar epigram about Mark Hopkins, a student, and a log has been responsible for much complacent inaction, in the belief, apparently, that by not erecting buildings good teaching is guaranteed. But neither teaching, study, nor research in these modern times can be carried on without buildings, library, laboratories, and equipment. The teacher is not enough; he needs implements. In all modern educational progress the material and the intellectual have advanced hand in hand. Those masterly achievements by great scholars in the early stages of acquiring knowledge in any field, provided only with the most exiguous and primitive of means, have deserved and have received generous recognition; but they have also awakened speculation as to what these scholars might have accomplished if they could have been aided by modern devices. Certainly those buildings with their equipment which at Pennsylvania, as in other modern universities, have been provided in the later nineteenth and earlier twentieth centuries for higher education and research have been not only an accompaniment but a condition of all advanced study.

Mr. Harrison was the greatest builder in the history of the University. It can hardly be said of him as was said of a certain Roman emperor that he "found Rome a city of brick and left it a city of marble"; but it is a fact that just as thirteen new departments had been established in the same number of years of Provost Pepper's administration, so thirteen buildings to house
or re-house them and some new departments were provided in the sixteen years of Provost Harrison’s; and although brick was more conspicuous in their construction than marble, yet it was particularly good brick with excellent limestone trimmings.

Some of this had been begun in the last administration, though even then largely with Mr. Harrison’s aid; but the Museum, the Chemistry Building, the Law Building, the New Dental Building, the Wistar Institute, the Observatory, the Zoological Building, the new Laboratories of Anatomy and Physiology, with various minor buildings and extensions, to mention only those intended for academic uses, were products of his period, largely of his efforts. It was not, however, only the love of learning but an interest in the extra-academic life of the students that lay at the foundation of much of this building era. Houston Hall, the Dormitories and the Gymnasium, were built in the interest of carrying on a more wholesome and enjoyable college life among the students. The campus was by the close of Mr. Harrison’s administration well-nigh covered with structures solid and, with some exceptions, of good design, adequate to their purposes at the time and most of them still so, though others are obviously, some of them clamorously, insufficient for modern needs.

Before proceeding, however, to an account of such events of Mr. Harrison’s administration as it may prove possible to detail in this narrative it is necessary first to state the circumstances of his election, and secondly to say something of his personality. An expression used in Dr. Furness’ address at Commencement, 1894, on announcing Dr. Pepper’s resignation suggests that his successor had been already chosen, though he had only tentatively accepted. Speaking of Dr. Pepper’s resignation he says, “Our dismay therein would be profound did we not believe that under the wise rule of him whose modesty will permit us to call him only a half-successor, the glowing and exuberant health of our fair and ever young mother would continue.”

Mr. Harrison, whose influence over the course of events in his capacity of chairman of the Ways and Means Committee of the Trustees since 1879 had been so great, and whose increasing devotion to the affairs of the University since he had retired
from business was so evident, was the logical candidate for Provost. The direction the development of the University had taken, the constantly increasing expenditures and the necessity for securing corresponding funds had made his position scarcely second in importance to that of the Provost himself. His success in obtaining money, his own liberal contributions, and his trained judgment in approving or deciding against new projects had obtained for him the trust of other members of the Board and was ultimately to win the confidence of the Faculty.

His long absorption in practical affairs, however, and his consequent detachment from academic problems made him diffident of his ability to meet the many-sided requirements of the provostship as they had been formulated at the accession to office of Dr. Pepper and added to during the thirteen years of his administration. Seth Low, recently elected as a business man President of Columbia, was facing the same problem with the same misgivings. Mr. Harrison therefore agreed to an appointment only as Acting Provost. He need not have been so apprehensive. He had been a Trustee for eighteen years. He was a man of culture. He had been graduated at the head of his class, had won various literary prizes while in college and had planned to study law before, at his father’s request, he had entered the business in which he subsequently spent thirty years and from which he obtained a great fortune. His simple, lucid, and pregnant writing and speech compared not unfavorably with the warm and spirited style of his predecessor. It is a curious coincidence that two successive Provosts—Dr. Pepper and Mr. Harrison—John Cadwalader, a Trustee, Jesse Y. Burk, the Secretary of the University for many years, and two professors, Frazer and McElroy, were all members of the same College class, that of 1862. Why that particular class which, according to the reminiscences of still another member, George D. Budd, does not seem to have been particularly distinguished while in college, should have been called upon by the University for so disproportionate a contribution of administrative and professorial ability does not appear.

There was another requirement in Mr. Harrison’s acceptance, that he should have the advice and assistance as Vice-Provost of
George S. Fullerton, C. '79. This brilliant young man has already been referred to as one of the creators of the Graduate School and as Secretary of the Seybert Commission. He was Professor of Philosophy at twenty-eight years of age, and was now, at Mr. Harrison’s request, made Dean of the College and Vice-Provost. Additional powers and duties were at the same time attached to both of these offices. In 1896 he ceased to be Dean but remained Vice-Provost until 1898, and Professor of Philosophy until 1904. Professor Fullerton possessed that familiarity with more purely intellectual interests that Mr. Harrison felt he lacked. He was, besides, of an especially attractive personality. For some years he was the power behind the throne in all educational matters and indeed in many matters of general University policy. He won much influence and admiration and at the same time awakened much antagonism, and seems finally, as has been intimated above, to have ceased to have the confidence of the Provost. However, Mr. Harrison’s success as Acting Provost was so obvious from the beginning that after a year he accepted the full provostship, which he retained for sixteen years.

His was undoubtedly a business administration, as everyone who had to do any estimating or accounting under him had reason to know. The center of gravity of the University was transferred to a rather obscure group of rooms in the midst of other business and financial offices in the depths of the city. Mr. Harrison was, like Dr. Pepper, a hard worker, early in his office in the city or at the University or engaged in some enterprise of University interest. There is abundant proof of the truth of his assertion at the end of his administration, that he had taken no rest from University affairs from the day he became Acting Provost, May 15, 1894, until New Year’s Eve, 1910, when his resignation took effect. Yet he enjoyed his work. He acknowledged, at a dinner given him by the Trustees when he had been in office for some years, that when he was elected,

I said to Mrs. Harrison that as Provost I would never smile again; but from the happiness of my own home and from your trust in me and from the measureless kindness and generosity of the community to the University I believe that I have smiled oftener in the last eleven years than in all my life before.
It is possible, as Theodore Roosevelt declared, to have a "bully time" even in a burdensome office.

There was no complete break with the preceding administration, nor indeed could there be, considering Mr. Harrison's large participation in it. The establishment of new departments which had so markedly characterized the preceding administration still continued, though at a decreasing rate that suggested an approach to the saturation point in the variety of the University's functions. The provision of adequate housing for both old and new departments and for previously unrecognized activities for which this administration was famous in itself involved much choice of what plans to encourage, what to disregard.

**THE HARRISON FOUNDATION**

Mr. Harrison began his career as Provost, as Dr. Pepper had closed his, with an act of filial remembrance. Just as the late Provost had founded in memory of his father the Pepper Laboratory of Clinical Medicine, so Mr. Harrison signalized the opening of his administration by the munificent gift of half a million dollars for endowment in the Graduate School, in memory of his father, of the George L. Harrison Foundation for the Encouragement of Liberal Studies and the Advancement of Knowledge. The date of the gift was January 4, 1895. It was largely due to the suggestion of Professor Fullerton. Its objects, as stated by its donor and already referred to, were few, but far reaching: to establish fellowships and scholarships for young men of unusual ability, to add to the Library books required in their work by the fellows, and other works of scientific value, to relieve temporarily from their teaching professors of ability and inclination to carry out some special object of research, and lastly to secure men of distinction to reside for a term at the University.

Only the first and to some extent the second of these objects have been so far carried out. Within these limits, however, this fund has been of the utmost value. It was the first substantial foundation in the Graduate School, whose work had been carried on for ten years in comparative obscurity, except as a few indi-
individual professors attracted students, and its classes were filled with M.A. students. The Harrison Foundation gave an invaluable nucleus of research students seeking further training. A long list of carefully chosen young men, graduates of various colleges, already partially matured by at least one year of graduate work and interested predominantly in some field of knowledge, relieved for the time from worry about support, have enjoyed the lectures, seminar work, and supervision of their theses by professors interested in the same field of study, companionship of men and women similarly occupied in advanced work, life in a large city, and a certain amount of leisure for reading and the attainment of intellectual maturity.

Students on such fellowships for graduate work, both men and women, and other students supported by teaching for part of their time or studying at their own expense have attended the Graduate School primarily for training in research, and have enabled it to graduate men who now occupy leading positions in their various specialties in many colleges and universities, while others carry on investigations in institutions devoted especially to research. Mr. Harrison retained a special interest in the Graduate School and impressed on the Foundation a policy that has ultimately raised its capital to more than a million dollars, though a large part of this has been diverted to the service of another department. He seldom lost an opportunity to appeal for a building and further endowment for the school. It has, however, remained without especial habitation except so far, as will be noted later, as it shares in the use of Bennett Hall for its administrative offices, private offices for some of its teachers, and a certain amount of teaching space. The lack of a special building for the Graduate School, though no doubt a limitation on its usefulness, has been less of a loss than perhaps Mr. Harrison and his administrative successors have felt. It is especially a department of men and books and laboratory equipment. Given a teacher of scholarship and creative ability, students of good preliminary training, of industry and ambition, and books and the other necessary tools of their trade, much can be and has been accomplished with a minimum of material provision and organization. The professors in the Graduate School have
been, almost without exception, occupied also in teaching in the College or the Wharton School, in biology, astronomy, or the Scientific School, wrestling as much time as practicable from teaching in those departments in order to do their work in this higher field or in their own research and writing or engaged in service in their various scholarly connections. Yet the work of the Graduate School has gone on, probably none the less effectively in most fields from the fact that members of its Faculty have been compelled at the same time to deal with less mature students and to recur constantly to the fundamentals of their subjects.

Nor was the Graduate School itself entirely a school of research. The transfer of the degree of M.A. from the College to the Graduate School in 1892, the prosperity it brought to this department, and at the same time the problems of teaching and research it created, have already been mentioned. It was these problems of the double objective of the school that led to the appointment of a committee on degrees and ultimately to the appointment of the Committee on Research that must be discussed later.

Somewhat the same memorial character as the Harrison Foundation was borne by the Harrison Laboratory of Chemistry, a gift made even before Mr. Harrison became Provost, by him and his two brothers as a memorial to their grandfather, John Harrison, one of the earliest of the long line of Philadelphia chemists. Completed in 1893, it is now antiquated in its equipment and sadly insufficient for the needs of that popular and growing subject. But it has been for almost half a century the scene of much good teaching and investigation. The prominence traditionally given to chemistry at the University, even in undergraduate instruction, has kept the building filled, indeed overfilled, with beginners and has relegated to other surroundings those engaged in more advanced work. It was here, however, that Dr. Smith in his early and creative years did his original work in electro-analysis, and here in a congenial atmosphere he wrote the history of his favorite subject and the biographies of its creators, and made the collections that still remain there, the richest existing collection of records in that field.
HOUSTON HALL AND THE DORMITORIES

In the long list of University buildings that were erected year by year under Mr. Harrison, each the embodiment of some long-planned development, each making possible some branch of University work, there were two that came especially close to his heart, Houston Hall and the Dormitories. Not only were they almost the first fruits of his administration, but they appealed to his often-expressed sense of responsibility for the life of the students outside the classroom.

The first step in the movement that led to the existence of Houston Hall was a memorial dated February 7, 1893, presented to the Board of Trustees through Mr. Merrick by a group of students, alumni, and members of the Faculty, asking the Trustees' attention to the need of the University for a students' hall. The Board gave it favorable consideration, appointed a commission of which Mr. Harrison was chairman, and recommended that $100,000 should be collected for a building, and $150,000 for its endowment. Religion bulked large in the plan, but provision for reading and conversation, for a gymnasium and games, rooms for college societies and other such social interests of the students was contemplated. The commission, to which members of the Faculty were later added, formulated an appeal for funds. They pointed out that there were two thousand students in the University, that it was now the third largest in the country, and that one thousand of the students lived near the University without family or other supervision or social opportunities. Many of them were of limited means. The great growth of the University had been "marked by a singular deficiency in its instrumentalities for promoting religious and moral life, as well as for social intercourse." Other institutions had buildings or halls intended as centers of such beneficial influences. "Pennsylvania alone has made no effort to provide for the wants of her students in this direction."

In order to strengthen this appeal, in April 1894 Mr. Harrison announced that prizes would be given for the best design for such a students' hall or club house. Later it was decided to give
only one prize, of $1,000, and to restrict contestants to juniors, seniors, and graduates of the School of Architecture. The competition was put under the charge of Professor Laird, who had just been made head of that school. Since the problem in this form was quite a new one, the specifications were drawn up with great care, and Professor Laird arranged that the decision should be made by a jury of well-known Philadelphia and New York architects. The plans were handed in in May, and a design offered by two students—a junior and a senior, Hays and Medary—working together, was approved. Frank M. Day, of the class of '83, in whose office one of the men was working, was appointed architect, and the two contestants assistant architects of the proposed building.

The design was of importance because the building was one of the earliest of the new group at the University and because it became to some extent the model for similar students' club houses elsewhere. It was fairly anticipated that it would do much toward providing for a wholesome and enjoyable life for the students, and at the same time increase the growth of college spirit, that tenuous sentiment in which Pennsylvania had always been, perhaps still is somewhat deficient. The drawings so pleased Mr. Harrison, who in the meantime had become Acting Provost, that he hastened to Chestnut Hill, according to tradition, on a snowy night, to the residence of Mr. H. H. Houston, a wealthy and liberal member of the Board of Trustees, interested like himself in the religious and social life of the students, to submit to him the plans for the club house and to plead the needs of the students. Before he left he had received from Mr. Houston and his wife what the Provost afterwards called their “princely contribution.” They had promised each to give $50,000 for the purpose.

November 6, 1894, he was able to report to the Board that this contribution with some later additions made possible the immediate erection of the building. The cornerstone was laid December 1894 and the building was opened to the students January 7, 1896. Mr. Houston had died during the intervening year, but he took great satisfaction before his death in knowing that the building was approaching completion. The Trustees decided
to name the building Houston Hall as a memorial to Mr. Houston's son Howard, of the class of 1878, who had died shortly after his graduation.

The "Houston Club," consisting of all students in the University, formed to utilize and govern the club house, furnished immediately a constituency of whom more than a thousand a day made use of its facilities. The worn limestone steps began soon to give proof of the common statement that it was the most popular club in Philadelphia. By actual count some years later, on one day 6,260 persons entered the club between 8 A.M. and 10 P.M. To those familiar with the uses of the Houston Club it is a mystery where the thousands of students who daily pass through its doorways and utilize its restaurants, its reading and writing rooms, its post office, its billiard tables, its bookstore, its offices for college activities, spent their time before 1896. When the College chapel was turned to other uses and the Irvine Auditorium as yet was not, where could the intimate talks and lectures that brought throngs together, and all the various religious, scientific, patriotic, and political groups have gathered if there had been no Houston Hall? If it were not that so many other changes were taking place at the same time one would be tempted to divide the history of the University into two periods, that before and that after the erection of Houston Hall. Considering the part it has played in University life it is gratifying that the family of its original donors have continued their generous interest and have recently nearly doubled its space, extending its functions to new fields of usefulness and enjoyment.

In the same year and largely with the same ideal as Houston Hall, the first section of the Dormitories was built and opened. Whether to build dormitories or not was an old question. Like so many others it goes back to the earliest days. The decision at that time to establish the institution in the city rather than in the country was fateful in many ways. A recently discovered letter of Franklin, written in February 1750, says; "It was long doubtful whether the Academy would be fixed in the town or country; but a majority of those from whose generous subscriptions we expected to be able to carry the scheme into execution being
strongly for the town, it was at last fixed to be there."

The city location of the College seemed to make dormitories a luxury rather than a necessity. Most students lived at home or with relatives, and there is always room for students in city boarding houses.

It will be remembered that in 1765 a building was erected for combined use for a dormitory and the Free School, but the plan did not work out well. When the College and Medical School moved to Ninth Street no attempt was made to provide living quarters for the few college students then in attendance, or for the raft of medical students, so many of whom came and went with such irregularity. The questionable reputation the Ninth Street location came to have may not have been unconnected with the students' boarding houses of the region. There was some talk of endowment for a dormitory in 1877, soon after the move to West Philadelphia, but nothing came of it.

An ill-informed or perhaps only ill-natured critic whose anonymity was covered by the initials B. J., writing from Philadelphia in a New York journal in 1885, stated that some years before the Trustees of the University had been offered a large legacy if they would build dormitories, but declined it on the ground that it was the settled policy of the institution to train boys in such a way that they would "regard Philadelphia doctrines, ideas, atmosphere and surroundings as final" while to expose them to meeting those from other places in common dormitories would involve a change of this policy.

If this interpretation of University opinion was other than purely fantastic it passed through a remarkably sudden change, for in 1892 the Trustees announced that a site for dormitories had been chosen and a plan for their construction was being drawn up. The problem had been put in the hands of the De-

1 This letter has had a curious history. It was written to Cadwallader Colden of New York, given by him to Bancroft, the historian, and by Bancroft to Elisha Kent Kane, the Arctic explorer. It was read by him to the American Philosophical Society in 1843 and printed in the Proceedings, III, 168. The original is in the Society's collection.
2 See letter of John Welsh to Provost Pepper written from France, Nov. 28, 1877; printed in Thorpe, William Pepper, M.D., p. 77.
3 The Nation, New York, Dec. 10, 1885.
partment of Architecture, and the general design then adopted has been followed in the main in their extension since. Provost Pepper had repeatedly urged their importance, and in the message that accompanied his resignation in 1894 he was able to say that enough money was on hand to allow building to be started. The best location for an extensive dormitory group was evidently the old athletic field and, as will be remembered, it was necessary to reclaim that site from the Athletic Association and to give it what proved ultimately to be the still finer site that became Franklin Field.

One of the first activities of Provost Harrison was to give the order for beginning their construction, and in 1896 he reported that one-third of the contemplated plan was completed. Up to that time the building had cost over $200,000, all contributed by individual givers, while approximately $5,000 more was contributed for partially furnishing the rooms to make their occupancy easier for students of limited means. By the beginning of the second year all the rooms in the first section except a few of the most expensive were occupied; demand followed supply as new sections were built, and it was evident that this addition to the amenities of student life at Pennsylvania had become a permanency. There had been some fear that the students would take advantage of their detachment from all oversight to make the dormitories a place where wine, women, and song might play an equally large part with study and sleep; but there was almost no such trouble, and if an occasional "Oh, Rowbottom" broke out, the disorder did not go very deep or spread very widely.

The line of "houses" as the successive additions were called, crept down Spruce Street, Woodland Avenue, and Hamilton Walk, enclosed the "Little Quad" and the "Triangle," surrounded and then subdivided the "Big Quad." The "Class of 1887," "New York Alumni," "McKean," "Provost Smith," "Bishop White," "Mask and Wig," and other houses were built and occupied as subscriptions were made. On February 13, 1900, the corner stone of the Memorial Tower and Gateway in honor of Pennsylvania men who had served in the Spanish-American War, the most recent military experience, was laid by General Miles, then at the head of the army. By this time some $600,000
had been spent on the dormitories, and they provided for 525 of the 1,000 students planned for in the original design. The dormitories alone, of all University buildings, were a source of income to the University, and as the cost of construction had all been contributed, the approximate three per cent on the investment which resulted from their careful administration at rates of rent no greater than those charged in West Philadelphia rooming houses of proportional comfort was, like the quality of mercy, twice blest, to the advantage of the needy student and the still more needy University.

COMMUNITY SERVICE

Impressive as were the new buildings that were covering the campus, there was another change in progress which if less conspicuous was even more characteristic of the time. This was the increase in the service the University was performing for the surrounding community. The University was no longer willing to sit in her shop and dispose of her intellectual wares to those who came to seek them, but went out into the open market place and offered such goods as seemed to be in demand. Indeed, to carry the mercantile figure of speech somewhat further, she interested herself in the needs, not merely in the expressed demands of the people.

There were in a large city like Philadelphia and its suburbs many hundreds of school teachers who felt the inadequacy of their preparation or nursed intellectual ambitions that the pressure of school hours and school work left no opportunity to remedy or to gratify. Here and there individual professors or instructors at the University—in American and European history and English literature—volunteered to give extra courses on Saturdays or late in the afternoons to such persons. In 1894 these courses were organized and extended in what were known as the College Courses for Teachers. They were repetitions of regular college courses, and were given at a moderate charge at hours available to men and women occupied during school hours. Steadily increasing numbers of teachers and others made use of these opportunities, and the courses gradually increased
in number and variety till they covered the whole round of
college studies. Therefore after 1906 appropriate degrees were
offered, and a man or woman whose life and courage persisted
long enough obtained a regular college degree. So the new phe-
nomenon of a woman obtaining an A.B. degree at the Univer-
sity of Pennsylvania appeared. There was no actual restriction
of these courses to teachers, and since many others took them
they were long afterwards reorganized and renamed College
Collateral Courses.

The establishment of the Summer School was a form of serv-
ice called forth by a similar demand. In colonial times the sum-
mer vacation in the College was a single month, in the Medical
School eight months. The various devices by which the medical
year was lengthened—the Auxiliary School of Medicine, pri-
ivate medical courses, the extension of the regular courses—
have been adverted to. The college year went through the op-
posite process, the working time was shortened, summer vaca-
tion lengthened till in colleges and private schools it was apt
to be more than three months. As the century progressed the
conviction that three months was too long a period for all study
to be suspended became prevalent.

In accordance with this feeling, classes were occasionally or-
ganized at the University for those who wished to carry on their
study during the summer. Permission could usually be obtained
from the Trustees for use of the buildings. There was a sum-
mer school in Chemistry carried on by Professor E. F. Smith
and some assistants in 1894 and subsequently. The American
Institute of Biblical Literature held summer sessions in the
eighties, and there were other instances. As the demands for
higher training of school teachers became more insistent, teach-
ers sought college courses during their vacations. Students who
failed in the spring examination and needed help in preparing
for reexaminations in the fall, and others wishing to complete
their college courses in less than the usual four years were an-
other group asking for entrance to college in the summer time.

A summer school was therefore opened at the University in
1904. In contrast with the occasional courses given before, there
were now sixty-nine courses offered by twenty-three professors
ERA OF EXPANSION

and instructors. There was an immediate response. Professor A. H. Quinn, who has held many administrative positions, guided the early organization of the school; and year by year under successive directors it proved to be one more link of the University with a broader and broader constituency, till it has long been one of the largest departments in the University, with approximately two thousand students each summer. It is a dependency of the College, and its students are generally seekers for college degrees. It has played a large part in preparing teachers for their work. Later it also offered postgraduate teaching to advanced students anxious to make faster progress toward their Master's or Doctor's degrees. Many value the opportunity to meet teachers with high reputations. It is no light privilege for a graduate student to meet for a few weeks a man who is an authority in his field but whose winter course at some other college precludes any such opportunity. Thus the Summer School, like the Collateral Courses, became a great extension of the service of the College into new fields.

The more practical of the subjects taught in the Wharton School would obviously be useful to many young men and women engaged in business and therefore unable either to enter the regular College or Wharton School classes or to utilize the opportunities of the College Collateral Classes. Realizing this need, some of the professors in that department, especially Professor Mead, whose work in industry and private finance made him cognizant of this deficiency in means of training, offered courses to be given at the University in the evenings. These courses, which came to be known as the Evening School of Accounts and Finance, were established in 1904, the same year as the first Summer School, and two years before the Saturday classes were finally established, and like them they opened up the resources of the University to quite another class in the community. A characteristic of the Evening School was that it granted as a testimonial to work performed only a certificate of proficiency; there was no question of giving a degree. Although a high school course was considered a requisite for admission, neither the amount nor the breadth of the training given were considered to justify a regular college degree. This
was a new practice at the University, or at least one which had been known only in certain branches in the Scientific School and, at certain periods, in the Department of Arts, and was deprecated in both.

If the subjects taught in the Evening School were as useful as the enrollment indicated, there was evidently an important service to be performed if these could be carried further afield. Just after the close of Mr. Harrison's administration, in 1913, the Extension Courses in Accounts and Finance were established to fill this want. Most of the business courses given in the Wharton School, beginning with those in the Evening School, were eventually repeated in five cities of Pennsylvania—Harrisburg, Reading, Scranton, Wilkes-Barre, and Williamsport—reasonably accessible to University professors with control of their time, but quite beyond the radius from which students engaged during business hours could come in person to the University. Many banks and other employing bodies welcomed these courses and encouraged their clerks and other employees to take advantage of them. The administrative problems of arranging for these courses once solved, other courses, in education and some academic subjects, were offered at these centers and elsewhere in somewhat the same radius, so that a veritable Extension School was established and has become a regular part of University activity. This, like the Evening School, gave certificates only, not degrees.

In these ways—Collateral Courses, Summer School, Evening Courses, Extension Courses—many hundreds, cumulatively thousands, unable to become regularly attending students in the University, have been admitted at least to the purlieus of academic life. If anyone doubts their appreciation of even this limited opportunity to become Pennsylvania men and women, let him attend some one of their group dinners or other celebrations, and if the sea of red and blue colors, the University songs, the speeches warmed by college loyalty, do not convince him that they are genuine Pennsylvania alumni, he is unresponsive indeed. These extension courses created besides a great body of influential men and women whose sympathetic support of the University is of the greatest value.
Two questions may arise in the mind of one who follows the history of the University down from its little circle of daily attending students and professors, pursuing a single curriculum, adapted to a few special lines of life and appealing to a relatively restricted body of young men, to this ever broadening and increasing University constituency. One is the question whether these new groups are really recipients of University service or are simply persons buying something from University professors and paying for what they get. The other is whether this constant expansion of University activity and multiplication of its services is a desirable line of its development. To the former it may be answered that no student of the University on or off the campus has ever paid the full money cost of the education he has received. This may be calculated. The amount of endowment by its benefactors, of unpaid administrative service performed by its Trustees, of the constant series of gifts that provide so much of its equipment, and, in these later times, of appropriation of public funds, have kept the fees of paying students much below their proportionate part of the costs of the establishment, while many free students are completely its beneficiaries. The students who pay fees for extension courses, like those who pay their regular college dues, are receiving University service much greater than they pay for.

To the second question the answer is that expansion has come so naturally and so widely throughout the University, in such evident response to the needs of the surrounding community that it has been practically irresistible. Any department which has deliberately remained stationary has dwindled, and any teacher who has clung to the old ways has lost influence and ceased to count, except as so much dead weight.

THE BABYLONIAN EXPEDITIONS

Germany was not the only country that in the later decades of last century felt a *Drang nach Osten*, an "urge toward the East"; nor was this attraction only in the economic sphere. An awakening of curiosity concerning the lands to the East of the Mediterranean seemed to be epidemic. French, German, Eng-
lish, and American scholars turned their eyes and their steps toward Babylonia, Syria, Asia Minor, and Egypt. They were the lands of ancient civilization. To Christians they were, in addition to their native interest, the lands of the Old Testament and the New. Many who had but little scientific interest rejoiced in the corroboration which excavations in Mesopotamia and Egypt gave to the accuracy of the historical pictures of the biblical narrative. It was such interests that drew together a group of men and women in Philadelphia, largely under the influence of Dr. John P. Peters, Professor of Hebrew at the Episcopal Divinity School, who organized and sent an expedition to carry on research in Babylonia; especially to excavate the great mound of Nippur, long a mystery and a challenge to travelers and to oriental scholars. Four successive expeditions to this region were sent out between 1889 and 1899.

As a result of the richness and novelty of these Nippur excavations, in 1922 a twelve-year enterprise was entered upon jointly with the British Museum in excavating the site of Ur of the Chaldees, which gave still more interesting results. So, although many other parts of the world and fields of research have since attracted the activities of this group—Egypt, Etruria, Crete, Alaska, Palestine, Guatemala, and Persia—Babylonia was their first and has remained their most characteristic interest. These expeditions were sent out under the name of the University of Pennsylvania.

Their supporters were not at first closely connected with the University; it was the work of Dr. Pepper to draw them, as he drew so many others, into its sphere of influence. He joined the group, subscribed to its expenses, and as Provost of the University promised to provide a place for the preservation and display of such objects as they should collect. The Department of Semitics at the University was already strong. It was headed by Dr. Morris Jastrow, Jr., College '81, who after extended studies in Europe returned in 1885, and, at first as Instructor, later as Professor of Hebrew and as Librarian, was an active scholar and prolific writer. The Graduate School also maintained at least a nominal connection with Dr. Peters and with Dr. H. V. Hilprecht, the Assyriologist.
In 1889, at a meeting held in Dr. Pepper's office, the University of Pennsylvania Archaeological Association was founded with Dr. Leidy as President and Dr. Jayne, Dean of the College Faculty, as Secretary. It was to be the work of this Association, which included the large number of men and women already mentioned as keen in their interest in archaeological matters, to gather funds, to send out expeditions and ultimately to secure a building, without which a museum can hardly exist. To cement this connection, on December 22, 1891, a new department of the University was established by the Board of Trustees to be known as the Department of Archaeology and Palaeontology. This was placed under the direction of a Board of Managers some of whom were to be appointed directly by the Trustees of the University, the remainder to be nominated by the Archaeological Association then appointed by the Board. This was a plan already adopted for the Hospital, which, although in the possession of the University, was under the direction of a Board of Managers, and it was to be applied the next year to the Graduate School for Women, later to still other departments of the University. It has manifest advantages in securing the services and interest of new and influential groups of men and women; it has also the disadvantage of possible conflicts of jurisdiction. Both were to show themselves later. In 1899 the Archaeological Association and the Department of Archaeology were merged, and the connection of the proposed museum with the University thereby made an indissoluble one.

THE UNIVERSITY MUSEUM

By the end of 1892 it had become evident that the Library, which was the first home of the collections made by the Archaeological Association, could never accommodate their growing mass and variety. The project was therefore entered upon of putting up a building devoted to the purpose. The initiation of this project was due largely to Mrs. Sara Y. Stevenson, who had been an active member of the Archaeological Association from the beginning, but it soon obtained the energetic support of Dr. Pepper who, on his resignation as Provost, became Pres-
ident of the Board of Managers and gave to the proposed muse­
num most of his interest for the remaining four years of his
life.

In 1894 the University obtained an additional grant of land
from the city of eight acres, soon increased to twelve, which
was turned over to the Managers of the Department of Archae­
ology for the ultimate erection of a museum building. By
long effort, including obtaining a grant of $150,000 from the
state Legislature and many liberal gifts by interested parties,
the building was begun in 1897 and its first section opened in
the year 1899. As a memorial to her husband, who had just
died, the widow of Dr. Pepper made a gift of $50,000 to the
Museum, his latest interest.

Its history since has been one of striking achievement in
extending, though not even yet completing, its series of sec­
tions, in sending expeditions of research, either on its own
account or in partnership with various other institutions and
governments, and in the addition of the products of these ex­
peditions to its constantly growing collections. It has received
many munificent gifts and bequests both in money and archae­
ological material. Internally, due possibly to its irregular con­
nection with the University, possibly to other causes, it has
suffered from what seems an abnormal number of conflicts,
leading to resignation, heart-burnings, and slowing up of prog­
ress; but these seem to have long passed away. Like Dr. Pepper,
Mr. Harrison, who had long been deeply interested in the
Museum, on his resignation from the provostship in 1910, trans­
ferred his interest to the Museum and held the presidency of
its Board for many years. He made a division of the funds of
the Harrison Foundation between the Graduate School and the
Museum. Nothing can detract from the position of the Mu­
seum as not only a center of scientific exploration and publi­
cation but as one of those forms of University contribution of
service to the community that, as before remarked, are so pro­
nounced a characteristic of this period.

At the beginning, stress was laid on its name as the Free
Museum of Science and Art. It has served its normal purpose
as a place of research and of study of the early history of man
and his civilization; but it has also spared no effort to make its collections accessible and comprehensible to the public. It has been calculated that an average of five thousand persons a month visit the Museum. Free lectures have been regularly given by noted travelers, archaeologists, and others, representing the group of interests for which it stands, in a popular Saturday afternoon series and at other times. It has paid particular attention to interesting and informing children by sending them through the Museum with a guide who will point out the meaning of the things they see. Like other departments of the University, the Museum has taken its educational interests outside of its own walls. Members of its regular staff have taken objects with them for display, when there were duplicates, in the lectures they have given at schools and elsewhere. They have even loaned special collections to county historical associations throughout the state to be exhibited for two- or three-week periods in the schools to familiarize children with the main stages in human development. Small groups of children are encouraged for a slight fee to come regularly on Saturdays to work out under skilled direction some visual representation of an Egyptian temple scene or an Indian village or some other re-creation for which models are to be found in the actual materials in the Museum.

THE PSYCHOLOGICAL CLINIC

Far away in its subject of interest from the Museum but near enough in the nature of its combination of scientific study and teaching with a useful service to the community was the establishment in 1896 by the Department of Psychology of a clinic for the treatment of mentally retarded children. Clinics for the treatment of the ills of the body were well-established adjuncts of the University Hospital as of every large hospital; now there was to be similar provision for help in some of the chronic ills that are usually said to belong to the mind; though it becomes more and more difficult to distinguish between two sides of that indissoluble whole, man.

Psychology had already split off from philosophy and was be-
coming a subject for laboratory and experimental study. It had come, at least at Pennsylvania, to be grouped with biology and physics rather than with the older contemplative and introspective approach to its problems. In 1887 there had been established by Professor James McKean Cattell, at the University, a Psychological Laboratory, copied, like so much intellectual advance of the time, after a German model—in this case the Psychological Laboratory at the University of Leipzig. It is said to be the oldest such laboratory now existing in the United States. It was characteristic of the new position of the subject that its teaching was done in two rooms in the biological building. It was in a course on child psychology given in the winter of 1895-96 by Prof. Lightner Witmer, Professor Cattell’s successor, to a class principally of school teachers, that the germ of the Psychological Clinic appeared. One of these teachers described the curious case of a pupil, an intelligent boy, who yet could not learn to read. At the professor’s request he was brought out for examination and became a long standing problem of much interest. Such examinations became a frequent procedure. During the summer of 1896, in a course given at the University under the auspices of the Society for the Extension of University Teaching, Professor Witmer invited the presentation of such problem children as illustrative material for the use of his class.

Thus began a flood of applicants for examination and advice concerning the retarded development of pupils brought by teachers, and children brought by parents. To the course in which these examinations were made and demonstrated before the class the name of “Psychological Clinic” was applied, a term already invented by Professor Witmer in a paper suggesting the possible usefulness of the study of psychology. In his course that opened in the fall of 1897 more children were brought than could be examined by one person and another teacher had to be appointed for that special work. Interested persons were found who contributed to the expenses of the clinic. No fees were charged; although eventually a private school was established outside the University for children and young persons requiring long training to cure their defects of speech or other physiological imperfections. In 1909 the department was re-
organized, and through the interest of Provost Harrison a special appropriation for this purpose was included in the state grant of that year.

A regular staff was built up; the clinic became, as an adjunct to research and teaching, the principal part of the work of the Department of Psychology and a recognized department of the University where several hundred children and young persons were examined every year. Its work has since extended beyond the discovery and treatment of defects that retard mental progress to vocational and industrial guidance of normal persons, both within and outside the University. The Psychological Clinic is an interesting link between pure and applied science in a previously unworked field of much social significance.

THE PROCESSION OF BUILDINGS

By the end of Mr. Harrison's administration, indeed ever since the turn of the century, it had become the fashion among architectural students and others to draw or paint representations of the group of buildings in West Philadelphia as if the housing of the University was complete or was about to become so. Of course these sketches were not photographs; they contained buildings only visible as yet to the mind's eye or to hopeful anticipation. But the number which had since 1894 become substantial realities gave quite sufficient testimony to this as a great building period. Scarcely a year had passed without its monument. The Chemical Laboratory, Houston Hall, the Gymnasium, Franklin Field, and the first sixteen houses of the Dormitory system, down to the completion of Memorial Tower, have already been mentioned. Other dormitory buildings followed: "Morgan," "Wilson," "Morris," "Rodney," "Graduate House," "the Provosts' Tower"—which meant Provost Harrison's Tower, though he refused to let his name be attached to it—twenty-eight "houses" altogether were erected during his administration. The Dental Hall of 1896, destined later, when that department had obtained its fine new building, to be transformed into the home of the Department of Fine Arts; the Law School, which was at last in 1900 provided
with the dignified home it had long deserved; the Engineering Building of 1904–06; the new Medical Buildings of 1904 and 1909, characteristically, in view of the changed methods of medical instruction, called the Medical Laboratories; and the Zoological Building, provided for and all but finished when Mr. Harrison resigned, though not actually finished till the next year—these furnished quite the most conspicuous and most considerable elements in the plans of the University grounds of 1910. Some buildings of the period which actually existed could hardly be shown in the plans at all, except in sketches in which buildings miles away had been in imagination transported bodily and placed where there were only substantial West Philadelphia dwelling houses to the unimaginative eye.

Such a building was the Reese Wall Flower Astronomical Observatory, located on the farm of the donor, on one of the highways leading from Philadelphia. The Observatory was erected in 1896–97, from funds received twenty years before as a bequest of his exiguous fortune by a gentleman as eccentric as his name. The will was contested by relatives and only after some years and a compromise with the contestants did the University obtain a fund making possible the erection of the building and the establishment of a professorship in astronomy.

The Observatory has been under the directorship successively of Professors Charles L. and Eric Doolittle and Professor Charles P. Olivier. During the forty-five years since its establishment it has served the purposes of instruction in astronomy, and has been a center of observation of double and variable stars and of meteors and of the publication of reports in these and adjacent astronomical fields. It has also been regularly opened at certain times to the visiting public.

Another building detached from the main group is the Evans Dental Institute. Under the will of Thomas W. Evans, an American dentist who made his fortune in Paris, there was to be established at Fortieth and Spruce streets a Museum and Dental Institute bearing his name. The Trustees under the will, seeing the difficulty of establishing a new school close to the University and with an inadequate endowment, wisely came to an agreement with the Trustees of the University with permission of the
Court, by which the University's School of Dentistry in 1912 was in effect merged with the Institute, the combined title being "The Thomas W. Evans Museum and Dental Institute School of Dentistry University of Pennsylvania." The Institute provides building and equipment; the University under a financial arrangement, provides the teaching and gives the degrees. The Institute has its own Board of Trustees, on which the University is represented.

The Wistar Institute was, like the Evans Institute, established on a separate foundation from the Board of Trustees of the University, although the University names a majority of its Board. Its building to house the old Wistar and Horner collections of anatomical specimens belonging to the University and to furnish facilities for advanced anatomical research was placed on ground given by the University and dedicated in the year 1894, being one of the last functions presided over by Provost Pepper. Its work has all been done in close coöperation with the University.

Under its successive Directors, Dr. Harrison Allen, Dr. Horace Jayne, Dr. M. J. Greenman, and the distinguished professor of neurology, Dr. Donaldson, its Board of Managers, and Advisory Board of scientific specialists, the Institute has carried on a notable body of research. Its colony of white rats with recorded pedigrees for purposes of experimentation, the Effingham B. Morris Biological Farm for provision of material for research, and the group of biological journals issued under its charge have become of constantly increasing importance.

The building of the Henry Phipps Institute for the Study of Tuberculosis, a foundation dating from 1903, is located at Seventh and Lombard streets, in a neighborhood whose suitability for the study of that dread disease is its only advantage. It was handed over to the University for its administration in 1910, the last year of Mr. Harrison's administration. The inability to include in this volume an account of the history and work of the Phipps Institute and the great foundations in the field of medicine and surgery which were still to come is a matter of sincere regret to the author. It leaves out a large and significant part of the history of the University, especially in these later
years; but limitations of time, of space, and of technical knowledge combine to make their inclusion impossible. The only alternative is a separate history of the biological and medical aspects of the University's life and development.

Before bringing to a close this outline account of the characteristic movements of the administration of Provost Harrison, it might be noted that expansion was shown not only in number of buildings and variety of services but in a marked increase in the number of students. The net total according to the Catalogue of 1894–95, the first of Mr. Harrison's time, was 2,180; by the year 1909–10 it had risen to 5,033, an average increase of some ten per cent a year. Many of these students were the fruitage of the new courses—courses for teachers, evening school and summer school courses; but many of them were accounted for by normal growth under the freer and more adaptable conditions of the time, in the Wharton School, the Graduate School, Engineering, Dentistry, Veterinary Medicine, even in the old College. In the Medical School alone was there, as a result of its advance in standards, a diminution in numbers.

THE CLOSE OF MR. HARRISON'S ADMINISTRATION

Mr. Harrison presented his resignation November 15, 1910, to take effect on the 31st of December of that year. There were many testimonials of regret and appreciation. Among them was a dinner given him by the Faculties of the University on January 18, 1911, the first to be offered by a Faculty to a Provost and the largest gathering of the teaching force of the University ever held up to that time. Representatives of one school after another, in the chronological order of the establishment of their departments, McMaster for Arts, Mills for Medicine, Newbold for the Graduate School, McKenzie for Physical Education, Donaldson for the Wistar Institute, and others testified to what Mr. Harrison had done for the group of subjects in which he was especially interested. Each brought the thanks and appreciation of his department, in what constituted a moving body of testimony. It is striking how often, in all the record of building and technical advance, appear the terms
courtesy, consideration, sincerity, devotion, esteem, admiration, affection—qualities that belong in the field of the personal rather than the professional relations of men. If therefore in the detailed narrative much has been said about Mr. Harrison's material services to the University and stress laid on financial questions, if sometimes the result of a long business career seemed to have made him hard and narrow, it must be remembered that back of these lay the wise, just, kindly and sympathetic spirit to which some of us still living can testify as the fundamental character of the twelfth Provost.